

# 2021 RVTEC Meeting Minutes

The following minutes are a compilation of the meeting transcripts from the recordings of the virtual sessions. Please note - there may be some typographical errors. All of the meeting video recordings can be viewed [here](#). All of the meeting presentations can be found [here](#).

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## 25 October 2021 - Monday

### Introduction, MERAS and Icebreakers

1

00:05:12.030 --> 00:05:13.320

Brandi Murphy (she/her): hey Emily how you doing.

2

00:05:15.210 --> 00:05:16.530

Emily Shimada (she/hers): i'm doing well, how are you today.

3

00:05:17.370 --> 00:05:17.820

Good.

4

00:05:20.370 --> 00:05:21.570

Brandi Murphy (she/her): Since you're in this first.

5

00:05:21.570 --> 00:05:23.040

Emily Shimada (she/hers): segment ready for this.

6

00:05:24.090 --> 00:05:25.500

Brandi Murphy (she/her): No, no, no.

7

00:05:27.870 --> 00:05:28.440

Emily Shimada (she/hers): that's okay.

8

00:05:29.280 --> 00:05:35.430

Brandi Murphy (she/her): yeah listen if it happens if anything happens, then we did it so.

9

00:05:36.000 --> 00:05:40.110

Emily Shimada (she/hers): I agree that's that that's about where my expectations are too it's all good.

10

00:05:40.860 --> 00:05:51.810

Brandi Murphy (she/her): I can only do so much, but like I didn't get started getting icebreaker slides like I think on Friday I had three and I ended up getting them until the weekend and.

11

00:05:53.340 --> 00:05:57.990

Brandi Murphy (she/her): And then, a whole bunch of people have been like oh Oh, can I submit a poster Is it too late.

12

00:05:59.190 --> 00:06:03.120

Emily Shimada (she/hers): Like you guys, so you know it starts on Monday, like now so.

13

00:06:05.400 --> 00:06:08.820

Emily Shimada (she/hers): What a bummer yeah super last minute, of course.

14

00:06:09.210 --> 00:06:14.460

Brandi Murphy (she/her): it's okay we're getting there I made peace with if anything shows up at all.

15

00:06:14.820 --> 00:06:16.890

Brandi Murphy (she/her): yeah he buddies ready to speak.

16

00:06:17.340 --> 00:06:27.210

Emily Shimada (she/hers): I like it, I, like the Hoover platform so far just personally like poking around it, I think it's cool got a lot of functionality there.

17

00:06:27.900 --> 00:06:33.360

Brandi Murphy (she/her): It has been really nice to not have to like add people across three platforms.

18

00:06:33.480 --> 00:06:34.200

Emily Shimada (she/hers): mm hmm.

19

00:06:36.210 --> 00:06:36.750

Brandi Murphy (she/her): My.

20

00:06:39.870 --> 00:06:47.760

Brandi Murphy (she/her): My lawyer background is getting confused i'm and my kitchen is not tidy so I need that to work um.

21

00:06:49.620 --> 00:07:00.360

Brandi Murphy (she/her): it's been nice not to have to manage people across like three platforms which has been really nice, but there are some things that are just silly like the fact that you can't see the descriptions for the agenda.

22

00:07:01.650 --> 00:07:02.280

Emily Shimada (she/hers): Oh yeah.

23

00:07:03.330 --> 00:07:04.140

Emily Shimada (she/hers): that's a good point.

24

00:07:04.500 --> 00:07:09.870

Brandi Murphy (she/her): And I did find out, though, that on our website where I have uploaded I have in.

25

00:07:10.170 --> 00:07:12.120

Brandi Murphy (she/her): Put the agenda in as like a.

26

00:07:13.980 --> 00:07:16.650

Brandi Murphy (she/her): Oh that's what I wanted to you as like a.

27

00:07:18.180 --> 00:07:19.170

Brandi Murphy (she/her): A widget.

28

00:07:20.610 --> 00:07:22.890

Emily Shimada (she/hers): That had descriptions, I remember looking.

29

00:07:29.400 --> 00:07:31.560

Brandi Murphy (she/her): For me it's a good question.

30

00:07:33.750 --> 00:07:36.540

Emily Shimada (she/hers): yeah yeah that's true that's a good point.

31

00:07:38.520 --> 00:07:44.790

Brandi Murphy (she/her): Also, they know i'm having a virtual meeting, so why are they spamming me with this is how you print your name tags.

32

00:07:48.720 --> 00:07:50.820

Emily Shimada (she/hers): On at least get your spamming targeted.

33

00:07:51.240 --> 00:07:52.410

Brandi Murphy (she/her): mm hmm.

34

00:07:57.810 --> 00:08:00.480

Emily Shimada (she/hers): I can, I can sit quietly while you do.

35

00:08:00.900 --> 00:08:02.460

Emily Shimada (she/hers): Thousands of things you have to do.

36

00:08:02.790 --> 00:08:06.120

Brandi Murphy (she/her): Are you doing this in the browser.

37

00:08:06.420 --> 00:08:08.310

Emily Shimada (she/hers): Now i'm in zoom like you suggested.

38

00:08:09.780 --> 00:08:17.400

Brandi Murphy (she/her): yeah yeah it turns out, I mean the browser is great, because you can see, the Community and stuff like that, but um it uh.

39

00:08:18.750 --> 00:08:23.790

Brandi Murphy (she/her): If you have you have to make sure you have your MIC approved in your site settings and your camera.

40

00:08:24.180 --> 00:08:26.310

Brandi Murphy (she/her): And all of that, and so, if you haven't tested it.

41

00:08:26.730 --> 00:08:29.550

Brandi Murphy (she/her): In the browser then it's easy to do it in those him.

42

00:08:30.000 --> 00:08:33.330

Emily Shimada (she/hers): yeah yeah yeah, thank you for that suggestion it's like done easy.

43

00:08:34.260 --> 00:08:35.730

Emily Shimada (she/hers): I updated all right, let.

44

00:08:35.910 --> 00:08:39.420

Emily Shimada (she/hers): Open zoom earlier, so it would go through, however many updates that needed.

45

00:09:44.400 --> 00:09:48.360

Brandi Murphy (she/her): i'm going to be doing a lot of typing during the presentations to remove myself.

46

00:10:55.290 --> 00:11:02.880

Brandi Murphy (she/her): Oh Emily I have you as the first icebreaker slide because you'll already be queued up.

47

00:11:04.890 --> 00:11:05.790

Brandi Murphy (she/her): For the iris.

48

00:11:06.570 --> 00:11:12.720

Emily Shimada (she/hers): That sounds reasonable is that something you want me to share on my end are you going to put up each slide on i've.

49

00:11:12.720 --> 00:11:16.320

Brandi Murphy (she/her): Had it on my end and Lee also if.

50

00:11:16.380 --> 00:11:27.270

Brandi Murphy (she/her): This might be helpful for you on each slide I have, who is coming next so folks should be aware that their next if they're here, but we might have to skip some of.

51

00:11:30.030 --> 00:11:32.130

Emily Shimada (she/hers): That was really smart of you to do that I like that.

52

00:11:33.330 --> 00:11:34.530

Brandi Murphy (she/her): made a whole bunch of extra.

53

00:11:34.530 --> 00:11:35.550

Brandi Murphy (she/her): Work so.

54

00:11:35.670 --> 00:11:36.210

Oh.

55

00:11:48.570 --> 00:11:56.580

Brandi Murphy (she/her): If it's alright with you, too, I think I might go ahead and start letting the waiting room in so that we can start on time anybody have a.

56

00:11:58.320 --> 00:11:59.100

Brandi Murphy (she/her): Okay, with that Lee.

57

00:16:04.800 --> 00:16:06.300

Lee Ellett: So brandon should we go ahead and.

58

00:16:07.530 --> 00:16:08.430

Lee Ellett: get started.

59

00:16:11.880 --> 00:16:12.990

Brandi Murphy (she/her): yeah let's do it.

60

00:16:14.130 --> 00:16:14.490

Lee Ellett: yep.

61

00:16:15.630 --> 00:16:16.920

Lee Ellett: So welcome everyone to.

62

00:16:17.610 --> 00:16:19.200

Lee Ellett: The rv tech annual meeting.

63

00:16:22.770 --> 00:16:33.120

Lee Ellett: Hopefully, next year we can be not be virtual and so everyone is hoping for that, but i'm really it's great to see a lot of the faces and names of everyone that's.

64

00:16:34.620 --> 00:16:37.980

Lee Ellett: attending today and catching up people throughout the week.

65

00:16:39.000 --> 00:16:40.770

Lee Ellett: In this virtual format.

66

00:16:42.720 --> 00:16:45.360

Lee Ellett: or thank brandi in the universe office for everything.

67

00:16:46.440 --> 00:16:58.890

Lee Ellett: that she has done, and they have done to put this together we've got the new this different different tools, this year, so I have a couple of housekeeping items and things to mention.

68

00:17:01.980 --> 00:17:12.240

Lee Ellett: So, since we're all here in zoom I keep your MIC muted and then use the raise hand feature to if you want to speak or ask questions.

69

00:17:13.620 --> 00:17:14.220

Lee Ellett: um.

70

00:17:16.020 --> 00:17:18.150

Lee Ellett: And then today at noon, we have a.

71

00:17:19.200 --> 00:17:22.740

Lee Ellett: noon Pacific there's a networking event that.

72

00:17:24.690 --> 00:17:36.150

Lee Ellett: So please attend that it's going to be similar to last year, we can rotate through different groups of folks and have discussion it's a great way to socialize here in this virtual format.

73

00:17:38.880 --> 00:17:45.150

Lee Ellett: we're still if you want to apply to the MacGyver award this year if we can submissions are.

74

00:17:46.710 --> 00:17:48.180

Lee Ellett: still be accepted.



75

00:17:50.280 --> 00:18:00.600

Lee Ellett: We also have the nominations for our V chair elect i'll be stepping down jewels will be stepping up and will need a new chair elect so.

76

00:18:01.140 --> 00:18:10.260

Lee Ellett: If you're interested brandy sent out a lot of information about that, and so we get nominations through this week in the voting will occur after the annual meeting.

77

00:18:11.850 --> 00:18:27.930

Lee Ellett: Today we've been having the today there's a you know the annual meeting at one Pacific there's also the recording so if you've missed any of the presentations in the annual meeting they're all still there, posted on YouTube you can get to them through the channels.

78

00:18:29.310 --> 00:18:43.380

Lee Ellett: website, so please take a look at those if you want some introduction to some of the topics coming up, and you can still attend today and there'll be an annual meeting sessions after rv tech as well.

79

00:18:46.950 --> 00:18:47.460

Lee Ellett: and

80

00:18:49.050 --> 00:18:55.620

Lee Ellett: Yes, this meeting is being recorded and will also be on YouTube later, so if you have technical staff that just not able to attend.

81

00:18:57.690 --> 00:18:59.220

Lee Ellett: We have it's all available.

82

00:19:00.600 --> 00:19:13.560

Lee Ellett: And there's also be poster sessions throughout the week so take a look at the agenda in in the application in the meeting website page at the poster sessions that are available at the end of each day.

83

00:19:15.780 --> 00:19:30.480

Lee Ellett: And I think with that I think that's all I have, I have Java switch up of presentations today Jules someone's going to present, in place of a Moscow time and I go with the potential fields for we're going to swap those presentations.

84

00:19:31.770 --> 00:19:32.520

Lee Ellett: Around.

85

00:19:33.750 --> 00:19:36.840

Lee Ellett: So that that'll be a slight slight change to what's been posted.

86

00:19:38.250 --> 00:19:38.940

Lee Ellett: um.

87

00:19:40.050 --> 00:19:47.220

Lee Ellett: I think, with all that oh introduce Emily shimano she's the rv tech representative on Maris that's maintaining your climate.

88

00:19:48.630 --> 00:19:56.520

Lee Ellett: at maintaining an environment of respectable or chips that is now a it was a working group with us Council, but now it's a.

89

00:19:56.940 --> 00:20:05.550

Lee Ellett: it's been a change in the recent since we've been virtual meanings to change to a you know committee so she's rv tech representative that.

90

00:20:05.970 --> 00:20:16.830

Lee Ellett: And she was going to say a few words, before going into her icebreaker slides so after Emily will have a series of icebreaker slides and i'll introduce those folks.

91

00:20:18.840 --> 00:20:20.820

Lee Ellett: So, thank you very much good Emily.

92

00:20:21.510 --> 00:20:31.620

Emily Shimada (she/hers): Yes, Sir hey everyone i'm nice nice to see faces or names look forward to interacting with you on Cuba.

93

00:20:32.700 --> 00:20:47.070

Emily Shimada (she/hers): And yeah feel free to reach out to me at any time and i'm now being this first slot because I have some updates from the Maris committee and then i'm also going to use this space to just set.

94

00:20:47.760 --> 00:20:57.660

Emily Shimada (she/hers): kind of an initial intention about inclusive at this week at this meeting, and then direct you to some resources that i've started populating.

95

00:20:58.080 --> 00:21:08.220

Emily Shimada (she/hers): And shamelessly plug in requests really any feedback, you might have or experiences you've had attending meetings and conferences and kind of setting up.

96

00:21:09.000 --> 00:21:21.810

Emily Shimada (she/hers): Codes of conduct and how you kind of felt welcomed in that space so that's why i'm going now let me fumble through and try to share my screen see how this goes hold on a SEC.

97

00:21:23.580 --> 00:21:24.360

See here.

98

00:21:27.000 --> 00:21:32.130

Emily Shimada (she/hers): Okay, so I think i'm sharing thumbs up cool that's good that's a good start.

99

00:21:33.180 --> 00:21:40.020

Emily Shimada (she/hers): Okay, let me start this slide there's only three of them, but you know colors are nice to look at so hold on a SEC okay.

100

00:21:41.580 --> 00:21:54.270

Emily Shimada (she/hers): So yeah general word of welcome again really happy to be here, I really like our Community and i'm bummed I can't see people in person that's a really fun part of coming to this, but so looking forward to interacting with all of you this week.

101

00:21:55.680 --> 00:22:05.520

Emily Shimada (she/hers): So, as I just said, going to give some updates from the Maris committee to start and then was just kind of hoping to maybe introduce some terms and hopefully.

102

00:22:06.000 --> 00:22:15.810

Emily Shimada (she/hers): welcoming and relaxed way of just how we could try to as a Community, think about making an inclusive space during the various sessions that are going to happen.

103

00:22:18.510 --> 00:22:30.810

Emily Shimada (she/hers): So Mira says Lisa it's yet another acronym stands for maintaining an environment of respect to board ships on the left, there are the current members.

104

00:22:31.560 --> 00:22:40.260

Emily Shimada (she/hers): Myself i'm speaking from Maris i'm the vice chair, right now, which has been really fun and wanted to also just include on there that.

105

00:22:41.160 --> 00:22:49.860

Emily Shimada (she/hers): we're really open to kind of feedback and to hearing from you so there's an email down there that goes to all of those lovely names and people that you see above.

106

00:22:50.370 --> 00:23:03.540

Emily Shimada (she/hers): And we meet pretty regularly, which is great So if you have any questions on stuff i'm going to talk about real quick and feel free to reach out directly to me or can also email the marathon you know.org and again it goes to the people that are there.

107

00:23:05.070 --> 00:23:13.800

Emily Shimada (she/hers): So, just a brief outline for those of you who might not be aware of what Maris does i'm going to be reading from some printouts.

108

00:23:15.120 --> 00:23:22.590

Emily Shimada (she/hers): we're dedicated to fostering a safe and supportive environment that values inclusion respect and accessibility.

109

00:23:23.220 --> 00:23:36.570

Emily Shimada (she/hers): We value change and growth and a diversity of views and backgrounds that offer each of us opportunities to understand, learn and encounter new perspectives and we have a bunch of stuff we've been working on this week.

110

00:23:37.770 --> 00:23:45.120

Emily Shimada (she/hers): So for the committee members really exciting we actually have full membership, this year, which has been really great.

111

00:23:47.010 --> 00:23:56.640

Emily Shimada (she/hers): For us, I katie Smith from the International ocean diverse discovery program excuse me, and came back on go from North Carolina State University.

112

00:23:57.150 --> 00:24:05.580

Emily Shimada (she/hers): And then we've got Canada from the ship schedulers as well just realized, when we were reviewing our draft charter that.

113

00:24:06.150 --> 00:24:19.140

Emily Shimada (she/hers): It could be helpful to have as many representatives from other committees as we could so Hannah certs and really fantastic integral role there and then our Terry overs our mark, who is still our current chair correctly and myself.

114

00:24:20.160 --> 00:24:34.050

Emily Shimada (she/hers): So great to have that representation, one of the big things we were working on this year is, I think all of you, or maybe some of you might be aware that there are ships, it only videos that are out there module one module to.

115

00:24:35.100 --> 00:24:43.440

Emily Shimada (she/hers): papi that they're out there, but we thought that there could certainly be a good space to have a sort of companion or a guide.

116

00:24:43.980 --> 00:24:53.130

Emily Shimada (she/hers): Both for anyone who's facilitating a viewing of these videos and also for participants that may be watching them on their own time prior to a cruise.

117

00:24:53.910 --> 00:25:06.060

Emily Shimada (she/hers): So we reviewed all the scenarios together as a committee, and wanted to make sure that we had an intense statement, so a reason for these videos that was very clear.

118

00:25:06.810 --> 00:25:15.750

Emily Shimada (she/hers): And then also have some guided questions and context for each scenario and then also thought it was important to recognize.

119

00:25:16.170 --> 00:25:19.530

Emily Shimada (she/hers): Potential triggers so we have some content warnings in there as well, so.

120

00:25:20.190 --> 00:25:30.570

Emily Shimada (she/hers): We do have a current version, I think we went through maybe three or four within our community itself and now it's been pushed out to the broader community to get some feedback.

121

00:25:31.080 --> 00:25:44.040

Emily Shimada (she/hers): Before it's made public, so, ideally, you should have that available on the you know site on the YouTube video channel and then kind of available to every individual institution to post wherever they have links as well.

122

00:25:45.120 --> 00:25:52.260

Emily Shimada (she/hers): So that's that video viewing guide the second section there and third section, this is regarding.

123

00:25:53.280 --> 00:26:11.880

Emily Shimada (she/hers): kind of specifically the current iteration of the units cross planner so in just recognizing in January 2021 changes went live we had some really good meetings prior to that just trying to get a better well better.

124

00:26:12.990 --> 00:26:21.150

Emily Shimada (she/hers): yeah always better hopefully we're improving separation of private private versus public facing information and, specifically, regarding.

125

00:26:21.930 --> 00:26:28.650

Emily Shimada (she/hers): What might be constituted as a legal name and what someone might have as a name and use so kind of separating and identifying the two of those.

126

00:26:29.190 --> 00:26:41.490

Emily Shimada (she/hers): And then, trying to get away from a sort of binary gender selection and having more options there and again trying to separate public versus private information on what.

127

00:26:41.970 --> 00:26:59.790

Emily Shimada (she/hers): What might be listed on someone's legal documentation versus gender expression or gender identity, so one change was right now there's a drop down menu for pronouns and then also a right in space there that someone can indicate how they prefer to be addressed, and the other was.

128

00:27:01.710 --> 00:27:16.050

Emily Shimada (she/hers): Really, to also have a space where people can kind of identify concerns and just to support and try to break down any potential barriers that someone might have really and filling out a form and participating in a cruise.

129

00:27:17.610 --> 00:27:22.170

Emily Shimada (she/hers): The next one is pregnancy policies, I think, when I started on this committee and.

130

00:27:24.000 --> 00:27:24.690

Emily Shimada (she/hers): This was.

131

00:27:25.770 --> 00:27:32.100

Emily Shimada (she/hers): Something that hadn't been completed and something that we were interested in doing it does remain that way and.

132

00:27:32.970 --> 00:27:47.640

Emily Shimada (she/hers): My intent right now really is just we're trying to put ourselves out there to hopefully have something publicly available on various institutional websites or ship operator websites really just indicating that.

133

00:27:48.720 --> 00:27:58.200

Emily Shimada (she/hers): If there is an existing pregnancy policy to have that posted somewhere or, if you have some verbiage somewhere at least want to make a kind of statement.

134

00:27:58.830 --> 00:28:08.640

Emily Shimada (she/hers): indicating that you know, this is something that can be talked about in advance and that you know we welcome people to participate in cruises and can have kind of a further discussion on.

135

00:28:09.300 --> 00:28:19.590

Emily Shimada (she/hers): kind of their own concerns before sailing, and this is something that our Community Members are ideally hoping to work with institution by institution so.

136

00:28:20.460 --> 00:28:28.650

Emily Shimada (she/hers): For example, just did our own our marine superintendent and I are kind of going over it's prompted us to go over our website in general and thinking about.

137

00:28:29.610 --> 00:28:37.440

Emily Shimada (she/hers): What kind of out facing information, we want to have there for people who are going to sale, including pregnancy policies and some other kind of diversity and inclusion statements there.

138

00:28:38.130 --> 00:28:55.800

Emily Shimada (she/hers): So this is in here just to say that this is continuing to be ongoing and to also welcome individuals who may have been reached out to in the past about developing or making visible certain pregnancy policies to reach out to our committee, if you would like some help with that.

139

00:28:56.880 --> 00:29:08.250

Emily Shimada (she/hers): The last section here kind of leads into what I mentioned earlier, and it's just a general interest and new focus of our committee to.

140

00:29:09.840 --> 00:29:15.870

Emily Shimada (she/hers): come up with our own core values for diversity and inclusion within our Community.

141



00:29:17.940 --> 00:29:29.640

Emily Shimada (she/hers): The kinds of trainings and workshops, some of our Members have been able to attend this past year has been really great and just kind of trying to bring that information for our committee ourselves when we have our meetings.

142

00:29:31.200 --> 00:29:42.870

Emily Shimada (she/hers): just trying to abide by sort of core set of values and guidelines to make everyone feel welcome and that their voice is appreciated and heard and how to do that can be kind of complicated so.

143

00:29:43.950 --> 00:29:48.810

Emily Shimada (she/hers): In the last slide I just want to and i'll i'll go to the Hoover website and a bit.

144

00:29:49.830 --> 00:29:52.890

Emily Shimada (she/hers): I just wanted to try to.

145

00:29:55.740 --> 00:30:04.560

Emily Shimada (she/hers): sort of introduce the term of inclusive, at which I don't have a specific definition for but wanted to address.

146

00:30:05.370 --> 00:30:15.330

Emily Shimada (she/hers): That i'm personally interested in what all of you might have to contribute or say about the kinds of goals or values or guidelines that you may have.

147

00:30:15.990 --> 00:30:29.730

Emily Shimada (she/hers): And what you would personally consider to be kind of welcome and inclusive platform for you to participate in a meeting like this, so the kinds of concepts just want to put in people's ears now are.

148

00:30:30.810 --> 00:30:35.700

Emily Shimada (she/hers): Just to try to communicate respectfully with one another as we would.

149

00:30:36.870 --> 00:30:40.050

Emily Shimada (she/hers): Ideally, when we're going to sail i'm kind of thinking of.

150

00:30:41.610 --> 00:30:43.560

Emily Shimada (she/hers): When we have kind of initial onboarding and.

151

00:30:44.760 --> 00:30:53.640

Emily Shimada (she/hers): familiarization meetings with science parties and we introduce trying to have a good respectful space where everyone feels comfortable to do their work so.

152

00:30:53.910 --> 00:31:02.910

Emily Shimada (she/hers): In a similar way just trying to practice respectful communication, while you're here this weekend in the sessions and in the chat boxes and the various tabs that exist in Hoover.

153

00:31:04.800 --> 00:31:10.950

Emily Shimada (she/hers): This may seem a bit hypocritical right now as i'm talking and i'm about to go into the next section, but also to just pay attention about.

154

00:31:12.240 --> 00:31:24.390

Emily Shimada (she/hers): alternating using your own voice and making space for others to use theirs, to give credit appropriately throughout to try to speak for yourself and not others and wanted to.

155

00:31:25.470 --> 00:31:37.650

Emily Shimada (she/hers): really encourage any feedback, you might have i'd be very interested in seeing it, let me try to get out of this one and show you this space I just starting to build in Hoover for this.

156

00:31:38.790 --> 00:31:48.570

Emily Shimada (she/hers): So if you're, hopefully, you can see, this if you're just on the homepage for this meeting within the Community tab maybe you have an easier way to get here but.

157

00:31:49.080 --> 00:31:59.070

Emily Shimada (she/hers): I think Community there's a space on inclusive efforts and meeting codes of conduct, these are terms that I think a bunch of us may have.

158

00:32:00.330 --> 00:32:07.200

Emily Shimada (she/hers): different levels of comfort with or experiences with from our own institutions, or maybe some other committees that you sit on.

159

00:32:08.250 --> 00:32:09.480

Emily Shimada (she/hers): But the idea here is.

160

00:32:11.160 --> 00:32:16.770

Emily Shimada (she/hers): We would like this meeting to be inclusive myself I would definitely like it to be, and so.

161

00:32:18.300 --> 00:32:28.200

Emily Shimada (she/hers): As a community that's going to be here together just wanted to provide some additional resources that i've been looking at I am by no means an expert in this and just kind of poking around.

162

00:32:29.220 --> 00:32:39.000

Emily Shimada (she/hers): So the resources that I have listed here are both guidelines from other organizations or institutions on how to have inclusive meetings.

163

00:32:39.630 --> 00:32:48.210

Emily Shimada (she/hers): And then also some example codes of conduct from various institutions, some more corporate than others and might not be applicable but.

164

00:32:49.110 --> 00:32:57.540

Emily Shimada (she/hers): wanted to throw these resources in here and then just highlight this tab is something to potentially come back to later in the week if you're up for it.

165

00:32:58.710 --> 00:33:04.410

Emily Shimada (she/hers): If you have any questions or other resources to provide on how to build up codes of conduct.

166

00:33:05.490 --> 00:33:23.070

Emily Shimada (she/hers): And the kinds of things you like to see in order to kind of feel more welcomed and wanting to participate in a meeting like this, so that's where this will be i'm going

to be moderating it all week, so please feel free to type in anything and happy to have a chat about it next time.

167

00:33:24.540 --> 00:33:34.920

Emily Shimada (she/hers): Alright that's all i've got on this particular session, so let me stop my share and Thank you everyone again really excited to kind of see you and interact with you this week.

168

00:33:39.930 --> 00:33:42.660

Lee Ellett: Thank you Emily for all your work on Maris.

169

00:33:43.950 --> 00:33:44.970

Lee Ellett: Great information.

170

00:34:03.540 --> 00:34:07.350

Lee Ellett: And so now we're starting to the icebreaker sessions, where.

171

00:34:09.090 --> 00:34:23.670

Lee Ellett: slides were submitted to introduce a lot of technicians, of the idea behind these these icebreakers doing it this way little bit different than we've done the past is to allow people have moved around and been new team members and so being able to see who's who Sue.

172

00:34:24.810 --> 00:34:26.160

Lee Ellett: So we'll start with.

173

00:34:27.240 --> 00:34:28.680

Lee Ellett: Emily shimada wish you.

174

00:34:41.220 --> 00:34:42.450

Emily Shimada (she/hers): hi again it's me.

175

00:34:43.800 --> 00:34:45.990

Emily Shimada (she/hers): Okay, so i'll start us off.

176

00:34:47.040 --> 00:35:04.860

Emily Shimada (she/hers): i'm here to represent the Oregon State University technician group and we are currently at least as of this month, Andrew Lucan is our supervisor got brandon to Andrea myself and Michael tepper Rasmussen or tr.

177

00:35:05.970 --> 00:35:19.560

Emily Shimada (she/hers): We very, very recently lost Kate Cuba and Mr very much already, but she has an amazing position, and that was just earlier this month, so it's not on here right now but definitely an awesome member of our team.

178

00:35:21.180 --> 00:35:27.930

Emily Shimada (she/hers): For this year Oregon State University, at least for rv oceana's know 12 cruises.

179

00:35:29.280 --> 00:35:35.880

Emily Shimada (she/hers): kind of up and down the west coast did a lot of really cool diverse science out there, which was great.

180

00:35:36.780 --> 00:35:56.130

Emily Shimada (she/hers): We had a really active and successful period in the winter of kind of putting on new sensors and systems, before we sailed and oceana's is actually out right now they're in San Francisco on one of the last cruises which is crazy to think about for the year.

181

00:35:57.180 --> 00:36:07.170

Emily Shimada (she/hers): We had a bunch of outreach and educational events that we were a part of as well, so that included reaching out and working on with various stem programs over the summer.

182

00:36:07.920 --> 00:36:16.140

Emily Shimada (she/hers): We did some tours not of the ship, unfortunately, but at least of our site and tried to highlight the Marine technician role and.

183

00:36:17.460 --> 00:36:24.120

Emily Shimada (she/hers): career to kind of young students doing summer camp stuff, which is always really fun because they're very excited and it's wonderful.

184

00:36:25.110 --> 00:36:32.460

Emily Shimada (she/hers): A few of our Members have also been active in supporting cruises on the heli this year as part of the start Program.

185

00:36:33.090 --> 00:36:50.520

Emily Shimada (she/hers): Within the poster area is kind of a bit more information on what those cruises looked like and some of the names of all the individuals that help support science at sea this summer, which was fabulous and we are getting ready for the tani.

186

00:36:51.930 --> 00:37:06.210

Emily Shimada (she/hers): And that's always been a fantastic ramp up it's going to be an amazing platform for sure that does mean retiring the oceana's unfortunately the last cruise is coming up next month, so.

187

00:37:07.230 --> 00:37:26.610

Emily Shimada (she/hers): Still, as far as I know, unless something changes will be having the last cruise out on oceana's and so again wanted to have a space for people who've worked on that she is in the past, or maybe done several cruises on the vessel to share any stories, you might have.

188

00:37:27.750 --> 00:37:37.020

Emily Shimada (she/hers): or kind of leave your thoughts or comments there again in the poster session you'll see a section on oceana's itself so that's our big things coming up.

189

00:37:37.770 --> 00:37:49.170

Emily Shimada (she/hers): That we've been working on this year is retiring oceana's the daunting task of getting everything off of it and then getting ready for the tani coming up as well, thank you.

190

00:37:51.870 --> 00:37:53.190

Lee Ellett: Thank you Emily for the.

191

00:37:54.420 --> 00:37:57.300

Lee Ellett: updates information so next we have.

192

00:37:58.680 --> 00:38:00.570

Lee Ellett: Carmen GRECO with the rv school yet.

193

00:38:03.750 --> 00:38:04.140

Carmen Greto: again.

194

00:38:05.550 --> 00:38:06.810

Carmen Greto: Presenting for the school year.

195

00:38:08.940 --> 00:38:14.730

Carmen Greto: We have the team is managed by ethan Roth ethan started as a.

196

00:38:15.870 --> 00:38:36.900

Carmen Greto: play going full time sailing technician took the helm from Steve hearts, about a year and a half ago, I think, somebody still manages to find the time to sail while leading the team from seaward here, you can see him over overlooking his flock of technicians.

197

00:38:38.430 --> 00:38:48.060

Carmen Greto: Down neighbor Dan is the ship's veritable wiki he is the documentary his initials are on everything.

198

00:38:49.350 --> 00:38:50.640

Carmen Greto: he's been with the show for a while to.

199

00:38:52.530 --> 00:39:01.410

Carmen Greto: Berlin mckernan doesn't need much of an introduction is six and a half feet tall, he is a seven foot tall beard he's a really fun guy to work with.

200

00:39:02.850 --> 00:39:06.720

Carmen Greto: brings a strong debt presence and really sharp mind.

201

00:39:09.180 --> 00:39:18.960

Carmen Greto: Steve Roberts Steve is the sickly X I sexpert he sales or the Arctic cruises Ray brings that expertise to the table.

202

00:39:20.190 --> 00:39:26.310

Carmen Greto: he's also a brilliant programmer he's developed products like map server just an epic underway tool.

203

00:39:28.440 --> 00:39:35.460

Carmen Greto: Myself Carmen the new guy says here the good looking one i'm not sure about that, but it's it's in print, it must be true.

204

00:39:36.900 --> 00:39:44.610

Carmen Greto: I sale I hired on with the team about I think may and sailed over the summer, for a good long first pitch.

205

00:39:48.090 --> 00:39:52.050

Carmen Greto: I I got a chance to work remote with all these guys and.

206

00:39:53.370 --> 00:39:56.850

Carmen Greto: I don't know it feels like i've always been here I think that means it's a good fit.

207

00:39:58.440 --> 00:40:01.230

Carmen Greto: i'm not listed here is john.

208

00:40:02.460 --> 00:40:13.320

Carmen Greto: john and his team working out of fair banks aiden sukumi X it support group john also helps with data management and he does a lot behind the scenes.

209

00:40:15.120 --> 00:40:16.920

Carmen Greto: that's it for the school year Thank you.

210

00:40:18.390 --> 00:40:19.530

Lee Ellett: Great Thank you Carmen.

211

00:40:20.580 --> 00:40:25.470

Lee Ellett: And next up, we have drew from Bach with us.

212



00:40:26.280 --> 00:40:30.420

Jules Hummon: Right well we're having technical difficulties in our group so hi i'm not drew.

213

00:40:31.980 --> 00:40:32.280

Jules Hummon: he's.

214

00:40:33.510 --> 00:40:36.870

Jules Hummon: he's participating, but I don't think he can unmute so.

215

00:40:38.010 --> 00:40:47.310

Jules Hummon: We are you ah DAS the team, this is the group i'm on the upper left toby Martin is above the upper right and his primary responsibilities, the no ships.

216

00:40:48.570 --> 00:40:57.780

Jules Hummon: Joseph GM came to us from ODS and was at you H earlier in the hot cruises drew just joined us from Colorado chasing.

217

00:40:59.340 --> 00:41:12.840

Jules Hummon: Storms with a radar truck and prior to that he was at you H and Eric fearing has retired, but he has not gone away and he'll come up later in discussion about another sonar we support the.

218

00:41:14.490 --> 00:41:20.340

Jules Hummon: ACP systems on the academic research fleet and we have our fingers and lots of pies.

219

00:41:22.110 --> 00:41:28.290

Jules Hummon: You can email us at you H DAS and hawaii.edu and you'll find that splattered all over the place that that's it.

220

00:41:31.020 --> 00:41:36.990

Lee Ellett: Thank you Jules and next up, we have Dennis bilious with a Miami restless.

221

00:41:39.840 --> 00:41:48.420

Dilias: Night good evening good morning good afternoon everybody i'm along with myself then it's leads on the second Walter Smith we've.

222

00:41:49.440 --> 00:41:53.760

Dilias: been 14 cruises year, so far, the longest was 30 days in a golf.

223

00:41:54.870 --> 00:42:09.690

Dilias: Earlier this summer, along with josie and don don recently took on the position of inter manager so easy management, both the tech, because when they want to take right now and then it shifts off personnel.

224

00:42:11.130 --> 00:42:11.700

Dilias: and

225

00:42:15.600 --> 00:42:24.330

Dilias: There we go in our Members deca you came to us with zeke of viruses going around against the simpler days of pandemics.

226

00:42:26.070 --> 00:42:29.250

Dilias: he's been kind of comes around the campus visits us.

227

00:42:30.810 --> 00:42:40.560

Dilias: that's about it right now i've kind of original one original groups left from the rich and the days when very tranquil started and.

228

00:42:41.670 --> 00:42:42.450

Dilias: And that's about it.

229

00:42:46.470 --> 00:42:53.550

Lee Ellett: Thank you Dennis for the updates are next up, we have Steve in our streaming with sli.

230

00:42:56.190 --> 00:42:57.390

Stian Alesandrini: yeah hi everyone.

231

00:42:58.800 --> 00:43:16.350

Stian Alesandrini: Thanks for including us in rb tech once again in my last minute typical scramble to make a slide I very cleverly left off the names of all of our technicians so six of them who do the actual work well, I sit behind a desk.

232

00:43:17.370 --> 00:43:38.340

Stian Alesandrini: left to right top to bottom, one of our lead technicians Paul jimbo done okay goes by jimbo girl rice second lead technician john former another one of our texts bottom row left to right by Herbert.

233

00:43:41.130 --> 00:43:41.880

Stian Alesandrini: Hoover Bach.

234

00:43:44.010 --> 00:44:10.080

Stian Alesandrini: JAS Gilbert and deb Smith so six people to do all the cruises and as we're transitioning from file core to file court to these guys are all very involved, also in the refit, which is of course a lot of work very interesting and you know double didn't like from from the original.

235

00:44:11.130 --> 00:44:13.200

Stian Alesandrini: schedule so thanks very much.

236

00:44:17.670 --> 00:44:22.290

Lee Ellett: Thank you very much, and next we have Sarah Kate with.

237

00:44:23.370 --> 00:44:23.760

Lee Ellett: The.

238

00:44:24.900 --> 00:44:26.400

Lee Ellett: heli and see 40.

239

00:44:29.430 --> 00:44:30.990

Sarah Kaye: Either how's my volume out there.

240

00:44:35.160 --> 00:44:43.590

Sarah Kaye: it's great excellent, so the healing is actually still underway doing a North America circumnavigation I got the fun part.

241

00:44:44.580 --> 00:44:51.990

Sarah Kaye: So I had to read the ship from seaward around to just got off and belt baltimore we had a successful Northwest Passage transit with.

242

00:44:52.860 --> 00:45:03.780

Sarah Kaye: Some Nice, not a lot of ice and then they bought the cart nothing but CDs trip over there and baffin Bay we've had said to had some personnel trance.

243

00:45:04.290 --> 00:45:19.860

Sarah Kaye: turnover so he's still got myself and Jeff hardwick and we've got new members Tom Gomez who is underway now and brandon not all who's who's just joined us so hopefully you'll get to meet us all in the future that's all I got.

244

00:45:24.840 --> 00:45:27.870

Lee Ellett: Thank you very much, Sarah and the next we have.

245

00:45:27.930 --> 00:45:29.190

Lee Ellett: pieces gated with.

246

00:45:29.580 --> 00:45:30.060

lamar.

247

00:45:31.380 --> 00:45:31.890

Jesus Gaytan: Everybody.

248

00:45:33.570 --> 00:45:50.850

Jesus Gaytan: got a list here of all of our guys currently top left we got shawn Higgins or Director myself on the bottom left I just joined them on doherty and November of last year, so i'm about to about to be a year now, so I get the fun part of intrusion introducing everybody.

249

00:45:52.410 --> 00:45:59.700

Jesus Gaytan: They Martin is one of our chief science officers, mostly now doing, support for crew in from the office.

250

00:46:01.530 --> 00:46:12.690

Jesus Gaytan: Next to him there island Tommy Thompson instrument technician you can see down the picture and our pod during our last dry dock going through all of our.

251

00:46:13.740 --> 00:46:19.470

Jesus Gaytan: transducers and whatnot next to him Sean shaver chief science officer.

252

00:46:21.000 --> 00:46:24.000

Jesus Gaytan: Todd gentle also chief science officer.

253

00:46:25.530 --> 00:46:34.380

Jesus Gaytan: next to me on the bottom God he's been with us for a long time as to share with the other divisions and Elio instrument technician.

254

00:46:35.130 --> 00:46:45.720

Jesus Gaytan: cody also in some in technician on the vessel josh case injure source on deck technician and Brian idea as well sourcing deck.

255

00:46:46.710 --> 00:47:09.030

Jesus Gaytan: So, as you all know that i'm on the market like seth is specialized the you know vessel for towing large seismic arrays and we just wrapped up our work this year in Northwest and cascadia and UCF and just finished her dry it out so we're back in Newport getting ready for next year.

256

00:47:10.500 --> 00:47:11.100

Jesus Gaytan: that's all I got.

257

00:47:16.320 --> 00:47:18.000

Lee Ellett: Great Thank you very much.

258

00:47:21.120 --> 00:47:22.770

Lee Ellett: It looks like we've gone through those.

259

00:47:26.640 --> 00:47:27.600

Lee Ellett: Pretty fast.

260

00:47:31.410 --> 00:47:34.440

Lee Ellett: think we have some more, we will have more icebreakers.

261

00:47:35.850 --> 00:47:37.380

Lee Ellett: slides tomorrow.

262

00:47:42.000 --> 00:47:43.890

Lee Ellett: Given where we're at brand new do you want to.

263

00:47:45.240 --> 00:47:47.190

Lee Ellett: You have did you have a couple things.

264

00:47:48.180 --> 00:47:53.610

Brandi Murphy (she/her): yeah um, I just wanted to point out that there is a poster for.

265

00:47:54.630 --> 00:47:58.950

Brandi Murphy (she/her): The excellent comments that are marine technicians have received through P cars.

266

00:48:00.150 --> 00:48:14.520

Brandi Murphy (she/her): So I think it would be great to check that out, you might see your name or see your other technicians recognized as we mentioned, we have some more room for MacGyver awards and posters.

267

00:48:15.720 --> 00:48:31.770

Brandi Murphy (she/her): If you are interested just send me an email brandi at you know um and we are taking nominations, as we mentioned for Chair elect this is lee's last year's chair and jewels will be stepping up as Chair it behind him.

268

00:48:33.360 --> 00:48:57.750

Brandi Murphy (she/her): I sent an email, but it is a three year term for Chair elect followed by three years, as chair and responsibilities are, as a representative to you're a member of Council as a committee chair so reporting on our V tech comings and goings to other committees as well as highlighting.

269

00:48:58.980 --> 00:49:05.910

Brandi Murphy (she/her): issues to the Community that affects the Community that we need to move forward with or talk about or address.

270

00:49:07.320 --> 00:49:12.030

Brandi Murphy (she/her): So if you're interested or you know somebody who's interested, please let me know.

271

00:49:13.110 --> 00:49:19.620

Brandi Murphy (she/her): Please nominate them to me self nominations are allowed it doesn't need to be a tech manager, it could be any member of.

272

00:49:21.900 --> 00:49:25.920

Brandi Murphy (she/her): The committee and member of our tech um.

273

00:49:27.060 --> 00:49:41.070

Brandi Murphy (she/her): We because I don't have the nominations, yet I don't have a way for you to vote, yet, but after the meeting I will send a survey for folks to vote for the rv tech chair elect.

274

00:49:42.390 --> 00:49:54.570

Brandi Murphy (she/her): There is one vote per operating institution, so your institution will need to let me know who's going to be voting on your behalf, so I can send you the link and.

275

00:49:55.140 --> 00:50:10.170

Brandi Murphy (she/her): I think that's it I think that's the most complicated thing that we have going on um we have the social networking not it networking social networking event today at I think it's noon.

276

00:50:10.860 --> 00:50:21.060

Brandi Murphy (she/her): Pacific time it's it's a thing, where you join us and then we will be shuffled around into smaller groups every 10 minutes, and it would be a great opportunity.

277

00:50:21.330 --> 00:50:35.160

Brandi Murphy (she/her): For some of our fresher technicians newer technicians to meet and interact with some of our more experienced technicians and get to know the Community a little better it's an effort to make up for the loss of face time.

278

00:50:36.420 --> 00:50:46.380

Brandi Murphy (she/her): That the virtual meetings have so it would be great if you could drop in and join us if you go to the agenda, page.

279

00:50:49.020 --> 00:50:53.280

Brandi Murphy (she/her): It shows up it's called meet your fellow technicians, so we would love to have you.

280

00:50:54.840 --> 00:51:06.510

Brandi Murphy (she/her): And then also today is the only day that the you know the annual meeting overlaps with our V tech and today is going to be sat calm and outreach.

281

00:51:07.170 --> 00:51:18.030

Brandi Murphy (she/her): i'll send an email that has the live the link to watch it on YouTube if you would like, or you can still register for the meeting at the you know the website.

282

00:51:19.980 --> 00:51:29.850

Brandi Murphy (she/her): that's, all I can think of right now i'm really impressed at how quickly you guys got through those icebreakers we'll have some more on Tuesday, that I that haven't been submitted to me yet.

283

00:51:31.410 --> 00:51:44.400

Brandi Murphy (she/her): But I think that means that we are unless Alice has something for you guys she has any announcement she wants to make me happy, you know shaking her head she's talking enough at the annual meeting i'm sure it's ready to be done.

284

00:51:45.780 --> 00:51:47.040

Brandi Murphy (she/her): you're muted Alex.



285

00:51:50.550 --> 00:51:58.590

Alice Doyle: I will just make a plug for the annual meeting this afternoon, should be interesting, and also for for what brandi was talking about his.

286

00:51:59.970 --> 00:52:12.540

Alice Doyle: meet your fellow tex I was really skeptical I will say for with our session last year, and it was really fun so just every few minutes you get you know chatting to other people, so I encourage folks to go to meet your fellow technicians.

287

00:52:14.280 --> 00:52:14.760

Brandi Murphy (she/her): Thank you.

288

00:52:16.020 --> 00:52:16.410

Brandi Murphy (she/her): Jimmy.

289

00:52:21.210 --> 00:52:33.420

Lee Ellett: I I guess the other thing I had thought about was the the sessions on Friday that we will have to educational sessions on Friday john, however, like will be discussing the.

290

00:52:33.990 --> 00:52:44.940

Lee Ellett: sequoia it management as sorry it asset management tool and Alice is going to give a presentation for for technicians on MSP.

291

00:52:45.360 --> 00:52:53.820

Lee Ellett: So the all the all the all the work that's been going on mvp and I don't know how how much people have been interacting with with it, some already.

292

00:52:54.630 --> 00:52:59.340

Lee Ellett: But it's it's a great tool has a lot of promise it's gonna it's and it's also the.

293

00:52:59.850 --> 00:53:11.340

Lee Ellett: Things have been very responsive to been fixed it's it's been it's been a huge project for you, you know as office and I think we're going to give a lot of use of it, I know I really appreciate having having a.

294

00:53:12.630 --> 00:53:14.340

Lee Ellett: Improved tool like this for.

295

00:53:16.200 --> 00:53:16.860

Lee Ellett: planning.

296

00:53:18.510 --> 00:53:19.440

Lee Ellett: The ships.

297

00:53:24.390 --> 00:53:37.920

Alice Doyle: go fishing finishers interesting session i'm going to mostly focus on the cruise planning aspects of it on Friday and we're hoping to get you guys excited enough to get some more institutions on board so look forward to seeing you guys there.

298

00:53:42.060 --> 00:53:44.340

Brandi Murphy (she/her): Jim I noticed that you have unmuted yourself.

299

00:53:44.940 --> 00:54:02.550

James Holik: I, like everybody know i'm here, and you know this is my favorite medium to the year so i'm going to be here, the whole time I don't worry, they just say nothing of interest anyway, but my biggest problem right now is picking an outfit for every day of the week one that's all.

300

00:54:04.470 --> 00:54:06.480

James Holik: I have nothing to report that's it okay.

301

00:54:09.090 --> 00:54:18.090

Brandi Murphy (she/her): Well, thank you um the next session is on the hour in 22 minutes you'll have to go to the agenda and join that one separately.

302

00:54:19.230 --> 00:54:35.040

Brandi Murphy (she/her): And it's going to be pools and resources as we mentioned, we are going to be doing you a jazz to you ah desk today with jewels holman and swap her from Moscow Moscow year for tomorrow's.

303

00:54:36.270 --> 00:54:39.960

Brandi Murphy (she/her): Resources session Thank you everyone and we'll See you in a few.

304

00:54:41.700 --> 00:54:42.330

James Holik: bye for now.

305

00:54:42.810 --> 00:54:43.350

Lee Ellett: Thank you.

## Pools & Resources

1

00:09:15.510 --> 00:09:17.850

Lee Ellett: It defaults to my different video.

2

00:09:19.380 --> 00:09:23.700

Lee Ellett: Viewing in the in the browser gives us different zoom defaults.

3

00:09:24.180 --> 00:09:25.110

i'm.

4

00:09:26.490 --> 00:09:28.110

Lee Ellett: Fine, I just have to change it, each time.

5

00:09:31.140 --> 00:09:32.040

Lee Ellett: Just a big.

6

00:09:34.770 --> 00:09:36.780

Brandi Murphy (she/her): it's just a very inconvenient thing.

7

00:09:38.430 --> 00:09:39.990

Brandi Murphy (she/her): um so MAC.

8

00:09:40.050 --> 00:09:41.490

Lee Ellett: wants to submit an icebreaker for.

9

00:09:41.490 --> 00:09:43.050

Brandi Murphy (she/her): Tomorrow, which is cool.

10

00:09:45.450 --> 00:09:46.500

Lee Ellett: Max.

11

00:09:47.070 --> 00:09:48.030

Are you a check.

12

00:09:49.320 --> 00:09:50.940

Brandi Murphy (she/her): The multiple advisory committee.

13

00:09:51.840 --> 00:09:53.820

Lee Ellett: MAC oh yeah sure sorry.

14

00:09:54.570 --> 00:09:55.590

Brandi Murphy (she/her): yeah no problem.

15

00:09:56.970 --> 00:09:59.670

Brandi Murphy (she/her): You, who is going to get their slide Oh, they did.

16

00:10:00.150 --> 00:10:01.950

Brandi Murphy (she/her): You, who have a slide for tomorrow.

17

00:10:02.610 --> 00:10:05.250

Lee Ellett: I will get mine in today, I already I gotta I.

18

00:10:07.890 --> 00:10:09.420

Lee Ellett: talked to my folks this morning.

19

00:10:14.910 --> 00:10:15.750

Lee Ellett: And we're going to have.

20

00:10:21.000 --> 00:10:21.600

Lee Ellett: Several.

21

00:10:52.170 --> 00:10:53.970

Brandi Murphy (she/her): Share specific session.

22

00:10:55.800 --> 00:10:56.040

yeah.

23

00:11:00.570 --> 00:11:03.180

Brandi Murphy (she/her): Ryan guest is having trouble.

24

00:11:26.250 --> 00:11:29.100

Aaron Davis: Can you hear me Okay, yes hi Aaron.

25

00:11:30.840 --> 00:11:34.260

Aaron Davis: I remember the patch in via phone, so I just want to make sure we're all right.

26

00:11:36.420 --> 00:11:38.310

Brandi Murphy (she/her): yeah we got you thanks for testing.

27

00:12:01.230 --> 00:12:02.730

Brandi Murphy (she/her): Brian did we get you sorted.

28

00:12:05.070 --> 00:12:06.750

Brian: Yes, it appears, you did, thank you.

29

00:12:08.880 --> 00:12:16.680

Brandi Murphy (she/her): just making sure that that Brian comma or parentheses guest was actually Brian guest different.

30

00:12:17.370 --> 00:12:18.780

Brian: yeah sorry it is I.

31

00:12:19.500 --> 00:12:21.690

Brian: When I saw that pop up I realized, and I.

32

00:12:21.690 --> 00:12:24.450

Brian: said i'm not going to go and try to change anything right now.

33

00:12:27.090 --> 00:12:27.360

Brandi Murphy (she/her): yeah.

34

00:12:28.590 --> 00:12:31.950

Brian: i'm very good at listening to zoom but that's what my word ends.

35

00:12:35.550 --> 00:12:35.940

Brandi Murphy (she/her): yeah.

36

00:12:36.000 --> 00:12:36.390

Brian: What I.

37

00:12:36.480 --> 00:12:49.740

Brian: What I did do is I went back to whatever that other APP is called and joined that session for the groups that I don't know if you sorted me out or that's when did it.

38

00:12:50.850 --> 00:12:51.090

Brandi Murphy (she/her): Okay.

39

00:13:02.880 --> 00:13:09.870

Brandi Murphy (she/her): I will I got your presentation, so if you need me to share it if sharing yours doesn't work I have it.

40

00:13:10.260 --> 00:13:10.950

Brian: Okay, great.

41

00:13:15.090 --> 00:13:21.930

Brian: i'm going to try to step through it quickly, because we have gear going on on Atlanta that's leaving in about 30 minutes.

42

00:13:22.950 --> 00:13:23.160

Oh.

43

00:13:24.720 --> 00:13:31.230

Brandi Murphy (she/her): Okay, a lead, we can do a Brian first with the winch east coast went to school.

44

00:13:33.030 --> 00:13:33.540

Lee Ellett: that's fine.

45

00:13:42.330 --> 00:13:45.540

Aaron Davis: brandi this is there and now you're going to present slides for me right.

46

00:13:45.960 --> 00:13:46.620

Brandi Murphy (she/her): I can do that.

47

00:13:46.650 --> 00:13:46.890

yeah.

48

00:13:48.120 --> 00:13:54.390

Aaron Davis: yeah my computer my computer hasn't been reliable lately, so I worry that it's not going to go well, if I do it.

49

00:13:55.680 --> 00:13:57.600

Aaron Davis: understandable.

50

00:13:57.960 --> 00:13:59.610

Brandi Murphy (she/her): yeah i'm just.

51

00:14:01.320 --> 00:14:04.050

Brandi Murphy (she/her): Getting it cued up now to.

52

00:14:07.500 --> 00:14:11.640

Brian: urine I heard they're able to recreate that issue with the hobbled wench.

53

00:14:12.750 --> 00:14:13.620

On your system.

54

00:14:16.650 --> 00:14:20.610

Aaron Davis: that's correct they found that if the winch was actually overloaded.

55

00:14:22.560 --> 00:14:29.220

Aaron Davis: In order to protect the motor the motor drive cuts all power to the go to the motor.

56

00:14:34.050 --> 00:14:35.760

Brian: Apparently it cuts power to the break.

57

00:14:35.760 --> 00:14:36.210

Brian: as well.

58

00:14:43.980 --> 00:14:49.230

Brian: My gear is headed out of here tomorrow headed for hobbled so we'll have two inches go into them.

59

00:15:12.690 --> 00:15:21.780

Lee Ellett: Brian question is the is the geo traces system mentioned in your presentation, since some of the science programs.

60

00:15:22.320 --> 00:15:28.350

Brian: i'm not I don't know that I mentioned this specifically as a trace metals system.

61



00:15:30.300 --> 00:15:37.920

Brian: I could look at the slide and see what I put in there, I think I grabbed a slide from a previous presentation for inventory of equipment.

62

00:15:39.270 --> 00:15:41.430

Brian: yep let's see.

63

00:15:41.760 --> 00:15:53.070

Lee Ellett: up, I know that you know I ya know from the technician perspective, something that's of interest here is if if a science party is going to be wants to use that system think.

64

00:15:54.840 --> 00:15:55.740

Lee Ellett: Educating.

65

00:15:57.450 --> 00:16:00.930

Lee Ellett: technicians need to educate the users and how yeah what.

66

00:16:02.640 --> 00:16:05.100

Lee Ellett: And and that's something that came up on our end little bit.

67

00:16:06.900 --> 00:16:12.210

Brian: yeah it's it's been a unique system because it belong to.

68

00:16:14.010 --> 00:16:30.150

Brian: belong to old dominion and kind of slinked its way into the responsibility of the winch pool, even though there was only one primary user it wasn't until this recent trip on ravel see right now.

69

00:16:30.630 --> 00:16:35.160

Brian: Did somebody else other than green cutter use that system yep.

70

00:16:37.980 --> 00:16:45.300

Brandi Murphy (she/her): Okay, do you mind if I start admitting folks it looks like the only presenter we're missing so far as jewels.

71

00:16:48.720 --> 00:16:49.620

Lee Ellett: i'm fine started.

72

00:16:49.950 --> 00:16:50.820

Brian: Yes, of course.

73

00:16:50.970 --> 00:16:53.820

Lee Ellett: And we're going to go with Brian first.

74

00:17:10.410 --> 00:17:11.640

Brian: No wait for your okay.

75

00:17:14.130 --> 00:17:16.140

Lee Ellett: yeah it's like a click over to.

76

00:17:17.310 --> 00:17:18.840

Lee Ellett: 11 let everyone join.

77

00:17:19.740 --> 00:17:20.040

sure.

78

00:17:57.990 --> 00:18:02.010

Brandi Murphy (she/her): Do you see the opening slide in the proper format just the.

79

00:18:03.450 --> 00:18:04.650

Brandi Murphy (she/her): screen okay awesome.

80

00:18:06.180 --> 00:18:06.420

Lee Ellett: yeah.

81

00:18:06.450 --> 00:18:07.470

Lee Ellett: looks good here.

82

00:18:08.400 --> 00:18:09.840

Jules Hummon: queuing up all the presentations.

83

00:18:13.920 --> 00:18:14.580

Jules Hummon: you're right.

84

00:18:15.510 --> 00:18:17.850

Brandi Murphy (she/her): Aaron asked me to share their specifically.

85

00:18:18.330 --> 00:18:19.230

Brandi Murphy (she/her): Can you share mine.

86

00:18:19.830 --> 00:18:30.240

Brandi Murphy (she/her): I can, yes I sure can um I think the order that we're going to go in here is going to be Brian Aaron jewels and then rick if that's okay.

87

00:18:32.070 --> 00:18:33.780

Jules Hummon: This is kind of last minute so I don't really care.

88

00:18:43.680 --> 00:18:47.370

Lee Ellett: Okay we'll go ahead and get started so with.

89

00:18:48.480 --> 00:18:56.490

Lee Ellett: The pooled resources session here we're going to start off with Brian guests from the east coast winch pool.

90

00:18:58.080 --> 00:19:05.850

Brian: Oh good morning or afternoon to everyone, my name is Brian guest i'm manager of the East coast when school next slide.

91

00:19:08.760 --> 00:19:09.900

Brandi Murphy (she/her): I can figure that out.

92

00:19:12.960 --> 00:19:13.260

Brandi Murphy (she/her): The.

93

00:19:15.060 --> 00:19:18.030

Brandi Murphy (she/her): Next button is under all my zoom controls sorry about that.

94

00:19:18.720 --> 00:19:31.290

Brian: So we're located at the what's oceanographic institution in woods hole Massachusetts and by now i'm sure most of you know who we are, what we do, but I will touch on give a brief summary of our operation.

95

00:19:32.400 --> 00:19:32.820

Brian: Next slide.

96

00:19:35.340 --> 00:19:39.810

Brian: The winch pool is made up of two full time and one half time staff members.

97

00:19:40.980 --> 00:19:51.150

Brian: We make ourselves available to all of our users 24 hours a day, seven days a week, the email or phone up the phone calls come in about three o'clock in the morning but that's okay.

98

00:19:52.680 --> 00:20:04.050

Brian: Jamie haley is our shop steward and mechanical technician responsible for the pre and post crews preparation of all of our winches blocks slip brings any other borrowed equipment.

99

00:20:04.800 --> 00:20:16.290

Brian: Jamie also handles the wire winding or strength Member whining on our systems in the shop and engineers any mechanical modifications and repairs required to the system.

100

00:20:17.400 --> 00:20:27.600

Brian: josh eaten is our engineer and maintains all of our electrical systems of our winches he worked closely with the vendors, to ensure firmware and software or current working properly.

101

00:20:28.260 --> 00:20:33.090

Brian: And, as a member of the you know safety committee he makes her our systems comply with appendix A and B.

102

00:20:34.590 --> 00:20:42.330

Brian: My responsibilities include overseeing our budget with an eye on keeping costs to nsf as low as possible without sacrificing quality.

103

00:20:43.260 --> 00:20:54.240

Brian: I handle all of the scheduling of equipment, both to both nsf funded users and non nsf users alike part of that scheduling is setting up all the shipping requirements to and from ports.

104

00:20:55.260 --> 00:21:05.040

Brian: I began my career it who in 1983 as electronics technician blocked more than 85 cruises sales to scientists numerous times as well.

105

00:21:05.970 --> 00:21:16.230

Brian: This gives me a decent working knowledge of how our vessels operate, what we need to provide in many aspects of mobilizing and DEMO people analyzing or work at sea.

106

00:21:17.220 --> 00:21:27.390

Brian: I often work in the shop as a second technician I provide wire winding services for both you knowles and know vessels and travel reports to assist with setup and breakdown of our equipment.

107

00:21:28.800 --> 00:21:41.310

Brian: We also utilize the services of other who we engineers, technicians fabricators when needed we're very fortunate in that expected that with toll you have so many talented people, we call on, even if only temporarily.

108

00:21:42.060 --> 00:21:56.160

Brian: It has been a fairly busy year for us this year we fielded 38 requests for equipment, there has been real know slope know slow down for us over the past two years, with covert or with them next slide please.

109

00:22:00.240 --> 00:22:08.100

Brian: Our shop is a dedicated space for the wind school provides us with about 2000 square feet of floor space for both maintenance and storage of our systems.

110

00:22:08.910 --> 00:22:18.270

Brian: there's equipped with a 510 overhead hoist you and all two foot on Center bolt pattern deck and deadheads for static load testing up the thousand pounds.

111

00:22:19.020 --> 00:22:32.310

Brian: We have been working on securing some additional storage space that will free up some spots in our shop, as you can imagine, if you look at the shop, we have 14 systems and gets kind of crowded, and there are times.

112

00:22:34.050 --> 00:22:34.650

Brian: Next slide.

113

00:22:38.040 --> 00:22:49.680

Brian: So on our systems They range from the ultra light which is about 1500 pounds safe working load to a heavy duty morning winch which will handle about 10,000 pounds safe working mode.

114

00:22:51.030 --> 00:22:57.870

Brian: we're currently working closely with intuition systems in California on the fabrication of a new small portable trace metals system.

115

00:22:58.320 --> 00:23:11.850

Brian: That will be added to our inventory and we'll spend most of his time at squared away Institute in savannah Georgia, however, it is a shared resource which includes the winch non metallic strength Member CD and Rosa.

116

00:23:13.140 --> 00:23:21.450

Brian: Rosa and the CD unit will be maintained by squared away will be responsible for the winch and we'll have to coordinate use others.

117

00:23:24.060 --> 00:23:30.570

Brian: One interesting point with that which is it is based on the design by Jamie and josh and has been licensed in the ocean.

118

00:23:32.190 --> 00:23:37.380

Brian: One of the most interesting features of this winches the placement of the motor and gearbox within the drum.

119

00:23:38.010 --> 00:23:47.460

Brian: minimize the footprint greatly reduces the need for heavy framework and allows us to build small, yes, strong winches that can be mounted on the smaller vessels, like the rv savannah.

120

00:23:48.360 --> 00:23:59.430

Brian: The University of Vermont is also equipping their new vessel with too much smaller but similar style winches through intuition next slide please.

121

00:24:01.860 --> 00:24:20.700

Brian: We have to tension schoolers for whining strength members, and we do have access to a third it's a wholly owned unit, but we maintain it it's a diesel powered tension or i'm sure it's about World War Two vintage but it's been very, very useful for us and works just wonderfully next slide.

122

00:24:24.720 --> 00:24:40.830

Brian: We have an assortment of over boarding blocks, not as many as i'd like but so far we've been able to provide everybody with what they've requested, we have some heavy 680 blocks, we have three to two blocks at a trace metal compliant and white groove metering shelves.

123

00:24:42.240 --> 00:24:51.330

Brian: it's it's adequate, but we should probably add a few to our inventory they do get requested frequently next slide please.

124

00:24:53.910 --> 00:25:02.190

Brian: And we have a an assortment of odds and ends that we don't necessarily loan out individually, but it has been done there a slip brings.

125

00:25:02.880 --> 00:25:12.510

Brian: We have our east coast winch cool design turntable we have motion reference units that some of our winches can utilize to do active heave compensation.

126

00:25:13.440 --> 00:25:24.570

Brian: And a neat little step up power transformer that allows us to provide for 80 volts to our winches from decimals that don't have more than the 223 phase.

127

00:25:25.860 --> 00:25:26.820

Brian: Next slide please.

128

00:25:29.250 --> 00:25:31.470

Brian: This is a little bit too far.

129

00:25:33.720 --> 00:25:42.720

Brian: This video shown before it's kind of interesting people seem to like it last time, but it demonstrates the turntables that we've designed and built in house.

130

00:25:43.170 --> 00:25:53.550

Brian: mounted to one of our mash to K winches and allows placement of the winch off the Center line because you can adjust the position of the wench you can change the angle.

131

00:25:54.060 --> 00:26:04.110

Brian: The fleet angle by rotating and pinning the turntable in increments of about two and a half degrees Randy I don't know, but this is a video, you may be able to play.

132

00:26:08.790 --> 00:26:11.400

Brian: I think if you mouse over the picture you should see the control.

133

00:26:16.290 --> 00:26:16.830

Brian: There you go.

134

00:26:21.780 --> 00:26:28.080

Brian: Jamie Jamie haley is just demonstrating how simple and easy it is to rotate the winch or maybe he won't.

135

00:26:30.180 --> 00:26:33.210

Brandi Murphy (she/her): yeah i'm sorry I keep pushing the play button, but it's not.



136

00:26:33.780 --> 00:26:41.730

Brian: Okay, well, it, it was just have to take my word for it, he can easily with one hand, just rotate that winch and to any position and.

137

00:26:42.120 --> 00:26:52.500

Brian: it's nice when everybody wants to utilize the Center line of the over boarding block on an a frame or maybe you want to utilize a crane boom or a.

138

00:26:53.070 --> 00:27:03.210

Brian: A frame that's mounted on the starboard report rail, this allows you to mount it pretty much anywhere on deck and turn the winch towards that that over boarding point.

139

00:27:04.290 --> 00:27:05.130

Brian: Next slide please.

140

00:27:10.770 --> 00:27:19.890

Brian: So we tried to make the process for requesting equipment from us as simple as possible, by establishing an online equipment request form on our website next slide.

141

00:27:26.670 --> 00:27:32.700

Brian: So, once the form is completed, it sent to us and we can determine which system will be best suited for the needs of the user.

142

00:27:33.390 --> 00:27:39.450

Brian: And we get in contact with users to address any questions that may arise from the results of the information they provided this form.

143

00:27:40.230 --> 00:27:44.550

Brian: Once those forms filled out and sent to us you're basically in the queue for the use of the equipment.

144

00:27:45.360 --> 00:27:53.400

Brian: And you know it's a it's a first come, first serve type of situation, unfortunately, we have limited resources so far we've been.

145

00:27:53.940 --> 00:27:57.810

Brian: fortunate and we haven't had any real problems with availability.

146

00:27:58.470 --> 00:28:10.620

Brian: But it's good to get your request, and as soon as you know, you're going to need something with the dates, even if they're tentative and we can modify the forum for you later on, as they change we do that frequently next slide please.

147

00:28:13.260 --> 00:28:21.210

Brian: You can also look at the website and see how the equipment schedule, I know there's a couple of you out there that look at this frequently when.

148

00:28:21.810 --> 00:28:30.180

Brian: Requesting equipment from us to see how what the availability is like it's a good idea to go ahead and submit your form anyway because.

149

00:28:30.600 --> 00:28:42.360

Brian: We may not have updated with a cancellation or the ship schedules may have slid or will slide so get their request in, and we can deal with those those dates and conflicts.

150

00:28:43.380 --> 00:28:43.980

Brian: quite easily.

151

00:28:45.180 --> 00:28:45.930

Brian: Next slide please.

152

00:28:48.480 --> 00:28:57.150

Brian: So where we going we've got a few modifications be like to make to our facility, the first is to change our 510 overhead voice.

153

00:28:58.260 --> 00:29:04.890

Brian: we've got three systems currently that exceeds capacity and moving that around the shop is tricky at best.

154

00:29:05.760 --> 00:29:14.760

Brian: The door itself will not accommodate our larger forklifts to lift the larger winches so we have a series of rollers that we've been able to place the winches on and.

155

00:29:15.210 --> 00:29:19.740

Brian: physically push them across the floor to get them to the door, but it's less than ideal.

156

00:29:20.490 --> 00:29:29.370

Brian: Currently we've talked to the facilities group here at woods hole and it looks like we'll have an installation no later than 2023 have a new.

157

00:29:30.120 --> 00:29:42.990

Brian: Seven time overhead voice why seven time while we'd love to go bigger but we just cannot do it with the support from the building so we're limited to seven, but that will provide us with the lifting capability require next slide please.

158

00:29:45.300 --> 00:29:50.130

Brian: So this is the new ones that I mentioned earlier, concerning the trace metal system for a squared away.

159

00:29:51.780 --> 00:29:56.040

Brian: You can see the motor is mounted up inside of the the drum itself.

160

00:29:57.240 --> 00:30:06.420

Brian: takes away from that large motor gearbox being on the side of the winch takes away from all the the structure that would be required to support it and the torque.

161

00:30:07.080 --> 00:30:16.560

Brian: So it allows for a much smaller footprint, even though the winch has a very large capacity for the strength Member, it is quite strong it allows.

162

00:30:17.970 --> 00:30:31.440

Brian: surprising tensions, so the engineering of the school and winch base plate were critical to be able to handle the system will looking forward to getting this out and tested and into action shortly.

163

00:30:38.340 --> 00:30:39.270

Brian: Next slide please.

164

00:30:42.990 --> 00:30:46.920

Brian: One of the areas we lack in is being able to dynamically.

165

00:30:48.060 --> 00:30:49.860

Brian: test our loads of our winches.

166

00:30:52.350 --> 00:31:03.060

Brian: At first we were able to conduct these types of tests utilizing a crane up to the block lift the weight as opposed to a static tests, where we pull on a fixed point with the load sell online to read the tension.

167

00:31:04.080 --> 00:31:08.580

Brian: As our systems have increased in capability, we have exceeded the women to use in the crane, to be honest.

168

00:31:09.780 --> 00:31:11.430

Brian: Green method is awkward at best.

169

00:31:12.630 --> 00:31:17.010

Brian: Ideally, we would construct a fixed tower, that is in line with the pad to mount winches to.

170

00:31:17.550 --> 00:31:27.810

Brian: This would allow us to lift the actual ways to ensure the winch meets the rated working loads to ensure any auto render system is set up correctly and to ensure that the brakes can hold the rate of loads.

171

00:31:28.470 --> 00:31:38.670

Brian: This is something I feel we should have it should have been constructed, the very beginning of the wind school days the photo is an example of a system that's in use at hobbled that they use for this very purpose.

172

00:31:41.790 --> 00:31:52.050

Brian: And while this is more than the pret this item is more present than it is future, I find it to be very futuristic josh eaten approached me a few years ago.

173

00:31:52.560 --> 00:31:59.040

Brian: About suggesting to install network hubs indoor McCartney winches josh does like as gadgets.

174

00:32:00.000 --> 00:32:04.590

Brian: At the time, and intrigued me but I wasn't convinced that it would provide enough benefit to warrant us.

175

00:32:05.460 --> 00:32:23.610

Brian: I agreed to allow myself at one of our four systems with a hub as a test this hub is basically would allow josh to connect to the winch while it is that see where you can access any of the firmware parameter settings log files anything in the computer system via the Internet.

176

00:32:24.630 --> 00:32:31.230

Brian: does help provided benefits, on the very first deployment, one of our McCartney winches was auto rendering or is paying out.

177

00:32:31.980 --> 00:32:39.900

Brian: When the program value for maximum load was exceeded the setting had been installed in the shop before shipping using parameters provided by the user.

178

00:32:40.890 --> 00:32:50.460

Brian: josh was able to sit in this computer look at the loads of the wind that what it had been seeing and to make adjustments to the outer render function, allowing science to continue without much delay.

179

00:32:51.510 --> 00:32:57.660

Brian: This caught the attention of some of the other winch manufacturers and network hubs are now available many of their products.

180

00:32:58.620 --> 00:33:03.720

Brian: Because of this, we can all but eliminate the cost of having factory representatives travel to the wind school.

181

00:33:04.290 --> 00:33:13.830

Brian: For upgrades repairs or modifications, now we simply plug in at the shop and the vendor can upload new code or look at performance information without leaving their desk.

182

00:33:14.760 --> 00:33:22.830

Brian: And one final thing i'd like to just touch on with a lot of the texts, I know they are the busiest people on a vessel and any time I worked with a lot of you.

183

00:33:23.370 --> 00:33:33.750

Brian: And I know how hard you work, but we would greatly appreciate it, and during the use of one of our systems it see if you happen to think about it and you look at the system.

184

00:33:35.430 --> 00:33:46.080

Brian: There are there is a grease gun in every spare parts box that goes out whether our systems, we would love it if you wouldn't mind popping the grease gun on every week or two depending upon systems use.

185

00:33:46.530 --> 00:34:01.110

Brian: And just hitting desert fittings and the level wine dive bars, with a little bit of grease to keep things from moving along smoothly, we always ask our scientific users to do that, but it always doesn't always get the attention that it could use.

186

00:34:02.310 --> 00:34:03.210

Brian: Next slide please.

187

00:34:05.670 --> 00:34:07.080

Brian: So that is basically.

188

00:34:08.370 --> 00:34:23.130

Brian: The what our winter cool does I provided you with some insight into the east coast winch pool its people, its facilities and where it's going in the years to come, i'd be happy to try to answer any questions you might have at this time, thank you.

189

00:34:31.980 --> 00:34:34.440

Lee Ellett: do not see any questions in the chat.

190

00:34:42.390 --> 00:34:42.990

Lee Ellett: Okay.

191

00:34:44.640 --> 00:34:45.660

Lee Ellett: Thank you very much, Brian.

192

00:34:46.170 --> 00:34:46.620

Lee Ellett: Okay, why.

193

00:34:52.050 --> 00:34:56.010

Lee Ellett: Next up, we have Aaron Davis with nsf the.

194

00:34:56.040 --> 00:34:57.330

Aaron Davis: West Coast, which for.

195

00:35:00.360 --> 00:35:01.230

Aaron Davis: The morning.

196

00:35:02.850 --> 00:35:03.750

Lee Ellett: i'm Aaron Davis.

197

00:35:03.780 --> 00:35:11.430

Aaron Davis: Representing the west coast went cool operated by the scripps Institute of Oceanography next slide please.

198

00:35:14.400 --> 00:35:22.500

Aaron Davis: So, as many of you know, but those of you that don't know our mission is to provide an inventory of oceanographic winches for shared use.

199

00:35:23.010 --> 00:35:42.480

Aaron Davis: Our mission is provide them in good shape, and we hope to keep our inventory relevant to your needs we're primarily a source of winches and morning schoolers, but we have other machinery as well captain's pooling intention in gear and blocks next slide please.

200

00:35:46.890 --> 00:35:54.840

Aaron Davis: So how how we work we're primarily funded by nsf customers generally contact us via email or by phone.

201

00:35:55.320 --> 00:36:02.010

Aaron Davis: to let us know what their needs are, and then we tried to mismatch them with the piece of equipment that will work for them.

202

00:36:02.670 --> 00:36:14.370

Aaron Davis: We send it to the bestseller job site and we send it back when the project's done if the project is funded by nsf, then this is all done to no cost at no cost to the customer.

203

00:36:15.570 --> 00:36:24.510

Aaron Davis: But other institutions have to chip in by paying a day rate or rent to cover the cotton the Cross and the process freight next slide please.

204

00:36:27.120 --> 00:36:32.730

Aaron Davis: This year I didn't prevent present slide the each of our individual pieces of equipment to save time.

205

00:36:34.200 --> 00:36:37.230

Aaron Davis: Instead we're going to touch on one of the big things we've been up to.

206

00:36:38.370 --> 00:36:50.640

Aaron Davis: Over the past few years we've been working to improve our inventory of equipment one improvement that we felt was sorely needed was a replacement for a tasc schoolers For those of you that aren't familiar with them.

207

00:36:51.810 --> 00:36:54.030

Aaron Davis: Our customers using primarily to.

208



00:36:56.160 --> 00:37:08.580

Aaron Davis: deploy and retreat mornings, but there were designed for much lighter duty work on dry land so major components like pumps hydraulic motors and whatnot they were very quickly.

209

00:37:09.630 --> 00:37:23.940

Aaron Davis: They also don't have the strength of a marine winch that capable of heavy lifting very heavy things but they're not designed to withstand the dynamic loads that these things, create when the ship moves around so you try not to let them be used for picking up morning anchors.

210

00:37:25.440 --> 00:37:37.770

Aaron Davis: On the positive side, the school is were very simple to use they required almost no training so, our aim was to replace them with something that was equally he's easy to use, but with more power and strength.

211

00:37:38.880 --> 00:37:42.600

Aaron Davis: To this end, we added two new hobbled morning witches in 2020.

212

00:37:44.400 --> 00:37:50.970

Aaron Davis: The West Coast went pro got one and east coast points pulled up the other on the west coast we've got lots of positive feedback.

213

00:37:52.050 --> 00:37:56.970

Aaron Davis: Users find them very easy to use the tension meter is very welcome.

214

00:37:59.670 --> 00:38:14.370

Aaron Davis: People like to be able to deploy their moorings anchor first and recover them anchor last one it's more practical we discouraged doing that, from the tasc schoolers and the level wine we're told passes highest hardware very nicely.

215

00:38:16.590 --> 00:38:18.840

Aaron Davis: Although it wasn't designed for other stuff.

216

00:38:19.950 --> 00:38:33.570

Aaron Davis: It can automatically school any attention number between one quarter and three quarter inch diameter and it's built to accommodate slip rings, so we found it's a pretty good general purpose winch also it's been used several times.

217

00:38:34.950 --> 00:38:35.940

Aaron Davis: With good results.

218

00:38:37.890 --> 00:38:38.820

Next slide please.

219

00:38:42.600 --> 00:38:51.750

Aaron Davis: So these are, this is a new winch custom built winch and so naturally there have been some issues we're still working out the kinks.

220

00:38:54.510 --> 00:39:03.450

Aaron Davis: During see trials, we noticed that the winch would render line when lifting suspended mode, that is, if you lifted some, but something stopped and then went to lift it again.

221

00:39:04.020 --> 00:39:15.720

Aaron Davis: The load will be dropped a little bit before will be taken up by the winch we work with hobbled and found that this was a motor drive issue that we would be changed the program and that stopped.

222

00:39:16.890 --> 00:39:23.340

Aaron Davis: More recently, we got reports that the control lever was malfunctioning or the winch wouldn't pay in and out on the first try.

223

00:39:27.300 --> 00:39:37.290

Aaron Davis: Some of this is likely due to motor flexing the drive does take a moment to energize the the motor windings so that it can lift the load.

224

00:39:38.610 --> 00:39:45.450

Aaron Davis: And some of it may also be that there was a short and one of the cables so we're getting to the bottom of that.

225

00:39:45.900 --> 00:39:56.190

Aaron Davis: on its last place where we also had an issue with the main motor drive, there was a fault, we couldn't resolve, and so the the mission had to be accomplished in a way that didn't include the winch.

226

00:40:00.000 --> 00:40:08.160

Aaron Davis: So and and the dynamic breaking resistor We found that it was not watertight which obviously is a problem.

227

00:40:09.780 --> 00:40:15.960

Aaron Davis: The breaking resistor could short, if the got wet this wouldn't cause a personnel and equipment.

228

00:40:17.610 --> 00:40:27.150

Aaron Davis: casualty per se, because because of electrocution there is a GI like system on the wax that shuts power off to it, if there is a short.

229

00:40:27.660 --> 00:40:36.270

Aaron Davis: But obviously just having the wind stop unexpectedly in the middle of an operation as a safety hazard itself so we've sent.

230

00:40:36.960 --> 00:40:50.220

Aaron Davis: This went to Humboldt and the east coast, which is going as well in near future and they're going to correct all these outstanding issues they're going to replace the resistor with one that's watertight they've already done a lot of testing to figure out.

231

00:40:51.990 --> 00:41:03.510

Aaron Davis: Some of the issues that we've had one of which was recently the east coast, which was used to lift the vehicle and it dropped it on the deck and there was almost a personnel injury.

232

00:41:05.460 --> 00:41:19.410

Aaron Davis: So they're testing and as we speak, they found some we've had some good findings, one of which is if the winter is actually overloaded that as if it's lifting too much in order to protect the wine, the motor the.

233

00:41:20.940 --> 00:41:27.330

Aaron Davis: The motor drive cuts power to the motor, but it does not set the break, so this is going to be changed, obviously.

234

00:41:28.950 --> 00:41:33.180

Aaron Davis: And we hope to get these went back in 2022.

235

00:41:35.190 --> 00:41:38.070

Aaron Davis: back into the fleet and operating next slide please.

236

00:41:41.580 --> 00:41:53.790

Aaron Davis: go too far, could you go back there you go, so another another thing we've been doing the upgrade or inventory is we've had some pretty old sumac winches that we use the the light duty winch.

237

00:41:54.330 --> 00:42:09.360

Aaron Davis: And we wanted to replace some with That was something that was a newer appendix A and B compliance work, specifically at the tension meter and is capable of has an MTV is capable of handling the breaking strength of the line.

238

00:42:11.100 --> 00:42:26.550

Aaron Davis: We got one of these hobbled light duty winches to replace the see MAC a couple years ago initially it wasn't really well received and i'll tell you why the see MAC like the tsa schooler is dead simple to operate the joystick pan.

239

00:42:27.120 --> 00:42:43.290

Aaron Davis: You know call in pay out and that's kind of it, but the see MAC required a little bit of a little bit of research one had to get to know it and learn how to go through its menus at the program the the specific line that you're going to put on it so Level one properly.

240

00:42:44.760 --> 00:42:54.090

Aaron Davis: So, but users did figure these things out and eventually we're getting better feedback and and they're in constant use right now.

241

00:42:55.980 --> 00:43:04.320

Aaron Davis: For this reason we got a second one that we added to the pool in 2020 and we've gotten really good feedback about these.

242

00:43:05.520 --> 00:43:07.530

Aaron Davis: However, next slide please.

243

00:43:12.690 --> 00:43:14.640

Aaron Davis: There have been a couple issues with this winch.

244

00:43:16.290 --> 00:43:21.990

Aaron Davis: Right after we've deployed, the first one, I started getting complaints that the cooling fan was loud.

245

00:43:24.510 --> 00:43:35.640

Aaron Davis: But I didn't honestly think much about it, and one of the reasons I actually hadn't heard it when I actually heard the thing I thought wow that is quite loud but it's also we found that it was.

246

00:43:37.050 --> 00:43:45.330

Aaron Davis: The noise that created was above healthy lead levels, so what we're doing right now users, want to keep it air cooled that makes it.

247

00:43:45.990 --> 00:43:54.120

Aaron Davis: Almost self contained, we still have to plug it into electrical power but it's one less thing to worry about when you're installing it somewhere on the ship.

248

00:43:55.800 --> 00:43:59.010

Aaron Davis: So we're going to put a an intake silencer.

249

00:44:00.180 --> 00:44:02.040

Aaron Davis: on it and see if that works.

250

00:44:03.960 --> 00:44:07.410

Aaron Davis: And if that does not work, no we're just going to convert it to water cooling.

251

00:44:08.490 --> 00:44:18.840

Aaron Davis: What else there are fragile protruding things on this way we've had problems with on the top of the winds there that the picture, you can see sensors and.

252

00:44:20.880 --> 00:44:26.310

Aaron Davis: A breather for a tank and some other things sticking out of the winch these get knocked off.

253

00:44:28.290 --> 00:44:36.630

Aaron Davis: The joystick in the front, which you cannot see gets broken the human machine interface or touch screen gets busted so.

254

00:44:37.920 --> 00:44:44.070

Aaron Davis: A lot of this is just an issue of gardening things so we're creating guards around things of installing them as a break.

255

00:44:44.850 --> 00:44:59.970

Aaron Davis: And we're also making sure that those are spares that we're sending with the winch so if we break a we have a we have a pretty good set of stairs and we ship with this, but if we have a new thing breaks off and make sure that it's a nice bears been next time we ship the winch.

256

00:45:01.290 --> 00:45:05.250

Aaron Davis: and trace metals there's actually been used quite a few times for trace metal work.

257

00:45:06.570 --> 00:45:20.250

Aaron Davis: The only thing we really have to do to prepare for that is there's a there's a shave on the level wine it's aluminum or the cheeks of the sheep or aluminum, and so the the line gets against them, which is not great, for the traits metal work, so we just paid that.

258

00:45:22.200 --> 00:45:32.220

Aaron Davis: It seemed like a great solution, but actually the paint comes off and then the line touches the aluminum and the chase metal folks are not thrilled by that so we're going to work to get that aluminum.

259

00:45:33.660 --> 00:45:36.930

Aaron Davis: aluminum portions of the sheep replaced with something that's plastic and the.

260

00:45:38.550 --> 00:45:39.390

Aaron Davis: Next slide please.

261

00:45:42.390 --> 00:45:47.670

Aaron Davis: So are our winters have supported science funded by 11 different organizations this year.

262

00:45:49.890 --> 00:45:51.030

Aaron Davis: they've been deployed against.

263

00:45:52.260 --> 00:46:05.910

Aaron Davis: On 11 different vessels on many of these battles many times and we did spooling services, a lot of schooling services this year because of the downtime that some of the vessels notepad seven different vessels we explored on this year.

264

00:46:07.440 --> 00:46:08.370

Aaron Davis: Next slide please.

265

00:46:11.160 --> 00:46:13.230

Aaron Davis: And we did some engineering projects.

266

00:46:14.910 --> 00:46:26.400

Aaron Davis: Just so you know i'm available to do engineering projects or any institution in our Community this year I apologize, there have been a lot of I had to turn down quite a bit of work and, as I was.

267

00:46:27.300 --> 00:46:35.910

Aaron Davis: I was a homeschooling my son at home full time in addition doing my job, so there wasn't a whole lot of spare time nonetheless I got a few things done.

268

00:46:37.410 --> 00:46:46.800

Aaron Davis: On the Robert Gordon sproul we replaced the level wind on the market desk three wench and that allowed us to use a lower safety factor on its wire rope.

269

00:46:48.330 --> 00:46:56.070

Aaron Davis: Robert Gordon sproul had no hydraulic diagrams this is pretty hard for chief engineer that's never been on the boat that some of those made.

270

00:46:57.300 --> 00:47:02.190

Aaron Davis: Roger revelle came out of its midlife refit needing a new fire plan so I did that.

271

00:47:03.510 --> 00:47:03.990

Aaron Davis: What else.

272

00:47:06.060 --> 00:47:09.840

Aaron Davis: I evaluated Roger revelle the deck several times with different equipment on it.

273

00:47:13.200 --> 00:47:18.030

Aaron Davis: We do we do of course test our overboard handling systems.

274

00:47:20.100 --> 00:47:32.400

Aaron Davis: regularly but we found that we could probably test them in a way that more closely mimics how they used it see so we, I wrote new test procedures for these for our ships and were able to test the.

275

00:47:33.510 --> 00:47:45.660

Aaron Davis: site handling systems on rebel and Sally ride earlier this summer, and we hope to get the the APP systems tested later and also designed a radio mouth Robert Jordan spread.

276

00:47:47.220 --> 00:47:49.170

Aaron Davis: And next slide please.

277

00:47:51.300 --> 00:47:52.140

Aaron Davis: that's all i've got.

278



00:47:53.160 --> 00:48:01.980

Aaron Davis: So, as I mentioned earlier, customers contact us via email or phone call if you need to use one of our assets.

279

00:48:03.060 --> 00:48:06.030

Aaron Davis: me just give us a call or an email.

280

00:48:07.620 --> 00:48:09.090

Aaron Davis: There any questions, but you know.

281

00:48:12.720 --> 00:48:13.380

Alice Doyle: TIM go ahead.

282

00:48:13.860 --> 00:48:14.130

Alice Doyle: yeah I.

283

00:48:14.160 --> 00:48:19.080

James Holik: got a question for both of the polls this just came up recently so.

284

00:48:19.860 --> 00:48:22.230

James Holik: I got I got an email.

285

00:48:22.470 --> 00:48:28.200

James Holik: Saying that somebody was unhappy because they wanted to get a get a witch.

286

00:48:28.500 --> 00:48:30.270

Aaron Davis: And, but they weren't nsf they were.

287

00:48:30.270 --> 00:48:42.150

James Holik: On our funded and I thought wow i've never heard of this happening before So my question to you is when somebody that's not from nsf the nsf funded wants to reserve a winch.

288

00:48:42.600 --> 00:48:52.680

James Holik: Do what you do you say, well, no not until a certain time I I really didn't know how to answer that question so, can you guys tell me.

289

00:48:55.860 --> 00:48:56.910

Aaron Davis: Well i'll go first.

290

00:48:58.170 --> 00:49:06.060

Aaron Davis: So nsf funded projects do take priority, so if there's an then we don't typically we try not to bump somebody.

291

00:49:06.630 --> 00:49:14.880

Aaron Davis: like this one or visit a winch and then somebody else has nsf work we try not to we try to find other winches and whatnot that will meet everybody's needs.

292

00:49:15.390 --> 00:49:21.690

Aaron Davis: But, especially in scheduling, though, when we're just scheduling work to be done later, you know later this year and next year.

293

00:49:22.170 --> 00:49:35.550

Aaron Davis: We try to fill up the schedule with nsf work first and then after that we we loan at other institutions, or we or or the navy, or whoever, and we do not typically let.

294

00:49:36.810 --> 00:49:42.420

Aaron Davis: commercial entities use our winters except for unless we get special permission from so.

295

00:49:46.620 --> 00:49:47.730

James Holik: same with you, Brian.

296

00:49:52.500 --> 00:49:53.130

James Holik: Mr Gordon.

297

00:49:54.150 --> 00:49:55.260

James Holik: Well okay.

298

00:49:55.770 --> 00:49:59.400

Brandi Murphy (she/her): i'm sorry Brian had to leave at the half hour for another.

299

00:49:59.970 --> 00:50:00.630

James Holik: that's fine.

300

00:50:00.870 --> 00:50:02.610

James Holik: I assume it is somewhat the same.

301

00:50:03.630 --> 00:50:14.370

James Holik: So I guess that you don't let them reserve something until the schedules are cetera, what point is there a cut off time when you said Okay, you can reserve this now.

302

00:50:16.890 --> 00:50:17.520

um.

303

00:50:21.150 --> 00:50:31.290

Aaron Davis: No there's not really a cut off time like I say we just try to fill up the schedule with nsf funded work first I mean this typical we could typically typically.

304

00:50:33.810 --> 00:50:47.040

Aaron Davis: Answer almost any requests we get with a piece of equipment there's there's some equipment, like the morning schoolers, for example, we just run out or or more frequently, we have them but they're broke, so we have to look, we only have a limited number that.

305

00:50:47.280 --> 00:50:49.140

Aaron Davis: We can loan out at a given time.

306

00:50:52.710 --> 00:50:57.480

Aaron Davis: So is scheduled for nsf work we just say we don't have anything to offer you.

307

00:51:01.050 --> 00:51:01.650

James Holik: Okay.

308

00:51:07.320 --> 00:51:07.680

Lee Ellett: yep.

309

00:51:08.430 --> 00:51:08.670

Thanks.

310

00:51:13.710 --> 00:51:22.680

Alice Doyle: Yes, that's me, I just wanted to remind everyone that Aaron a lot of those projects that he worked on were for scripts but he is available for the whole fleet.

311

00:51:23.100 --> 00:51:31.050

Alice Doyle: So if you have any engineering sort of projects that you think Aaron or josh can help you with don't be afraid to reach out to them, they are for everyone.

312

00:51:39.360 --> 00:51:41.610

Lee Ellett: So next we have Joel salmon.

313

00:51:41.790 --> 00:51:43.320

Lee Ellett: With the you H desk.

314

00:51:43.350 --> 00:51:43.950

Program.

315

00:51:49.950 --> 00:51:50.460

Jules Hummon: All right.

316

00:51:52.680 --> 00:51:54.450

Jules Hummon: Okay, I guess i'm live, you can hear me right.

317

00:51:56.640 --> 00:51:56.970

Lee Ellett: yeah.

318

00:51:57.000 --> 00:51:58.020

Brandi Murphy (she/her): that's probably yes.

319

00:51:58.260 --> 00:51:58.590

Okay.

320

00:52:00.870 --> 00:52:05.460

Jules Hummon: Okay, well, I was expecting to do this tomorrow, so I have, I have this may be a little stumbling.

321

00:52:06.720 --> 00:52:21.600

Jules Hummon: But anyway, so there are two presentations for you hdfs and I tried to make it so that almost none of the slides overlap so there's some information here in this talk and there's also some information in the universe talk, which is 10 days from now, or so.

322

00:52:23.700 --> 00:52:38.940

Jules Hummon: In addition, my original allocation was 10 minutes so i'll see if I can keep this succinct, so we are you H DAS University of Hawaii data acquisition system, our goal is to create.

323

00:52:39.960 --> 00:52:41.670

Jules Hummon: or shepherd.

324

00:52:42.780 --> 00:52:58.710

Jules Hummon: The best real time or near real time chipboard a tcp data currents ocean currents possible on a ship with an eye towards long term use and recover ability if there's a problem we are primarily supported by nsf for the academic research fleet.

325

00:53:00.360 --> 00:53:14.400

Jules Hummon: And, but we also have us on all of the noaa ships and we received support from our as well as other institutions that have basically chartered you hts next slide.

326

00:53:18.450 --> 00:53:29.340

Jules Hummon: So there are 17 all ships and three polar ships, we have 11 Noah ships and six other ships, who pay a subscription to do this, there are two volunteer observing ships which are.

327

00:53:30.480 --> 00:53:40.020

Jules Hummon: Presently, in spaces, the which data aspect of them anyway, I counted up 78 at CPS that we're responsible for, so we do see a lot of data.

328

00:53:40.980 --> 00:53:50.040

Jules Hummon: usage data collected timestamps it writes it down does preliminary processing on it, the computer send there's an artsy website, if you go to the.

329

00:53:50.580 --> 00:54:04.830

Jules Hummon: Presentation the link should take you to the at the website, we get daily emails from each of the ships with daily automated status emails and we we read them to try to figure out what what kind of problems there might be.

330

00:54:06.540 --> 00:54:07.440

Jules Hummon: Next slide please.

331

00:54:10.050 --> 00:54:13.020

Jules Hummon: So this is a list of the actual ships, where things are installed and.

332

00:54:14.400 --> 00:54:16.020

Jules Hummon: I I could have had.

333

00:54:17.700 --> 00:54:26.970

Jules Hummon: Additional logos to indicate the funding sources that that that help us go everything we do is in support of the you H DAS.

334

00:54:27.870 --> 00:54:42.390

Jules Hummon: ecosystem, basically, and so, each one of these ships provides valuable information for us on what can possibly go wrong within a tcp or with an ancillary feed and we have been trying to improve our.

335

00:54:43.710 --> 00:54:45.120

Jules Hummon: Our plots on our monitoring.

336

00:54:46.380 --> 00:54:48.840

Jules Hummon: As well as algorithms for processing next slide.

337

00:54:52.710 --> 00:54:57.450

Jules Hummon: So this is kind of down in the weeds, but these are the things that are directly related to the.

338

00:54:58.620 --> 00:55:04.890

Jules Hummon: Ship operations, and so one thing that's new is that the bridge plot now has a.

339

00:55:05.520 --> 00:55:13.560

Jules Hummon: ghost outline of a ship showing the ship's orientation, so now, you can immediately look at the bridge plot you don't have to think about what the heading of the ship is.

340

00:55:13.860 --> 00:55:21.690

Jules Hummon: You look at the bridge plot, you can see where the ship is, and you can see that the currents are going off to the side in some direction it's it's a.

341

00:55:23.010 --> 00:55:38.490

Jules Hummon: It was a long time coming, but so Joseph added that earlier in the year, and as we update the ux DAS code on ships that will also become available, we have two new sets of plots the dga time diagnostic plots are.

342

00:55:39.840 --> 00:55:55.470

Jules Hummon: have been rolled out on warships because it started coming in, last year we we have found that temperature is an extremely valuable diagnostic if there's a problem with the temperature that generally suggests that there's a an ACP failure and our future.

343

00:55:57.720 --> 00:56:04.440

Jules Hummon: And so those plots are going to be available on the at sea website, as well as in our monitoring, as we do the updates.

344

00:56:05.460 --> 00:56:15.060

Jules Hummon: The speed log is available as a web torrent on the website at sea, we can also output it via cereal or UDP if you want to ingest that.

345

00:56:16.680 --> 00:56:29.070

Jules Hummon: We are monitoring the offset between the tcp and the GPS used for processing and so that is another number that we dial in and that helps get rid of pickups in the data between.

346

00:56:30.360 --> 00:56:40.020

Jules Hummon: On station and underway, or at least specifically and interns so if you're going on a line and you stopped to do a CD and you swivel the ship around two point into the wind.

347

00:56:40.380 --> 00:56:55.710

Jules Hummon: There used to be artifacts there if the tcp was in a very different place from the GPS, a huge example of that would be the heli where the tcp or I don't know 50 meters away from where the GPS is so the the artifact was quite large until we introduce that i'm.

348

00:56:57.090 --> 00:57:08.130

Jules Hummon: Because of the best practices subcommittee and the fact that I volunteered to spearhead some support ACP best practices, I got motivated to create a best practices for the.

349

00:57:08.550 --> 00:57:25.080

Jules Hummon: Best Practices page in the US as documentation, as we do updates that will also get rolled out to the ship and I welcome input on how to improve that another thing that recently got added is on, in addition to the.

350

00:57:27.060 --> 00:57:38.730

Jules Hummon: up to date, from the beginning of the crews to now net CDF file that the scientists can use i've also got it doing from the beginning of the day, two now so that, if they want to do frequent.

351

00:57:39.660 --> 00:57:46.710

Jules Hummon: data transfers they're not they're not re transmitting the entire thing it's just part of the day, those files, I believe, are under a megabyte apiece.

352

00:57:49.560 --> 00:58:01.500

Jules Hummon: As was mentioned earlier, Joseph Tom joined us from scripts and he has lots and lots of experience with ODS and going to see and CDs and programming and drew from UK has joined us from.



353

00:58:02.340 --> 00:58:11.880

Jules Hummon: From Colorado where he was doing doppler but in the air, not not undersea oh and we're hiring if you click on the link you've still got a week to apply.

354

00:58:13.140 --> 00:58:13.710

Jules Hummon: Next slide.

355

00:58:18.600 --> 00:58:22.830

Jules Hummon: So this is just a screenshot of what the bridge plot looks like and you can see the.

356

00:58:24.810 --> 00:58:35.010

Jules Hummon: The ship in Gray, and the currents pointing slightly off to the left this happens to be at sea in port so it's the currents are not going very fast.

357

00:58:36.180 --> 00:58:36.720

Jules Hummon: Next slide.

358

00:58:41.160 --> 00:58:47.100

Jules Hummon: So we had a problem with two ships one Noah ship and one you know i'll ship when they came out of a an import period.

359

00:58:47.790 --> 00:59:02.580

Jules Hummon: There was this other junk at the bottom of the profiles, this is typically due to electrical interference and often has to do with either the ACP cable being too close to a power source or.

360

00:59:04.020 --> 00:59:19.230

Jules Hummon: we've also seen this happen when when the ups what got changed the ups had its own switching frequency that was very close to the frequency of the instrument, there is nothing we can do about this problem, except to solve it by.

361

00:59:20.340 --> 00:59:22.590

Jules Hummon: Moving the cable moving the deck unit.

362

00:59:24.030 --> 00:59:26.190

Jules Hummon: searching for Aaron grounds or.

363

00:59:28.560 --> 00:59:33.450

Jules Hummon: it's very difficult problem to diagnose and treat and you can't do it in the.

364

00:59:35.880 --> 00:59:45.120

Jules Hummon: it's not something we can fix in post processing, we can try to eliminate it, but basically you just have to delete stuff and that's that's unacceptable next slide.

365

00:59:47.430 --> 01:00:02.070

Jules Hummon: i'll be quick on this one, basically, the slide changes every presentation from one year to the next year the numbers of the years, get updated so we're running a 2018 operating system on most ships, we have now gotten everything working under the.

366

01:00:03.630 --> 01:00:08.070

Jules Hummon: A long term stable release and we've got that out on four ships.

367

01:00:09.690 --> 01:00:14.850

Jules Hummon: We will be in touch about upgrades I don't imagine that we're actually going to be traveling to any ships until maybe spring.

368

01:00:15.150 --> 01:00:27.120

Jules Hummon: But we can take advantage of import periods and have either you ship us the computer or we can work with people that have sufficient Linux experience to be able to get you to put the.

369

01:00:28.290 --> 01:00:31.830

Jules Hummon: Put the operating system on and then put it on the network, and we can.

370

01:00:33.210 --> 01:00:35.970

Jules Hummon: Do it remote do it remotely next slide.

371

01:00:39.120 --> 01:00:55.260

Jules Hummon: Okay, this is a list of all the things that happened with the academic research fleet at CPS and because that's 20 ships, but we're dealing with 40 ships, the number of problems were basically doubled this, but we had problems with corrosion at the transducer end of the cable.

372

01:00:57.930 --> 01:01:09.060

Jules Hummon: resulting in problems of one ocean surveyor and one more course 300 in those kinds of cases, if you don't actually get water into the instrument you replace the bulkhead connector on the cable.

373

01:01:10.290 --> 01:01:12.450

Jules Hummon: The Thompson was the one with the electrical noise.

374

01:01:13.980 --> 01:01:19.440

Jules Hummon: We have had two problems with temperature that showed up and they were followed by a failure of the instrument.

375

01:01:21.030 --> 01:01:28.140

Jules Hummon: There was one case where the cable for the ocean surveyor was terminated at the deck end by rti and.

376

01:01:29.580 --> 01:01:42.180

Jules Hummon: They in a rare in a rare situation they got two lines swapped, and so the there were two beams that were swapped so that ship had to live with a way to figure that out and fix it and software for three months before they came and fix the cable.

377

01:01:44.100 --> 01:01:50.520

Jules Hummon: Low background we bought anyway, a tcp failures exists, and this is a catalog of them.

378

01:01:52.050 --> 01:01:58.440

Jules Hummon: it's not been a bad year it's been a pretty typical year some of these things take a lot of time to troubleshoot next slide.

379

01:02:01.800 --> 01:02:17.460

Jules Hummon: it'd be X two if an antenna goes bad, then we lose heading that happened in at least one ship and perhaps to this year we've had two different cases of a sea path having reduced quality or dead reckoning in the universe.

380

01:02:19.170 --> 01:02:24.870

Jules Hummon: In the universe talk i'll show you a picture of that on there have been problems with.

381

01:02:25.260 --> 01:02:35.460

Jules Hummon: data transmission over networks, so we can get gaps are duplicated messages when network switches are not behaving correctly or when drivers are not behaving correctly.

382

01:02:36.360 --> 01:02:46.680

Jules Hummon: We can have situations where there's a UDP feed that we're collecting data from and what's at the other end of that is not what we were told, or there are two things coming in, on that same port.

383

01:02:47.400 --> 01:02:54.330

Jules Hummon: You can have the same problem with cereal so with serial you can have a poor connection and it wiggles and mix junk in the.

384

01:02:55.680 --> 01:02:58.440

Jules Hummon: mix junk in the data set you can't win.

385

01:02:59.460 --> 01:03:16.080

Jules Hummon: There is one computer one installation that's a virtual computer and I would not say that that is perfect the computer time is jumpy by not more than one, second, thank goodness, but fractions of a second and the whole system is vulnerable to network problems next slide.

386

01:03:20.250 --> 01:03:25.020

Jules Hummon: Coming up in 2022 we're going to be moving to the in spring the.

387

01:03:26.430 --> 01:03:32.670

Jules Hummon: X ubuntu operating system will come out so probably sometime in the summer we'll start trying to modernize to that one.

388

01:03:34.560 --> 01:03:40.110

Jules Hummon: And then we'll start testing it and I don't know whether it will be rolling out rolling it out in 2022.

389

01:03:40.560 --> 01:03:54.300

Jules Hummon: or not because of coven there may be some ships that go from 1804 to 2204 I don't think we're going to try to get everybody up to 2004 before moving forward, but we'll see like I said we're hiring one more person that person is.

390

01:03:55.980 --> 01:04:04.500

Jules Hummon: would be helping us with the emails and troubleshooting and installation, etc, we will continue with improvements.

391

01:04:04.980 --> 01:04:12.450

Jules Hummon: In documentation and also more in the universe talk we're going to be testing the hoops the pinnacle is not on the Sally ride.

392

01:04:12.960 --> 01:04:25.560

Jules Hummon: that's on the Neil Armstrong that's a big typo my apologies to the Neil Armstrong the pinnacle 45 is an rti instrument and that's going to be tested in January on the Neil Armstrong the.

393

01:04:26.820 --> 01:04:27.870

Jules Hummon: Is a conch Berg.

394

01:04:28.920 --> 01:04:44.340

Jules Hummon: doppler sonar convert a tcp that we're going to be testing on the Sally ride i'll fix that slide brandon don't release this yet um and cyber security impacts ucsd is going to be forbidding us to use email to get our.

395

01:04:45.360 --> 01:04:52.410

Jules Hummon: automated emails off the ship, starting in 2022 so we're we're going to have to figure out what to do about that and, last but not least, um.

396

01:04:53.640 --> 01:05:01.740

Jules Hummon: I would like to encourage people to go to the Community channel that says you H DAS, and let me know if you're interested in some.

397

01:05:02.940 --> 01:05:10.620

Jules Hummon: Huge ass training, so this is specifically for operating us DAS sort of an introductory thing for people who are new I had a request from.

398

01:05:13.920 --> 01:05:25.710

Jules Hummon: Alex on the pelican not Alex ren but Alex ham on the pelican who wanted to know whether we gave any training so yes Alex we do sign up for it and we'll figure something out next slide.

399

01:05:27.840 --> 01:05:37.530

Jules Hummon: This is a you if you look at the presentation later, you can read this this slide is something that happens every year and we still have the same requests, let us know when things change.

400

01:05:39.150 --> 01:05:41.700

Jules Hummon: and give us lots of warning that's the summary and last slide.

401

01:05:45.510 --> 01:06:00.900

Jules Hummon: Here we are in our happy meeting with coven we have a daily meeting it starts at 1130 right before lunch, so it doesn't last very long, and we all tune in and that's what we do, we don't generally go into work, but there we are smiling for the camera.

402

01:06:02.190 --> 01:06:04.020

Jules Hummon: that's it I should quit.

403

01:06:06.150 --> 01:06:08.430

Lee Ellett: You great Thank you, thank you, Charles.

404

01:06:08.730 --> 01:06:12.150

Jules Hummon: Please put your questions in the in the Community who he is.

405

01:06:12.240 --> 01:06:12.690  
channel.

406  
01:06:14.970 --> 01:06:17.280  
Lee Ellett: yep yep we're gonna move on to.

407  
01:06:18.930 --> 01:06:21.540  
Lee Ellett: retracts tasks a presentation.

408  
01:06:22.440 --> 01:06:25.830  
Brandi Murphy (she/her): rick would you prefer to share your presentation, or would you like me to do it.

409  
01:06:26.460 --> 01:06:33.510  
Rick Trask: If you can do it, that would be, it would be very good I have enough time seeing things as it is here.

410  
01:06:36.240 --> 01:06:40.800  
Lee Ellett: And then we can then questions for Jules can be in the in the Community, like she asked some.

411  
01:06:43.020 --> 01:06:51.090  
Lee Ellett: Questions we can get those instruments got the week and, so now we have rick rick trask the nsf wire pomona manager.

412  
01:06:51.840 --> 01:06:52.800  
Rick Trask: Okay, thank you.

413  
01:06:53.910 --> 01:06:54.510  
Rick Trask: Next slide.

414  
01:06:57.210 --> 01:07:06.090  
Rick Trask: So a couple of things i'd like to go over one is a quick overview of the wire pool for those people who may not be really familiar with it.

415

01:07:06.780 --> 01:07:16.710

Rick Trask: i'd like to just point out the user's guide to the wire pool database talk a little bit about a lubrication study that we're playing with and then.

416

01:07:18.000 --> 01:07:19.920

Rick Trask: mentioned some things about a.

417

01:07:21.030 --> 01:07:26.640

Rick Trask: An additional point of reference for noting tension Member events so next slide.

418

01:07:32.220 --> 01:07:35.250

Rick Trask: I don't see the slide so it's hard for me to know if it's up or not.

419

01:07:38.010 --> 01:07:40.260

Brandi Murphy (she/her): says Why are people over the overview.

420

01:07:40.830 --> 01:07:53.670

Rick Trask: yeah okay so, unlike the winch pools there's only one wire pool that services all urinals vessels, we maintain an inventory of tension members that are commonly used by those vessels.

421

01:07:54.960 --> 01:08:12.870

Rick Trask: When a vessel needs attention Member we feel those requests and put together a request package that includes the original request plus some information about the vessel and about available inventory and that package is then sent to nsf and with their approval the tension members distributed.

422

01:08:14.550 --> 01:08:22.230

Rick Trask: We also are funded to test samples of wire rope cables and fence synthetics that are sent to us from urinals vessels.

423

01:08:22.800 --> 01:08:35.370

Rick Trask: And addition in it, in addition, we maintain a database that contains much of the history about each vessels tension members which can be accessed by the vessel operator or their designate.



424

01:08:36.510 --> 01:08:45.150

Rick Trask: So this brings me to the second topic which is the user's guide for navigating the database so next slide please.

425

01:08:47.700 --> 01:08:51.750

Rick Trask: And then I hope the one that follows, which is.

426

01:08:53.670 --> 01:08:56.280

Brandi Murphy (she/her): Yes, wonderful database user's guide what it is.

427

01:08:57.000 --> 01:09:03.420

Rick Trask: So the user's guide contains all the details that you would ever want for navigating and using the database.

428

01:09:04.770 --> 01:09:21.390

Rick Trask: Probably the better section, it also contains a section with abbreviated for each section abbreviated instructions, when all you need is a quick refresher on how to do something without all the excruciating details.

429

01:09:22.800 --> 01:09:45.840

Rick Trask: On next slide the user's guide is located on several places one is on the login page on the left hand side i've got it circled in red their next slide the second place for those vessels or for those institutions that have more than one vessel.

430

01:09:48.180 --> 01:10:09.330

Rick Trask: You see this this view and the user guide is on the left, if you are if you're institutionally has one vessel you don't see this view, but in that case next slide you would see the user guide or you would be able to access the user guide from the ship report page.

431

01:10:10.950 --> 01:10:13.230

Rick Trask: So that's on the upper right there.

432

01:10:14.910 --> 01:10:15.450

Rick Trask: Next slide.

433

01:10:18.780 --> 01:10:22.290

Rick Trask: I hope that that says you lubrication study update.

434

01:10:24.060 --> 01:10:26.190

Brandi Murphy (she/her): yeah and then the next one purpose.

435

01:10:26.280 --> 01:10:27.090

Rick Trask: and the next one.

436

01:10:29.400 --> 01:10:45.570

Rick Trask: let's see the next one Okay, so the lubrication study was designed to compare the condition of a cable that's lubricated once a year to one that is lubricated monthly as part of a normal ctv recovery at sea.

437

01:10:47.430 --> 01:11:03.420

Rick Trask: And the way we went about this, as we took six samples all 10 meters of three to two and we submerge them in the off of the WHO we dock daily Monday through Friday for several hours.

438

01:11:04.200 --> 01:11:14.820

Rick Trask: After their summers they're pulled out coiled and hung outside in the weather, without any first water rinse and remain there till the next day.

439

01:11:16.110 --> 01:11:27.600

Rick Trask: One group of samples, that would be the one to in samples one, two and three there lubricated monthly and the other group samples, four, five and six I lubricated annually once a year.

440

01:11:28.680 --> 01:11:37.800

Rick Trask: The lubricant crew corrosion inhibitor is a is the applied by a core loop system using renard Ild to.

441

01:11:38.940 --> 01:11:39.510

Rick Trask: So.

442

01:11:40.680 --> 01:11:52.710

Rick Trask: The monthly lubrication of the group one samples his job is done, just as the samples come out of the water no rinsing know drying they come out of the water they go through the lubricate or.

443

01:11:53.580 --> 01:12:04.650

Rick Trask: Every six months a test article is taken from each group and a break test is inspected are rather braked us and closer inspection is made under a microscope.

444

01:12:06.420 --> 01:12:17.160

Rick Trask: we're currently 2021 months into a 60 month project, we would like to run this for five years, if at all possible, because that's kind of a typical life for a CT cable.

445

01:12:18.630 --> 01:12:23.940

Rick Trask: Barbara callahan has been the driving force and making sure that this whole study.

446

01:12:25.110 --> 01:12:31.320

Rick Trask: moves ahead in terms of getting those samples in the water, every day, so it's been a big big big help their.

447

01:12:32.340 --> 01:12:33.450

Rick Trask: Next slide please.

448

01:12:34.470 --> 01:12:43.140

Rick Trask: So you should see a couple of pictures hopefully on the left is a photo of the smaller well in the ui Doc where the samples are hung.

449

01:12:44.100 --> 01:12:56.550

Rick Trask: In seawater and then on the right is a picture of the mobile lubricate or card that we use to lubricate the samples as as they come out of the water so justice those samples are pulled out.

450

01:12:57.180 --> 01:13:13.170

Rick Trask: After being in for several hours they when, at the time when they're going to get lubricated they run through that lubricate or get coiled up and again hung outside there's no no rinsing know washing no drying comes out of the water, just like it would be coming out after CD station.

451

01:13:16.110 --> 01:13:16.890

Rick Trask: Next slide please.

452

01:13:18.510 --> 01:13:28.230

Rick Trask: So preliminary results from the lubrication studies show that the sample that's received monthly lubrication has zero eking breaks to date.

453

01:13:28.890 --> 01:13:46.410

Rick Trask: But the sample that is only lubricated the annually has started to have some inner Armor wires break during the E King test, and you can see that in June on sample for June 2021 sample for the King of resolved was 11% of the metallic cross sectional area.

454

01:13:47.580 --> 01:13:56.910

Rick Trask: The breaking strengths are dropping from what they were when the cable was new, but they are still above the manufacturers minimum.

455

01:13:57.780 --> 01:14:12.330

Rick Trask: The lowest, one of which is the most recent from the most recent test of the sample that is only lubricated annually, so that would be sample for and that's broke recently at 10,980 pounds.

456

01:14:14.370 --> 01:14:18.390

Rick Trask: So in appearance, if you look at the next slide please.

457

01:14:19.440 --> 01:14:28.560

Rick Trask: The on the left, this is photograph taken with the up close magnified the sample on the left.

458

01:14:30.210 --> 01:14:42.480

Rick Trask: Is from number of sample number ones it's the ones that are being lubricated monthly and sample number fours photographed on the right, you can see, has a lot more corrosion.

459

01:14:44.610 --> 01:15:04.470

Rick Trask: The annual annually lubricates samples definitely showing them more more corrosion all of the annually lubricated samples are becoming more difficult to coil, presumably because the individual wires are being inhibited inhibited from moving due to the advanced corrosion.

460

01:15:07.980 --> 01:15:08.970

Rick Trask: Next slide please.

461

01:15:09.990 --> 01:15:26.280

Rick Trask: So i'd like to make a pitch for adding a new reference for noting tension Member events to whatever you're currently using, so this is not a instead of this is a pitch to add this reference next slide.

462

01:15:28.200 --> 01:15:32.370

Rick Trask: So hopefully it's a cartoon of a ship with the.

463

01:15:33.570 --> 01:15:55.050

Rick Trask: winch and a frame and package being lowered, so this figure is set as to set the stage for ways that can be used to report events occurring with attention Member vessels often report the length of wire out w O, which has usually been zeroed when the package is being lowered.

464

01:15:56.760 --> 01:16:00.690

Rick Trask: At the when the packages at the at the water surface.

465

01:16:01.800 --> 01:16:10.560

Rick Trask: and additional approach is to make note of the length or distance from the dry end that would be the end of the at the core of the winch.

466

01:16:12.510 --> 01:16:13.350

Rick Trask: Next slide please.

467

01:16:14.370 --> 01:16:22.650

Rick Trask: So to illustrate the advantage of using the distance from the dry and I offer the following very simple example not to insult your intelligence.

468

01:16:23.220 --> 01:16:37.530

Rick Trask: But suppose you start with attention Member that's 10,000 meters long and an event of some kind, say attention event occurs when you've got the 1200 meters out or wire out.

469

01:16:38.670 --> 01:16:40.680

Rick Trask: And this location.

470

01:16:42.120 --> 01:16:50.190

Rick Trask: is the same as at 800 meters from the dryer 10,000 miles 1200 meters da da hundred.

471

01:16:52.470 --> 01:17:06.840

Rick Trask: If you continue to use the tension Member, you need to cut back and return as you end up coming back say 100 meters, so the location of the previous tension event is now at 1100 meters because you've cut off 100 meters.

472

01:17:07.950 --> 01:17:11.850

Rick Trask: From the West end but it's still at 800 meters from the dryer.

473

01:17:12.960 --> 01:17:16.020

Rick Trask: And then say you continue, and you have to cut back another 200 meters.

474

01:17:18.420 --> 01:17:26.070

Rick Trask: puts the location of the previous tension event now at 900 meters but it's still at 800 meters from the dry and.

475

01:17:27.690 --> 01:17:40.860

Rick Trask: So the event location relative to the web and changes with every cut back, but when using the dry end as the reference location doesn't change except, of course, if you are you in forever the wire.

476

01:17:42.420 --> 01:17:44.130

Rick Trask: So next slide please.

477

01:17:45.870 --> 01:18:05.640

Rick Trask: So the benefits include less bookkeeping to track the location of events when also when the total length of tension Member becomes less than the recorded distance to an event from the dry end the affected areas, no longer concern you actually gets cut off.

478

01:18:07.410 --> 01:18:16.080

Rick Trask: tracking event locations, is going to be valuable when evaluating the condition of specific locations along attention Member.

479

01:18:16.860 --> 01:18:26.550

Rick Trask: This is particularly true for synthetics where we're going to need to obtain a history of tension location tension frequency and rope degradation.

480

01:18:27.540 --> 01:18:39.720

Rick Trask: We will hopefully be able to cut out a suspect section of synthetic growth and test it, this will allow us to evaluate the impact of certain operations on rope condition.

481

01:18:40.320 --> 01:18:47.970

Rick Trask: We have very little experience with synthetics and we're going to need to gather this information before real really feel comfortable with.

482

01:18:49.140 --> 01:18:53.610

Rick Trask: deciding what safety factors should be used with synthetics.

483

01:18:55.410 --> 01:19:04.980

Rick Trask: Something that has been not done in the past is splice a new section of rope to replace the degraded section, so we can cut out a section, we can test it.

484

01:19:05.460 --> 01:19:12.210

Rick Trask: But we don't necessarily have to shorten the rope we can throw in a new section splice it in place and continue on, so this is a new.

485

01:19:12.930 --> 01:19:25.530

Rick Trask: feature that we're not used to with synthetics, so I would really I asked you to consider adding this reference to However, you are currently noting events now.

486

01:19:26.130 --> 01:19:37.350

Rick Trask: So that we can going forward, we can get used to it, and when we put synthetics into place will have a way to evaluate to their condition and know where those tension tension events occurred.

487

01:19:39.330 --> 01:19:40.140

Rick Trask: And I think that's it.

488

01:19:41.460 --> 01:19:42.150

Rick Trask: The questions.

489

01:19:45.210 --> 01:19:56.190

Brandi Murphy (she/her): Unfortunately, we are out of time for questions today, but I would encourage individuals to reach out to rick via email with questions.

490

01:19:57.480 --> 01:20:10.650

Brandi Murphy (she/her): we're going to have to end the session so that we can start our speed networking event and get it in before the annual meeting, so thank you rick for that that was really interesting, particularly with the new reference.

491

01:20:11.670 --> 01:20:21.210

Brandi Murphy (she/her): stuff and hopefully we'll see everyone in a few minutes in the speed networking, you can find it under Agenda sessions.

492

01:20:22.470 --> 01:20:28.020

Brandi Murphy (she/her): And then it's are under Agenda it's right below sessions for speed network so we'll see you there.



26 October 2021 - Tuesday

## Introduction, Icebreakers & Agencies

1

00:00:08.730 --> 00:00:09.360

Brandi Murphy (she/her): you're bringing.

2

00:00:21.600 --> 00:00:23.280

Brandi Murphy (she/her): Okay, I think we might.

3

00:00:24.660 --> 00:00:31.290

Brandi Murphy (she/her): mentioned that yesterday was a success, I think not let's positive feedback and it's good to see everyone interacting in the APP.

4

00:00:32.580 --> 00:00:44.970

Brandi Murphy (she/her): You know we've got some pictures uploaded some MacGyver posters are done, they can check out and we have a couple of posters that have scheduled live sessions now so it's worth checking out there.

5

00:01:32.010 --> 00:01:34.140

Brandi Murphy (she/her): Okay yep i'm getting it started.

6

00:01:35.370 --> 00:01:35.610

Brandi Murphy (she/her): But.

7

00:04:33.780 --> 00:04:36.570

Lee Ellett: files are still file is still uploading.

8

00:04:39.120 --> 00:04:39.600

Lee Ellett: um.

9

00:04:41.400 --> 00:04:50.250

Lee Ellett: You haven't upgraded my I downgraded my Internet when we moved and I haven't upgraded it again because it's working fine, but I see your status fast is.

10

00:04:51.540 --> 00:04:55.950

Lee Ellett: cool is it does it work at this price.

11

00:05:07.980 --> 00:05:08.610

Lee Ellett: Oh you're muted.

12

00:05:10.920 --> 00:05:13.440

Brandi Murphy (she/her): Sorry, I typed loudly, so I got.

13

00:05:13.920 --> 00:05:21.720

Brandi Murphy (she/her): That one typing but I realized that I should probably set a vacation response, which is like if it's not our be tech related you're not going to hear.

14

00:05:26.760 --> 00:05:27.270

Lee Ellett: yeah.

15

00:05:36.270 --> 00:05:36.840

Brandi Murphy (she/her): Okay.

16

00:05:38.130 --> 00:05:42.690

Brandi Murphy (she/her): How do you feel about letting people in.

17

00:05:46.020 --> 00:05:46.830

Lee Ellett: I.

18

00:05:54.330 --> 00:05:55.380

Lee Ellett: say we do it yeah.

19

00:05:58.470 --> 00:05:59.490

Computers falling.

20

00:06:34.260 --> 00:06:41.670

Lee Ellett: Good morning, everyone I think we'll just wait until a few people joining still so we got we got a few minutes before we.

21

00:06:42.750 --> 00:06:43.530

Lee Ellett: get started.

22

00:07:47.970 --> 00:07:48.810

Robert Sparrock: hello, can you hear me.

23

00:07:50.190 --> 00:07:51.150

Lee Ellett: Yes, good morning rob.

24

00:07:51.240 --> 00:07:52.170

Lee Ellett: If we can hear you.

25

00:07:53.430 --> 00:07:57.390

Lee Ellett: it's good wait two more minutes before we start right at 10.

26

00:07:59.610 --> 00:08:00.360

Lee Ellett: Thank you for joining.

27

00:08:02.340 --> 00:08:03.840

Robert Sparrock: Interesting technology.

28

00:08:08.490 --> 00:08:10.380

Robert Sparrock: makes me feel old like Jim.

29

00:08:11.370 --> 00:08:12.660

James Holik: yeah exactly.

30

00:08:16.140 --> 00:08:18.390

Robert Sparrock: And this i'm in the right room for the one o'clock.

31

00:08:20.040 --> 00:08:20.430

James Holik: so far.

32

00:08:20.460 --> 00:08:23.250

Lee Ellett: Yes, yes yep, this is the right session.

33

00:08:52.890 --> 00:08:56.070

Robert Sparrock: i'm sorry just to confirm i'm on the agenda today right.

34

00:08:57.210 --> 00:08:58.650

James Holik: yep yep.

35

00:08:59.940 --> 00:09:00.300

Robert Sparrock: Okay.

36

00:09:16.800 --> 00:09:17.550

Lee Ellett: Okay, everyone.

37

00:09:18.960 --> 00:09:21.300

Lee Ellett: Thank you for joining a rv tech.

38

00:09:22.380 --> 00:09:24.570

Lee Ellett: 2021 day to virtual meeting.

39

00:09:27.540 --> 00:09:36.090

Lee Ellett: So far, the APP seems to be working well, the application, the software for the for the meeting seems to be working well there's a lot of interaction.

40

00:09:37.530 --> 00:09:39.570

Lee Ellett: With the ice breakers, and in the.

41

00:09:40.680 --> 00:09:42.840

Lee Ellett: On the meeting website.

42

00:09:44.910 --> 00:09:52.500

Lee Ellett: And Sam a couple of announcements and then we'll get started with we'll start with a continuing icebreakers.

43

00:09:54.870 --> 00:09:57.720

Lee Ellett: And if I get a little bit if you if you're not.

44

00:09:58.080 --> 00:09:59.310

Speaking if you can mute.

45

00:10:02.220 --> 00:10:02.580

Lee Ellett: The.

46

00:10:05.040 --> 00:10:14.430

Lee Ellett: It will start with icebreakers, then we will have been jimbo Jim holic and rob spirit will speak a little bit before we.

47

00:10:15.660 --> 00:10:30.780

Lee Ellett: Then we'll before the next session so that's how it will start this morning, a couple of announcements that I have are one of the rv or see safety standards have been released, their their live on the universe website so you can check those out electronically.

48

00:10:32.430 --> 00:10:42.630

Lee Ellett: And to check out there's been some additions to poster sessions there's some live poster sessions, so please check the meeting website for the poster sessions and.

49

00:10:43.920 --> 00:10:47.190

Lee Ellett: Looking forward to seeing those later later today.

50

00:10:49.980 --> 00:11:03.720

Lee Ellett: So, to start with start with icebreakers unless brandi has anything else dishes anything we'll start with a icebreakers first up is Max Kramer from you h.

51

00:11:09.210 --> 00:11:11.880

Maximilian Cremer: Yes, hi guys glad to be here.

52

00:11:13.170 --> 00:11:21.270

Maximilian Cremer: brandy, should I share mine, I have an updated one, there was a picture missing, all the way on the right side is that possible.

53

00:11:21.660 --> 00:11:22.230

Brandi Murphy (she/her): Sure go ahead.

54

00:11:26.520 --> 00:11:36.090

Maximilian Cremer: Okay, so if you don't mind i'd like to stay in this presentation mode because it enables me to zoom in just a little bit more.

55

00:11:37.020 --> 00:11:48.840

Maximilian Cremer: At you H, the ocean technology group we service, the science operations of the research vessel killer wanna software so i'm sure most of you are familiar with it.

56

00:11:50.460 --> 00:11:59.190

Maximilian Cremer: I am the tech manager and, unfortunately, all our techs are either etsy currently or on leave well deserved leave.

57

00:12:00.660 --> 00:12:10.770

Maximilian Cremer: We started with our youngest guy lance fry Meyer he's from upstate New York interesting background on him, Mr T is actually a deer a farmer he's a.

58

00:12:12.060 --> 00:12:22.320

Maximilian Cremer: he's but he is very happy to be out here, this is reportedly his dream job he's holding up a fossil gold color gold coral kula mana mana how May.

59

00:12:23.580 --> 00:12:23.940

Maximilian Cremer: These are.

60

00:12:25.110 --> 00:12:38.190

Maximilian Cremer: Some of the oldest organisms colonial organisms on earth just recovered recently on our trip to the northwestern hawaiian islands, moving on to Giuliana deal she's a.

61

00:12:39.330 --> 00:12:42.450

Maximilian Cremer: Our at this point, our soul female technician.

62

00:12:43.470 --> 00:12:57.630

Maximilian Cremer: Very accomplished senior tech she's also an hour of the pilot, in the meantime and has joined the arm the US marine Center dive group to perform scientific diving.

63

00:12:58.470 --> 00:13:11.490

Maximilian Cremer: Giuliana is a specialist in in all things acoustic please contact her if you have any questions about that I need some help on the killer wanna with that our senior technician Jeff car.

64

00:13:12.810 --> 00:13:13.230

Maximilian Cremer: Is.

65

00:13:14.430 --> 00:13:21.780

Maximilian Cremer: Reportedly, according to himself has a very high IQ for a parrot he's.

66

00:13:23.280 --> 00:13:38.250

Maximilian Cremer: Mostly rigging over boarding safety is also has just recently acquired a 65 Tom crane license or it comes in very handy doing loading and unloading and then we have our.

67

00:13:39.360 --> 00:13:40.830

Maximilian Cremer: It network guy.

68

00:13:41.850 --> 00:13:44.670

Maximilian Cremer: Trevor young busy employing his.

69

00:13:45.930 --> 00:13:52.140

Maximilian Cremer: His most trusted tool on the positive be and this this iteration Thank you.

70

00:13:59.310 --> 00:14:05.160

Lee Ellett: Thank you very much, and next up, we have Kevin jaron from the map multivitamin visor good.

71

00:14:07.140 --> 00:14:08.070

Kevin Jerram: afternoon everybody.

72

00:14:09.150 --> 00:14:21.240

Kevin Jerram: i'm Kevin germ from the Center for coastal no should not thing at the University of new Hampshire and I work on the Multi beam advisory committee with Paul Johnson, also from see calm unh.

73

00:14:22.530 --> 00:14:43.260

Kevin Jerram: And the gift rainy at Vermont dirty earth Observatory at Columbia University so we're funded by the nsf to provide support remotely and in person to all the you know ships with any multi beam related issues, see acceptance testing quality assurance testing troubleshooting underway.

74

00:14:44.820 --> 00:14:49.140

Kevin Jerram: Anything that comes up we'd love to hear from you and we want to be a resource for you.

75

00:14:50.310 --> 00:14:56.010

Kevin Jerram: will have a session later this afternoon and get into some details about lessons learned over the last year.

76

00:14:58.110 --> 00:14:58.470

Kevin Jerram: Thanks.

77

00:14:59.610 --> 00:14:59.850

Thank you.

78

00:15:03.150 --> 00:15:07.350

Lee Ellett: Next up is lauren tunnel with university of Washington.

79

00:15:09.240 --> 00:15:15.270

Loren B Tuttle: hi everyone, thank you for having me today and apologize for the lack of tech pictures.



80

00:15:16.890 --> 00:15:17.250

Loren B Tuttle: We.

81

00:15:18.690 --> 00:15:27.660

Loren B Tuttle: someday we'll do an rv tech session, where the thompsons not coming into are going out of dry dock and all the texts are focused on that plus Carson cruises right now.

82

00:15:28.740 --> 00:15:30.780

Loren B Tuttle: This is the list of texts that we have currently.

83

00:15:31.800 --> 00:15:32.970

Loren B Tuttle: At uw.

84

00:15:34.320 --> 00:15:44.490

Loren B Tuttle: i've been in this position since 2016 we celebrated Stephen jackie's 10 year anniversary last year last fall, which is a pretty great accomplishment.

85

00:15:45.870 --> 00:15:56.070

Loren B Tuttle: Jennifer Tamara has been at the U dub since 2001 versus a student and then working at fisheries, but has been a tech since 2015 on the vessels.

86

00:15:57.150 --> 00:16:04.770

Loren B Tuttle: So when your broker came to us from the tech pool and it's also been in May program she joined us in 2018.

87

00:16:05.790 --> 00:16:18.990

Loren B Tuttle: same year, that is ricky joined us as well, she also had a lot of experience in that technical just this past year, Adam sense has joined us he has been a contractor on the.

88

00:16:20.040 --> 00:16:21.630

Loren B Tuttle: coast guard ship Healy for.

89

00:16:22.800 --> 00:16:28.350

Loren B Tuttle: A long time and he's brought his network and expertise to the the Thompson and the Carson.

90

00:16:29.370 --> 00:16:41.370

Loren B Tuttle: Those are the full time texts that we have a song knowledge that can fieldman our network engineer has been contracting with you Doug since 2009 and a full time employee since 2011.

91

00:16:42.540 --> 00:17:02.820

Loren B Tuttle: Network design and network upgrades and now focusing on satin egg and also taking a role in cyber security that you've done and then Mike boy who's technically working for someone else but has done an enormous amount of tech work for us on both vessels.

92

00:17:04.110 --> 00:17:18.570

Loren B Tuttle: All of these folks are kind of jack of all trades and super competent in everything from Dec operations to I see some have more strengths and other areas, but together they make a great.

93

00:17:19.920 --> 00:17:20.940

Loren B Tuttle: I also want to acknowledge.

94

00:17:22.050 --> 00:17:23.190

Loren B Tuttle: Some texts that have.

95

00:17:25.410 --> 00:17:26.400

Loren B Tuttle: come and gone since.

96

00:17:27.510 --> 00:17:38.280

Loren B Tuttle: Since I started in this position darcy darcy was tech here when I started she's now working on the other side on the crew side on different vessels Patrick or her.

97

00:17:39.330 --> 00:17:52.080

Loren B Tuttle: phenomenal tech who really helped me get through our midlife I started in my position about a month before the ship went into midlife and was trying to.

98

00:17:53.190 --> 00:17:59.190

Loren B Tuttle: get up to speed on a number of systems and Patrick was indispensable in helping me do that.

99

00:18:01.170 --> 00:18:09.180

Loren B Tuttle: Get Curry carlin, who was a tech here for a while and it's now at who we are and also phenomenal.

100

00:18:10.260 --> 00:18:18.900

Loren B Tuttle: six month made in turn that we had here at U dub who's now also it who Emily Chang who is, I think I just saw her on the on the live.

101

00:18:19.650 --> 00:18:30.570

Loren B Tuttle: And then I also want to acknowledge Brady Murphy, who was long time tech here has moved on to you and all she was indispensable as well, when I was new to this position, and I really appreciate all your help.

102

00:18:33.870 --> 00:18:34.260

Loren B Tuttle: Thank you.

103

00:18:36.900 --> 00:18:42.660

Lee Ellett: Thank you very much more on next up, we have Linda Linda Butler with you or I.

104

00:18:48.660 --> 00:18:49.170

Lynne Butler: can hear me.

105

00:18:50.580 --> 00:18:51.150

Lee Ellett: Yes.

106

00:18:51.750 --> 00:18:55.980

Lynne Butler: Alright, great, so I am Lynne Butler interim lead marine tech.

107

00:18:57.480 --> 00:19:07.530

Lynne Butler: And currently i'm it for the tech department they'll fanning has has retired GABE Matthias is on his way to.

108

00:19:08.130 --> 00:19:22.200

Lynne Butler: To Florida, but may still be doing some trips with us, hopefully i'm coming here and so we're actually looking for people but um who is this this picture is a endeavor coming into the duck in the fall guy this last March.

109

00:19:25.020 --> 00:19:37.290

Lynne Butler: That Doc that, where I was standing is actually going to be demolished and a new one built there, the new one will be longer wider, as well as higher to account for sea level rise.

110

00:19:38.580 --> 00:19:45.270

Lynne Butler: And ever will have a temporary home just up the bay from from where we normally duck for about the next year.

111

00:19:46.290 --> 00:19:58.650

Lynne Butler: let's see this, this year we supported 107 days at sea for final total of 13 cruises just a variety of coring moorings educational outreach lots of CDs, as usual.

112

00:20:00.030 --> 00:20:03.780

Lynne Butler: let's see the long term ecological research project for who he.

113

00:20:04.800 --> 00:20:06.510

Lynne Butler: did a lot of acoustics and.

114

00:20:07.740 --> 00:20:10.770

Lynne Butler: also helped with a variety of prototype instruments.

115

00:20:11.850 --> 00:20:23.160

Lynne Butler: let's you've also loaned out our mock mock one for NASA exports, which went out of England and then, once we received it back after a lot of long delays and shipping.

116

00:20:24.390 --> 00:20:34.440

Lynne Butler: We turned the Loch Ness around and outs on Atlantis for an upcoming trip, and that was all possible with a great amount of skilled assistance from from Patrick o'hearn.

117

00:20:36.210 --> 00:20:43.110

Lynne Butler: The tech pool and so yeah Thank you nsf and brandi for supporting that program it's been really helpful tool.

118

00:20:44.700 --> 00:20:47.160

Lynne Butler: So we are extremely currently low on.

119

00:20:48.210 --> 00:20:50.370

Lynne Butler: Ships technicians, we.

120

00:20:51.750 --> 00:20:55.260

Lynne Butler: Had posted are in the middle of hiring process currently but.

121

00:20:56.700 --> 00:21:01.770

Lynne Butler: So yeah if anybody's looking for work either part or full time feel free to contact me.

122

00:21:02.790 --> 00:21:07.170

Lynne Butler: A tech manager position is currently posted for another few days but.

123

00:21:09.030 --> 00:21:13.980

Lynne Butler: it's it's only open to you or I employees who already spread pretty thin.

124

00:21:15.360 --> 00:21:17.790

Lynne Butler: So anyways more changes are coming at your eye.

125

00:21:18.840 --> 00:21:23.130

Lynne Butler: And a happy to share additional comments and thoughts offline Thank you.

126

00:21:25.530 --> 00:21:26.100

Lee Ellett: Thank you Lynn.

127

00:21:31.650 --> 00:21:38.460

Lee Ellett: So, like to introduce so I have a couple folks are introducing our team here support technical support.

128

00:21:39.600 --> 00:21:45.750

Lee Ellett: So first of the few functional groups, so it will be interesting, the research technician group.

129

00:21:46.980 --> 00:21:55.410

Lee Ellett: sts computing resources group with a part of that is we've broken off our development operations that's where high season net support.

130

00:21:56.940 --> 00:22:13.200

Lee Ellett: is provided, and we have the ocean graphic data facility and our shipboard electronics group shipboard geophysical group, and then we have the ship based technical support in the Arctic, the start program so if the start program Brendan mendenhall has.

131

00:22:14.250 --> 00:22:26.880

Lee Ellett: taken over the start the Arctic coordinator role we have h&s benches specialist Gary lane he works, a short with her isotope isotopes hazmat.

132

00:22:27.630 --> 00:22:38.100

Lee Ellett: runs those programs here for for our vessels in some for the SI O campus it's a split role and then with the ship virgin physical group, we have colby petri.

133

00:22:39.360 --> 00:22:55.830

Lee Ellett: who's when we don't have our when our portable seismic system is not going to see is providing support to sonar is magnetometers at CPS https also acoustic instruments, and then we dug penny engineer here's well.

134

00:22:57.330 --> 00:23:04.500

Lee Ellett: and provide support to those those programs so next up is international he'll talk about the risks.

135

00:23:07.560 --> 00:23:12.420

Andrew Naslund: So we're the rest tech technician group or rest tech sets first institution of Oceanography.

136

00:23:12.960 --> 00:23:31.500

Andrew Naslund: We have Charlie Brooks who's the lead tech for Roger Revelle, Josh Manager the lead tech for Robert Gordon, Caitlin Webster and myself, we joined the group about the year and a half ago, Jeremiah Brewer, Roy Hon Augustine, Mason Shadegg, Keys Shuttle and our supervisor Matt Durham.

137

00:23:35.220 --> 00:23:40.110

Lee Ellett: Thank you very much, Andrew next is Nick begins with computing resources.

138

00:23:41.940 --> 00:23:43.890

Nicholas Benz: hey good morning good afternoon wherever you are.

139

00:23:45.030 --> 00:23:45.780

Nicholas Benz: yeah so.

140

00:23:46.950 --> 00:23:50.010

Nicholas Benz: One of our divisions, the car group.

141

00:23:52.170 --> 00:23:53.880

Nicholas Benz: it's a good number of us.

142

00:23:56.700 --> 00:24:03.570

Nicholas Benz: Myself and Maxwell us just came on this year and we've been learning a lot.

143

00:24:05.490 --> 00:24:10.830

Nicholas Benz: especially due to the fact that the ride just came out of dry dock back in May.

144

00:24:12.510 --> 00:24:13.410

Nicholas Benz: So that's been fun.

145

00:24:14.910 --> 00:24:20.310

Nicholas Benz: We have other members of our group we've been around a little bit longer how we Johnson.

146

00:24:21.510 --> 00:24:25.320

Nicholas Benz: Brenda rise Kenny Kenny, and if olson.

147

00:24:28.380 --> 00:24:33.330

Nicholas Benz: Mary huey Tom lockwood and mark pumphrey and then our supervisor john Mayer.

148

00:24:36.330 --> 00:24:40.380

Nicholas Benz: I should mention that kind of olson Tom lockwood and mark country.

149

00:24:42.030 --> 00:24:46.770

Nicholas Benz: are all part of the devops group which is just another subdivision of our department.

150

00:24:49.920 --> 00:24:53.880

Lee Ellett: Thank you very much okay next up, we have Mike oh that's.

151

00:24:54.900 --> 00:24:55.770

Lee Ellett: Interesting oh do.

152

00:24:57.300 --> 00:25:09.210

Mike Kovatch: Alright hi everyone i'm micro batch i'm a relatively new hire with the oceanographic data facility OD if if you've ever sailed on a ghost ship cruise or a geo traces cruise it's possible you've heard of us.

153

00:25:10.770 --> 00:25:20.040

Mike Kovatch: we've had a decent amount of staff turnover recently so here's our current lineup of people, we have Todd marks is our science advisor Susan Becker is our manager.

154

00:25:20.550 --> 00:25:38.160

Mike Kovatch: john ballard megan and tanya are chemists and megan was hired last year I believe and tanya just hired on and then on the bottom, we have john calderwood who's one of the electronics texts that sales with us and does rose that repair CCD maintenance and so on.



155

00:25:39.330 --> 00:25:47.580

Mike Kovatch: there's me on the bottom next to Aaron mouth and we're both the new data analysts so Aaron starts in about a month or so.

156

00:25:49.080 --> 00:25:54.390

Mike Kovatch: And then I guess an update from us is that we successfully had to back to back cruises this year, we had a.

157

00:25:55.800 --> 00:26:06.270

Mike Kovatch: From Cape cod down to the Virgin Islands and back and then coming up next year we're scheduled to have P two, which is going to be Japan to Hawaii to San Diego.

158

00:26:07.620 --> 00:26:09.480

Mike Kovatch: So that's all for me.

159

00:26:11.970 --> 00:26:13.170

Lee Ellett: Great Thank you very much, right.

160

00:26:16.860 --> 00:26:17.460

Lee Ellett: Next.

161

00:26:19.680 --> 00:26:22.320

Lee Ellett: not sure who's presenters presenting for who.

162

00:26:23.220 --> 00:26:24.180

Emily Cheung: I am i'm.

163

00:26:24.810 --> 00:26:25.770

Emily Cheung: great thing Hello.

164

00:26:27.660 --> 00:26:37.350

Emily Cheung: hi everybody, my name is Emily and I just started here at we in April and i'm the newest ship tech here aboard the Armstrong.

165

00:26:37.860 --> 00:26:55.920

Emily Cheung: And so i'll go ahead and introduce our ssg team, first we have David fisichella he's the head of our shipboard services department i'm Sarah fuller is our operations manager for ships and RC going text Chris Lewis bizarre a short side admin.

166

00:26:57.510 --> 00:27:05.190

Emily Cheung: Chris greiner and Robbie laird kind of do a little bit of everything they're mostly our shoreside support, but then they sail sometimes.

167

00:27:05.550 --> 00:27:18.960

Emily Cheung: And they spent a large chunk of this year, working on the midlife for the Atlantis along with katie graver and allison Peter and the ship actually just left, who yesterday to do their sea trials.

168

00:27:20.340 --> 00:27:31.200

Emily Cheung: um any seminal Craig carlin and myself are all texts aboard the Armstrong probably and I just started this year and amy's been working here for 20 years, I believe.

169

00:27:32.820 --> 00:27:43.440

Emily Cheung: josh eaten and Brian guests are winchell and Laura salt and becca WHO data to our to our and our networking support for the ships.

170

00:27:45.240 --> 00:27:53.820

Emily Cheung: And that's pretty much the team, we also wanted to share this video if you go go to the next slide.

171

00:28:01.860 --> 00:28:03.600

Emily Cheung: should play automatically.

172

00:28:05.460 --> 00:28:13.830

Emily Cheung: This was from a cruise earlier this year, which, unfortunately, I was not on board for but during a CT the gtd deployment.

173

00:28:15.030 --> 00:28:28.110

Emily Cheung: We lost our CD but luckily, we had Jason on board so they managed to recover it really quickly and get it back on deck so we thought you would all enjoy this whole idea of the recovery.

174

00:28:30.180 --> 00:28:31.530

Emily Cheung: And that's all I have.

175

00:28:34.350 --> 00:28:36.030

Lee Ellett: Now that's great Emily thanks for sharing.

176

00:28:38.460 --> 00:28:41.700

Lee Ellett: Do we have any more, I don't think I think I must be all by spring.

177

00:28:44.040 --> 00:28:44.910

Brandi Murphy (she/her): yeah that was it.

178

00:28:45.720 --> 00:28:52.710

Lee Ellett: Great excellent, so I think next up, we have Jim holic to say to appear as a presentation, or just say a few works.

179

00:28:56.610 --> 00:29:12.690

James Holik: Great i'm going to get DNS right before it in SF report and I just I want to welcome everybody again to the the the world's most fabulous meeting the rv tech meeting i'm going to be really quick, so that we can get on to the good stuff.

180

00:29:15.030 --> 00:29:24.570

James Holik: One of the things that people often ask me about his house in SF setup and it's not easy, is rather complicated but i'm going to go through in four slides and four slides.

181

00:29:25.530 --> 00:29:42.570

James Holik: pretty much the way we're set up so there's obviously the director at the top and advised by the National Science Board and the opposite the Inspector General the important part, are these boxes down here point of it, but you know there's those nine directorates.

182

00:29:43.590 --> 00:29:55.950

James Holik: Sunday to be 10, by the way, nsf just got about 150 million dollars to establish a new director it's going to be called technology innovation and partnership.

183

00:29:56.490 --> 00:30:12.330

James Holik: Now I have no idea what that really means but they're great words and who can argue with partnership innovation in technology and hey it's 150 million dollars i'm sure it's a great thing, so now we have 10 directors so next.

184

00:30:14.790 --> 00:30:24.420

James Holik: As we go down from the directorates Am I controlling us, are you brandi haha i'm just highlighting the Directorate for geoscience, which was the red box down there.

185

00:30:25.260 --> 00:30:35.010

James Holik: And i'm drilling down into where we are okay so under geosciences there is four divisions there's there's atmospheric and geospace.

186

00:30:35.310 --> 00:30:44.220

James Holik: there's earth science there's ocean, the science you a and then there's the opposite polar polar programs also yay because we have lots of people.

187

00:30:44.970 --> 00:30:54.360

James Holik: attending as well, so we've gone through director two Divisions now let's go one more next slide now we have.

188

00:30:55.350 --> 00:31:08.100

James Holik: A division of ocean of science and under OCEANA sciences for parts there's our fabulous part which is integrated programs there's the two science sections which is.

189

00:31:08.430 --> 00:31:24.720

James Holik: The ocean section which has biological and physical oceanography again science programs, and then there is the Marine geoscience section, which is m g&g marine geology geophysics and chemical oceanography.

190

00:31:26.760 --> 00:31:31.620

James Holik: So i'm going to focus on the very left, so the last slide.

191

00:31:35.010 --> 00:31:46.530

James Holik: Here we are facilities, where we did not we were always called facility, I mean we used to be called facilities now we're called integrated programs, and in reality we are integrated program but facilities.

192

00:31:47.070 --> 00:31:56.220

James Holik: We are mostly facility so at the top, is our esteemed boss Bob how about caitlyn take a note of that picture, because nobody has seen him for two years.

193

00:31:56.670 --> 00:32:03.990

James Holik: He is doesn't turn your camera on it meeting so probably assume he still looks like that, but we can't wait to see for sure.

194

00:32:04.650 --> 00:32:24.150

James Holik: going down is me, I have to post two pictures one of them is my unabomber picture mid pandemic picture and the other picture is many, many years ago in 1984 on Conrad and I post this because it is proof that I one time was a marine tech.

195

00:32:25.980 --> 00:32:35.190

James Holik: And some people don't you know and people from the Antarctic program can also verify that I wasn't reading, although I didn't say it was a good one, and then, if you have chased me off the deck.

196

00:32:36.270 --> 00:32:39.240

James Holik: Regardless below that is Brian knutson.

197

00:32:40.320 --> 00:32:44.070

James Holik: Everybody knows, Brian Brian knows everybody Brian handles.

198

00:32:45.660 --> 00:32:50.430

James Holik: The deep submergence group and new acquisition so he's in charge of.

199

00:32:52.110 --> 00:33:02.280

James Holik: The new ships, the three new ships that are coming aboard and to the right you'll see the Queen of the fleet standing minute inspection.

200

00:33:03.000 --> 00:33:11.460

James Holik: There, she is telling me to push it up a bit and then to the right is her sitting on deck trying to figure out how to take over the world.

201

00:33:12.150 --> 00:33:23.310

James Holik: And below rose is Jamie Allen who directs the ocean driven program not pictured our lease around mitchum does ocean education.

202

00:33:23.700 --> 00:33:37.710

James Holik: And candace binkley who handles all the movement of the money which is non trivial and also technology and interdisciplinary coordination, which is a program for my big ideas and things that don't match anywhere else.

203

00:33:38.670 --> 00:33:56.250

James Holik: Note that there's a vacancy i'll talk about that a little bit Okay, let me get to budget and i'll just leave this slide up in battle, so we are in nsf and the rest of the Federal Government is in continuing resolution that whenever we not been in a continuing resolution at this meeting.

204

00:33:57.360 --> 00:33:59.580

James Holik: It lasts until December 3 at least.

205

00:34:01.140 --> 00:34:10.110

James Holik: All that means through to you guys I guess is that you don't get a whole lot of money from me, I hope you have a fraction of last year's budget.

206

00:34:11.250 --> 00:34:15.570

James Holik: So for 2022 your guess is as good as mine that we're going to be.

207

00:34:17.340 --> 00:34:22.170

James Holik: You watch the news I watched the news there's the infrastructure bill there's the debt ceiling.

208

00:34:23.220 --> 00:34:34.290

James Holik: Discussions in fights and there's the and there's a typical that the budget negotiations that are going on, so what ultimately happens, we have to pay attention to say but.

209

00:34:34.590 --> 00:34:45.270

James Holik: If you pay attention to, for example, the president's submitted budget which by the way, is never really acted but it's a barometer of at least for the administration wants us to go.

210

00:34:46.080 --> 00:34:59.130

James Holik: Besides the 850 million that I mentioned for the new Director it's the budget is \$10.1 billion, which represents a 19% increase from what we had in 21.

211

00:35:00.330 --> 00:35:10.980

James Holik: So, and then for GEO if we stepped down the director of GEO again at \$1.2 billion increase, which is a 19% increase.

212

00:35:11.760 --> 00:35:33.810

James Holik: Which is good, and then we go further down into ocean science, which is us, there is an 18% projected are proposing, so all that means healthy growth for nsf if, in fact, the two houses of Congress can get together and agree to something, and hopefully they'll agree to something like.

213

00:35:35.070 --> 00:35:44.100

James Holik: A few more comments and this afternoon you're still in a maximum telework mode i've been at this desk here for two years, it seems.

214

00:35:45.000 --> 00:35:58.260

James Holik: Well it's been two years hasn't and we're only allowed to have 25% of our people in office building who knows, this is at least till the end of December so there's no panels in person and no live meetings.

215

00:35:58.770 --> 00:36:04.560

James Holik: At nsf and that's, at least at the end of the year and we don't know what will happen after that.

216

00:36:07.020 --> 00:36:22.350

James Holik: I do want to mention this program vacant seat here it used to be and y'all probably knew Tom Jana SEC it used to be for ship and ocean drilling support it is open, right now, and we are trying to figure out at nsf of what we should do with that Program.

217

00:36:23.400 --> 00:36:29.550

James Holik: My feeling is many feelings and we talked about it with many of you here is to make that position responsible.

218

00:36:30.150 --> 00:36:44.490

James Holik: For fleet cyber infrastructure and create a new program so that we can have the necessary attention and just as importantly expertise towards the field, the part of our field that is growing like crazy and.

219

00:36:45.750 --> 00:36:53.490

James Holik: we're getting a little bit of pushback but change is always difficult and in people will push back because they think something else's.

220

00:36:54.360 --> 00:37:08.910

James Holik: Maybe we're moving too fast, regardless we're working on it and it's my sincere hope that we will have another program manager that can be dedicated, this is a cyber infrastructure cyber security and the instrumentation associated.

221

00:37:09.960 --> 00:37:11.820

James Holik: Okay finished books.

222

00:37:12.990 --> 00:37:17.490

James Holik: on to something else, certainly any questions i'm here anybody has any questions.

223

00:37:20.340 --> 00:37:25.080

Alice Doyle: Well, Jim We appreciate you pushing new concept and helping people to think outside the box.

224

00:37:26.610 --> 00:37:27.120

Brandi Murphy (she/her): Absolutely.

225



00:37:27.750 --> 00:37:29.010

James Holik: Great Thank you.

226

00:37:30.870 --> 00:37:34.830

Brandi Murphy (she/her): You mentioned that you weren't having any in person panels, do you want to.

227

00:37:37.200 --> 00:37:38.160

Brandi Murphy (she/her): Do you need to recruit.

228

00:37:39.600 --> 00:37:53.160

James Holik: yeah oh yeah good good thing to ask I have five hours for panelists I do need to recruit so if people are interested in serving on the panel which will be in February early February I would love to hear from you.

229

00:37:54.240 --> 00:38:08.220

James Holik: I want people who are see going tax when people for management, I want a scientist male female all sorts of whatever you know I want to be as diverse as we have been in the past.

230

00:38:10.140 --> 00:38:11.850

James Holik: i'm almost scared I know.

231

00:38:24.450 --> 00:38:26.010

Alice Doyle: you're a little bit hard to hear Dale.

232

00:38:27.030 --> 00:38:27.750

Alice Doyle: crackly.

233

00:38:40.050 --> 00:38:42.420

Dale Chayes: seems to be like.

234

00:38:49.890 --> 00:38:51.810

Dale Chayes: The better microphones at work and better.

235

00:38:51.900 --> 00:38:52.890

James Holik: much, much better.

236

00:38:53.370 --> 00:38:55.890

Dale Chayes: Thank you too many choices.

237

00:38:57.660 --> 00:38:58.290

Alice Doyle: Somehow.

238

00:38:58.890 --> 00:39:13.650

Dale Chayes: A few months ago, three months ago, the nsf list server got reconfigured and I have been getting all of nsf females, and I haven't bothered to figure out how to stop it, but it seems to me in the last couple of months there have been a very high number of job openings.

239

00:39:15.450 --> 00:39:19.770

James Holik: that's not your imagination, I think we're just like everywhere else.

240

00:39:20.970 --> 00:39:29.760

James Holik: that's very true and we just had our staff meeting earlier today and Bob Hoffman remarked on how there's so many job openings right now and.

241

00:39:31.740 --> 00:39:40.080

Dale Chayes: I i'd put that together, I happen to be in bozeman a few months ago and ran into several nsf program management seem to be living there.

242

00:39:40.800 --> 00:39:50.400

Dale Chayes: And it just dawned on me that if i'd spent you know the last year and a half, living in bozeman and somebody told me to come back to Washington i'd have a hard time making that choice.

243

00:39:51.120 --> 00:39:51.510

You know.

244

00:39:52.860 --> 00:40:06.840

James Holik: That brings up another point on all these job openings that coming that are coming up, they are requiring us to say that the job location is arlington or Alexandria Virginia DC basically and.

245

00:40:08.010 --> 00:40:19.950

James Holik: Even though we all know, I shouldn't say we all know, we all expect that this teleworking model is going to continue for a while and maybe forever, I mean it seems to be working pretty damn well.

246

00:40:20.880 --> 00:40:34.260

James Holik: People out of the program managers of bozeman some have moved to Colorado, believe it or not, one moved to Cleveland why who knows, but people have left they don't live here anymore so.

247

00:40:35.400 --> 00:40:49.380

James Holik: If we ever have to go back and, furthermore, when we post new jobs, they still required to stay, they have to live in Washington or that's where the duties, going to be so it's a little bit difficult to recruit knowing these two things.

248

00:40:51.030 --> 00:41:01.920

James Holik: But if you guys are looking for work fill out the application so we're going to get we were looking for, we have some empty positions, not as Many in our group as throughout the Foundation, but.

249

00:41:03.660 --> 00:41:04.170

James Holik: Good point.

250

00:41:06.330 --> 00:41:08.100

Dale Chayes: Okay back to the usual story.

251

00:41:12.060 --> 00:41:14.460

James Holik: All right, I taught for me rob.

252

00:41:20.220 --> 00:41:21.510

Robert Sparrock: Good morning, good afternoon, can you hear me.

253

00:41:23.040 --> 00:41:23.850

Yes.

254

00:41:25.380 --> 00:41:32.460

Robert Sparrock: i'm um Thank you Jim That was a very nice breakdown i'm going to give a couple of.

255

00:41:33.630 --> 00:41:39.690

Robert Sparrock: Discussion points, some of them I probably don't want in the general world but.

256

00:41:41.040 --> 00:41:48.570

Robert Sparrock: i'll go out on a limb anyway so and for some of my points i'll use exaggeration was better than any other technique.

257

00:41:49.380 --> 00:41:58.350

Robert Sparrock: So I am not a leader, I am simply a follower So if you looked at jim's slide where he had all the pictures all those people on that last slide.

258

00:41:59.130 --> 00:42:11.610

Robert Sparrock: I imagined myself as a hidden dashed line that's like the assistant to all those people, and so in a lot of ways I view myself as working with an SF.

259

00:42:12.030 --> 00:42:22.530

Robert Sparrock: As the lead, so all those people you saw I do all those jobs as one person, and since I can't do all those jobs is one person, I have to follow nsf sullied.

260

00:42:24.360 --> 00:42:33.450

Robert Sparrock: One thing that makes nsf and Oh, and are different is nsf is a competitive sport, where different people are competing and it's done by committee.

261

00:42:34.680 --> 00:42:43.770

Robert Sparrock: Oh, and our is a competitive sport, but our view of competition is different because we're selfishly a military organization so.

262

00:42:44.280 --> 00:42:52.890

Robert Sparrock: we're first concerned about geopolitical conflict where and then of course we're a terrible organization, so we are we have self inflicted wounds.

263

00:42:53.280 --> 00:42:58.050

Robert Sparrock: So the aviators fight with the submarine officers and submarine officers fight with the surface officers.

264

00:42:58.650 --> 00:43:09.690

Robert Sparrock: And all that said means different people are competing for resources and then, finally, the program managers, that are the people who fund the scientists who use support as the.

265

00:43:10.560 --> 00:43:18.930

Robert Sparrock: technicians and again, in this case i'm more of a follower I don't care what the science does.

266

00:43:19.770 --> 00:43:27.120

Robert Sparrock: And, in fact, you can see the nsf projects, all those things are in the budgets and in Congress and my budget is hidden hidden.

267

00:43:27.660 --> 00:43:31.470

Robert Sparrock: i'm just a portion of the budget of everyone else's Program.

268

00:43:32.010 --> 00:43:43.170

Robert Sparrock: So if the acoustics program gets a plus up I get a plus up so that I can support acoustics research and if the acoustics program loses money, then I lose money because i'm supporting less acoustics.

269

00:43:43.860 --> 00:43:52.680

Robert Sparrock: So in all the cases i'm really a subset of someone else's decisions and choices that are of what things are a priority.

270

00:43:54.240 --> 00:44:04.410

Robert Sparrock: That said, I do have the lead for the ship's themselves and i'm always at a constant battle with trying to explain to someone in a military organization.

271

00:44:04.830 --> 00:44:15.870

Robert Sparrock: they'll say Oh, we have a science program and you are the ship guy and i'm going well that's not the way it works you don't take navy projects and stick them on navy ships through the navy program officer.

272

00:44:16.350 --> 00:44:21.900

Robert Sparrock: it's obvious to everyone here that that's not the way it works, but it's not obvious to the rest of the navy.

273

00:44:24.330 --> 00:44:37.500

Robert Sparrock: I do have a direct budget and that's probably the one that most impact you and many of you who have submitted your projects know i've been relatively I don't know, maybe your perceptions generous.

274

00:44:39.330 --> 00:44:46.860

Robert Sparrock: helpful, but again i'm just a follower I don't own the budget, which is the instrument budget to buy instruments.

275

00:44:48.090 --> 00:44:51.690

Robert Sparrock: I influence the person who is the decision maker of the dirt budgets.

276

00:44:52.920 --> 00:45:09.690

Robert Sparrock: But I am again in a competitive sport, so an oceanographic you know for the MAC you want to build install a new em 124 that's competing with every other piece of instrument anyone in the world has put in a request for or.

277

00:45:11.070 --> 00:45:15.180

Robert Sparrock: So i'm the one making a pitch that this acoustic instrument is more important than.

278

00:45:16.560 --> 00:45:16.980

Robert Sparrock: I don't know.

279

00:45:18.300 --> 00:45:22.860

Robert Sparrock: pick pick your strange instrument that might have to do with aviation operations.

280

00:45:25.170 --> 00:45:25.830

Robert Sparrock: let's see.

281

00:45:27.270 --> 00:45:36.720

Robert Sparrock: On cybersecurity um it's kind of a strange topic, I appreciate ucsd his efforts in trying to get more money.

282

00:45:38.070 --> 00:45:47.910

Robert Sparrock: there's a strong possibility i'm going to get a plus up and that Plus, it will be forced by Congress again i'm a follower right that was all Congress saying here's money.

283

00:45:48.360 --> 00:46:07.560

Robert Sparrock: For cybersecurity I will be unable to convince the larger navy, that the research vessels need funds for cyber security, it takes Congress to actually earmark the funds because the navy is not going to prioritize cyber security on the research vessels over other things in its budget.

284

00:46:09.450 --> 00:46:23.040

Robert Sparrock: So in that case the navy budget as far as you're concerned is really more generated by Congress, because Congress has to tell the navy to spend money on science and research, because the navy wouldn't do it otherwise.

285

00:46:24.660 --> 00:46:26.070

Robert Sparrock: All right, because it's not our core mission.

286

00:46:27.780 --> 00:46:49.200

Robert Sparrock: So back to classified i'm sorry controlled unclassified information it comes in a variety of flavors Leah's talked about this extensively the the cmc framework which is coming to you is going to be forced on your universities, so it won't be just something that is.

287

00:46:50.310 --> 00:46:51.840

Robert Sparrock: specific to the research fleet.

288

00:46:53.580 --> 00:47:00.270

Robert Sparrock: So, in theory, there are all kinds of see you I data and it becomes very confusing because you all associated.

289

00:47:00.360 --> 00:47:01.890

With the Department of Defense.

290

00:47:03.090 --> 00:47:04.260

Robert Sparrock: Get question.

291

00:47:07.500 --> 00:47:15.000

Robert Sparrock: um i'm financial information that is generated is see why the fact that the navy ships were built.

292

00:47:16.080 --> 00:47:32.220

Robert Sparrock: And the diagrams you'll find see why markings on those those coi markings are contractual, which means the person who built the vessel we didn't we didn't buy the full plans for the vessel, so you just can't copy the vessel, and you know it's more like a copyright.

293

00:47:33.420 --> 00:47:43.620

Robert Sparrock: There is discovery see why where we think we want to discover something, but we don't know how important it is, so we throw a security label on it.

294

00:47:44.130 --> 00:48:05.580

Robert Sparrock: Because again, most of the navy funded research is a competitive sport and again our competition is geopolitical and so we try to keep the information limited to people who have a need to know which is sort of the opposite of the entire science program So if you ever come across these.

295

00:48:06.720 --> 00:48:18.120

Robert Sparrock: programmers or these performers, who are coming on board with information that is a more technical nature, in theory, they should be doing it on their own standalone computers until we have.



296

00:48:19.590 --> 00:48:21.540

Robert Sparrock: Cyber systems that are able to handle this.

297

00:48:22.680 --> 00:48:40.410

Robert Sparrock: uh let's see another topic and i'm welcome to handle any questions on that I will tell you the the internal answer I give is, I am not the contracting officer, so I can't tell you how to comply with the provisions, I can only tell you what I think is happening.

298

00:48:41.550 --> 00:48:50.940

Robert Sparrock: I am not again i'm a follower I am not the environmental guy so a lot of you have had some discussions with me on environmental um.

299

00:48:52.140 --> 00:49:09.840

Robert Sparrock: let's see how to say this, the navy is in competition again on environmental there are people who want to sue the navy and not let them do anything with seminars, whether it's a sonar on a ship sonar from a sauna buoy.

300

00:49:11.730 --> 00:49:13.350

Robert Sparrock: You know there's it's a.

301

00:49:15.030 --> 00:49:24.330

Robert Sparrock: An area where there's litigation and there's controversy and Oh, and our has a programs that are designed to prove that what we're doing.

302

00:49:24.990 --> 00:49:41.640

Robert Sparrock: In terms of taking animals is either limiting the number of takes or is not harassing the animals That said, you will probably see lots of controversy over things that you used to do.

303

00:49:43.170 --> 00:50:02.550

Robert Sparrock: behind the scenes that is generally being generated by external litigation it's being generated by a group that is questioning the science of why we say this sonar safe hits a group that saying this area that you previously worked in is now more environmentally sensitive.

304

00:50:03.960 --> 00:50:06.420

Robert Sparrock: Generally speaking, I do not.

305

00:50:07.830 --> 00:50:21.870

Robert Sparrock: i'm not the approval authority for the environmental, so my Supervisor is the approval authority and Oh, and are as a sub entity of the navy has its own authorities to prove environmental work.

306

00:50:23.160 --> 00:50:34.830

Robert Sparrock: And that person is different than other people in the navy so each subset of the navy organization have their own environmental policy and legal person.

307

00:50:35.520 --> 00:50:54.270

Robert Sparrock: And so, two organizations within the navy can come up with separate environmental decisions because they're not there's no requirement for them to reach the same decision was it's two different decision makers, but so some will operate more cautiously and some will give permission.

308

00:50:55.560 --> 00:51:09.960

Robert Sparrock: So you might find that you're doing a navy project and it was environmentally approved before a different group within the navy's doing it and it's not environmentally approved or used to be environmentally approved and it's no longer environmentally.

309

00:51:11.250 --> 00:51:20.580

Robert Sparrock: um let's see technology, a again we're in a lot of geopolitical competition, particularly with China.

310

00:51:21.900 --> 00:51:38.880

Robert Sparrock: give you an example, so Chinese UAE, these are not permitted, and on the vessels or in the networks or on VOD facilities um why we pick Chinese you a bs you know there's a discussion over a beer.

311

00:51:39.930 --> 00:51:48.930

Robert Sparrock: But there'll probably be more and more things like that, where if you're trying to find instruments and you're finding them being manufactured in.

312

00:51:49.470 --> 00:52:02.010

Robert Sparrock: places of geopolitical competition, you might find yourself having to have that instrument physically removed from the ship so be cautious when buying technology from geopolitical rivals.

313

00:52:03.630 --> 00:52:13.290

Robert Sparrock: I did give you an also an interesting brief on the objectives of the Chinese oceanographic and technology program and their.

314

00:52:13.890 --> 00:52:28.410

Robert Sparrock: Efforts are designed to find all the information that you're doing plus their own information so i'm kind of the opposite of Jim Jim is more yes let's do science and let's make it open and i'm.

315

00:52:29.730 --> 00:52:33.570

Robert Sparrock: working at an organization that wants to be less transparent.

316

00:52:36.240 --> 00:52:37.560

Robert Sparrock: let's see what else do I have.

317

00:52:41.490 --> 00:53:02.850

Robert Sparrock: I think, with that I will stop, I will say that my budget is relatively stable, so I expect to fund the same amount of ship time um and I continue to support the nsf program managers and really enjoy this job that I have and hope to be with you for at least a decade or so.

318

00:53:04.170 --> 00:53:06.180

Robert Sparrock: standing by for any questions.

319

00:53:08.970 --> 00:53:13.440

Brandi Murphy (she/her): Alice I noticed you unmuted yourself was that for question.

320

00:53:16.800 --> 00:53:19.110

Alice Doyle: No i'm good i'm good thanks Randy.

321

00:53:25.980 --> 00:53:27.300

Lee Ellett: Questions Thank you very much for that.

322

00:53:28.410 --> 00:53:32.910

Lee Ellett: rob for those of those and all the information provided throughout the year for.

323

00:53:34.650 --> 00:53:45.270

Lee Ellett: I know my side was cyber security questions and environmental questions we do appreciate, we appreciate the support and get pointing us in the right direction and any advice you've been able to provide.

324

00:53:46.950 --> 00:53:47.760

Robert Sparrock: Thanks no it's.

325

00:53:48.810 --> 00:53:49.110

Robert Sparrock: Good.

326

00:53:49.770 --> 00:53:51.930

Brandi Murphy (she/her): I was gonna say it looks like we have a question from frank wreck.

327

00:53:52.920 --> 00:53:54.240

Robert Sparrock: Oh off frank, yes.

328

00:53:54.840 --> 00:54:11.520

Frank Rack: it's not so much a question as a comment, I want to thank rob and and Jim for explaining their roles in the process on the program manager for in Arctic research support and logistics and at nsf and I look after the stark.

329

00:54:12.720 --> 00:54:33.060

Frank Rack: Award I just put a an announcement in the chat that there's a position for a science project manager in the Arctic sciences section, helping to support the Arctic research support and logistics program so if anybody's interested in that they can go to that link and find out more information.

330

00:54:34.620 --> 00:54:35.010

Frank Rack: Thanks.

331

00:54:38.160 --> 00:54:43.440

Lee Ellett: Thank you, Brian, thank you for joining us today frank it's good to see here at this meeting some good topics.

332

00:54:44.400 --> 00:54:45.060

Frank Rack: My pleasure.

333

00:54:48.000 --> 00:54:53.280

Lee Ellett: Any other questions today for folks while we have everyone here.

334

00:54:56.550 --> 00:54:59.850

Robert Sparrock: i'm sorry there's one other thing I asked brandi to send out a list of.

335

00:55:01.050 --> 00:55:16.590

Robert Sparrock: Stem like projects that the navy is funded in the abstract, and I think if you take a scan of those you'll see some things that are interesting that the navy's funding and it kind of gives you an idea of what things we think are important enough to fund.

336

00:55:18.330 --> 00:55:36.150

Robert Sparrock: And i'm happy to again i'm not the leader on any of those I don't choose the stem projects, but I know the people who do they asked me my opinion I get to influence it so if there's something you want help with I am happy to point people in directions and make connections.

337

00:55:39.450 --> 00:55:45.090

Lee Ellett: yeah those are definitely interesting, am I can tip for everyone that we are going to have a session with the about the.

338

00:55:45.450 --> 00:55:56.880

Lee Ellett: Cyber infrastructure in cybersecurity some of the same information similar information presented to you nose to the at the universe annual meeting, but with more earthy tech some more specifics.

339

00:55:59.460 --> 00:55:59.970

Robert Sparrock: Thanks all.

340

00:56:04.080 --> 00:56:08.640

Brandi Murphy (she/her): Great yeah I saw that link rob to the rv tech mailing list.

341

00:56:09.090 --> 00:56:13.350

Brandi Murphy (she/her): This week i'll also send it out as an announcement or the event here.

342

00:56:17.700 --> 00:56:32.130

Lee Ellett: Great so that gets us to 1050, so I think now brandon can correct me if i'm wrong, but I think now we're over 10 minute break and then we're going to start with our multi beam session the Multi beam session at 11am.

343

00:56:34.170 --> 00:56:55.860

Brandi Murphy (she/her): yeah um we have the opportunity for a bio break on the hour we'll reconvene it's a different session in Hoover so it's a different zoom window So if you go to the agenda tab sessions of the next one is multi beam and we'll be hearing from Noah MAC and ucsd about multimedia upgrades.

344

00:56:58.230 --> 00:56:59.280

Brandi Murphy (she/her): So see you there.

345

00:57:01.500 --> 00:57:02.730

Dale Chayes: And we stay here in gossip.

346

00:57:03.870 --> 00:57:05.730

Brandi Murphy (she/her): i'm jealous second.

## Multibeam Upgrades

1

00:03:26.940 --> 00:03:27.750

Lee Ellett: I can hear me.

2

00:03:30.450 --> 00:03:31.440

Brandi Murphy (she/her): I can.

3

00:03:32.070 --> 00:03:32.640

Lee Ellett: i'm back.

4

00:03:34.710 --> 00:03:37.140

Brandi Murphy (she/her): How do you feel about opening the doors.

5

00:03:40.050 --> 00:03:41.610

Lee Ellett: yeah works for me.

6

00:04:03.480 --> 00:04:07.980

Lee Ellett: Hello everyone welcome back we'll get started here in just about a minute.

7

00:04:13.050 --> 00:04:16.470

Lee Ellett: So we can get as much presentation time as possible.

8

00:04:42.450 --> 00:04:42.540

I.

9

00:04:48.810 --> 00:04:51.480

Kevin Jerram: just want to do an audio check, you can hear me.

10

00:04:51.870 --> 00:04:54.450

Lee Ellett: yep I can hear you just fine cool.

11

00:04:54.660 --> 00:04:56.250

Kevin Jerram: Shannon can you hear me.

12

00:04:56.880 --> 00:04:59.130

Shannon Hoy: yeah I got you I should probably do the same, can you hear me.

13

00:04:59.820 --> 00:05:00.360

We can.

14

00:05:02.280 --> 00:05:03.720

Brandi Murphy (she/her): Just real quick.

15

00:05:04.800 --> 00:05:06.900

Brandi Murphy (she/her): We we Kevin and.

16

00:05:08.370 --> 00:05:13.470

Brandi Murphy (she/her): Kevin are you guys okay sharing your presentation, or do you need me to queue them up disney's.

17

00:05:13.800 --> 00:05:14.910

Kevin Jerram: yep i'll share.

18

00:05:15.990 --> 00:05:20.430

Kevin Jerram: The one that Shannon and I have no control the slides and then i'll do the same for the MAC.

19

00:05:22.200 --> 00:05:23.040

Brandi Murphy (she/her): and your rightly.

20

00:05:24.540 --> 00:05:28.560

Lee Ellett: yep yep i'll be able to i've got mine keto friendly to share as well.

21

00:05:31.350 --> 00:05:38.220

Lee Ellett: I don't care about the order if they wanted to, if you want to if you're sharing presentations if you want to do your presentations back to back that's fine.

22

00:05:39.870 --> 00:05:44.400

Kevin Jerram: i'm actually having if you don't mind going in between that'll let me switch the presentations over.

23

00:05:44.490 --> 00:05:48.000

Kevin Jerram: Oh yeah screen here get set up for the last one.



24

00:05:48.720 --> 00:05:53.550

Lee Ellett: Perfect now that works great no problem, I just want to make sure, and make sure you share an option.

25

00:05:54.720 --> 00:05:54.870

Lee Ellett: As.

26

00:05:55.170 --> 00:05:55.620

Lee Ellett: Well, good.

27

00:05:55.650 --> 00:05:56.670

Lee Ellett: yeah we'll go ahead and.

28

00:05:58.350 --> 00:06:04.830

Lee Ellett: get started with this multi beam session to session three presentations about multi beam sonar systems.

29

00:06:07.620 --> 00:06:12.180

Lee Ellett: So starting starting out, we have Shannon hoy from know up.

30

00:06:13.290 --> 00:06:17.610

Lee Ellett: With a presentation of lessons learned from successful integration of the.

31

00:06:18.990 --> 00:06:21.660

Lee Ellett: And Mark two very multi beam Center.

32

00:06:24.510 --> 00:06:26.010

Kevin Jerram: Trying to share my screen here.

33

00:06:29.430 --> 00:06:34.170

Shannon Hoy: yeah Kevin and I are going to tag team this so well be swapping off in the middle.

34

00:06:34.980 --> 00:06:41.070

Shannon Hoy: But yeah good morning and afternoon everybody i'm Shannon toy and expedition coordinator, with no ocean exploration and.

35

00:06:41.370 --> 00:06:53.790

Shannon Hoy: Just as we said today Kevin and I are going to be presenting on the lessons learned from successful integration of the new comes Berg em three or four mark to variant multi beam sonar the noaa ship okie and US explore.

36

00:06:55.740 --> 00:06:56.550

Shannon Hoy: Next slide Kevin.

37

00:06:57.690 --> 00:07:04.050

Shannon Hoy: So a little bit about Noah ocean exploration no ocean exploration is the United States only federal organization.

38

00:07:04.470 --> 00:07:10.050

Shannon Hoy: dedicated to exploring are largely unknown ocean specifically and waters deeper than 200 meters.

39

00:07:10.470 --> 00:07:21.420

Shannon Hoy: and exploration is a bit different than other missions typically carried out at sea, so almost expedition seeks to collect information and support of a specific hypothesis exploration data is collected more.

40

00:07:21.450 --> 00:07:27.480

Shannon Hoy: For the purpose to drive the generation generation of hypotheses exploration data is collected.

41

00:07:28.740 --> 00:07:34.590

Shannon Hoy: For this purpose, and then we also strive to fill the gaps in the basic understandings of US deep waters.

42

00:07:35.040 --> 00:07:41.220

Shannon Hoy: don't worry, we are the only federal organization dedicated to ocean exploration, we are definitely not the only ones out there, exploring.

43

00:07:41.520 --> 00:07:52.410

Shannon Hoy: And there are others, such as ocean exploration trust Schmidt ocean Institute and ocean X and then to explore the ocean, we use the noaa ship oceana's explorer and conduct generally three types of cruises.

44

00:07:52.950 --> 00:07:58.590

Shannon Hoy: The first is going to be a solely mapping focused expedition and then another will be a combination of mapping in.

45

00:07:59.310 --> 00:08:03.900

Shannon Hoy: rv dive exploration and then the third will be technology demonstrations.

46

00:08:04.590 --> 00:08:14.970

Shannon Hoy: Something exciting about all of our expedition expeditions is that we employ telepresence technology to connect with scientists to shore to optimize the use of our see time as we bring ocean exploration to the public.

47

00:08:15.420 --> 00:08:24.810

Shannon Hoy: And then, this year we did expand our mapping operations to include remote cloud processing and effort to reduce births see through the challenging pandemic conditions.

48

00:08:26.640 --> 00:08:40.470

Shannon Hoy: So just a little overview of our mapping systems history, though, can us explore was equipped in 2007 with the cons bird even 302 which excitingly was a serial number one so that's fun.

49

00:08:41.040 --> 00:08:46.410

Shannon Hoy: That remains unchanged until the end of 2008 when that receiver Ray was replaced.

50

00:08:46.950 --> 00:08:56.670

Shannon Hoy: And then during the winter of 2019 the top side unit was upgraded to the new em three or four and then we were fortunate enough to actually squeeze in this the acceptance testing.

51

00:08:57.330 --> 00:09:05.850

Shannon Hoy: Prior to expeditions being paused and then actually the next time we sailed we were out to perform the sea acceptance testing of the first or one of the first.

52

00:09:06.480 --> 00:09:18.750

Shannon Hoy: em three or four mark to variant transmits arrays and then this past fields us and we did perform multiple expeditions with the completed upgrade system with both the top side unit and the transmit array.

53

00:09:22.020 --> 00:09:31.080

Kevin Jerram: So i'll take over a couple of slides here so again i'm Kevin Jeremy and work with the University of new Hampshire Center for coast on ocean mapping and multimedia advisory committee.

54

00:09:31.560 --> 00:09:36.480

Kevin Jerram: But outside of the MAC also work with some other platforms know of vessels and i've been.

55

00:09:37.140 --> 00:09:42.960

Kevin Jerram: lucky enough to work with the accounting explorer for the last five years or so what's the mapping cruises and some testing.

56

00:09:43.680 --> 00:09:51.840

Kevin Jerram: And so I was lucky to be involved with this see acceptance test for the him three or four mark one and the Mark two.

57

00:09:52.500 --> 00:10:02.940

Kevin Jerram: And this past year we started that process with a whole new survey of the vessel, and this is fundamental to any multi beam survey or any multi beam system.

58

00:10:03.750 --> 00:10:16.320

Kevin Jerram: So we had the good luck to work with the original surveyor out of Seattle that first worked with the boat in 2007 and then they were able to do to complete surveys of the ship.

59

00:10:16.890 --> 00:10:24.540

Kevin Jerram: Over the PM three or four mark to installation period and they actually did two surveys, because the the first one.

60

00:10:24.930 --> 00:10:33.990

Kevin Jerram: didn't line up exactly I mean we're talking about a couple millimeters off from a second service and they just said let's do the whole thing again, and what I liked about that was.

61

00:10:35.010 --> 00:10:42.480

Kevin Jerram: they're very proactive in not only the survey, but the reporting and we had feedback and a good dialogue with the company about.

62

00:10:43.200 --> 00:10:55.080

Kevin Jerram: The reporting format they follow the MAC recommendations and the net result is that we could configure the sensors directly from the survey report and that's not just a multi beam that's other sensors on board to.

63

00:10:56.160 --> 00:11:12.270

Kevin Jerram: This is this is bigger than just the multimedia and mapping systems on board the results at see where that begins baseline antenna baseline calibration basically agreed with the survey very nicely the patch test results were almost zero.

64

00:11:13.350 --> 00:11:19.230

Kevin Jerram: Suggesting no major residuals between the sun between these configurations.

65

00:11:20.850 --> 00:11:27.690

Kevin Jerram: The report feels like it's ready to be in service for the next 10 plus years it's a really nice foundation for the next.

66

00:11:28.980 --> 00:11:34.560

Kevin Jerram: service life of the system, and I want to also acknowledge them doctor and non hiroschi from us.

67

00:11:35.220 --> 00:11:46.140

Kevin Jerram: has done extensive work in this area we've been lucky to work with him on Sally ride as well, and he just presented a case study about the Nautilus and their vessel geometry us hydro.

68

00:11:47.100 --> 00:11:56.550

Kevin Jerram: So I think the takeaway I want to share from this slide and our experience, though pianist is that the extra effort and time that goes into a good survey.

69

00:11:57.720 --> 00:12:12.000

Kevin Jerram: Those costs are really small compared to the costs of collecting compromise data when you have either a survey that's not as great as you would hope, or even the CERT the reporting format is not quite clear enough.

70

00:12:13.740 --> 00:12:22.080

Kevin Jerram: Of course, when you do a survey and dry dock you don't have a good waterline assessment we did some dark side testing to establish waterline in the mapping.

71

00:12:22.860 --> 00:12:37.230

Kevin Jerram: system reference frame which was nice it separates that from the historic markings on the vessel like the draft marks, this gives you kind of a repeatable process that you can you can go through if the vessel loading changes.

72

00:12:38.610 --> 00:12:54.750

Kevin Jerram: And this is an area of perpetual ambiguity for a lot of ships, we tend to set it and forget it, and in deep water that works, but not always in shallow water, we might put together a worksheet or some sort of guide for this process that could be adapted for other vessels.

73

00:12:57.270 --> 00:13:00.540

Kevin Jerram: So some of the other lessons learned from this experience.

74

00:13:01.830 --> 00:13:11.430

Kevin Jerram: We follow the standard see acceptance testing checklist that the MAC has been developing and and following cosmic recommendations, so the cons bird.

75

00:13:12.330 --> 00:13:23.880

Kevin Jerram: Acceptance testing contract is kind of like a subset of those tests in the case of the okie honest, the key here was really having ample time to plan having time dockside.

76

00:13:24.930 --> 00:13:30.810

Kevin Jerram: to review the vessel geometry configuration to the waterline testing and we have lots of time at sea.

77

00:13:31.230 --> 00:13:37.770

Kevin Jerram: Which is a luxury, but that, let us work around the troubleshooting for the new system and see state, of course.

78

00:13:38.310 --> 00:13:51.300

Kevin Jerram: So we followed the standard checklist of geometry review games calibration patch test do some noise testing make sure that the new hardware is not acting up or perceiving new sources of noise.

79

00:13:52.080 --> 00:14:14.250

Kevin Jerram: coverage testing accuracy and then we get into backscatter normalization, this is a correction for this is a lengthy set of data collection exercises to help understand the hardware level biases in the backscatter response so early early in the life cycles, the ideal time to do that.

80

00:14:15.570 --> 00:14:20.310

Kevin Jerram: Not only do you get better backscatter products, but you then can use that as.

81

00:14:22.140 --> 00:14:30.720

Kevin Jerram: The backscatter response is a nice way to track hardware health over the service life of the system, and these backscatter products are becoming more of a standard deliverable.

82

00:14:31.740 --> 00:14:48.810

Kevin Jerram: So, again, I mentioned the noise testing, you can see, here we have historic noise data from the 323 or four mark one and the three or four mark to unfortunately running basically the same test every time show that noise levels generally went down.

83

00:14:49.890 --> 00:14:53.700

Kevin Jerram: There were some individual channels that were noisy that went away that's great.

84

00:14:55.950 --> 00:15:08.280

Kevin Jerram: yeah so it's it's just a nice sanity check there's nothing too crazy going on their swath coverage testing, this is a big point of interest for people, considering the three or four mark to upgrade.

85

00:15:10.290 --> 00:15:21.390

Kevin Jerram: We have historic coverage data were able to do sort of an apples to apples comparison between the 302 in Gray, and the three or four mark to colored by depth mode here.

86

00:15:22.500 --> 00:15:28.230

Kevin Jerram: we've been getting a lot of questions about from ships considering 12 and 13 kilohertz systems.

87

00:15:29.310 --> 00:15:41.340

Kevin Jerram: and considering the three or four mark to as as an option in deeper water, so there are some benefits here the benefits seem to be mostly between 1500 and 3500 meters depth.

88

00:15:42.810 --> 00:15:49.920

Kevin Jerram: And having this chance to do the full test at sea with cons Berg engineers on board and like Shannon mentioned with.

89

00:15:50.940 --> 00:15:59.760

Kevin Jerram: real time, support the telepresence it was great we were able to catch some configuration things some some software level things with the new system.

90

00:16:00.330 --> 00:16:12.450

Kevin Jerram: get those addressed very quickly, for instance kingsborough increased the coverage limits in their system based on our testing they added an extra thousand meters on each side, which is pretty exciting.

91

00:16:16.710 --> 00:16:17.790

Kevin Jerram: So Shannon back to you.

92

00:16:19.380 --> 00:16:23.970

Shannon Hoy: Thanks Kevin and then i'm just going to give a bit of an overview of what's happening kind of sense.



93

00:16:24.480 --> 00:16:31.590

Shannon Hoy: Since the see acceptance testing and some of the variant and use the mark to variant and use so since the acceptance testing.

94

00:16:32.160 --> 00:16:43.800

Shannon Hoy: Of the mark to variant multi and sonar this owner has been put to use during multiple missions, including this 2021 North Atlantic stepping stones New England and corner rise seamounts expedition.

95

00:16:44.190 --> 00:16:50.040

Shannon Hoy: that's included both rv and mapping expeditions and then during this expedition we actually got to map.

96

00:16:50.400 --> 00:17:02.700

Shannon Hoy: to some degree 40 seamounts, including 20 that were previously on mapped with any multi beam technology, and then we also performed 14 what we call mapping dives which is.

97

00:17:03.180 --> 00:17:11.700

Shannon Hoy: Where we basically collect the data and turn it over within minutes of deciding where to put the rv or refining where we're putting the rv and and prior to deployment.

98

00:17:12.120 --> 00:17:22.170

Shannon Hoy: And so, one of the reasons that we were able to support such this high request for mapping dives was that the quality of the data was so good, and in this areas there was little sound velocity.

99

00:17:22.470 --> 00:17:37.740

Shannon Hoy: fluctuations and it was pretty deep but still, it was quite impressive, to be able to support that that level of operations and just yeah the image on the slide shows you know our process for planning were to die, which is the imagery the slope and the backscatter, and that is next slide.

100

00:17:40.830 --> 00:17:49.170

Shannon Hoy: And then, this slide shows some of the improvements that was made during that expedition from the what was available to the current data collected by the mark to.

101

00:17:49.710 --> 00:17:58.200

Shannon Hoy: image as a shows the comparison between that satellite altimeter data of a female and then on the right is going to be the mark to variant that was collected during that expedition.

102

00:17:58.560 --> 00:18:04.410

Shannon Hoy: And then image be is actually a two 2005 cpm data in comparison to the Mark two.

103

00:18:04.830 --> 00:18:11.850

Shannon Hoy: And so it just was really interesting seeing you know, obviously, the difference between the pre existing data and what we're able to collect with the collect with the brand new system.

104

00:18:12.270 --> 00:18:20.880

Shannon Hoy: And then, all of this data was collected to meet the US and international goals as laid out by that that national strategy for mapping exploring and characterizing the United States.

105

00:18:21.270 --> 00:18:29.310

Shannon Hoy: exclusive economic zone, which is that no Max strategy, and then the international effort see by 2030 so we're excited about this mark to.

106

00:18:29.640 --> 00:18:41.910

Shannon Hoy: array and the full complete upgraded system, and you know, we expect the system on the know ship oceana's explorer will be used to make major contributions to both of those initiatives initiatives throughout the next few decades decades.

107

00:18:42.930 --> 00:18:43.680

Shannon Hoy: Next slide.

108

00:18:45.030 --> 00:18:52.140

Shannon Hoy: Something else that was pretty exciting was that we did find a shipwreck, with the Mark two variants so in our during our annual rv.

109

00:18:53.190 --> 00:19:03.750

Shannon Hoy: shakedown expedition this was the USS musk lunch and then 650 meters is really kind of pushing the physical limitations of target detection, with the 30 kilo hurt hurt sonar.

110

00:19:04.050 --> 00:19:12.540

Shannon Hoy: So this was really exciting to see and put this to the test of what the new sonar could do I do want to mention that this as a deep water system is really not.

111

00:19:13.260 --> 00:19:21.090

Shannon Hoy: You know, a target detection tool, unfortunately, the shipwreck was on flat terrain with you know soft sediment surrounding it, so we were able to detect it.

112

00:19:21.420 --> 00:19:25.110

Shannon Hoy: With those mark to backscatter capabilities, but it was good to see.

113

00:19:25.500 --> 00:19:32.400

Shannon Hoy: And then, just to drive that point home a little bit further, you know when we surveyed the area in multiple directions, I think two directions.

114

00:19:32.700 --> 00:19:39.030

Shannon Hoy: And we were really only able to recognize the target and one of those directions which I found interesting because i've been hammering home for a while.

115

00:19:39.390 --> 00:19:50.850

Shannon Hoy: The use of deepwater deepwater multi beams for target detection, so it helps help prove a point but was still an exciting case and, like I said i've been kind of working on this and communicating target detection.

116

00:19:51.300 --> 00:20:04.410

Shannon Hoy: capabilities with deep water multi beams for a while and if you're more interested in that you know feel free to contact me and I do have a presentation linked with the internal presentation and the references slide because it's near and dear to my heart next slide.

117

00:20:07.650 --> 00:20:18.060

Shannon Hoy: So we do have some exciting upcoming things, for example, we are about to hit 2 million square kilometers map with okay and support and just the next couple of days, the ship just left the Doc.

118

00:20:18.480 --> 00:20:24.990

Shannon Hoy: And then also next fields us and we will have some opportunities to expand our work in our testing with the three or four.

119

00:20:25.290 --> 00:20:31.770

Shannon Hoy: Including be able to test the full achievable coverage when we cross the Puerto Rico trench so I know a lot of people be interested in that.

120

00:20:32.160 --> 00:20:41.970

Shannon Hoy: And then also to continue expanding our use of remote and telepresence technologies, including remote remote remote watch standing and cloud processing.

121

00:20:42.300 --> 00:20:52.800

Shannon Hoy: So we will also continue to work closely with cons Berg to collaborate on some of the improvements of this system to benefit the broader deep ocean mapping community and industry.

122

00:20:53.130 --> 00:21:00.060

Shannon Hoy: And, for example, I know they did just improve their bottom bottom detection algorithm from some of the data that we collect while we were in rough seas.

123

00:21:00.390 --> 00:21:09.780

Shannon Hoy: And if you want to learn more about those improvements, you can check out cons berg's also cons for us hydro presentation, I believe, once it's available i'm not sure if those are available yet.

124

00:21:11.490 --> 00:21:23.970

Shannon Hoy: Next slide, as I said, I just listed some reference material here as we go through, I know, as people are interested in these systems, so we do produce those the acceptance testing reports that people might find of interest, both for the mark, one in the market.

125

00:21:24.960 --> 00:21:34.080

Shannon Hoy: As well as that deepwater expression mapping procedures manual and we have version two forthcoming to be inclusive of more of those cloud cloud processing.

126

00:21:35.250 --> 00:21:50.280

Shannon Hoy: i've also linked here a catalog of our living standard operating procedures which we just reformatted today or yesterday she's at the beginning of the field season, but it's a link to everything that we do on the opm is explore and I think it's already been infused throughout the Community.

127

00:21:51.300 --> 00:22:02.160

Shannon Hoy: So that might be of interest to you, they are Google documents so you'll have to request access but i'll be able to to give anyone access who's interested in those recipes.

128

00:22:03.210 --> 00:22:17.220

Shannon Hoy: And that is it if you have any questions about any of this feel free to contact me or Kevin or there's also the entire Noah ocean exploration mapping team that is always ready to take your emails.

129

00:22:18.450 --> 00:22:32.070

Kevin Jerram: And just to follow up quickly, I saw a question from ethan Roth and somehow I can't get back to it, but the question was is the three or four just a tr you upgrade if you have a 302.

130

00:22:32.550 --> 00:22:44.130

Kevin Jerram: And yes, if you have a 302 and the razor in good health, you can do a three or four upgrade with just the transceiver if you want to go to the mark to that is a new transmitter rate.

131

00:22:45.390 --> 00:22:56.220

Shannon Hoy: And that the big difference there is, I think it allows that a broader band frequency there and gets into some lower frequencies giving you that coverage game and the deeper waters.

132

00:22:57.450 --> 00:22:57.750

Shannon Hoy: Right.

133

00:22:58.590 --> 00:23:05.130

Lee Ellett: yeah the standard three or four would be uh i'll talk a little bit there's a little bit about that in the next presentation.

134

00:23:06.720 --> 00:23:07.770

Kevin Jerram: i'm going to stop sharing here.

135

00:23:08.820 --> 00:23:16.920

Brandi Murphy (she/her): there's a additional question from rob spark in the chat, how is the em three or four mk to upgrade in coordination with SVP 29.

136

00:23:19.380 --> 00:23:27.270

Shannon Hoy: I haven't particularly tested that system out, we have a nuts and three to six so i'm so i'm not I don't have experience there I don't know Kevin if you.

137

00:23:28.920 --> 00:23:37.890

Kevin Jerram: haven't worked with Mark two, three or four Sep 29 but i'm sure we can talk about Sally rides spp 29.

138

00:23:39.480 --> 00:23:39.720

Kevin Jerram: yep.

139

00:23:39.810 --> 00:23:46.980

Lee Ellett: That is in the States, but we haven't we haven't done that either so it's but the the three and four, so the spp 29.

140

00:23:49.230 --> 00:23:52.200

Lee Ellett: is advertised to be compatible with either the.

141

00:23:53.400 --> 00:23:56.100

Lee Ellett: Or the three or four so you can either you can use either.

142

00:23:57.180 --> 00:23:58.050

Lee Ellett: Either system.

143

00:23:59.430 --> 00:24:01.290

Lee Ellett: To make your spp 29.

144

00:24:06.390 --> 00:24:07.110

Lee Ellett: And one.

145

00:24:08.370 --> 00:24:11.370

Lee Ellett: One announcement to make before I open this presentation is.

146

00:24:13.530 --> 00:24:14.460

Lee Ellett: To.

147

00:24:15.720 --> 00:24:27.690

Lee Ellett: The multi beam Community section in the ticket for continued questions and discussion in the who've a website that the meaning website there's a multi beam Community section, where we can keep a.

148

00:24:28.230 --> 00:24:38.520

Lee Ellett: dialogue going more questions and comments on this, I did have one comment on the the survey, and I agree that the survey what.

149

00:24:39.060 --> 00:24:48.810

Lee Ellett: Is super super important, but it can be challenging to get buy in from all stakeholders, when a ship is in dry dock and to get that time there's so many competing.

150

00:24:49.350 --> 00:25:01.440

Lee Ellett: Getting so many competing of things going on and timelines that getting the survey or access we it's a it's a real a lot of it can be done, this is just a lot of coordination.

151

00:25:03.090 --> 00:25:07.620

Kevin Jerram: I realized how lucky we were in that case with those accounts to to do that.

152

00:25:08.850 --> 00:25:21.690

Lee Ellett: I think we trying to do with things like this is program in the time and so say we need these day and beginning getting those details in there, or else you can get get pushed the shop pushed aside for sure sorry I didn't mean one channel.

153

00:25:22.350 --> 00:25:29.910

Shannon Hoy: Oh, I just was gonna say I think that that is important, and obviously it's important thing to the quality of the data, but what is important, or the efforts going on now with MAC.

154

00:25:30.330 --> 00:25:37.440

Shannon Hoy: and Dr rajiv from us me to just make it more clear what people are my math okay i'm not muted cell phones basically.

155

00:25:38.220 --> 00:25:46.410

Shannon Hoy: But to make it more clear what needs to be done to meet the specs of that survey, because I think it's confusing as well, so the more streamlined we get there.

156

00:25:46.710 --> 00:26:00.000

Shannon Hoy: The quicker that takes and the more companies that are available to provide that service, you know I think wes like was able to do it in a couple a couple days and things like that I think it just needs refinement as well to start to be able to do it more frequently.

157

00:26:01.410 --> 00:26:10.440

Dale Chayes: I can't emphasize enough how important it is that the survey the integral piece of the shipyard plan from the get go.

158

00:26:12.390 --> 00:26:14.400

Dale Chayes: If the success of the shipyard.

159

00:26:15.540 --> 00:26:18.000

Dale Chayes: From the shipyard perspective.

160

00:26:19.080 --> 00:26:25.380

Dale Chayes: survey upfront you get lots of leverage when it's time to make access and schedule X.



161

00:26:32.550 --> 00:26:34.320

Lee Ellett: equals see my screen to have this right.

162

00:26:35.820 --> 00:26:36.420

Brandi Murphy (she/her): Yes.

163

00:26:36.600 --> 00:26:48.450

Lee Ellett: Thank you Dale I agree it's it's um yeah it can be a challenge so i'm Leah with the scripps Institute of Oceanography.

164

00:26:49.200 --> 00:27:02.640

Lee Ellett: i'm going to present on the sonar installations for so so not just a you know a little bit on the in 124, but a lot of it on this spp 29 the physical installation i'm focusing on the physical installation, a lot of my the technicians that.

165

00:27:03.840 --> 00:27:15.630

Lee Ellett: we're working directly on this, a lot of benefits see kobe's installing a at CP today so that's taking a lot of his time so given given time constraints and operational constraints.

166

00:27:16.650 --> 00:27:28.170

Lee Ellett: Focusing on the the 124 upgrade the spp 29 installation and a few of the challenges that we've had with says five Sally ride went into the.

167

00:27:29.640 --> 00:27:31.590

Lee Ellett: dry dock around.

168

00:27:33.810 --> 00:27:45.060

Lee Ellett: April late April May this year and regulatory dry dock and we had planned in to upgrade the in 124 and install the spp 29.

169

00:27:48.060 --> 00:27:54.900

Lee Ellett: that's that, and this was these hardware upgrades were funded through an open our door.

170

00:27:57.150 --> 00:27:59.820

Lee Ellett: it's specific to some users that wanted.

171

00:28:01.020 --> 00:28:02.310

Lee Ellett: The books, the.

172

00:28:03.360 --> 00:28:20.310

Lee Ellett: spp 29 some own our users, that one of the spp 29 capabilities i'll talk a little bit about so start off with the 124 like ethan was asking what is the upgrade consist of, and that is from from the easily at least the.

173

00:28:22.470 --> 00:28:40.920

Lee Ellett: It was a the tru is upgraded that's in the Center here for my screen from the Center here is, this is the the tru is replaced by the tx unit, and then the pre amplifier is replaced by the rx unit and then you add the processing unit.

174

00:28:42.510 --> 00:28:43.680

Lee Ellett: Processing unit.

175

00:28:45.270 --> 00:28:56.820

Lee Ellett: To that is the in both of these electronics or smaller form factor for the for the tx in the rx so we were pretty easily able to get managed that without.

176

00:28:59.010 --> 00:29:13.170

Lee Ellett: Without writing in a lot of cabling into the shipyard package were able to we're able to get the cable links cable thing cable links worked out well, did you can cable management for both of these these installations.

177

00:29:17.310 --> 00:29:30.420

Lee Ellett: And next, so how this so how this works just in this, so we have the the em now that even when 24 array and you have to have 124 to get the spp 29 so you have to have that you have to upgrade.

178

00:29:31.770 --> 00:29:41.400

Lee Ellett: To that and the, so this is what these are the drawings from Boston where this is the spot, with this is the cut out for the spp 29 casing.

179

00:29:41.730 --> 00:30:05.970

Lee Ellett: And then we did not replace the same array so the same em 122 array we have with the electronics upgrade is now a 124, and so it was proposed some Sally ride is putting the spp 29 it's a three degree system adjacent to the end when 2040 X Ray and.

180

00:30:08.040 --> 00:30:10.830

Lee Ellett: So it's a significant cut out to the ship.

181

00:30:12.540 --> 00:30:15.510

Lee Ellett: Significant modification to the ship to get that.

182

00:30:18.060 --> 00:30:23.700

Lee Ellett: In there and then, so the spp 29 is the transmit part and then you're using the.

183

00:30:25.440 --> 00:30:42.780

Lee Ellett: Our X Ray as your receive for your multi beam and your receive for your some bottom so you're basically getting a in some girls have an example of the end one example, with the end a multi beam multiple beams of multi being somebody profiler.

184

00:30:47.910 --> 00:31:02.040

Lee Ellett: um so the the one one challenge we knew about going in and we worked with Boston on beforehand and it all worked out, but it was it was a certainly nerve wracking times and our technician Keith and Doug did an excellent job of.

185

00:31:02.400 --> 00:31:12.330

Lee Ellett: being vigilant with the shipyard the shipyard was very helpful to we dropped several of the transducers from the rx array protected them and got them, you know that that the key times.

186

00:31:12.720 --> 00:31:28.170

Lee Ellett: But, as you can see in this picture the cut for the spp was very close to the 124 but all that all that worked out, but we had to be very vigilant about that.

187

00:31:33.840 --> 00:31:43.140

Lee Ellett: Another issue that we had was the ABS review sued some changes with that we were surprised last a little bit.

188

00:31:44.190 --> 00:31:54.060

Lee Ellett: emmys watertight boundaries, so they weren't what ABS was saying is they, they wanted to see a watertight boundary at the top of the casing.

189

00:31:54.780 --> 00:32:11.310

Lee Ellett: So the case and that's unusual, so the way these normally work with with all most of the installations, with the Multi beam seminars and academic research fleet is you have your cable conduit going up above the waterline and then you have rocks tech or similar.

190

00:32:13.740 --> 00:32:23.430

Lee Ellett: Transit box, with a vent line going above going further further up and that has been historically that's been acceptable.

191

00:32:23.790 --> 00:32:34.320

Lee Ellett: But then we were being the we've been told it, but that was not going to be acceptable, and you can't the way these uh these are designed the casings and the transducer installation you can't get to this.

192

00:32:34.590 --> 00:32:39.420

Lee Ellett: You can't get to the spot at the top of the casing or the cables come out so it would have been pretty.

193

00:32:41.550 --> 00:32:54.390

Lee Ellett: Much pretty impossible to meet that requirement so with persistence from Boston they got coast guard approval and ABS I eventually got signed off on, but of course it was a process.

194

00:32:58.380 --> 00:33:11.430

Lee Ellett: Next, another challenge that we had is the the shipyard specifications these these things go through these things, but it did not explicitly state that the casing would be machined.

195

00:33:11.820 --> 00:33:29.910

Lee Ellett: Before installation was the was building casing to these criteria, these dimensions these tolerances install install the casing the shipyard chose to build the basic parts of the box, but then not put it on.

196

00:33:31.830 --> 00:33:41.010

Lee Ellett: A nap machine in a warehouse in a shop, but to but to install the the casing and then machine it in place, and that was.

197

00:33:42.240 --> 00:33:53.700

Lee Ellett: event, so that worked out the investment, but it was, but it was it was a it was different so in the future, learn about the you know, be more explicit about how you want, if there's sequences.

198

00:33:54.750 --> 00:34:07.560

Lee Ellett: That you can include in that specification to include it because it so that it all worked out that all worked out well, but it was a bit nerve wracking when the timeline was not exactly what we thought it was going to be.

199

00:34:11.070 --> 00:34:22.470

Lee Ellett: But this is the SVP 29 here it's, this is a 30 degree system is 96 elements believe it's it's pretty impressive it's it's similar in link to the.

200

00:34:24.360 --> 00:34:25.140

Lee Ellett: To the.

201

00:34:26.970 --> 00:34:31.230

Lee Ellett: end when 24 tx tx array, but it also.

202

00:34:32.490 --> 00:34:36.810

Lee Ellett: it's using other using massa massa very similar similar to the.

203

00:34:38.400 --> 00:34:43.410

Lee Ellett: Somebody profiling the transducers that familiar with, with the Newton picker Saunders.

204

00:34:46.170 --> 00:34:53.490

Lee Ellett: And then next we had um so Due to limited space in the transceiver and we opted for the underwater CC use.

205

00:34:54.420 --> 00:35:03.450

Lee Ellett: These cable connection unit, so, if you look on this right hand side, where we have a picture of a happy colby with installation is that underneath those plates you see it's kind of.

206

00:35:03.960 --> 00:35:11.700

Lee Ellett: offset there's blinking but that's to accommodate these underwater cable connection units and those are those combine the.

207

00:35:13.290 --> 00:35:30.240

Lee Ellett: combine the transducers instead of having to do that in the transceiver room so we're doing an underwater versus so there's just a few cables that go up the cable transit into the transceiver room we couldn't have accommodated the whole rack of cable connection units on Sally ride.

208

00:35:31.740 --> 00:35:44.610

Lee Ellett: But do another challenge challenge we had on site during installation was due to manufacturing error each ccu cable had to be individually tested to confirm, if there was some factory defects that.

209

00:35:45.660 --> 00:35:54.960

Lee Ellett: And there were a few bars that were affected, but we, we already we contracted for KPI services, so they took care of that.

210

00:35:56.160 --> 00:36:01.350

Lee Ellett: In there, but it was you know it was part of this part of the challenge we had during the installation.

211

00:36:05.010 --> 00:36:05.730

Lee Ellett: and

212

00:36:08.220 --> 00:36:16.320

Lee Ellett: next thing I wanted to talk a little bit satisfied so with all the systems when we have to convert everything just this five for the.

213

00:36:18.630 --> 00:36:33.360

Lee Ellett: The spp 29 uses different uses different software, it does not use this so we had some gritting instability, with some compute environments versus a vm versus a a bare metal machine we're still working through some of those.

214

00:36:34.500 --> 00:36:51.300

Lee Ellett: We can we've not been able to get satisfied to accept the em binary format from etsy etsy hydrants Mr you systems that that's been so we're our backup Mr us are no longer backup and we're us so we're working to resolve that.

215

00:36:53.070 --> 00:37:02.520

Lee Ellett: Are see past work fine I believe don't we don't have it on on a selling right Roger revele will have see path or the etsy products right now.

216

00:37:03.570 --> 00:37:16.440

Lee Ellett: And we've unable to get this five to reliably accept our veil port SV sensor it works with the 24 but not with the 712 we're working we're working to resolve that.

217

00:37:17.670 --> 00:37:27.720

Lee Ellett: This port period on Sally ride it it's a you know it's the 712 that's been affected now, but we might be able to we might need to.

218

00:37:29.250 --> 00:37:39.720

Lee Ellett: Some some issues in order to upgrade to five, seven, which I believe is still the current most stable release is we've had to go in and remove registry keys try to get it.

219

00:37:40.320 --> 00:37:51.060

Lee Ellett: To do a really clean install to get some of the stability, some of the issues to resolve that's what we're trying right now with this this male port SP sensor.

220

00:37:52.290 --> 00:37:54.390

Lee Ellett: I got one more slide.

221

00:37:55.860 --> 00:38:10.470

Lee Ellett: Should should see the gif this is have spp 29 data, and this is the cycling through the beams so with this this the Multi beam aspect of the sub bottom profile is very powerful.

222

00:38:11.310 --> 00:38:22.110

Lee Ellett: it's this is pretty cool, you can see, as you're going, this is going port to sweeping port to starboard and you can see, out of plane features.

223

00:38:24.300 --> 00:38:36.420

Lee Ellett: And that's that was pretty exciting to the users, so I have a couple users of the system, so far, but still a long ways to go and a lot of training to continue with using all the features.

224

00:38:37.800 --> 00:38:44.280

Lee Ellett: And that is all I have i'm happy to take any I see there's some questions that much happening just stop sharing just get to those.

225

00:38:51.570 --> 00:38:52.740

Lee Ellett: There was a.

226

00:38:54.030 --> 00:38:55.170

Lee Ellett: question about.

227

00:38:56.580 --> 00:39:12.990

Lee Ellett: process the spp 29 data so that individual so you can use the plan spp 29 data, you can use the replay this the consumer and provide an acquisition software as a replay to replay the data.

228

00:39:14.040 --> 00:39:30.660

Lee Ellett: The it's you can use any any software that process segue bunch of your processing the segue for each individual channel so there's not really software right now we've been playing around with it a little bit, but not, not a lot to to.

229

00:39:32.040 --> 00:39:36.540

Lee Ellett: To do more with it, you know for the deal with the multiple channels, but.



230

00:39:37.170 --> 00:39:46.260

Lee Ellett: that's where I think that's why it's exciting exciting instruments and number of users, because there's a new new capabilities new functionality that needs to be figured out with with this data.

231

00:39:46.680 --> 00:39:54.360

Lee Ellett: But it's it can be all be read with a segway and in the casper go software, so a couple couple options.

232

00:39:57.900 --> 00:40:01.950

Lee Ellett: um that is all have see next of.

233

00:40:03.000 --> 00:40:04.710

Lee Ellett: there's no other questions i'll go ahead and.

234

00:40:06.930 --> 00:40:10.530

Lee Ellett: hand it over to Kevin to present with MAC.

235

00:40:13.200 --> 00:40:14.310

Kevin Jerram: awesome thanks Lee.

236

00:40:15.450 --> 00:40:15.810

Kevin Jerram: and

237

00:40:17.280 --> 00:40:18.780

Kevin Jerram: Start sharing my screen here.

238

00:40:24.030 --> 00:40:25.050

Kevin Jerram: You see a title slide.

239

00:40:29.220 --> 00:40:30.120

so great.

240

00:40:31.770 --> 00:40:47.310

Kevin Jerram: yeah we use a great to work with you during that see acceptance trials that was a busy week and a half at sea with the spp 29 and in the new 124 and so thanks for your support, while we were out there.

241

00:40:49.080 --> 00:41:07.410

Kevin Jerram: So i'm Kevin JEREMY with the Multi beam advisory committee presenting some lessons learned and activities from the last year, a little overview of what we do work with Paul Johnson and vicki freeney you may not know them, they are also tuning in here, so they can answer questions on.

242

00:41:08.520 --> 00:41:10.020

Kevin Jerram: i'm going to move a little quickly.

243

00:41:11.100 --> 00:41:20.430

Kevin Jerram: Some of this, you might have heard before but we're funded by the nsf to provide any multi beam mapping system support to the UN all sweet.

244

00:41:21.060 --> 00:41:33.270

Kevin Jerram: and want to say big thank you to Jim if he's out there we're currently in a five year grant first year was 2011 so we're actually wrapping up the first 10 years here and.

245

00:41:34.920 --> 00:41:41.250

Kevin Jerram: Our goals are to standardized testing across the fleet publish reports and best practices and.

246

00:41:42.180 --> 00:41:49.590

Kevin Jerram: Post additional resources from outside the universe fleet, so if there's anything out there, the other ships and other platforms are doing that's useful.

247

00:41:50.100 --> 00:41:57.840

Kevin Jerram: will certainly take that and try to share that and again we provide on board support and also, especially in the last couple years remote support.

248

00:41:58.530 --> 00:42:05.940

Kevin Jerram: We have an email help desk MAC help that you know.org and vicki's putting together a new website for us, which is coming together really nicely.

249

00:42:08.580 --> 00:42:18.330

Kevin Jerram: Quick overview of the mapping systems in the US academic fleet, there are all vessels with 15 Carlsberg systems in two reasons systems.

250

00:42:19.410 --> 00:42:23.820

Kevin Jerram: lots of other sensors and configurations and histories of those setups.

251

00:42:25.170 --> 00:42:38.730

Kevin Jerram: And and vessel working areas near the host institutions, so we take all that into consideration when we're planning MAC support the RC our views are on the way will definitely be involved with the sea acceptance testing for those.

252

00:42:41.970 --> 00:42:51.480

Kevin Jerram: We focus pretty heavily on cons Berg hardware and software, because that is vast majority of the vessels and the systems out there.

253

00:42:51.990 --> 00:43:00.810

Kevin Jerram: We we try to provide support across the full range of life cycles on some of them are brand new some of them are approaching end of life.

254

00:43:01.770 --> 00:43:06.810

Kevin Jerram: here's a quick overview, the different types of support we provided to the different ships.

255

00:43:07.620 --> 00:43:27.840

Kevin Jerram: Since the MAC was founded and the stars indicate cases where we've provided remote support for a certain kind of test this also list the ages of the arrays or when they are installed, so there may be some systems out there that we should start thinking about array degradation and replacement.

256

00:43:30.600 --> 00:43:39.690

Kevin Jerram: Our approach here is to again try to standardize the testing methods we try to develop a checklist.

257

00:43:40.770 --> 00:43:46.350

Kevin Jerram: For activities that are prioritized based on the impact on data quality and.

258

00:43:47.400 --> 00:43:54.420

Kevin Jerram: fit into the narrow often narrow time windows that are allotted for for see acceptance testing or quality assurance testing.

259

00:43:55.590 --> 00:44:11.100

Kevin Jerram: And in this example here, this is actually from the ravel you can see, it turns into a central resource with links to waypoints and settings and survey information, some of the assessment tools we try to make it a collaborative approach.

260

00:44:12.360 --> 00:44:22.890

Kevin Jerram: The earlier, the better if we can get involved weeks or months ahead of of your expected time window that is usually for the better.

261

00:44:25.980 --> 00:44:31.680

Kevin Jerram: And here's an example of typical testing if we had all the time in the world to do it.

262

00:44:32.370 --> 00:44:49.920

Kevin Jerram: These again are listed in order of priority, starting with the vessel geometry and the configuration of the mapping sensors once that's sorted out, we work on calibration like a patch tests do some receiver noise testing swath accuracy and coverage testing.

263

00:44:51.000 --> 00:44:55.920

Kevin Jerram: Looking for anything that's limiting the performance, the expected performance of the system.

264

00:44:57.150 --> 00:44:57.690

Kevin Jerram: We do.

265

00:45:00.420 --> 00:45:01.350

Kevin Jerram: We we.

266

00:45:02.430 --> 00:45:12.570

Kevin Jerram: have ways of looking at built in self tests as a proxy for hardware health they're not a direct measurement of impedance and so.

267

00:45:13.200 --> 00:45:21.660

Kevin Jerram: that's a secondary way of looking at hardware health over the life cycle, we try to look at water column data quality just generally and.

268

00:45:22.590 --> 00:45:33.240

Kevin Jerram: There are certainly more advanced ways to look at that, but we, we like to just make sure you can see, known unknown nothing see or something like that or stratified layers in the water column.

269

00:45:34.440 --> 00:45:40.200

Kevin Jerram: I mentioned during the talk with Shannon that we also want to start prioritizing backscatter normalization.

270

00:45:40.920 --> 00:45:51.390

Kevin Jerram: It does come to the end of the list, right here, because it is a lot of time it's also something that can be done opportunistically on your transits but it's going to be more important for systems as time goes on.

271

00:45:52.440 --> 00:45:58.710

Kevin Jerram: And then we try to standardize reporting that's always always takes more time than we would like to admit.

272

00:46:00.120 --> 00:46:06.690

Kevin Jerram: But in the background here, you can see, an example of one case where we, we were able to make a very dense test plan in a very.

273

00:46:07.530 --> 00:46:18.480

Kevin Jerram: In a relatively confined working area so that saves transit time and makes the most of our of our ship time that can also be stretched out so if you if you are on a big transit, we can we can break it up.

274

00:46:22.050 --> 00:46:26.280

Kevin Jerram: So, again harping on the vessel offset survey reports.

275

00:46:27.390 --> 00:46:27.960

Kevin Jerram: We.

276

00:46:29.040 --> 00:46:33.780

Kevin Jerram: We just want to stress that this is fundamental to data quality we.

277

00:46:34.860 --> 00:46:44.610

Kevin Jerram: When we have data quality issues, not every time but, more often than not, we can trace it back to something in a configuration and sometimes those configuration errors.

278

00:46:45.330 --> 00:46:59.610

Kevin Jerram: end up being traced back to an ambiguous survey report some time, most of the time, the numbers themselves are good, but the the way they report, it is a little bit unclear and so many take that report, and you try to translate it into a.

279

00:47:01.350 --> 00:47:14.190

Kevin Jerram: Positive V or multi beam configuration that's that tends to be where the the little arrow slips in so we provide recommendations for surveyors.

280

00:47:14.790 --> 00:47:24.240

Kevin Jerram: it's just a relatively simple set of guidelines, you can hand this document to your server at least started discussion with them about what your ship really needs out of that report.

281

00:47:25.350 --> 00:47:39.810

Kevin Jerram: And of course we're available, with our help desk we'd love to talk about any vessel survey stuff you have coming up or vessel geometry review make sure, things are making sense do a little sanity check there.

282

00:47:42.840 --> 00:47:43.710

Kevin Jerram: We also.

283

00:47:45.420 --> 00:47:52.650

Kevin Jerram: Have a series of assessment tools that are in development, but we try to use these tools to.

284

00:47:53.250 --> 00:48:05.610

Kevin Jerram: Make sure the way we're processing the data is roughly the same so we can make apples to apples comparisons and give us a little bit more flexibility than some of the commercial tools out there for very specific types of plots we want to make.

285

00:48:06.720 --> 00:48:17.940

Kevin Jerram: um so we have a file tumor that we use to increase the speed of ship to shore transfer if we're doing remote support that is all file only right now.

286

00:48:18.480 --> 00:48:26.370

Kevin Jerram: still working on with camel format it's it's fundamentally different so we can't strip out some of the things that we can really got all.

287

00:48:27.450 --> 00:48:37.770

Kevin Jerram: This clutter again for looking at proxies for hardware health and noise assessments, so we can catch changes in the vessel noise profile earlier.

288

00:48:38.820 --> 00:48:57.960

Kevin Jerram: same thing with a coverage plotters so I showed that with shannon's presentation comparing historic coverage plots to new data looking for any signs of changes there or improvements if if you've made some changes in hardware or fix the noise issue on board or clean the hall.

289

00:48:59.220 --> 00:49:10.980

Kevin Jerram: it's amazing what can make a difference there that also goes into survey planning, so if you have a scientist coming on board, they know they want to cover a certain area but they don't have much history with your system.

290

00:49:12.060 --> 00:49:15.990

Kevin Jerram: You can show them how much coverage in coverage they might expect.

291

00:49:17.010 --> 00:49:29.160

Kevin Jerram: We have an accuracy plotter helps us look at swapped performance and Fridays and modes relative to a trusted bath metric surface so again, these are in continuous development.

292

00:49:31.440 --> 00:49:35.400

Kevin Jerram: And since last time we talked we worked with six vessels.

293

00:49:36.810 --> 00:49:43.740

Kevin Jerram: Mostly remotely, of course, and mostly using proven test sites that we have visited in the past.

294

00:49:44.820 --> 00:50:01.620

Kevin Jerram: In this case, we had the acceptance trials for the Atlantis 24 and see path and the Sally ride also got a 124 upgrade so thank you first and foremost, all the technicians and managers for making that possible to do this remotely.

295

00:50:02.970 --> 00:50:12.630

Kevin Jerram: it's a relatively new option and and it's made a big difference, I think, for us working through the pandemic and, in some cases being able to.

296

00:50:13.710 --> 00:50:17.820

Kevin Jerram: Support ships with overlapping schedules, where we wouldn't have been able to be on board.

297

00:50:19.110 --> 00:50:20.190

Kevin Jerram: Multiple ships at once.

298

00:50:21.630 --> 00:50:32.700

Kevin Jerram: So we've also made some improvements to the assessment tools, since last time we talked with them came all support in some of the tools, not the file tremor but the rest of them and then.

299

00:50:33.480 --> 00:50:43.860

Kevin Jerram: Lots more filtering options and and some little tweaks that has new data formats come in with what Lisa says five formats change.



300

00:50:45.450 --> 00:51:07.140

Kevin Jerram: we've also been involved in some non MAC projects that we kind of try to fall back into the MAC approach, and that is working with some autonomous platforms, such as the cell drone and the drinks and then exploration vessels like oceana's and Nautilus file core and so.

301

00:51:08.430 --> 00:51:18.240

Kevin Jerram: When we when we work with those other vessels we get hands on experience with new equipment and we get to develop new test sites, so those can be used released.

302

00:51:19.380 --> 00:51:21.090

Kevin Jerram: Reference to referenced in some of the MAC work.

303

00:51:24.810 --> 00:51:29.790

Kevin Jerram: So some of the lessons learned or things that stand out for us in the last year.

304

00:51:31.410 --> 00:51:38.970

Kevin Jerram: As a general theme, the common sites and the common assessment tools are becoming more valuable it's easier to plan these tests.

305

00:51:39.690 --> 00:51:51.480

Kevin Jerram: We can make more meaningful apples to apples comparisons for a given system over its history or or maybe, for example, comparing systems across ships at the same site.

306

00:51:52.590 --> 00:52:01.260

Kevin Jerram: Here we have some examples of swath accuracy data with different synchronization schemes onboard over and over a.

307

00:52:02.880 --> 00:52:18.930

Kevin Jerram: Reference site that's been reuse many times and then on the right, we have noise trends for the same system, but on two different same model, but on two different ships, so you can see one ship might make a little bit of a different decision about their mapping speed compared to the other.

308

00:52:20.010 --> 00:52:21.240

Kevin Jerram: Based on the noise trends.

309

00:52:22.380 --> 00:52:23.880

Kevin Jerram: On a related topic.

310

00:52:25.650 --> 00:52:32.490

Kevin Jerram: Aside from the proven sites in the common assessment tools we're seeing a lot of value in the transit data, so this is.

311

00:52:34.080 --> 00:52:35.730

Kevin Jerram: On a big picture.

312

00:52:37.470 --> 00:52:46.800

Kevin Jerram: This goes into the global grids and this is important for global mapping efforts on a ship level, it can help you catch problems early.

313

00:52:48.840 --> 00:52:56.730

Kevin Jerram: The places where you can send the data or to our drummer TV they provide other assessment options that will help you.

314

00:52:58.020 --> 00:53:02.760

Kevin Jerram: See how well your system is doing and look at achieved coverage and some other tools like that.

315

00:53:04.740 --> 00:53:11.670

Kevin Jerram: i've already mentioned the survey reports, but as a lesson learned from the last year, this is, this is still a source of.

316

00:53:13.290 --> 00:53:30.270

Kevin Jerram: sort of challenge for us and just the other week, I was reviewing a report and realized, there was a typo in the transmitter a pitch for a certain system, and this, this was compensated by the.

317

00:53:31.860 --> 00:53:42.660

Kevin Jerram: By the patch test result so it's not it's not the end of the world, but it's not ideal, and so we'll address this on the next quality assessment test of that that system.

318

00:53:43.710 --> 00:53:48.780

Kevin Jerram: um I I definitely take responsibility for missing that typo.

319

00:53:50.250 --> 00:53:56.370

Kevin Jerram: But I think it's it's also fair to say that if if the survey report use the format.

320

00:53:58.050 --> 00:54:02.430

Kevin Jerram: that the manufacturers, use and they're signed Convention and access Convention.

321

00:54:03.900 --> 00:54:16.200

Kevin Jerram: It would at least be easier to catch these things i'm not saying that the survey report is wrong because it isn't it's it's correct but catching those typos might be a little bit easier.

322

00:54:17.790 --> 00:54:26.310

Kevin Jerram: So, again we have guidelines that we, we recommend you just hand your server and when we're always available for that discussion.

323

00:54:30.060 --> 00:54:33.450

Kevin Jerram: growing interest in backscatter again mentioned this with okie is.

324

00:54:34.800 --> 00:54:44.160

Kevin Jerram: very valuable tool for monitoring changes in your array responses, there are just some hardware level biases that you can't address and post processing.

325

00:54:45.090 --> 00:54:56.370

Kevin Jerram: So the earlier, you can do this in the life cycle, the better, but it should be done at any point in the life cycle, because it will improve your backscatter products and scientists coming on board.

326

00:54:57.390 --> 00:55:07.920

Kevin Jerram: may have a very specific desire for that and a ship that has their backscatter sorted out is going to that's going to be a very valuable product.

327

00:55:10.860 --> 00:55:21.120

Kevin Jerram: um one other point here is that talked about our collaborative approach and we try to make the multiple testing fit.

328

00:55:21.900 --> 00:55:39.630

Kevin Jerram: as easily as possible into the existing ship working grounds that the transit plans other around other activities that the ship has and that's that's what we want to do we want to work with the ship with as much time in advance as possible but.

329

00:55:41.460 --> 00:55:52.020

Kevin Jerram: There are limits to how flexible some of those plans can be because we have proven sites that are valuable, we have a good idea that they work well for accuracy testing.

330

00:55:52.500 --> 00:56:07.290

Kevin Jerram: or patch test, and so we using those sites, even if they're a little bit out of the way can pay off, so what I like to think about is these MAC activities or recommendations, they can be dovetailed into the ship plan, but they can't.

331

00:56:08.370 --> 00:56:10.800

Kevin Jerram: always be replaced by other activities.

332

00:56:13.980 --> 00:56:27.390

Kevin Jerram: Finally, the high speed data connections, continue to be just invaluable for remote support we really appreciate the texts willingness to try new ways of sharing data and communicating because obviously email gets cumbersome.

333

00:56:28.590 --> 00:56:34.530

Kevin Jerram: there's still no substitute for being on board, we had a great time on Sally ride with the hot dog eating contest line dancing.

334

00:56:35.580 --> 00:56:40.500

Kevin Jerram: So thank you for making that happen and getting us out there safely following protocols.

335

00:56:42.840 --> 00:56:58.710

Kevin Jerram: Next steps we want to help ships improve their transit data again big picture, this goes into the global grids, the US easy giamatti it's a sea by 2030 and UN ocean decade sort of effort.

336

00:56:59.670 --> 00:57:09.180

Kevin Jerram: But on on your ship level and what you might care about more directly or more immediately is that it's it's opportunistic testing, you can catch problems early in this case.

337

00:57:09.570 --> 00:57:20.490

Kevin Jerram: In the swath coverage example we we figured out that some of the runtime parameters are not set or they were limiting the coverage unnecessarily and, for instance.

338

00:57:21.150 --> 00:57:30.570

Kevin Jerram: Here in this in the seabed artifact image down here we you can see that we were able to test some runtime parameters and fix a specific kind of.

339

00:57:31.230 --> 00:57:42.000

Kevin Jerram: acoustic penetration problem with some transitive so we want to hear from you about your top challenges are roadblocks feel free to email us email us or chat with us here.

340

00:57:42.990 --> 00:57:50.130

Kevin Jerram: And we want to know if you have any ideas for resources or tools that would help you improve your transit mapping efforts that see.

341

00:57:51.900 --> 00:58:08.370

Kevin Jerram: Next, again, our cr V or in work in progress, we want to work with the helium there 122 replacement any other late life cycle systems, we want to be involved, so please reach out, let us know if you have plans or questions we'd be happy to talk.

342

00:58:11.070 --> 00:58:16.770

Brandi Murphy (she/her): To Kevin real quick, we have to end the session five minutes to the hour, so that we can start the next session.

343

00:58:17.160 --> 00:58:18.360

Brandi Murphy (she/her): So if you could.

344

00:58:18.600 --> 00:58:26.250

Brandi Murphy (she/her): get into wrap up mode and, again, there is the Multi beam Community tab to continue this discussion and if anybody has questions.

345

00:58:26.820 --> 00:58:28.230

Kevin Jerram: Okay, this is the last slide.

346

00:58:29.460 --> 00:58:42.810

Kevin Jerram: So talking to the tech training Committee, Kate goober we want to put together some more Community resources and we'll be doing what went wrong Wednesday over the winter so get your questions ready for that.

347

00:58:43.920 --> 00:58:44.370

Kevin Jerram: So thanks.

348

00:58:47.700 --> 00:58:51.990

Lee Ellett: Thank you Kevin great presentation always always a good working with the MAC.

349

00:58:53.820 --> 00:58:58.140

Lee Ellett: And I think we his brain, he says we'll go ahead and end this session, and next we have.

350

00:58:59.190 --> 00:59:04.470

Lee Ellett: The the tools and resources to starting at noon in a different.

351

00:59:06.090 --> 00:59:07.650

Lee Ellett: off the agenda in the APP.

352

00:59:08.880 --> 00:59:10.650

Lee Ellett: So thank you everyone.

353

00:59:12.420 --> 00:59:13.470  
Brandi Murphy (she/her): Thank you.

354  
00:59:14.160 --> 00:59:14.730  
Kevin Jerram: Thanks brandon.

## Pools & Resources II

1  
00:01:59.340 --> 00:02:01.650  
Masako Tominaga: rhonda can you hear me OK.

2  
00:02:02.010 --> 00:02:03.780  
Brandi Murphy (she/her): I sure can Moscow.

3  
00:02:03.870 --> 00:02:05.250  
Masako Tominaga: yay Thank you.

4  
00:02:05.580 --> 00:02:07.140  
Brandi Murphy (she/her): You for testing.

5  
00:02:08.640 --> 00:02:09.210  
testing.

6  
00:02:10.650 --> 00:02:11.010  
Masako Tominaga: I can.

7  
00:02:11.220 --> 00:02:14.940  
Daryl Swensen: Do the same Alice or chesapeake's of visual brand is letting people in theory okay.

8  
00:02:17.040 --> 00:02:17.940  
Brandi Murphy (she/her): Yes.

9

00:02:18.090 --> 00:02:20.880

Daryl Swensen: Thank you, oh wait, I can hear you.

10

00:02:20.940 --> 00:02:23.640

Alice Doyle: target to move on, on some good.

11

00:02:24.840 --> 00:02:25.500

Daryl Swensen: camera looks.

12

00:02:25.740 --> 00:02:26.790

Daryl Swensen: Right well.

13

00:02:28.410 --> 00:02:30.840

Alice Doyle: i'm gonna work with your mug good.

14

00:02:36.780 --> 00:02:40.200

Alice Doyle: very nice picture you have you look very happy out there sailing and.

15

00:02:41.910 --> 00:02:43.500

Daryl Swensen: It might have been the last time i'm.

16

00:02:52.560 --> 00:02:53.070

Alice Doyle: Just kidding.

17

00:02:54.810 --> 00:02:56.850

Daryl Swensen: It was a good day going into.

18

00:02:59.940 --> 00:03:02.880

Alice Doyle: hey so the only present.

19

00:03:02.910 --> 00:03:15.180

Brandi Murphy (she/her): presenter that we're missing is, I think, Paul I just received their presentation, so I think they're coming, but if we could start with Moscow and RC rv and put them at the end of give them time to show up.



20

00:03:16.560 --> 00:03:22.740

Brandi Murphy (she/her): i'll be good either way leads in here twice, I thought I already admitted him that's who that information was war.

21

00:03:24.240 --> 00:03:24.780

Brandi Murphy (she/her): But also you.

22

00:03:32.550 --> 00:03:33.420

Alice Doyle: Know overweight.

23

00:03:35.430 --> 00:03:43.950

Brandi Murphy (she/her): Paul zach is the only one who's missing this presenting this hour, so if we can start with Moscow and then darryl and put more time at the end.

24

00:03:45.540 --> 00:03:47.520

Brandi Murphy (she/her): didn't give them the opportunity to show up.

25

00:03:49.590 --> 00:03:49.890

Brandi Murphy (she/her): Great.

26

00:03:50.880 --> 00:03:55.110

Lee Ellett: yeah I don't think we have anything readily available to insert if we end up short.

27

00:03:55.530 --> 00:03:57.780

Brandi Murphy (she/her): know well get take a break.

28

00:03:57.900 --> 00:03:58.890

i'll be the end of the day.

29

00:04:00.660 --> 00:04:04.710

Lee Ellett: We can have we can yeah we can maybe share screen and navigate the.

30

00:04:06.420 --> 00:04:13.110

Lee Ellett: i'm not sure how to navigate the post, it could be, it could be dead simple but I haven't looked in detail and navigating the poster sessions.

31

00:04:13.560 --> 00:04:16.590

Brandi Murphy (she/her): Oh yeah yeah i'm going to start admitting people, so you can start.

32

00:04:17.070 --> 00:04:18.390

yep yep Thank you.

33

00:04:28.950 --> 00:04:31.920

Brandi Murphy (she/her): Oh, and masako you would like me to share your presentation right.

34

00:04:32.670 --> 00:04:34.410

Masako Tominaga: Oh, should I try I.

35

00:04:35.790 --> 00:04:38.040

Masako Tominaga: I have a here as well, so.

36

00:04:39.210 --> 00:04:41.160

Brandi Murphy (she/her): Why don't you give it a shot i'm.

37

00:04:41.250 --> 00:04:44.340

Masako Tominaga: Sure, let me try the share screen them.

38

00:04:45.390 --> 00:04:49.530

Masako Tominaga: Is that okay here share do you see anything.

39

00:04:49.590 --> 00:04:50.490

Brandi Murphy (she/her): I do.

40

00:04:50.790 --> 00:04:51.900

Masako Tominaga: awesome.

41

00:04:52.200 --> 00:04:53.970

Brandi Murphy (she/her): I see her PowerPoint.

42

00:04:54.390 --> 00:04:55.620

Masako Tominaga: And then here.

43

00:04:55.800 --> 00:04:59.670

Masako Tominaga: Perfect awesome Okay, I can do that at least.

44

00:05:03.060 --> 00:05:05.850

Lee Ellett: You can leave it up and i'll do a read at 12 now so go.

45

00:05:05.850 --> 00:05:06.480

Lee Ellett: ahead and get.

46

00:05:08.790 --> 00:05:10.440

Lee Ellett: things going, so this is a.

47

00:05:10.590 --> 00:05:20.460

Lee Ellett: pools and resources to session and so we're going to have Moscow Tanaka here with who we, and then we have.

48

00:05:21.540 --> 00:05:27.540

Lee Ellett: daryl swenson with our crv and then hopefully we have the Mr Sam green sentiments.

49

00:05:29.880 --> 00:05:33.690

Lee Ellett: So we'll start with a Moscow with the potential feel cool.

50

00:05:35.130 --> 00:05:38.370

Masako Tominaga: yeah Thank you very much, and can you hear me OK me.

51

00:05:38.550 --> 00:05:39.840

Lee Ellett: Randy yes, I can, yes I.

52

00:05:39.960 --> 00:05:41.760

Lee Ellett: can hear you fine and presentations up.

53

00:05:42.210 --> 00:05:47.940

Masako Tominaga: awesome well Thank you so much for including us for this poem facility update.

54

00:05:48.870 --> 00:05:56.820

Masako Tominaga: Hello everybody, my name is a massive autoimmune Alga i'm a scientist here at department of geology is your physics of who we.

55

00:05:57.690 --> 00:06:12.420

Masako Tominaga: Are give you the psp activity updates today on behalf of these six main members of the psp and also Randy her who hasn't been major longer term contributor in.

56

00:06:12.930 --> 00:06:25.080

Masako Tominaga: addressing numerous issues of big mystery meters in oceanography Community over the last 25 years probably many of you interacted or you know responded responses from Randy.

57

00:06:25.650 --> 00:06:46.890

Masako Tominaga: After right after you kind of shoot on the email help us so psp is funded by on Jim hollyoaks program and nsf Thank you so much for your continued support our working partner is currently national geospatial intelligence Intelligence Agency recall NGA.

58

00:06:48.060 --> 00:07:04.440

Masako Tominaga: What does P FP do under urinals structure we are the facility currently a subset of who we Maria obsesses SG program mainly to help operating grubby meters on board us academic research fleet.

59

00:07:05.910 --> 00:07:06.510

Masako Tominaga: oops.

60

00:07:07.590 --> 00:07:08.280

Next.

61

00:07:09.390 --> 00:07:16.200

Masako Tominaga: So in addition to who engineering and technical talent, we recently.

62

00:07:17.220 --> 00:07:30.900

Masako Tominaga: Moving forward with some restructuring of the psp management team, so, as you know, Dan Ferrari, has been the driving force for many, many years for this endeavor.

63

00:07:31.560 --> 00:07:44.160

Masako Tominaga: I will be humbly taking over his responsibilities to oversee the program bear with me i'm still on this quite steep learning curve and I heavily rely on.

64

00:07:44.700 --> 00:07:56.250

Masako Tominaga: Both Tommy flanagan and Steve photo here at who we they are extremely talented on mechanical and electrical engineers, with many years of.

65

00:07:56.940 --> 00:08:11.280

Masako Tominaga: museums three and the recent new parameter experiment ratio experiences and then we have a new member just means she's me cure your research associate here at who we.

66

00:08:12.420 --> 00:08:35.370

Masako Tominaga: she's currently assessing the new new grabbing mater data pipeline and also the devil help with developing the new practice for our team, so a little bit new faces or old faces with a new role clarity so we'll see you guys soon particular hopefully in person.

67

00:08:37.200 --> 00:08:39.150

Masako Tominaga: So next is.

68

00:08:40.980 --> 00:08:52.290

Masako Tominaga: So we know that are many, many, many Corbett challenges put all the academic research fleet operators tax and sending science parties in.

69

00:08:52.950 --> 00:09:00.360

Masako Tominaga: Challenging spots over probably last 20 months or so, and in this difficult time with.

70

00:09:01.290 --> 00:09:19.350

Masako Tominaga: Such a tremendous help and support from all of you and funding agencies php could operate on nominal seven to eight bms three meters on these vessels listed here, as we have been doing so in the previous years, because we time.

71

00:09:20.370 --> 00:09:37.140

Masako Tominaga: A highlight of the year is launching and and testing start testing, a new grabbing meter it's called a deja vu meter those who sailed on the Thompson from woods hole to the gulfport has seen this as well as some of you on Armstrong.

72

00:09:38.730 --> 00:09:57.930

Masako Tominaga: We have been funded through a genius program to acquire one meter and we also have into the top 2022 season, one from NGA to test for a longer period of operation, hopefully, on one of the global vessel.

73

00:09:59.610 --> 00:10:00.450

Masako Tominaga: So.

74

00:10:02.070 --> 00:10:06.390

Masako Tominaga: For the rest of the year into next year we will.

75

00:10:07.470 --> 00:10:25.770

Masako Tominaga: Continue shepherding the division three operation effort, including, we would like to make sure that degree of meter will be calibrated so will closely communicate with ethan at all, very soon to arrange that and.

76

00:10:27.090 --> 00:10:37.710

Masako Tominaga: Also, the DPS meters on we had to send them back for the tuning in the recalibration for specifically for.

77

00:10:39.420 --> 00:10:53.430

Masako Tominaga: Academic research fleet to seagoing expeditions it turned out these new meters or really good quality has provides very good quality data, but the meter itself.

78

00:10:54.990 --> 00:11:09.150

Masako Tominaga: prefer the quieter see conditions down what you knows vessels usually deal with, so we have to kind of expand the dynamic range so we'll test that so tying it to 2022.

79

00:11:10.350 --> 00:11:18.870

Masako Tominaga: We would like to closely communicate with our to our for data archive from these new meters on during our test.

80

00:11:20.040 --> 00:11:22.110

Masako Tominaga: We foresee some.

81

00:11:23.490 --> 00:11:28.560

Masako Tominaga: Coordination necessary because of differences of data format and processes.

82

00:11:29.610 --> 00:11:43.650

Masako Tominaga: And after our presentations on these new meters during the age upcoming agu we could have more clear documentation to share with you all so that's our.

83

00:11:49.710 --> 00:11:50.370

Masako Tominaga: um.

84

00:11:52.230 --> 00:12:08.880

Masako Tominaga: I decided to make this presentation, a little bit different from that facility updated last week in one of the universe meeting annual meetings, so let me spend the next five minutes or so, to re emphasize, why we care about the gravity data.

85

00:12:11.730 --> 00:12:14.100

Masako Tominaga: From you knows their cells.

86

00:12:15.510 --> 00:12:29.400

Masako Tominaga: We would like to think that php and academy research fleet operators Community shares a common mission, not only for science ideas and discoveries, but also to general public.

87

00:12:30.960 --> 00:12:39.600

Masako Tominaga: So we all are here maximizing ship of opportunities to collect invaluable marine gravity data.

88

00:12:40.620 --> 00:12:56.670

Masako Tominaga: Your underway and port calls are such opportunistic resource to collect marine gravity data, the accuracy and resolution of these shipboard gravity data.

89

00:12:57.780 --> 00:13:05.790

Masako Tominaga: possesses quite better resolution in both special wavelengths and then resolved.

90

00:13:06.810 --> 00:13:12.720

Masako Tominaga: gravity measurement compared to something like base satellite based measurements.

91

00:13:14.220 --> 00:13:29.160

Masako Tominaga: However, is still there has a have scarcity in a strong geographical biases in terms of coverage over the ocean basis, so the gravity data from your vessels.

92

00:13:30.330 --> 00:13:48.300

Masako Tominaga: are going to become a very important knowledge and the collection of these knowledge will be our power to address many science programs national security resource and hazard management, etc, etc, you can name it.

93

00:13:49.740 --> 00:13:59.700

Masako Tominaga: And to achieve all this, the key is to make sure that the instrument is working and that particular front, we have been working together.

94

00:14:00.720 --> 00:14:06.630

Masako Tominaga: And php cannot thank you all enough for the continuous support.



95

00:14:07.950 --> 00:14:22.740

Masako Tominaga: We know, particularly bms three is such a vintage machine it's a pain and also pain to do the gravity tie when you want to focus on the mo re before setting sail or.

96

00:14:23.370 --> 00:14:33.600

Masako Tominaga: At the end of the mall when you really want to get off the ship, but we really appreciate your extra that one hour or two effort.

97

00:14:34.200 --> 00:14:54.060

Masako Tominaga: And that data will become in the near future, or future ears our Community asset, this is the only way to get this data, so thank you so much for all and we pay fees, not just sitting here, you know waiting for your emails.

98

00:14:55.200 --> 00:14:56.640

Masako Tominaga: i'm getting into.

99

00:14:58.980 --> 00:15:14.370

Masako Tominaga: Very so we would love to communicate with you more frequently personally because we like to have a soda will reunion with ssg teams on various vessels after.

100

00:15:15.390 --> 00:15:22.830

Masako Tominaga: or tapering down this Kobe situation and also, hopefully, because we can recognize someone with a new.

101

00:15:24.060 --> 00:15:33.330

Masako Tominaga: Staff came into our job we're joining the sse teams, so we would like to start building our working relationship with you all.

102

00:15:34.140 --> 00:15:51.090

Masako Tominaga: And also, we are very interested in working with upcoming our service operators as well, so, while we will be shifting the new dds system to be operable on academic research fleet after.

103

00:15:52.380 --> 00:16:01.560

Masako Tominaga: or toward the end of 2022 hopefully we continue to ask you all to keep the vision of three going Thank you.

104

00:16:02.670 --> 00:16:15.060

Masako Tominaga: And let us help you for that front to make it a little bit easier, so we hear created for example refresh your material for big mystery operations.

105

00:16:16.170 --> 00:16:25.080

Masako Tominaga: After this rv tech meeting, we will be circulating, for example, this grabbing made a checklist like seeing here.

106

00:16:25.980 --> 00:16:37.830

Masako Tominaga: We hope this will help for your day to day OPS on board the vessel, for example, you can print this out and put it as a visual cue right next to your station or grabbing mater.

107

00:16:38.490 --> 00:16:51.780

Masako Tominaga: And if you see any difference from what's being listed here, you know how to contact us PFC internal who EDU and then one of us will definitely respond to you as soon as possible.

108

00:16:52.950 --> 00:17:09.090

Masako Tominaga: And, together with our troubleshoot form which is originally created by Randy her, and then I do remember that there's some of you already seen this when you start having issues with vintage bm vision three meters.

109

00:17:10.260 --> 00:17:13.470

Masako Tominaga: Together with these two forms, we hope that.

110

00:17:15.420 --> 00:17:28.560

Masako Tominaga: This will give you sort of effective foundation for your operations on board and then kind of communication back to us if there is any problems or.

111

00:17:29.100 --> 00:17:42.810

Masako Tominaga: Of course, happy news is always better so hey we've we've done these gravity ties, do you like it will we will love it so um last note here is that brandi.

112

00:17:43.440 --> 00:17:55.620

Masako Tominaga: Just me last week that is this year guys website and don't look at well, you could look at, but it's very also vintage website like bj was three.

113

00:17:56.010 --> 00:18:04.740

Masako Tominaga: that's tfp website right now we are going to modernize it and publish it in early 2022 with all these information upfront.

114

00:18:05.190 --> 00:18:24.210

Masako Tominaga: So you could communicate with your new SS jin Member about why we do this, why we have to do the tie so often hope these answers and responses are much more transparent to your effort, and thank you so much that's it.

115

00:18:27.600 --> 00:18:36.630

Lee Ellett: Thank you very much months ago, thank you, are there any any questions haven't seen in the chat but does anyone have any questions, we can take those now.

116

00:18:39.060 --> 00:18:39.960

Brandi Murphy (she/her): Thank you, Monica.

117

00:18:42.480 --> 00:18:43.020

Lee Ellett: Great.

118

00:18:44.070 --> 00:18:50.730

Lee Ellett: We will continue with Darrell swenson from Oregon State University presenting on the regional class, we should trestle project.

119

00:18:52.380 --> 00:18:57.570

Daryl Swensen: All right, thanks Lee and well done you're doing a great flow of this whole thing, thank you.

120

00:18:58.710 --> 00:19:01.710

Daryl Swensen: i'm all right let's start this role and everybody see that okay.

121

00:19:03.480 --> 00:19:17.460

Daryl Swensen: All right, I mean Darrell Swenson I am my current gig is the transitions to operations coordinator for the RC rv program and what that entails is once these vessels are delivered, it is.

122

00:19:18.150 --> 00:19:32.670

Daryl Swensen: My responsibility with the rcmp program to outfit these vessels for scientific operations and then integrate and test all these systems and move them into full operations look roughly year after delivery.

123

00:19:33.420 --> 00:19:41.790

Daryl Swensen: So i'm going to go ahead and start with the punch line here is here is our new schedule the we've had some.

124

00:19:42.690 --> 00:19:49.920

Daryl Swensen: Things to overcome this last year that has caused some ways into the liberty of these vessels, this is just a draft scheduled this time.

125

00:19:50.250 --> 00:20:02.910

Daryl Swensen: we're still working with the contractual integration of the schedule with the shipyard but we've gotten permission to post this so everybody gets an idea of when these vessels will now hopefully be delivered and that.

126

00:20:04.140 --> 00:20:12.090

Daryl Swensen: also want to say on this is that the delivery dates, we have roughly a year after these delivery dates for vessel outfitting.

127

00:20:13.170 --> 00:20:24.570

Daryl Swensen: translate to their to their home institutions and then our operations science verification period and then at the start of operations, which for the first vessel will be the start of 24 now.

128

00:20:25.680 --> 00:20:29.610

Daryl Swensen: will be the first part of funded science on these vessels so.

129

00:20:31.110 --> 00:20:38.640

Daryl Swensen: That gives you an idea of where we're at and timing, with the program and now a few things that we've been that's been going on.

130

00:20:39.690 --> 00:20:48.150

Daryl Swensen: First, want to talk about our operating institutions we've had a few things updates for them for software for Oregon state who will be operating the rv tani.

131

00:20:49.080 --> 00:20:53.430

Daryl Swensen: The rv oceana's will be deactivated at the end of this year.

132

00:20:53.880 --> 00:21:06.900

Daryl Swensen: And I just want to say that I know Andrew is working on this, but the they have some outstanding technicians on the vessel and there will be opportunities, I assume, for them to work on other vessels through.

133

00:21:07.680 --> 00:21:14.940

Daryl Swensen: Potential gap period or work on the time will happen for the osu omri technician group so.

134

00:21:15.960 --> 00:21:22.020

Daryl Swensen: Andrew will get who's the superintendent for the group and i'm sure I know is working on making sure that everybody is.

135

00:21:23.160 --> 00:21:32.670

Daryl Swensen: Has a full work schedule, but I just want to put a plug in that to for to make sure that we keep our texts working and there seems like there's plenty of work for texts.

136

00:21:34.410 --> 00:21:46.770

Daryl Swensen: For all like to which is the ECC but it's it's run by you ri they have a new vessel name, so our cr V two will be the rv and their guests narragansett dawn which.

137

00:21:47.640 --> 00:22:00.960

Daryl Swensen: I hate to be the person has to paint that on the vessel every year, but they did beat the Gilbert or mason just by a little bit so but, so the rv rv rv to be there, I guess they're against it dawn and because.

138

00:22:02.820 --> 00:22:19.830

Daryl Swensen: They saw their be they're working on their new Doc and to that plenty of time to have a beautiful new facility to tie that boat up when it gets there for our Hawaii three the Gulf Caribbean OSHA graphic consortium led by University of southern Mississippi and lung con.

139

00:22:21.420 --> 00:22:35.490

Daryl Swensen: Things are are are they got a little beat up and i'll talk about that a little later in the slides, but obviously Hurricane Ida hit down there and they've been doing an outstanding job of keeping their current vessels out working but.

140

00:22:36.750 --> 00:22:42.510

Daryl Swensen: That was probably their biggest thing going on hundreds last year was the hurricane hitting especially then alone.

141

00:22:45.630 --> 00:23:04.200

Daryl Swensen: So for us challenges for 2021 the first start started off of the year was based on the shipyard, so we have a new owner, which is ballinger homeless shipyard which sounded better than ballinger shipyard houma because the acronym comes up better, but it.

142

00:23:05.430 --> 00:23:22.230

Daryl Swensen: It was challenging to go through the process of transferring everything over have an active build from one shipyard to another, but we are very confident in ballinger their their largest privately owned guarded the country they have a long word.

143

00:23:23.370 --> 00:23:42.240

Daryl Swensen: Working with government projects and allow all of the overhead that is involved with that and it's we think it we're very optimistic with with ballinger now managing the shipyard is staying at the same facility in houma for the most part i'll talk about that a little bit later, but.

144

00:23:43.680 --> 00:24:02.790

Daryl Swensen: They I got to learn a whole bunch of new lawyer terms through all this that I didn't really ever want to learn, but it had to do with the process, but they are, they are now owner of the shipyard and of our contract and are very diligently working to get these vessels finished.

145

00:24:06.360 --> 00:24:17.550

Daryl Swensen: Second challenge was Hurricane Ida none of my challenges are really in full order here, but this is a no overview of the shipyard the next morning after it hit.

146

00:24:18.450 --> 00:24:34.110

Daryl Swensen: It is sustained a good hit I mean it was Houma was basically the ground zero for the hurricane disruptions the area around Houma took some significant infrastructure damage.

147

00:24:35.370 --> 00:24:48.900

Daryl Swensen: They are still working on assessing you know what that means for for everything to do with the RC rv program but the holes and everything that were built in, there are have no damage they were well covered and.

148

00:24:49.800 --> 00:24:53.430

Daryl Swensen: gifts, they should handle a little whether even if they're not fully put together.

149

00:24:53.880 --> 00:25:03.840

Daryl Swensen: But there, there is a lot of support equipment that is needs to be installed in the vessels and a lot of the storage areas for the support equipment, as you can see in the bottom here.

150

00:25:04.020 --> 00:25:11.340

Daryl Swensen: were destroyed in the hurricane and they're currently sifting through all of that stuff with the vendors and the shipyard and it's.

151

00:25:11.670 --> 00:25:20.010

Daryl Swensen: it's there they're optimistic that a lot of the items are are in good shape and have no issues and then what we do have those options of.

152

00:25:20.370 --> 00:25:33.180

Daryl Swensen: items that have not been received gift for V2 v3 can be utilized for V1 where insurance can be used for replacing the things that might be damage but it's it's really too early to tell how much.

153

00:25:34.470 --> 00:25:43.290

Daryl Swensen: data is there is to those items they're slowly sifting and unpacking on there, and as quickly as they can the first big item was to just be able to get to the yard.

154

00:25:45.960 --> 00:25:49.770

Daryl Swensen: As the substantial infrastructure damage that happened down in that area.

155

00:25:51.900 --> 00:25:56.760

Daryl Swensen: So, here are some of the examples, this is just a surrounding communities, this is downtown houma.

156

00:25:57.840 --> 00:26:07.710

Daryl Swensen: It was it was it got hit to that area very hard and I know the probably seen a lot of the news, but it leaves the news cycle quickly in some of the recovery efforts.

157

00:26:08.370 --> 00:26:17.700

Daryl Swensen: are slow and take a long time to get everything back up North and Joe and then long con and some of the texts that are working down there i'm sure that you've talked to in the Community are.

158

00:26:18.210 --> 00:26:27.120

Daryl Swensen: are doing an outstanding job of getting things going with a lot much infrastructure, a lot of people working through very cell phones and different things that goes with our Program.

159

00:26:28.140 --> 00:26:38.700

Daryl Swensen: But we've been impressed with ballinger his response to this, they have they have invested a lot in the Community they've invested a lot in the.

160

00:26:39.810 --> 00:26:56.460

Daryl Swensen: into the infrastructure around the area to try to make sure that the there, people are taken care of or their communities are taken care of because they know that was what supports the workforce for the shipyard, so it is going to spend a trying time down there for the shipyard and.

161

00:26:57.510 --> 00:27:03.000



Daryl Swensen: yeah we're helping out everywhere we can with it, but it's it's tough for our people down there.

162

00:27:04.020 --> 00:27:18.060

Daryl Swensen: Kristen been mark willis which are very integrated in this Community are working on a project down there and they can attest to a lot of the devastation is still on the ground down there and still a lot of the recovery happened for for the infrastructure for the air.

163

00:27:19.680 --> 00:27:22.890

Daryl Swensen: So I just wanted to mention that the previous schedule.

164

00:27:24.600 --> 00:27:37.980

Daryl Swensen: It was reflective of the covert delays that happened from a shipyard delays and we have yet to have any assessment of what these hurricane delays might entail for any any.

165

00:27:38.640 --> 00:27:46.530

Daryl Swensen: Delivery delays to the vessel I think it's going to be a little while before we get it a good idea what that will mean for us but it's it's.

166

00:27:47.760 --> 00:27:53.970

Daryl Swensen: That earlier schedule was the draft scale reflecting where how code is affected the delivery the vessels.

167

00:27:56.610 --> 00:28:03.060

Daryl Swensen: This is kind of an interesting example of some of the damage to the infrastructure, so you can see where this is just one.

168

00:28:03.750 --> 00:28:20.460

Daryl Swensen: energy companies damaged utility Poles in the area, you can see where the utility Poles for Katrina and just just how how much infrastructure damage just for one energy company down there added up to, so it was it was almost a.

169

00:28:21.510 --> 00:28:41.520

Daryl Swensen: factor of of the amount of infrastructure damage in there, so it's just going to take a long time to get all that in there and that also turns into a long time for the communities

workforce to be back up to speed to get it full power for building of these vessels, the cover delays that.

170

00:28:42.570 --> 00:28:54.780

Daryl Swensen: happened earlier we're mostly because of work for support and so ballinger is very actively out there, making sure that their people are taking care of the Communities taken care of and, hopefully, in order to.

171

00:28:55.320 --> 00:29:01.200

Daryl Swensen: build up the infrastructure for that workforce is needed to finish out these vessels.

172

00:29:04.890 --> 00:29:14.340

Daryl Swensen: So I just kind of threw this in there i'm sure everybody just loves to see this again, but it is a challenge, and it was a huge challenge for our crv this year and, like I said it, the.

173

00:29:14.790 --> 00:29:28.350

Daryl Swensen: The workforce support that is needed to finish these vessels is massive and when something like a pandemic hits in these areas and inevitably causes a delay and trying to get that workforce there to finish these vessels up and.

174

00:29:28.620 --> 00:29:35.880

Daryl Swensen: oma is a big example of where that is having a huge issue, and of course the trickle down is our supply chain issues which is.

175

00:29:36.210 --> 00:29:45.660

Daryl Swensen: surprising, not as big an issue but we've we're going to see that a lot with our and are seeing that a lot with our Phase four, which is the the transition operation period.

176

00:29:45.960 --> 00:29:58.500

Daryl Swensen: of getting all of our outfitting items and everything we need to finish out the vessel it's it's going to be one of the future challenges, we know it's a big risk for us and then we're we're trying to mitigate and work through now.

177

00:30:02.040 --> 00:30:16.800

Daryl Swensen: So a little bit of where we're at so these vessels are still getting built a lot of what what effort is is for the personnel working on the vessel is for vessel one on tani all of the modules of tiny are currently under construction in some form.

178

00:30:18.030 --> 00:30:23.970

Daryl Swensen: The other two vessels of slow a bit, but we are optimistic the volunteer is going to be.

179

00:30:25.350 --> 00:30:36.750

Daryl Swensen: Supporting a an increase their workforce and that the all the efforts they're putting to make sure they're recovering from this hurricane and from coven and everything that is is hit down in that area.

180

00:30:37.560 --> 00:30:41.760

Daryl Swensen: They are in front of it, as well as we could ever expect they're doing a great job of.

181

00:30:42.900 --> 00:30:48.570

Daryl Swensen: Keeping this project moving forward under the external circumstances that we're working with.

182

00:30:49.830 --> 00:30:51.000

Daryl Swensen: This the.

183

00:30:53.340 --> 00:30:59.250

Daryl Swensen: tani the vessel one supermodel has been put together to give you a picture oh.

184

00:31:00.390 --> 00:31:05.580

Daryl Swensen: supermodels been put to put together and then working a lot of the internal items of that module.

185

00:31:06.960 --> 00:31:20.190

Daryl Swensen: The The other thing that bond is doing a lot of is an especially after the hurricane is they're doing a huge opening the infrastructure of the of the yard itself will which will increase and improve.

186

00:31:20.850 --> 00:31:30.270

Daryl Swensen: The speed of the build of the vessel, this is a you saw those earlier aerial of the bottom big top Well, this is the new one they've already put up a.

187

00:31:30.930 --> 00:31:43.020

Daryl Swensen: fortified it with containers around for the foundation of it, and this is where a lot of them now are crv stuff is getting stored in so they had a long term plan, I mean they had just.

188

00:31:43.950 --> 00:31:52.500

Daryl Swensen: gamed the shipyard, you know when mostly been when it hit here, so they they had already looked for a long term plan to take care of a lot of the.

189

00:31:53.520 --> 00:32:02.640

Daryl Swensen: upgrades that were needed for the drainage and flood protection and they're now doing it's not done with most of those upgrades now they've done a rapid.

190

00:32:04.890 --> 00:32:12.120

Daryl Swensen: You know, rapid push to to make sure that any other items, whether I have to come in there that they're already prepared for it.

191

00:32:12.630 --> 00:32:16.980

Daryl Swensen: I had a plan it was longer term, they bumped off and like I say they've also.

192

00:32:17.580 --> 00:32:24.540

Daryl Swensen: put a lot of effort into Community rebuilding projects, so there there there there they understand that they need that area.

193

00:32:24.930 --> 00:32:37.230

Daryl Swensen: workforce to be there and that they're your workforce doesn't have houses, and so the ballinger is concentrating a lot on making sure their community has places to live and so therefore able to come and work and get these decimals kind of.

194

00:32:39.930 --> 00:32:47.310

Daryl Swensen: wanting a bit now fit I like this brings a lot of resources that we didn't have before so aluminum was always an issue and how.

195

00:32:48.060 --> 00:32:52.710

Daryl Swensen: Previous shipyard owner is going to handle it i'll ballinger has a yard and.

196

00:32:53.430 --> 00:33:03.780

Daryl Swensen: million their aluminum yard and they are going gangbusters effective barely stopped from the hurricane on the aluminum work so we're areas of the whole outfit.

197

00:33:04.560 --> 00:33:15.720

Daryl Swensen: might be struggle, a little bit there exceeding the plan for some of the aluminum aluminum modules on the superstructure module so so we do see a lot of improvements in that area and.

198

00:33:16.290 --> 00:33:27.570

Daryl Swensen: Everything from people who haven't been to the work is outstanding very, very skilled Labor very, very good welders tan is going to be, you know it's going to be a well put together vessel.

199

00:33:29.370 --> 00:33:36.390

Daryl Swensen: So this is that supermodels this was this was actually prior to the hurricane as they were bringing a supermodel for painting.

200

00:33:37.230 --> 00:33:42.300

Daryl Swensen: So there is progress, things are more looking like a ship instead of a bunch of pieces hanging around.

201

00:33:42.690 --> 00:33:55.230

Daryl Swensen: So, and then of course the the amount of things that are going inside this vessel is crazy and so a lot of the work that is being done is is all the piping, and all the infrastructure that's going internally needs.

202

00:33:58.020 --> 00:34:06.870

Daryl Swensen: Some interesting work is happening and the ones transducer flat has been built in installed view some early pitches as they're moving into placement.

203

00:34:07.410 --> 00:34:14.430

Daryl Swensen: Mark willis and kristin being who you guys are all very familiar with are down there in the yard and have been following this process.

204

00:34:14.880 --> 00:34:28.230

Daryl Swensen: every step of the way and have indicated that a very high confidence in the competency and the accuracy of all this installation, including all the all you know which will trickle down into the survey and all the things that the the MAC was reporting on earlier that.

205

00:34:29.250 --> 00:34:38.550

Daryl Swensen: We definitely have the right people down there overseeing and then they are have indicated a very high confidence that what the work that's being done is as good as can be.

206

00:34:39.360 --> 00:34:47.130

Daryl Swensen: is as good as anything esteem for for going in and so we're we're excited about what we're going to get out of here is a very squared away vessel.

207

00:34:50.610 --> 00:34:51.930

Daryl Swensen: So some other stuff that.

208

00:34:53.220 --> 00:34:57.600

Daryl Swensen: We are continuing to work on the Facebook group the transition operation group.

209

00:34:58.440 --> 00:35:08.040

Daryl Swensen: We are still developing the coriolis package, it has been supported in all three the current allies decimals at this time, and then we are doing a full.

210

00:35:09.030 --> 00:35:22.740

Daryl Swensen: spin up bench test and integration of all the one systems so they've been working a lot of moving all those systems into the working code coriolis package and that's all happening at our desks facility in corvallis.

211

00:35:23.700 --> 00:35:31.980

Daryl Swensen: This cyber and sensory infrastructure for all three vessels most most probably say about 90% of the all the sensors for the vessels have been.

212

00:35:32.250 --> 00:35:48.060

Daryl Swensen: purchased and received and all of the one has been configured setup and is kind of working in a test bed as a bench test on the system, right now, and that includes also the cyber infrastructure, most of the primary cyber infrastructure for everyone has been.

213

00:35:49.200 --> 00:35:58.140

Daryl Swensen: purchased and is set up and working and they're they're basically going to we're putting a full best test of the entire vessel together to get all.

214

00:35:58.800 --> 00:36:13.470

Daryl Swensen: Data from source to down to repositories all all working together before we get it all set up onto the vessel so, and this will include that will have everything built up tested love a breakdown procedure.

215

00:36:14.250 --> 00:36:24.300

Daryl Swensen: transfer procedure install procedure retest and the whole nine yards, so all of that all that system has been laid out put on a schedule and then we're.

216

00:36:24.840 --> 00:36:35.760

Daryl Swensen: working through that now, when we have delivery changes, you know that slides everything and and especially when we're looking at a lot of our procurements that haven't happened so we're still.

217

00:36:36.270 --> 00:36:44.940

Daryl Swensen: You know as much as a V2 v3 ci obviously we want to wait to the last minute to purchase on that and by the timing on this will have some.

218

00:36:45.360 --> 00:36:56.430

Daryl Swensen: ci refresh for the one that will need to happen, and so a lot of what our original plan was for the infrastructure and the outfitting.

219

00:36:56.700 --> 00:37:05.130

Daryl Swensen: we've had to look at each one of these potential delays and make sure that we buy the stuff that makes sense to buy now that we can store it make sure this stuff that is.

220

00:37:05.670 --> 00:37:20.280

Daryl Swensen: Potentially got a life cycle that we identify when the proper time to buy, that is, and you know now with our supply chain issues it's getting rather interesting on when or if we'll be able to get some of the stuff so.

221

00:37:21.450 --> 00:37:32.580

Daryl Swensen: Other other big things we've been working on is, we have a large a whole bunch of large rfp processes we've gone through one process for the with our accommodation bands each vessel be getting its own accommodation van.

222

00:37:33.360 --> 00:37:41.490

Daryl Swensen: will be also redoing that rfp for many reasons, we right now with current have our piston core deployment recovery system.

223

00:37:42.090 --> 00:37:47.760

Daryl Swensen: This will be our jumbled piston core handling system it's rfp is out on the street right now and.

224

00:37:48.750 --> 00:37:58.980

Daryl Swensen: will be working into the first of the year with that rfp we've got a successful rfp system for the computerized meet and management system that will be used for the vessels.

225

00:37:59.670 --> 00:38:15.870

Daryl Swensen: So we've been working with that company on getting everything that is going to be built with the vessels, integrated and built into the cms and then we'll be testing and integrating that with kind of a group management of all these vessels, so that we have.

226

00:38:17.970 --> 00:38:26.310

Daryl Swensen: from the ground up of everything that's going to be put in that we have it all in a good database in the management system that we've been long term manage the vessels.

227

00:38:27.930 --> 00:38:32.670

Daryl Swensen: we've also been receiving a lot of the vessel spares and so that has been been.



228

00:38:33.720 --> 00:38:41.490

Daryl Swensen: Getting those integrating the cms storage and ready for long term, we have a lot of things that are one for three to four threes.

229

00:38:41.820 --> 00:38:48.990

Daryl Swensen: That are coming to our corvallis our guest facility and that we're organizing and getting ready for long term operations.

230

00:38:49.710 --> 00:38:59.580

Daryl Swensen: We are continuing with a lot of collaborations with the you know the rf working groups play me regularly with our to our board and working with MSP to integrate a lot of our.

231

00:39:00.900 --> 00:39:05.100

Daryl Swensen: lot of the inventory items that would not be covered under steam and mess.

232

00:39:05.940 --> 00:39:15.480

Daryl Swensen: With them we work with the inner space Center on they're helping us a lot with with going through the requirements for telepresence and making sure that we have what's going to be for.

233

00:39:15.960 --> 00:39:27.210

Daryl Swensen: Not not what we have planned when we first did these vessels, years ago, but what's going to be playing now and needed for a telepresence system on this vessel so we're looking to make sure that we've done refreshes and have everything that is is.

234

00:39:28.560 --> 00:39:38.760

Daryl Swensen: pertinent to what and how we operate the vessels nowadays katie has been working a lot with the best practices group, and she was going to do some presentations on that later in for our tech.

235

00:39:39.300 --> 00:39:46.950

Daryl Swensen: And cic is the cyber infrastructure and cyber security group this Ramos has been well involved and we're making sure that we're.

236

00:39:47.610 --> 00:39:52.860

Daryl Swensen: Hopefully tied in with all of the current operations lead in the direction, things are going, so we.

237

00:39:53.220 --> 00:40:05.280

Daryl Swensen: We don't have systems are antiquated once these vessels come online, then we we made sure that we've done refreshes and have integrated the current systems and operating models that the fleet is using so.

238

00:40:07.080 --> 00:40:10.170

Daryl Swensen: That is about all I have for updates.

239

00:40:11.460 --> 00:40:16.680

Daryl Swensen: do want to do questions Lee or anything else i'm.

240

00:40:17.550 --> 00:40:20.520

Lee Ellett: Happy every ticket if that if there's any immediate questions we could.

241

00:40:20.970 --> 00:40:35.820

Lee Ellett: Take them, we also have the Community, so any any presenters so you could check in the Community tab to see if there's questions about your presentation is it going for I don't I don't see any questions in the chat right the second.

242

00:40:36.570 --> 00:40:37.890

Lee Ellett: I don't see any hands raised.

243

00:40:37.950 --> 00:40:42.750

Lee Ellett: But thank, thank you very much for the updates and the presentation to a lot of work going on.

244

00:40:43.560 --> 00:40:45.120

Daryl Swensen: Well we're doing something.

245

00:40:46.170 --> 00:40:46.560

Daryl Swensen: Okay.

246

00:40:48.690 --> 00:40:51.600

Lee Ellett: yep so next up.

247

00:40:51.630 --> 00:40:52.350

Lee Ellett: We have.

248

00:40:52.440 --> 00:40:54.570

Lee Ellett: A Paul zach from Mars him.

249

00:40:56.130 --> 00:40:58.620

Lee Ellett: A policy of your presentation to share.

250

00:41:00.150 --> 00:41:04.920

Paul Walczak: Do you want me to share screen with minor I also emailed it to brandi.

251

00:41:05.520 --> 00:41:09.300

Brandi Murphy (she/her): If you can share your screen that's ideal if you have trouble with it, I can.

252

00:41:15.570 --> 00:41:17.340

Paul Walczak: Can you can everybody see it.

253

00:41:17.790 --> 00:41:18.660

Brandi Murphy (she/her): yeah, we can see it.

254

00:41:18.690 --> 00:41:19.830

Lee Ellett: We can be looking good.

255

00:41:20.820 --> 00:41:21.780

Paul Walczak: And you can hear me.

256

00:41:22.830 --> 00:41:24.300

Lee Ellett: yep yep we can hear you.

257

00:41:24.930 --> 00:41:28.650

Paul Walczak: And so I guess i'll start by introducing myself.

258

00:41:28.770 --> 00:41:39.870

Paul Walczak: My name is Paul wall zach i'm with Mars Sam from Oregon state where the green sediment sampling facility and we For those of you that don't know support all.

259

00:41:40.980 --> 00:41:43.590

Paul Walczak: urinals ships everybody.

260

00:41:45.180 --> 00:41:50.820

Paul Walczak: Obviously cove in supply chain, all that stuff has been affecting us also.

261

00:41:52.050 --> 00:41:54.180

Paul Walczak: seems like we spent a lot of time this year.

262

00:41:55.680 --> 00:41:58.290

Paul Walczak: Thinking about maybe if we're going to do things or not.

263

00:42:00.570 --> 00:42:04.890

Paul Walczak: And 2021 has been it's really been an interesting year for me.

264

00:42:06.390 --> 00:42:11.580

Paul Walczak: i've been i've been taking 15 years, and when I started.

265

00:42:12.780 --> 00:42:28.530

Paul Walczak: You know, it was basically like you go to melville you go to ravel you go to nor blandness and we had everything set up for those ships and it was just like you go there you bolted down and things more or less work and you just knew how it was set up, and so now.

266

00:42:30.060 --> 00:42:32.010

Paul Walczak: melville nor going away.

267

00:42:33.030 --> 00:42:52.770

Paul Walczak: everything's sort of transitioning we've actually been a lot of the names of these 2021 shipboard activities that we supported this year i've never been on pelican I you know she kubiak very little, Sir, what is the point, Sir, I personally have never been on endeavor.

268

00:42:54.090 --> 00:43:12.090

Paul Walczak: Which is actually the sister of oceanic and what como but, so I managed to sail on all three now savannah So these are all these are all new ships, and so it actually takes a lot longer for me to think about and visualize how we may or may not do like a piston coring trip on endeavor.

269

00:43:13.980 --> 00:43:27.750

Paul Walczak: So this is, this is a list of what we supported this year, and what we're kind of coming up to support the endeavor trip was really kind of an interesting one, we did piston coring large diameter gravity coring and multi flooring on that one.

270

00:43:30.210 --> 00:43:40.980

Paul Walczak: It was a really long on load for us because we'd never really done that trip on that particular boat everybody there was was really excellent and patient with me.

271

00:43:42.900 --> 00:43:47.820

Paul Walczak: The pelican i'm actually going down to pelican tomorrow.

272

00:43:48.870 --> 00:43:52.170

Paul Walczak: So we're going to we're going to actually do a very similar trip.

273

00:43:53.190 --> 00:43:56.370

Paul Walczak: To our endeavor trip now on pelican and.

274

00:43:57.420 --> 00:44:15.450

Paul Walczak: P eyes, they want to go piston corn, and when you go piston coring we send about two semi trucks of equipment to support our piston coring work, so you think about 253 foot trucks going on to endeavor when you think about 253 trucks foot trucks going to pelican.

275

00:44:16.470 --> 00:44:27.060

Paul Walczak: You know, obviously, you have to make compromises, but it will be interesting, and we are here to support science, we will make it work.

276

00:44:28.560 --> 00:44:32.400

Paul Walczak: It just for us it takes time and.

277

00:44:33.630 --> 00:44:38.460

Paul Walczak: You know, good deck diagrams are helpful um so.

278

00:44:39.750 --> 00:44:52.410

Paul Walczak: We also have in coming up something very interesting, some of you may have heard about this, we are going on the Armstrong in January of well not January 2022 but we're starting all the work.

279

00:44:53.910 --> 00:45:07.230

Paul Walczak: To support an Armstrong Korean cruise in the Puerto Rico trench watered up there is going to be over 8000 meters on some of these green sites are what we want to do.

280

00:45:08.370 --> 00:45:29.310

Paul Walczak: So that should be very interesting, this would not be possible with the 916 cents trial wire, we are going to be using the heiko and the the system that was developed by Jim broda for the Armstrong with some modifications, the, so this is a.

281

00:45:31.140 --> 00:45:42.540

Paul Walczak: You know this is going to be a really interesting trip and i'm trying to figure out how I can watch from the beach there under the palm tree with binoculars it's actually really close to land so.

282

00:45:43.830 --> 00:45:46.200

Paul Walczak: kind of exciting because.

283

00:45:50.040 --> 00:45:56.190

Paul Walczak: yeah i've never i've never coordinate kind of watered ups before, so this is a better a better picture of where we're going.

284

00:45:57.240 --> 00:45:59.970

Paul Walczak: It is the deepest point in the Atlantic Ocean.

285

00:46:02.100 --> 00:46:09.060

Paul Walczak: People took cores there back in like the 60s gravity course we're having a hard time getting a good look at the metadata.

286

00:46:09.930 --> 00:46:23.520

Paul Walczak: So, if you think about the 1960s, you know that was 60 years ago, so this also comes into all this discussion we're talking about about data management, you know if I knew more about what they did back then it would be helpful to me now.

287

00:46:25.740 --> 00:46:29.730

Paul Walczak: I call it the astronaut piston courting system, and I call them the astronauts ships.

288

00:46:32.400 --> 00:46:34.680

Paul Walczak: same system could work on the Sally ride.

289

00:46:35.880 --> 00:46:38.010

Paul Walczak: here's some some photos of the system.

290

00:46:39.030 --> 00:46:48.360

Paul Walczak: Is off of the fantail through the a frame for those of you, that are not familiar with those ships, the the Center to photos show.

291

00:46:49.140 --> 00:46:54.510

Paul Walczak: The deployment position and recovery position which is on the starboard quarter.

292

00:46:55.050 --> 00:47:11.340

Paul Walczak: The core gets rotated up along the starboard side of the ship, so you get a longer core length possible that way, then it gets picked on that big red sling and swung around into the a frame stern that's actually Tommy Flanagan they're standing there and in the shorts.

293

00:47:13.140 --> 00:47:21.450

Paul Walczak: And then it gets placed in the bucket and rig with it's triggering mechanism and the picture on the far right is a recovered core on that ship so.

294

00:47:22.020 --> 00:47:35.940

Paul Walczak: Basically we're going to try and do this we're going to try and use trigger arm, because that sort of water depths and everything like that we're just we're just really not sure how the acoustic release, which is the original release system for this core would work.

295

00:47:37.110 --> 00:47:47.040

Paul Walczak: i'm actually buying one that upper picture there in the upper right from this awesome company they've been making trigger arms for industry, for some time now.

296

00:47:47.490 --> 00:47:53.370

Paul Walczak: So they have an off the shelf solution which which works with their cores which basically just has to hook into a.

297

00:47:54.090 --> 00:48:09.270

Paul Walczak: You know, big link and drops the core so it they've already they've already gone through this generation, I did not feel like I needed to reinvent that wheel So hopefully we can just adapt that to to our our system and make that work.

298

00:48:11.610 --> 00:48:13.890

Paul Walczak: So that's that's going to come up for us.

299

00:48:15.240 --> 00:48:16.050

Paul Walczak: and

300

00:48:18.180 --> 00:48:29.370

Paul Walczak: My computer's not moving slides try that button oh yeah so what's interesting is jam stack, which is the Japanese.

301

00:48:30.390 --> 00:48:32.670

Paul Walczak: I can't remember what the acronym is research.

302

00:48:34.110 --> 00:48:37.320



Paul Walczak: Marine Science institute or something like that they recently.

303

00:48:38.850 --> 00:48:53.730

Paul Walczak: dug the deepest ocean hole in history, this is a little bit of a misleading I article because they did not neither dig nor drill they took piston core in 8000 meters water, so we are trying to.

304

00:48:54.360 --> 00:49:10.740

Paul Walczak: break that record with the Armstrong it was nice strong arms we're going to try and do 8400 meters or 8.4 kilometers it's a lot of rope again I want to stress that you could not do this with the trawler.

305

00:49:11.820 --> 00:49:13.470

Paul Walczak: we're also getting some new toys.

306

00:49:15.810 --> 00:49:21.450

Paul Walczak: We this year have purchased some ocean instruments vibrate course ric.

307

00:49:24.480 --> 00:49:31.890

Paul Walczak: The 4000 is a standalone viper core, so it is battery powered with some deep sea.

308

00:49:33.630 --> 00:49:35.520

Paul Walczak: power and light type batteries.

309

00:49:36.660 --> 00:49:45.900

Paul Walczak: And it's a hydraulic system, which I believe can go to about 3500 meters, so you can take a pretty deep fiber core.

310

00:49:46.740 --> 00:49:58.380

Paul Walczak: we've got some guys that are really excited about this system, we also have this rfc 5500, which is a powered one, so you could do that with the old fashioned sort of hand and you could also hook it up to.

311

00:49:59.670 --> 00:50:06.780

Paul Walczak: Their ships, six, eight, or something like that, if you wanted to again science seems to be really excited about these.

312

00:50:08.520 --> 00:50:22.740

Paul Walczak: We also have resurrected this old lum con five recording system, which is the thing is huge it's for really heavy hitting would be a really good thing for sand So if you guys have api's that are looking for this sort of thing.

313

00:50:24.150 --> 00:50:35.730

Paul Walczak: And, and I want to also want to stress that we have some sort of Ross filter experience we don't actually have one on our inventory, but we've used it a few times and we have.

314

00:50:37.410 --> 00:50:46.110

Paul Walczak: we've drawn up a lot of parts we've had to make cables in house and we're hearing through the grapevine that Ross filter is not being super.

315

00:50:47.100 --> 00:50:51.720

Paul Walczak: Good about support right now, like they might not even exist anymore.

316

00:50:52.140 --> 00:51:03.420

Paul Walczak: So we've got the ability to basically remake or Ross felder if that you know as technicians that comes to your direction like oh man I got this rossville really want to fix it.

317

00:51:04.020 --> 00:51:09.720

Paul Walczak: send them our way we've probably already fixed it and we have the the drawings and all that sort of thing so.

318

00:51:11.760 --> 00:51:21.120

Paul Walczak: I also want to mention right now, while i'm talking about that we have been sort of working with a lot of multicourse recently.

319

00:51:21.540 --> 00:51:28.800

Paul Walczak: i'm trying to figure out why multi-course break it seems like that's my job is to try and figure out why multi course break.

320

00:51:29.370 --> 00:51:39.420

Paul Walczak: And i'm trying to get as many of the Multi course in the fleet to be similar to ours, so if you guys have problems it's easier for you to come to me and be like.

321

00:51:40.110 --> 00:51:49.470

Paul Walczak: Oh well, it's this piece or that piece, but the other piece it's not working well, so you're having older aging multi-course, let us know and.

322

00:51:50.160 --> 00:51:58.800

Paul Walczak: You know we're we're here to help you guys make those things work and happy to see those things because they're there, they are really a very, very, very good tool.

323

00:52:00.720 --> 00:52:03.600

Paul Walczak: So oh yeah and I actually did one of these.

324

00:52:06.180 --> 00:52:15.390

Paul Walczak: What the blank Wednesday talks on multicore and right after I gave that talk, I went out on a cruise with the Multi core and.

325

00:52:16.530 --> 00:52:36.060

Paul Walczak: ran in some brand new problems like why won't the Multi core trip and a whole bunch of not tripping multicore is really frustrating, and so the next thing we're really going to try and get for the scientific community that we support is this GEO tech seagoing CT scanner.

326

00:52:38.160 --> 00:52:49.440

Paul Walczak: It as it says it allows for shipboard evaluations of sedimentary structure and it gives us this real time confirmation that what you are getting is what you want to get and.

327

00:52:50.640 --> 00:52:51.630

Paul Walczak: Believe it or not.

328

00:52:52.680 --> 00:52:56.610

Paul Walczak: A lot of people that we work within the range geology Community like.

329

00:52:57.750 --> 00:53:05.640

Paul Walczak: it's it's not as simple as just picking a point on the map and going there and getting what you need you know you have to go out, you have to do some survey look at the bottom.

330

00:53:05.880 --> 00:53:21.180

Paul Walczak: get a sample check to make sure the samples the right thing you know and the sea floor bottom is not all the same, you know, and it can really change quickly in some some places, so they really they really like to have this real time combination it's super good for science.

331

00:53:23.460 --> 00:53:25.110

Paul Walczak: You can see in the middle of the.

332

00:53:27.120 --> 00:53:34.170

Paul Walczak: The thing on the on the left is a core that has been split and what you're, seeing as a sample of mud.

333

00:53:35.220 --> 00:53:39.390

Paul Walczak: On the right is a CT scan and so you can see how much more, you can see.

334

00:53:39.780 --> 00:53:47.130

Paul Walczak: by looking at the CT scan and about halfway up there's actually an immersive environment which you would never it's a little V shaped dip in the core.

335

00:53:47.490 --> 00:54:05.010

Paul Walczak: which you can't even tell by the by looking at the just split core and we're going to try and get a system if we can that will fit in our current mst van so 120 foot band will have the current core longer and a CT scanner which would be really cool.

336

00:54:06.060 --> 00:54:14.130

Paul Walczak: Just really, really opens a lot of a lot of powerful real time processing for the science party at sea.

337

00:54:15.720 --> 00:54:25.500

Paul Walczak: And again, this is something that the science really likes and so we're we're kind of excited at this stuff is becoming portable enough that we could actually do this.

338

00:54:26.760 --> 00:54:38.970

Paul Walczak: As far as training and outreach we have a core NPI training scheduled aboard rv rebel in August of 2022 um it's going to be really, really cool.

339

00:54:40.200 --> 00:54:41.580

Paul Walczak: we've got a Twitter account.

340

00:54:42.660 --> 00:54:49.050

Paul Walczak: We have a website and we have an email address that are all shown there, I believe this is being recorded so.

341

00:54:51.690 --> 00:55:09.360

Paul Walczak: Let me tell you about Twitter i'm not very good with things like Twitter, but I took this really cool video and gave it to the pci because she's like Oh, could I put that on my Twitter account this is on a giant gravity core steel barrel 20 feet long Maybe it was 30.

342

00:55:13.020 --> 00:55:18.930

Paul Walczak: So she's like puts it on our Twitter account thing goes viral gets like 16,000 hits.

343

00:55:20.790 --> 00:55:26.580

Paul Walczak: i've got 10 friends with 14 friends or something like that, but yeah I got a shark video I thought that was pretty cool.

344

00:55:27.810 --> 00:55:36.900

Paul Walczak: um so that's that's about all i've got for you guys any questions you can ask them now or send them my way and it's really good to see everybody virtually.

345

00:55:39.270 --> 00:55:40.080

James Holik: All friend you.

346

00:55:42.090 --> 00:55:42.660

Paul Walczak: Thanks Jim.

347

00:55:45.990 --> 00:55:49.590

Lee Ellett: Thank you, Paul for the presentation, a lot of good information there.

348

00:55:50.880 --> 00:55:53.220

Lee Ellett: i'm not seeing any.

349

00:55:55.830 --> 00:55:58.710

Lee Ellett: questions in the chat I don't see any hands raised.

350

00:55:59.160 --> 00:56:16.620

Brandi Murphy (she/her): I have a question if that's okay I can't raise my hand because i'm host um but i'm curious about the CT scanner um, how is it different than the mst I don't really know what the mst does specifically and then also will work with smaller cores like from the multi-course.

351

00:56:19.140 --> 00:56:19.890

Brandi Murphy (she/her): Could it work.

352

00:56:19.980 --> 00:56:21.330

Paul Walczak: Can I call the helpline.

353

00:56:21.960 --> 00:56:23.430

Paul Walczak: Yes, hi.

354

00:56:28.800 --> 00:56:29.010

James Holik: well.

355

00:56:30.660 --> 00:56:44.040

Paul Walczak: So the answer is yes, both of the systems do work with multi course for the msl track, we have to do a different calibration and but we carry all those Standards Board, because that that pairing of dry and gravity or piston courses multi-course pretty standard.

356

00:56:44.430 --> 00:56:49.230

Paul Walczak: So we have just different different diameter standards that we run through, and then we can do all the same analyses.

357

00:56:49.290 --> 00:57:06.690

Paul Walczak: The multi corps and the question on whether or not we'll be able to do CT scans of the multi-course we get that instrument definitely we can one of the things that we're looking at is the possibility of getting can I go back and I can look at this so on the right here can people see.

358

00:57:07.740 --> 00:57:08.940

Paul Walczak: People see my mouse.

359

00:57:09.060 --> 00:57:10.800

Lee Ellett: Yes, yep yep right.

360

00:57:10.980 --> 00:57:23.490

Paul Walczak: So this this thing here, this is actually a vertical CT scanner so it can scan core sections vertically up to 150 centimeters long, which is the standard length that we cut them to shipboard because it's easier to handle to ship.

361

00:57:23.790 --> 00:57:29.280

Paul Walczak: All of our systems for logging and analyzing these things are basically set to that length stuff just kind of our standard.

362

00:57:29.580 --> 00:57:38.340

Paul Walczak: So it could it could vertically analyze up to 150 centimeter four sections, but the exciting thing for multi course you can see i'm excited about this is that you can get.

363

00:57:38.760 --> 00:57:45.630

Paul Walczak: Biological structures in situ, with the water on top so like these informal organisms that are impacting.

364

00:57:46.440 --> 00:57:51.840

Paul Walczak: But bottom water sediment chemical exchanges impacting our understanding of the nutrient budgets at the ocean.

365

00:57:52.110 --> 00:58:02.850

Paul Walczak: And and carbon cycling and carbon burial like like all of these important processes that that we core and then probably destroy when we drain the surface waters off and captain and send them send them back to shore.

366

00:58:03.390 --> 00:58:19.050

Paul Walczak: If we get this CT scanner and they can fit it into the same band is the msl system, we can have our cake and eat it to get our get our jumbo piston core scanned but also make this available to the biological oceanographic Community for those types of studies, which would be super slick.

367

00:58:20.430 --> 00:58:23.790

Brandi Murphy (she/her): Really slick that's going to be a fascinating proposal.

368

00:58:23.940 --> 00:58:27.510

Paul Walczak: And for those of you that have ever tried to recover a gravity, for while.

369

00:58:27.510 --> 00:58:28.740

Paul Walczak: Keeping it vertical.

370

00:58:30.120 --> 00:58:38.820

Paul Walczak: that's why you have to do it because you lose all of that structure, when you tip it on that very important service water interface yeah if you if you tip it before you have a cap on it.

371

00:58:39.750 --> 00:58:52.500

Paul Walczak: it's all that sort stuff just gets remixed and it's gone, but even even if you keep it vertical and kaput and send it home all of those invisible structures from from the biotech debaters again that are so important for those bottom water sediment chemical exchanges.

372

00:58:52.860 --> 00:58:59.280

Paul Walczak: And those structures collapse so being able to get these structures with the with the water still in the Multi core tube.

373

00:58:59.700 --> 00:59:14.010



Paul Walczak: It would be from a science perspective pretty exciting and this is the kind of value added thing that we're trying to support with marci i'm not just get the mud up but facilitate those critical first measurements that the Community needs to be able to get the most out of the course.

374

00:59:15.990 --> 00:59:17.520

James Holik: is expensive right.

375

00:59:18.330 --> 00:59:19.500

Paul Walczak: it's cheapest chips.

376

00:59:21.750 --> 00:59:25.140

Paul Walczak: New like taking us out for lunch, you know all of us know.

377

00:59:25.260 --> 00:59:25.740

James Holik: i'd like to go.

378

00:59:25.860 --> 00:59:25.980

To.

379

00:59:29.160 --> 00:59:30.240

Paul Walczak: On top of Mount Everest.

380

00:59:32.550 --> 00:59:32.940

Paul Walczak: anything.

381

00:59:39.690 --> 00:59:41.430

Jules Hummon: Your helpline is very responsive.

382

00:59:42.330 --> 00:59:43.740

Paul Walczak: Yes, good smile.

383

00:59:46.470 --> 00:59:55.050

Brandi Murphy (she/her): I did want to say thank you for participating in the what went wrong wednesday's um we got really good feedback from it, and I think the presentation is going to be made available.

384

00:59:55.620 --> 01:00:13.770

Brandi Murphy (she/her): When when you greenlight it for us, so that folks can see it, and I think we're the tech training committee, which will be presenting tomorrow more Thursday morning i'm is planning some more on other topics So hopefully join us.

385

01:00:13.920 --> 01:00:25.530

Paul Walczak: Thank you it's something we really want to emphasize is that even if you have like cores on your inventory that's great it's wonderful that we have a distribution of multi core systems and like gravity core systems and Ross builder systems around the country.

386

01:00:25.860 --> 01:00:37.260

Paul Walczak: It reduces our shipping budgets for nsf, but if you have questions or up around coring and we can help you like we're glad to do that, so this is a resource, you can lean on call Paul if he answers his phone he's very useful.

387

01:00:39.630 --> 01:00:41.070

Paul Walczak: And this point we basically have a.

388

01:00:41.070 --> 01:00:41.670

Alice Doyle: Big if.

389

01:00:42.330 --> 01:00:44.430

Brandi Murphy (she/her): I find attacks are much more responsive.

390

01:00:45.390 --> 01:01:00.450

Paul Walczak: We have a full, we have a full CAD model of the multicore so it's really easy for us with these days of you know, hit the button printed on them, you know cnc mill it's pretty easy for us to get parts made.

391

01:01:05.130 --> 01:01:05.790

Brandi Murphy (she/her): that's awesome.

392

01:01:06.570 --> 01:01:08.760

Lee Ellett: that's great information, thank you very much.

393

01:01:09.810 --> 01:01:10.350

Lee Ellett: um.

394

01:01:11.550 --> 01:01:14.820

Lee Ellett: So there's brandi from here we're just the poster sessions.

395

01:01:15.690 --> 01:01:20.160

Brandi Murphy (she/her): yeah if we don't have any more questions um we had scheduled some poster sessions.

396

01:01:20.850 --> 01:01:30.210

Brandi Murphy (she/her): If folks wanted to do live presentations of their posters there are not scheduled today, but I would encourage you to take the opportunity to browse the posters.

397

01:01:31.140 --> 01:01:41.550

Brandi Murphy (she/her): and check out our MacGyver entries i'm going to try and send a survey hopefully Friday for our attendees to vote on their favorite MacGyver submission.

398

01:01:42.450 --> 01:02:02.490

Brandi Murphy (she/her): Tomorrow McGregor is going to do a live presentation and on Thursday Rebecca is going to do one as well, I think about transmitters best practices, so if you get the opportunity to check those out that would be wonderful and otherwise I think we'll see you guys tomorrow morning.

399

01:02:07.440 --> 01:02:08.550

Lee Ellett: Thank you very much brandy.

400

01:02:08.700 --> 01:02:10.620

Lee Ellett: and great Thank you everyone for attending.

401

01:02:10.620 --> 01:02:12.960

Alice Doyle: rebel ciao for now.

402

01:02:14.340 --> 01:02:16.440

Jules Hummon: Thanks guys can't wait to do it in person.

403

01:02:17.130 --> 01:02:18.750

Ken Feldman: And now Ray thanks everyone.

## 27 October 2021 - Wednesday

### Introduction & Community Instrumentation

WEBVTT

1

00:00:03.389 --> 00:00:08.280

Brandi Murphy (she/her): buddy in the waiting room and I joined the waiting room on who bus so.

2

00:00:14.040 --> 00:00:14.549

Brandi Murphy (she/her): I am.

3

00:00:17.369 --> 00:00:19.770

Brandi Murphy (she/her): Think so somebody else has joined.

4

00:00:20.970 --> 00:00:21.660

Brandi Murphy (she/her): Your audio.

5

00:00:44.670 --> 00:00:45.210

Alice Doyle: Hello.

6

00:00:45.720 --> 00:00:50.850

Alice Doyle: hello, you can hear me, is it crackly is that weird I had crackling this yesterday.

7

00:00:51.780 --> 00:01:00.870

Alice Doyle: So i'm not sure, even during the meeting and I wasn't sure it was a mess, when I was using my phone and then I switch back to my computer is better so i'm not sure if my internet's going cuckoo again, or what.

8

00:01:02.580 --> 00:01:06.090

Brandi Murphy (she/her): hang on i've Fuck something up for a second.

9

00:01:06.180 --> 00:01:07.170

Alice Doyle: Okay sorry go for it.

10

00:01:07.560 --> 00:01:19.710

Brandi Murphy (she/her): No it's okay I screwed up the stream stuff for this morning, a coffee do wrong link or put the wrong are no so I was definitely in the wrong thing.

11

00:01:22.680 --> 00:01:23.160

Brandi Murphy (she/her): here.

12

00:01:26.310 --> 00:01:26.520

Brandi Murphy (she/her): Oh.

13

00:01:29.070 --> 00:01:29.490

Alice Doyle: No that's.

14

00:01:30.210 --> 00:01:30.750

Okay.

15

00:01:32.910 --> 00:01:35.670

Alice Doyle: OK course you get these like heart attacks and.

16

00:01:36.780 --> 00:01:38.730

Alice Doyle: Just before everyone's coming so Thursday.

17

00:01:40.950 --> 00:01:46.590

Brandi Murphy (she/her): I got a double check that for the later ones, because if I screwed up this one I probably screwed up subsequent one.

18

00:02:04.260 --> 00:02:18.990

Brandi Murphy (she/her): When you get a chance Ellis there's a poster from that Emily shimano put up for the oceana's and she put in the chat on that poster if wondering if anyone knew who the technicians were on the.

19

00:02:20.340 --> 00:02:22.950

Brandi Murphy (she/her): The vintage photo of the.

20

00:02:23.820 --> 00:02:24.270

Oh.

21

00:02:30.720 --> 00:02:32.580

Alice Doyle: So go to posters yellow.

22

00:02:35.040 --> 00:02:36.600

Alice Doyle: arrow might know too, but.

23

00:02:44.400 --> 00:02:46.320

Alice Doyle: Oh awesome lots of drivers love it.

24

00:02:47.640 --> 00:02:51.660

Brandi Murphy (she/her): yeah so I need to make a survey know got a couple.

25

00:02:53.010 --> 00:02:57.360

Brandi Murphy (she/her): I called Emily yesterday I the way and even had not talked to her.

26

00:02:59.310 --> 00:03:09.720

Brandi Murphy (she/her): And I explained to her what the role entitles the Andrews interests, now we had run in the past and the like.

27

00:03:10.320 --> 00:03:22.650

Brandi Murphy (she/her): This situation that might come up if she runs later if he wins, and she runs later, or vice versa, or whatever, and I think she's going to have a chat with Andrew and see what the two of them want to do.

28

00:03:23.430 --> 00:03:25.410

Alice Doyle: Oh OK cool good for her.

29

00:03:26.490 --> 00:03:33.330

Alice Doyle: I do not know who those people are, but we can see it there, and we know, or to be or even mark.

30

00:03:56.940 --> 00:03:58.440

Alice Doyle: It might be scientists to write.

31

00:04:00.300 --> 00:04:01.890

Brandi Murphy (she/her): me yeah yeah.

32

00:04:05.010 --> 00:04:08.790

Alice Doyle: Where is it only will calm or the oceana's.

33

00:04:10.290 --> 00:04:13.650

Alice Doyle: To really old and on the ocean, and we should go to who we.

34

00:04:16.350 --> 00:04:18.960

Brandi Murphy (she/her): Think that's what she's saying I think it's the oceana's.

35

00:04:20.040 --> 00:04:22.770

Alice Doyle: Right that's what I was just thinking so.

36

00:06:50.430 --> 00:07:00.990

Brandi Murphy (she/her): and feel like there's less work to do now for the meeting like it's more or less running either people show up or they don't at this point.

37

00:07:01.500 --> 00:07:05.040

Alice Doyle: Oh, speaking of that did you see the email from.

38

00:07:06.630 --> 00:07:09.270

Alice Doyle: Sarah that they're having nor'easter in.

39

00:07:09.330 --> 00:07:09.540

Alice Doyle: Yet.

40

00:07:09.570 --> 00:07:11.310

Brandi Murphy (she/her): will remember applied for.

41

00:07:12.660 --> 00:07:24.840

Alice Doyle: The also Rhode island his head so Eric is Eric said he's not going to be able to dial in for bill, which is too bad, but i've got some words or which is nice so that might affect others who is my point.

42

00:07:25.830 --> 00:07:27.480

Brandi Murphy (she/her): Good point.

43

00:07:29.970 --> 00:07:39.480

Brandi Murphy (she/her): yeah Oh, I was talking Len sent me an email, the other day about meeting tech help and she said that they basically wrote the manager position for Eric.

44

00:07:41.820 --> 00:07:42.750

Alice Doyle: yeah it doesn't surprise me.

45

00:07:44.880 --> 00:07:46.680

Alice Doyle: If i'm wrong when did want it so.

46

00:07:47.370 --> 00:07:48.090

Brandi Murphy (she/her): No, no.

47

00:07:49.200 --> 00:07:50.460

Alice Doyle: yeah yeah.



48

00:07:51.420 --> 00:07:54.930

Brandi Murphy (she/her): that's a good thing MSP is just about ready to go, though, because.

49

00:07:56.670 --> 00:08:00.090

Brandi Murphy (she/her): I don't know how much help is going to be to the universe.

50

00:08:01.110 --> 00:08:01.800

well enough.

51

00:08:04.200 --> 00:08:12.480

Alice Doyle: yeah although he's one of those people that loves having this little side projects so but you're right I don't know Islam, not to.

52

00:08:13.950 --> 00:08:22.860

Alice Doyle: me to the endeavor our neighbors okay so Lynn says hi Alex and Erica just meditating endeavor our neighbors big pine tree broke at the base and fell across the wires.

53

00:08:23.670 --> 00:08:36.180

Alice Doyle: From the street to our houses, the impact ship, the whole House powers been out since, after six, this morning the ship is bouncing around quite a bit and the waves are splashing over the dock it's good.

54

00:08:37.350 --> 00:08:44.850

Alice Doyle: that a new one is going to be five to six feet higher and never has intermittent Internet access via X.

55

00:08:45.450 --> 00:08:55.890

Alice Doyle: i'm looking to see other options, since both campuses are without power in my mind with no good i'm hoping to login over satellite to say some words for bill meant me okay so we'll see.

56

00:08:56.970 --> 00:08:57.600

Alice Doyle: Oh, my goodness.

57

00:09:01.440 --> 00:09:01.830

Brandi Murphy (she/her): wow.

58

00:09:16.230 --> 00:09:20.070

Brandi Murphy (she/her): That we've only got four people in the waiting room.

59

00:09:47.490 --> 00:09:48.900

Alice Doyle: be able to get in.

60

00:09:54.240 --> 00:09:57.000

Alice Doyle: send them some kudos and call it good.

61

00:09:57.900 --> 00:09:58.650

yeah.

62

00:10:03.120 --> 00:10:03.270

Good.

63

00:10:05.250 --> 00:10:13.200

Brandi Murphy (she/her): So Alice reminded me this morning Lee that that nor'easter also hit you ri so we may not get.

64

00:10:14.910 --> 00:10:16.440

Brandi Murphy (she/her): might be short, some folks today.

65

00:10:21.450 --> 00:10:28.020

Lee Ellett: In the news, but I know how bad it was yeah I didn't see I had not looked at the news much this morning to see how what the yeah.

66

00:10:28.800 --> 00:10:34.380

Alice Doyle: yeah who is out of power Rhode island's out of power, the whole you are a campus is out of power, the gso.

67

00:10:34.890 --> 00:10:48.990

Alice Doyle: Lynn made her way she said, the huge pine tree next door went over at the base and shook her house, but it didn't hurt her house and she made it to the ship they're trying to she's trying to get Internet kind of the ship so she didn't show up.

68

00:10:51.270 --> 00:10:52.680

Alice Doyle: that's dedication right there.

69

00:10:54.450 --> 00:10:55.770

Alice Doyle: yeah yeah.

70

00:10:55.800 --> 00:10:58.140

Brandi Murphy (she/her): Who is out to oh she's in a waiting room.

71

00:10:58.530 --> 00:10:59.280

Alice Doyle: Oh yeah.

72

00:11:00.210 --> 00:11:00.600

yeah.

73

00:11:06.810 --> 00:11:09.510

Brandi Murphy (she/her): it's guys mind if I start letting folks in.

74

00:11:14.340 --> 00:11:16.080

Alice Doyle: I know there is a real love of people, we got four.

75

00:11:16.080 --> 00:11:16.710

Alice Doyle: minutes to.

76

00:11:28.530 --> 00:11:29.430

Alice Doyle: hey Marcus here.

77

00:11:58.230 --> 00:12:02.310

Lee Ellett: i'm just gonna wait for folks to join get started right it's right at 10.

78

00:12:04.170 --> 00:12:04.830

Pacific.

79

00:12:17.790 --> 00:12:19.440

Alice Doyle: Land we're glad you could make it.

80

00:12:22.260 --> 00:12:23.370

Brandi Murphy (she/her): I was just gonna say that.

81

00:12:24.990 --> 00:12:25.080

Brandi Murphy (she/her): You.

82

00:12:27.390 --> 00:12:27.780

Alice Doyle: know.

83

00:12:29.370 --> 00:12:30.240

Alice Doyle: Can we go ahead.

84

00:12:33.720 --> 00:12:34.200

Alice Doyle: Good.

85

00:12:35.310 --> 00:12:35.460

Lynne Butler: Oh.

86

00:12:35.520 --> 00:12:37.500

Alice Doyle: we'll see how long last right.

87

00:12:55.830 --> 00:12:55.980

So.

88

00:13:01.500 --> 00:13:09.840

Brandi Murphy (she/her): Before we get started, just for those of you who aren't aware, there was a pretty big storm to hit the east coast, and so we might be missing some of our colleagues today.

89

00:13:11.580 --> 00:13:18.990

Brandi Murphy (she/her): But our stay safe or thoughts are with them and we're super impressed to see Lynn here for as long as we have her will take it.

90

00:14:06.180 --> 00:14:06.900

Very.

91

00:14:56.220 --> 00:15:03.480

Lee Ellett: Okay roll over to 10 o'clock here so and get started Thank you everyone for everyone that's made it.

92

00:15:04.650 --> 00:15:23.460

Lee Ellett: Here today I just had a couple things to announce the one being to this one being a rv tech chair like nominations, please anyone that's if you're potentially interested I think it's a great it's a great way to engage with the entire Community, with the rv tech.

93

00:15:24.570 --> 00:15:34.800

Lee Ellett: Eventually the rv tech chair sits on noodles Council and participates in that way it's any good insight into how the Community works.

94

00:15:35.880 --> 00:15:39.360

Lee Ellett: it's find ways to contribute.

95

00:15:40.800 --> 00:15:42.360

Lee Ellett: to other committees, and you know.

96

00:15:43.530 --> 00:15:54.840

Lee Ellett: At the you know meetings, if you have any questions if you're considering portraiture please feel free to reach out to me directly, if you have any questions if there's anything.

97

00:15:57.120 --> 00:16:01.230

Lee Ellett: That might be able to answer for you about chair electric chair positions.

98

00:16:02.220 --> 00:16:03.630

Jules Hummon: chair elect takes the Minutes.

99

00:16:04.710 --> 00:16:05.130

Lee Ellett: yep.

100

00:16:05.430 --> 00:16:06.810

Jules Hummon: except for one more zooming.

101

00:16:08.760 --> 00:16:16.020

Alice Doyle: or don't be afraid to hear so and it's yeah it's not as hard as it used to be, because we're going to record all these meetings anyway so.

102

00:16:17.700 --> 00:16:19.290

Alice Doyle: don't be daunted by the Minutes.

103

00:16:19.680 --> 00:16:24.600

Lee Ellett: So i'm saying yeah, the Minutes are not a read that the Minutes are not a reason to.

104

00:16:25.800 --> 00:16:28.530

Lee Ellett: have to consider this for sure.

105

00:16:30.030 --> 00:16:32.280

Lee Ellett: I think, with that i'll turn it over to Alice for.

106

00:16:33.330 --> 00:16:34.530

Lee Ellett: Some announcements.

107

00:16:35.640 --> 00:16:47.190

Alice Doyle: Right thanks Lee and thanks to everybody for coming today it's great to see everybody we've got one person who's coming soon, but we'll start anyway so before we started today, I wanted to.

108

00:16:49.350 --> 00:16:56.820

Alice Doyle: Give a shout out let's say two three of old timers from our community that are retiring and we want to give them a good send off.

109

00:16:57.180 --> 00:17:12.420

Alice Doyle: So i'm super excited to see bill fanning is here, even though the nor'easter is happening, I know Eric ruble was trying to get in but he's got his powers out means got one bar of service, thanks to Lynn who made it to the ship and is using the ship's Internet and power.

110

00:17:13.770 --> 00:17:19.590

Alice Doyle: to connect to us today so thanks Lynn so, first I want to share my screen.

111

00:17:20.220 --> 00:17:21.930

let's do that.

112

00:17:23.400 --> 00:17:25.530

Alice Doyle: With everybody here we go share.

113

00:17:31.650 --> 00:17:39.270

Alice Doyle: Okay, can you guys see my screen awesome Okay, so the first person, we want to commemorate or congratulate i'm not sure what the right words are.

114

00:17:40.110 --> 00:17:51.720

Alice Doyle: Is phil white so some folks might not know phil but phil is with the know roughly and he actually got his start as a marine science tech in the coast guard back way back in the 80s.

115

00:17:52.620 --> 00:17:57.780

Alice Doyle: And then he decided to go back to school and he started with Noah in 1991.

116

00:17:58.260 --> 00:18:06.690

Alice Doyle: When between 1999 and 90 and President he serves as a permanent tech on five different ships and then he moved off because.

117

00:18:07.050 --> 00:18:12.420

Alice Doyle: And he was kind of the survey tech experts and he served as relief and then he also as a trainer.

118

00:18:12.840 --> 00:18:22.740

Alice Doyle: And since 2011 know finally figured out just how good he is, and so they interspersed kind of short time and ship time and ensure bass duties.

119

00:18:23.160 --> 00:18:29.640

Alice Doyle: Were work he works specifically to support shipboard technician training and data management initiatives.

120

00:18:30.180 --> 00:18:38.370

Alice Doyle: So I first met phil early in my start with you knowles and phil was super interested in learning.

121

00:18:38.880 --> 00:18:50.760

Alice Doyle: More about you knowles and rv tag and how Noah and rv tech could work together and so as part of his training initiatives he worked hard to get know a text funding so that they could participate in tech.

122

00:18:51.150 --> 00:18:58.980

Alice Doyle: And then he also started to know a training program that happened annually, and he would invite rb tech members to that which was great.

123

00:18:59.460 --> 00:19:06.150

Alice Doyle: So he then started to focus on the data and he pushed and pushed for know to improve their data management practices.

124

00:19:06.750 --> 00:19:13.350

Alice Doyle: So I will miss phil's smiling face and also is continually perseverance perseverance, is a great word for phil.

125

00:19:14.250 --> 00:19:22.590

Alice Doyle: Anyone who has worked with no one knows that there's a lot of red tape and phil continually put his head down and sharpen the scissors and continue to cut.



126

00:19:23.040 --> 00:19:30.330

Alice Doyle: And so, his last time you guys might have seen it advertised, but as a data acquisition manager you gotta love that acronym right.

127

00:19:31.290 --> 00:19:45.210

Alice Doyle: And he will this will he created this position he convinced know to create this position and it'll be a great step forward for Noah vessel data management, so thank you phil for your 30 years of service to Noah and oceanographic community.

128

00:19:45.990 --> 00:19:54.210

Alice Doyle: We hope you enjoy your retirement, so we don't have I have some words from a couple folks that know captain's that phil has sailed with a work with.

129

00:19:54.510 --> 00:20:06.060

Alice Doyle: That i'd like to share with everyone, so this is first from Dec Captain Dan Simon and he says, I never be able to fill However, our past and our passions cross perpetually through much of my career.

130

00:20:06.810 --> 00:20:17.910

Alice Doyle: phil has been a steadfast advocate of data management data collection techniques and of the mariner as a whole, he has been an advocate while leading by example, never asking or even expecting that anyone do.

131

00:20:18.300 --> 00:20:29.250

Alice Doyle: Something that he wouldn't over the past couple years i've been fortunate to work directly with phil in pursuit of making know as marine operations better for anyone involved in the no ships.

132

00:20:30.120 --> 00:20:34.500

Alice Doyle: He has been completely trusted in and learn mean done for a variety of topics.

133

00:20:34.560 --> 00:20:53.640

Alice Doyle: Always providing sage wisdom that all around him that all around him has come that all around him have come up to rely on feel will be truly missed in the fleet, I will certainly

miss him and look forward to our paths crossing again, as I expect, they will, through the years ahead.

134

00:20:54.720 --> 00:20:58.200

Alice Doyle: So the next quick comment is from Captain David shoop.

135

00:20:58.710 --> 00:21:08.460

Alice Doyle: Also, have Noah and he says, I feel like i've worked with phil my entire career yeah I look back and it isn't the time ceiling that I remember, in fact, I only recall sailing with them once.

136

00:21:09.120 --> 00:21:16.920

Alice Doyle: phil phil, though, is one of those people that everyone knows he is a leader in the suite someone who knows people.

137

00:21:18.630 --> 00:21:25.410

Alice Doyle: Someone who people listen to when he talks, he is quiet, the end he carries the room and as of late on Google me.

138

00:21:26.580 --> 00:21:36.660

Alice Doyle: always looking to make things better, he has done just that for Noah, I would like to say thank you just fill for all of that he has done to make this a better place.

139

00:21:37.800 --> 00:21:39.000

Alice Doyle: So thank you phil.

140

00:21:41.400 --> 00:21:45.570

Alice Doyle: Okay i'm gonna do switch switch thanks.

141

00:21:46.410 --> 00:21:48.030

Phil White: Well, you get all those pictures.

142

00:21:48.630 --> 00:21:51.030

Alice Doyle: And there's a lot on the Internet so.

143

00:21:54.720 --> 00:22:01.380

Alice Doyle: there's phil and actually there's bill to great because bill you our next honoree bill wave wave your hand there.

144

00:22:05.730 --> 00:22:12.330

Alice Doyle: he's refusing to acknowledge so bill fanning is our next honoree Let me share my screen here.

145

00:22:13.710 --> 00:22:14.490

Alice Doyle: There is there's bill.

146

00:22:16.230 --> 00:22:17.100

Alice Doyle: I think it's the.

147

00:22:19.650 --> 00:22:23.970

Alice Doyle: That is an awesome picture right there that's from a while ago.

148

00:22:25.590 --> 00:22:41.040

Alice Doyle: So bill started with fca program when he sailed with the westward and then as a student and then he became a mate and soon after that he moved over to you awry in 1986 so I first met phil.

149

00:22:42.120 --> 00:22:52.800

Alice Doyle: bill, excuse me, I first met bill at my first rv tech meeting, which was back in 2010 interviewed actually and so Jim holic was pretty new to nsf.

150

00:22:53.190 --> 00:23:04.320

Alice Doyle: And he presented his idea about the technical and then I said a few words about you know the thoughts of how it would work and how it would go together well we finished the presentation and where.

151

00:23:06.330 --> 00:23:17.910

Alice Doyle: Did we get some critical feedback from bill and our next honoree and I must say that I was a bit taken aback after that i'm I was like oh my gosh what am I got new to, and I will say my pride was hurt a little bit.

152

00:23:19.170 --> 00:23:26.430

Alice Doyle: But then I kind of came to my senses and I realized that this is a guy who has been around for a while and that was back in 2010.

153

00:23:26.850 --> 00:23:39.660

Alice Doyle: he's been around for a while and he's seen a lot and and his comments they come from experience and also come from his heart, so I needed to get over it, and listen, so I subsequently worked with bill on several other occasions.

154

00:23:40.260 --> 00:23:51.690

Alice Doyle: With the cruise planner on panels a tech pool me to a number of other things, and he was never shy about asking really the tough questions right and giving his perspectives on things.

155

00:23:52.440 --> 00:24:00.300

Alice Doyle: And so, if I needed on his input I knew I could call a bill, and he would take the time to listen to me and explain things if necessary.

156

00:24:01.380 --> 00:24:06.270

Alice Doyle: Any made time for me so along with working on the endeavor with the URL.

157

00:24:06.870 --> 00:24:16.560

Alice Doyle: villas was the original developer of the online cruise pining after you had a great vision they're getting everything together, which has now moved morphed into the universe cruise planning tool.

158

00:24:17.520 --> 00:24:30.090

Alice Doyle: He has served tirelessly on the RC rv science oversight Committee also so and also been a huge member of the rv tech community are always giving input when again so.

159

00:24:30.600 --> 00:24:44.820

Alice Doyle: bill, we are very sad to see you go, but this is a very well deserved retirement and we wish you all the best, thank you for your 35 years of service to the fleet pretty incredible so we have, I think Lynn are you still here.

160

00:24:49.050 --> 00:24:49.650

Jules Hummon: she's there.

161

00:24:50.550 --> 00:24:52.170

Alice Doyle: Can you speak.

162

00:24:59.160 --> 00:25:01.320

Alice Doyle: bill is on the ship.

163

00:25:03.420 --> 00:25:05.880

Alice Doyle: We know you guys are having quite a storm right now.

164

00:25:06.870 --> 00:25:07.740

Bill Fanning: And I am not.

165

00:25:09.630 --> 00:25:10.110

Alice Doyle: You are not.

166

00:25:11.130 --> 00:25:11.880

Alice Doyle: Where are you.

167

00:25:12.480 --> 00:25:13.200

Bill Fanning: i'm at home.

168

00:25:14.160 --> 00:25:16.200

Alice Doyle: i'm along what was that.

169

00:25:16.590 --> 00:25:18.030

Bill Fanning: i'm at home, where I belong.

170

00:25:18.450 --> 00:25:20.580

Alice Doyle: Okay, is there a storm going on there.

171

00:25:21.000 --> 00:25:23.550

Bill Fanning: um it's mostly gone by.

172

00:25:24.090 --> 00:25:32.850

Alice Doyle: Okay, great well Lynn was out of power and so she went to the ship to try to get there she's not muted, but I don't hear.

173

00:25:33.480 --> 00:25:41.640

Brandi Murphy (she/her): she's working across two different laptops in her connection keeps locking up so she said that she could hear some of what you said, but she can't see it so.

174

00:25:42.060 --> 00:25:42.750

Alice Doyle: Oh bummer.

175

00:25:43.140 --> 00:25:43.980

Alice Doyle: Well Eric.

176

00:25:44.070 --> 00:25:49.590

Alice Doyle: Also Eric rubble is also without power, he was going to be here today, but he was also without power.

177

00:25:50.100 --> 00:25:56.790

Alice Doyle: And he has one bar of cell signal, so he sent me these words bill to you, and he wishes, he could be here, he said.

178

00:25:57.330 --> 00:26:04.530

Alice Doyle: Eric says bill was I was supposed to do it in eric's voice, but i'm really it's kind of graph maybe i'm not sure how to do eric's voice so just pretend.

179

00:26:05.190 --> 00:26:11.160

Alice Doyle: bill was my first civilian supervisor after a career move to the ocean science to ocean scientists.

180

00:26:11.580 --> 00:26:18.840

Alice Doyle: Having spent many, many years in the navy operating maintaining and mostly important and, most importantly, improving the scientific.

181

00:26:19.290 --> 00:26:28.590

Alice Doyle: systems on a research vessel is no small task and I had to learn, many of these systems from scratch, I consider myself bill's apprentice in many ways.

182

00:26:28.860 --> 00:26:39.030

Alice Doyle: Since we share similar interests in technical backgrounds his solid principles and clever tricks are now part of my principles his hard work will live on.

183

00:26:39.540 --> 00:26:51.420

Alice Doyle: In that regard, there aren't many people left in this field, who have been texts on research vessel since before a lot of the quote tech was invented or conceive no GPS, can you imagine.

184

00:26:52.110 --> 00:27:02.670

Alice Doyle: bills career is a considerable part of the history of this profession, the ui endeavor there the RD endeavor and the user ID so fair winds and following these from Eric.

185

00:27:06.480 --> 00:27:10.680

Alice Doyle: So if we get lean back on board, we will thank you bill for everything.

186

00:27:12.390 --> 00:27:13.410

Alice Doyle: All right, i'm going to do one.

187

00:27:14.130 --> 00:27:14.850

Bill Fanning: i'd like to.

188

00:27:15.780 --> 00:27:22.590

Bill Fanning: i'd like to know i'd like to know why the vast majority of those pictures are have to do with wire wine thing oh.

189

00:27:24.750 --> 00:27:25.110

Bill Fanning: My.

190

00:27:25.170 --> 00:27:27.990

Bill Fanning: God what a way to remember career.

191

00:27:29.940 --> 00:27:31.080

Alice Doyle: There was another good one in there.

192

00:27:32.370 --> 00:27:33.060

Alice Doyle: Okay let's.

193

00:27:33.750 --> 00:27:35.970

Bill Fanning: Thank you, I appreciate you guys very with.

194

00:27:35.970 --> 00:27:39.300

Alice Doyle: me I hope you're appreciating these lovely pictures also.

195

00:27:41.190 --> 00:27:42.660

Brandi Murphy (she/her): Later sent me some words.

196

00:27:42.720 --> 00:27:56.550

Brandi Murphy (she/her): She said, if you can those inspiring ways dedication and hard work meant so much over the years may your future endeavors be philly be fulfilling and may you enjoy many joyous adventures in retirement.

197

00:27:57.210 --> 00:27:57.780

yeah.

198

00:28:00.300 --> 00:28:00.840

Alice Doyle: So.

199

00:28:01.980 --> 00:28:02.880

Bill Fanning: Thank you Lynn.

200



00:28:05.130 --> 00:28:07.860

Alice Doyle: Okay, we have one more honoree I appreciate you.

201

00:28:09.210 --> 00:28:20.190

Alice Doyle: sticking with us share Okay, this is a pretty awesome picture, because this is a first rv tech meeting this is mark right here mark willis from osu.

202

00:28:21.240 --> 00:28:26.190

Alice Doyle: He That was the first rv tech meeting back in 1992 is what I believe.

203

00:28:26.910 --> 00:28:38.160

Alice Doyle: So mark started at osu back in 1979 so from the story, I heard is that the dean of the College they had to walk home at the time the rv y como which is now retired but.

204

00:28:38.550 --> 00:28:51.000

Alice Doyle: She is the sister ship of the oceana's in the endeavor so the acom was at osu and the scientist when using the ship and they have this big list of demands or requests on Maybe I should say.

205

00:28:51.450 --> 00:29:04.170

Alice Doyle: and comments and the deans and I don't know what to do and somehow he got Ahold of mark and he said mark here's your list of things to do go forth and make good and the rest is history because he's been there ever since.

206

00:29:05.520 --> 00:29:14.730

Alice Doyle: So I also met mark back at that fateful 2010 or B tech meeting in Bermuda and he, like bill had some points and and critical questions of our ideas.

207

00:29:15.180 --> 00:29:20.100

Alice Doyle: And that will say it's a good thing that I wasn't wearing any hippie deodorant that day, because I was sweating.

208

00:29:20.820 --> 00:29:25.440

Alice Doyle: So I left the meeting you know and what what am I doing and slowly slowly, though.

209

00:29:25.710 --> 00:29:34.200

Alice Doyle: I started interacting with mark more and realized like like bill, he was some with with a lot of experience, who really cared about doing it right right.

210

00:29:34.470 --> 00:29:44.400

Alice Doyle: I could trust the honest feedback on all things technical and so he was patient again and listen to what my questions and help me understand you know, in the rv tech community.

211

00:29:44.820 --> 00:29:50.130

Alice Doyle: And I will always remember is three tiers of marine technicians training toys and travel so.

212

00:29:50.670 --> 00:30:01.410

Alice Doyle: Market work tirelessly on the whole colma until he moved over to be the technical lead out the rv securely build and then moved on to the RC R amp D project so.

213

00:30:02.160 --> 00:30:11.040

Alice Doyle: He has always been a big part of the rv tech community and just talking to him last week, I was really struck by how high of regard he holds.

214

00:30:11.490 --> 00:30:18.180

Alice Doyle: The rv tech community and all of you, technicians he's still after all these years really passionate about at all so it's pretty neat.

215

00:30:18.600 --> 00:30:33.060

Alice Doyle: So we thank you mark for your 42 years of service to the fleet and we say good luck to in your retirement, and that is the best picture ever but anyway okay so we've got two folks that would like to say a few words I think toby are you here.

216

00:30:38.010 --> 00:30:38.730

Alice Doyle: hey maybe.

217

00:30:39.240 --> 00:30:40.140

Jules Hummon: He is here, so it.

218

00:30:43.470 --> 00:30:45.720

Brandi Murphy (she/her): looks like he's having audio difficulties.

219

00:30:46.950 --> 00:30:48.840

Alice Doyle: Today, have difficulties.

220

00:30:50.820 --> 00:30:53.400

Alice Doyle: See just even in retirement.

221

00:30:54.660 --> 00:30:55.440

Alice Doyle: You guys have to do.

222

00:30:57.810 --> 00:30:59.310

Alice Doyle: Darrell you can speak first.

223

00:31:00.180 --> 00:31:01.350

Daryl Swensen: OK, I can hear me.

224

00:31:01.800 --> 00:31:02.520

Alice Doyle: We can hear you.

225

00:31:03.270 --> 00:31:09.960

Daryl Swensen: Okay yeah I could spend hours talking about how mark has influenced me personally.

226

00:31:10.740 --> 00:31:21.630

Daryl Swensen: And the tech community in general, but I just want to start by Jesse Thank you mark for everything you've done for me for my career he's always had my back he sees helped me.

227

00:31:22.410 --> 00:31:32.400

Daryl Swensen: Immense times through throughout my work in in the in the technical field and beyond, I think, as a placeholder for for as mark being a placeholder for our V tech.

228

00:31:33.210 --> 00:31:42.570

Daryl Swensen: I think the Community owes him a huge area gratitude us supported this committee and been a champion for it on the national level international.

229

00:31:43.890 --> 00:31:44.490

Daryl Swensen: Exactly all.

230

00:31:46.110 --> 00:31:49.110

Daryl Swensen: and supported us in many areas that none of us can even.

231

00:31:49.500 --> 00:31:56.640

Daryl Swensen: know about and the last part is it I got to thinking about how much data mark has been.

232

00:31:57.660 --> 00:32:05.040

Daryl Swensen: accumulated in his career and how much the science community is benefit from having a person like mark making things happen.

233

00:32:05.370 --> 00:32:10.950

Daryl Swensen: Making sure that that casts goes through making sure that the electrons are flow and making sure that everything is working.

234

00:32:11.850 --> 00:32:16.650

Daryl Swensen: To the level of his his his high level of making it happen.

235

00:32:17.280 --> 00:32:26.730

Daryl Swensen: It to me it just to think about how much science has benefited from having individual working in the background, like mark has to support everything that is.

236

00:32:27.060 --> 00:32:34.980

Daryl Swensen: is amazing and i'm going to miss your market, you know I know you're not going away you'll still be answering phone calls from me on a regular basis i'm sure, but.

237

00:32:36.600 --> 00:32:41.190

Daryl Swensen: it's a it's been a pleasure and always always has been, thank you.

238

00:32:46.260 --> 00:32:47.250

Alice Doyle: you're muted again.

239

00:32:52.410 --> 00:32:53.730

Toby Martin: Okay, I switched microphones.

240

00:32:57.060 --> 00:32:57.630

Toby Martin: You know.

241

00:32:58.950 --> 00:33:13.260

Toby Martin: History with mark work the long time with him and and when I first started working for MARQuIS he hired me and he was in town for my initial weight week to get the paperwork done and then he was gone for six weeks in the Southern Ocean.

242

00:33:16.140 --> 00:33:24.900

Toby Martin: In and then we we overlapped for a couple of weeks, and he was gone for six weeks in the Southern Ocean and and you guys know the score.

243

00:33:26.070 --> 00:33:38.460

Toby Martin: overlapping and when we're in the office and all that sort of stuff but during that initial time I was figuring out my role on what coma and I was getting settled into the office.

244

00:33:39.660 --> 00:33:43.710

Toby Martin: You know, setting up computers sorting through equipment, bringing in my beanbag.

245

00:33:44.850 --> 00:33:59.250

Toby Martin: And, and then some months later, as into my tenure we're both in the office in his office was adjoining mine but the fax machine is in my office, and so one afternoon he needs to.

246

00:33:59.970 --> 00:34:18.990

Toby Martin: To send off effects and, as he proceeds into my seemingly unoccupied office going around the big table toward the fax machine and he's distracted because he's certain out the

order of the facts and and all that sort of stuff and he almost trips over me napping in set beanbag.

247

00:34:21.060 --> 00:34:27.240

Toby Martin: And he started exclamation can probably best be shared in public, as what are you doing there.

248

00:34:30.630 --> 00:34:32.610

Toby Martin: My replies, what does it look like.

249

00:34:33.780 --> 00:34:36.000

Toby Martin: Why do you think I haven't been begging office.

250

00:34:37.020 --> 00:34:42.000

Toby Martin: I always find it, you know good to have a strong offensive when somebody's about to trip over you.

251

00:34:43.140 --> 00:34:54.330

Toby Martin: Anyway, marks follow up was I was only supposed to know you were there and and I said what time is it about 130 that seems like a good indicator.

252

00:34:55.470 --> 00:34:58.530

Toby Martin: He never made a fuss about my afternoon NAPs.

253

00:35:00.150 --> 00:35:16.740

Toby Martin: that's just the sort of person mark was I could nap all the time, as long as I got things done, and he was great to work, for we had a lot of fun standing out on deck getting waves washed over us and and all that sort of stuff and, as I can say is.

254

00:35:18.090 --> 00:35:22.530

Toby Martin: If he's probably going to end up tripping over me again somewhere in his travels.

255

00:35:26.070 --> 00:35:27.150

Alice Doyle: Great thanks to be.

256

00:35:28.740 --> 00:35:30.270

Alice Doyle: him, did you want to say a few words.

257

00:35:31.440 --> 00:35:41.220

James Holik: Sure, I mean I I certainly don't have as much to say as the rest of you guys do, but you know all these people are certainly been around longer than I am.

258

00:35:42.120 --> 00:35:52.920

James Holik: I get my memories, I mean when I was a new kid coming in, as the new program manager and I met mark I said Oh, who is that guy she's got a feller mouth and I do.

259

00:35:55.860 --> 00:36:04.530

James Holik: which you know I always you know, believe it or not, I always have appreciated that some people will come to your face and tell you you're full of it.

260

00:36:06.210 --> 00:36:08.490

James Holik: It may be in those many words but a.

261

00:36:09.750 --> 00:36:17.640

James Holik: bluntness and coming from a place of experience are really valuable things and I really appreciate that.

262

00:36:19.530 --> 00:36:24.780

James Holik: All I can say is thanks for all your work and i'm sure you know they're not going anywhere.

263

00:36:25.770 --> 00:36:26.280

Alice Doyle: And we wish.

264

00:36:26.310 --> 00:36:34.800

Alice Doyle: We can do this in person, where we could all raise our glasses and give you a good cheer but maybe you guys become the next year's rv type meeting.

265

00:36:35.130 --> 00:36:47.790

Alice Doyle: You guys, you know you're always always welcome in the rv tech community and come to our meetings, and you know darryl was talking about the amount of data right that's just more, but then you start.

266

00:36:48.030 --> 00:36:53.250

Alice Doyle: I added up all the careers of these three people and it's 107 years.

267

00:36:53.730 --> 00:36:57.090

Alice Doyle: surfing the oceanographic fleet just.

268

00:36:57.390 --> 00:37:01.830

Alice Doyle: Medical I mean 107 years about times and amount of data just.

269

00:37:01.890 --> 00:37:06.600

Alice Doyle: amazing so we thank you guys are hats are off to you it's well deserved retirement.

270

00:37:08.160 --> 00:37:09.930

Alice Doyle: And don't be strangers so.

271

00:37:10.260 --> 00:37:11.070

Alice Doyle: If we're ever going.

272

00:37:11.460 --> 00:37:12.270

Alice Doyle: To go ahead, Jim.

273

00:37:12.960 --> 00:37:13.770

James Holik: i'm not done.

274

00:37:14.160 --> 00:37:14.580

Alice Doyle: Oh.

275

00:37:15.090 --> 00:37:19.890

James Holik: I just talked about mark I gotta talk about bill i'm telling you real.



276

00:37:20.340 --> 00:37:22.740

James Holik: My all time favorite people in this job.

277

00:37:23.550 --> 00:37:30.180

James Holik: Of all the years i've been here one of my all time favorites from the beginning anytime I needed something and.

278

00:37:31.320 --> 00:37:38.490

James Holik: we're all about that i'll go do it, you did so many things he has a record for sitting on the most panels of anybody.

279

00:37:40.170 --> 00:37:46.260

James Holik: In my tenure there I needed a quick review, so we can get something out the door call fanny okay.

280

00:37:47.130 --> 00:37:57.480

James Holik: I can't say enough my one of my all time favorite people I watched him go through some severe challenges with the best attitude i've ever seen, I want to be that man.

281

00:37:58.020 --> 00:38:10.470

James Holik: So, all I can say is I love you man take care and we'll see you around we'll see you every time we possibly can, and I will say things about phil, but I feel very well.

282

00:38:11.700 --> 00:38:15.060

James Holik: But congratulations and have a wonderful life too.

283

00:38:16.110 --> 00:38:16.890

James Holik: that's all for me.

284

00:38:18.600 --> 00:38:19.890

Alice Doyle: i'm so sorry for kind of yeah.

285

00:38:21.150 --> 00:38:21.600

James Holik: Okay.

286

00:38:25.110 --> 00:38:37.290

Alice Doyle: So thank you to you all, and we would raise our glasses to you guys and please don't be strangers and we'd still love to hear you know if you're bored and see some things come through an rv tech listserv.

287

00:38:37.860 --> 00:38:45.900

Alice Doyle: You know, feel free to jump in and tell us all about it so don't be a stranger to the universe, in general, if you want to serve on a committee we'd love you there too, so.

288

00:38:46.290 --> 00:38:57.120

Alice Doyle: If you're ever in Southwest Colorado be sure to look me up or anywhere close to Southwest Colorado be sure to look me up i'd love to go for them so take care, you guys and thanks so much for coming today.

289

00:38:58.860 --> 00:38:59.460

Willis, Marc: Thank you.

290

00:39:03.720 --> 00:39:04.170

Phil White: Thanks.

291

00:39:05.640 --> 00:39:06.540

Alice Doyle: Thank you.

292

00:39:08.130 --> 00:39:08.970

Bill Fanning: Thanks Alice.

293

00:39:11.580 --> 00:39:12.300

Alice Doyle: Thank you.

294

00:39:13.920 --> 00:39:17.340

Lee Ellett: yep Thank you Alice for doing that wonderful.

295

00:39:20.490 --> 00:39:23.550

Lee Ellett: Should we get started with the rest of the.

296

00:39:24.630 --> 00:39:27.390

Lee Ellett: The session this morning.

297

00:39:28.500 --> 00:39:30.420

Lee Ellett: I think it's next is a.

298

00:39:33.150 --> 00:39:34.740

Lee Ellett: you'll have the did not.

299

00:39:35.640 --> 00:39:36.600

Brandi Murphy (she/her): record Group and

300

00:39:36.630 --> 00:39:43.620

Lee Ellett: rick rick rubin from university of Washington, I think it starts with a presentation on ARGO floats.

301

00:39:46.110 --> 00:39:48.120

Lee Ellett: And the gobi gc as well.

302

00:39:49.950 --> 00:39:57.570

A. Rick Rupan: Yes, thank you all very much I thank you very much for letting me join your meeting today.

303

00:39:58.740 --> 00:40:20.280

A. Rick Rupan: You know we've talked you all talked about all of your careers and i'm certain that most of you during your career have run into ARGO floats home if not once many, many times over the years I know a lot of you have for sure, but our goal has now morphed into.

304

00:40:21.450 --> 00:40:38.730

A. Rick Rupan: is now our goal is continuing and i'd like to say that see go here at ARGO thanks you all very, very much for your help, as of today, there's currently 3866 active floats out there working um.

305

00:40:39.360 --> 00:41:02.370

A. Rick Rupan: I would say all deployed by marine tex, if not all over the world, so you can see that this program is still continuing to this day and eyes ARGO grows so well now so calm so calm is Southern Ocean climate carbon ocean monitoring.

306

00:41:03.540 --> 00:41:16.710

A. Rick Rupan: And now we also have go big see which is global ocean biogeochemical floats so we have a lot of floats out there now in the fleet.

307

00:41:17.670 --> 00:41:26.310

A. Rick Rupan: And you will be seeing that an ARGO float was created many years ago was just ctv sensors.

308

00:41:26.760 --> 00:41:39.930

A. Rick Rupan: conductivity temperature and that you see here on the left hand side of your screen, but now the so calm and go be gc floats are have not only ctv, but they also have oxygen.

309

00:41:40.410 --> 00:41:48.750

A. Rick Rupan: pH nitrate optical backscatter fluorescence and irradiance on them, they are significantly taller about a foot taller.

310

00:41:49.410 --> 00:41:56.940

A. Rick Rupan: than the normal ARGO float and quite a bit heavy so about five kilos heavier.

311

00:41:57.840 --> 00:42:17.070

A. Rick Rupan: Are these gobi gc floats now the gobi gc float that you're seeing in front of you, many of you know that there are many different types of ARGO floats there are ARGO floats made by teledyne web research made by seabird scientific made by Mr V scripts.

312

00:42:18.150 --> 00:42:31.020

A. Rick Rupan: So there are and then all over the world, there are also different types, but for gobi gc right now the major float type that we have is that yellow apex that you see on the right hand side of your screen.

313

00:42:32.160 --> 00:42:46.440

A. Rick Rupan: And then you'll also see a larger novice float I don't have a picture of it but seabird also has a a goby DC float and soon scripts will also be.

314

00:42:47.160 --> 00:42:58.740

A. Rick Rupan: testing out there, go be gc for a load off of the rebel coming up here very soon so right now what you'll see and many of you have seen, is this.

315

00:42:59.280 --> 00:43:14.190

A. Rick Rupan: Vehicle here on the right hand side of your screen, it does take a little bit more to get it over the side, but it does have the same general principles of deployment which we'll talk about here and a bit.

316

00:43:14.880 --> 00:43:23.850

A. Rick Rupan: Some key personnel that you'll run into with the so calm and go big see programs are the p is Ken Johnson Adam Bari.

317

00:43:24.240 --> 00:43:35.550

A. Rick Rupan: Lynn tally and Sarah perky at scripps Steve riser and allison Gray at U dub Susan waffles and room Nicholson at who we and Andrea fassbender at P me out.

318

00:43:36.210 --> 00:43:42.840

A. Rick Rupan: But probably the most important person whom you will all have dealings with will be Susan Becker.

319

00:43:43.440 --> 00:43:55.590

A. Rick Rupan: She is the shipboard science lead for are so common go the gc programs so when these floats are deployed, we are asking for data to be collected wet.

320

00:43:56.430 --> 00:44:08.370

A. Rick Rupan: At the ctv stations and if that does happen Susan will be the one to coordinate all that I know most of you, if not all of you have worked with Susan.

321

00:44:09.540 --> 00:44:25.110

A. Rick Rupan: And in the past, present and the future a home, she is everywhere and all knowing and all doing so she handles most of that shipboard collection, so you will hear from her as well as.

322

00:44:25.950 --> 00:44:35.250

A. Rick Rupan: Myself, so I added this this in here at brandies we have because you know, sometimes you all don't know where the folks come from and how they get to you.

323

00:44:35.640 --> 00:44:56.250

A. Rick Rupan: um ARGO floats worked a little bit different ARGO floats had each individual group would contact the Marine OPS managers and and sometimes the chief scientist, to see if we can participate in a cruise for the so calm and go be gc.

324

00:44:57.420 --> 00:45:04.170

A. Rick Rupan: floats Lynn tally will be contacting the chief scientist if it's a scheduled cruise.

325

00:45:04.470 --> 00:45:19.290

A. Rick Rupan: or Lynn will contact the also the Marine OPS managers if it's a transit or not so she will be the sort of singular point of contact there as asking if we can participate on the crews are not.

326

00:45:20.040 --> 00:45:36.690

A. Rick Rupan: Once she does get a yes or no from the Marine OPS manager or the chief scientist, then it will be up to the individual float labs float groups to contact usually the ship text to make arrangements for shipping.

327

00:45:38.580 --> 00:45:48.750

A. Rick Rupan: And we will ship those domestically and internationally as needed I just shipped off loads to the polar stern.

328

00:45:49.530 --> 00:46:06.480

A. Rick Rupan: In Germany that Sarmiento to gamble a we're heading out to the investigator, as well as well as the ravel the Sally ride and the Thompson so the fluids, are now getting out all over the place and.

329

00:46:07.350 --> 00:46:18.660

A. Rick Rupan: Susan Becker will contact the ship text if onboard sampling is needed or done for transits I think Linda is going to forego the onboard sampling because you're just not doing it.

330

00:46:19.470 --> 00:46:36.480

A. Rick Rupan: But for cruises she definitely would like to get that data as far as the socom be gc flows texts that you will be encountering as you move forward a lot of these names you're probably familiar with john gilson at scripps.

331

00:46:37.350 --> 00:46:58.440

A. Rick Rupan: Ryan Anderson and Pal robbins at who we Elizabeth Stephen at PM e I and from U dub you have myself Dana swift grab Russo and Andrew Meyer, these are the people that you will be coordinating with most often, and these are also the people that you will be seeing at ports.

332

00:46:59.580 --> 00:47:16.590

A. Rick Rupan: For these floats they will always be checked out by a technician at port before they are loaded on board the ship so and it is at that time that we will go over deployment location deployment procedures.

333

00:47:17.670 --> 00:47:25.110

A. Rick Rupan: and help you with storage and help with anything that you need while you are important, when we are important.

334

00:47:25.740 --> 00:47:36.300

A. Rick Rupan: We are there to help you all and try to make your lives a lot easier, we should not be doing anything to make it harder if we are just let us know, and we will correct that.

335

00:47:36.600 --> 00:47:47.640

A. Rick Rupan: immediately, because a lot of these are ships of opportunity for us, we are asking for your help, and you have given it graciously and we do appreciate that.

336

00:47:49.410 --> 00:48:02.850

A. Rick Rupan: And finally, as we go through here, I just want to go over and show you a deployment, we do have a deployment manual many of you know how to deploy these floats already, but this is just a standard.

337

00:48:03.480 --> 00:48:22.590

A. Rick Rupan: Go be gc deployment, this is video taken by us, you know could do a PM EI of Jenny mowatt deploying a socom float off the back of the rv Palmer very short video most of you know, this goes pretty quickly with a rope it's very easy but i'll just play that video here.

338

00:48:28.140 --> 00:48:30.210

A. Rick Rupan: This is Jenny get my float overboard.

339

00:48:31.590 --> 00:48:34.380

A. Rick Rupan: Here, as soon as it down it goes down pretty quick.

340

00:48:49.320 --> 00:48:57.510

A. Rick Rupan: And if it hits decided to ship it's okay usually not a problem pretty robust i'm building Marcel and then, once it's in the water.

341

00:48:58.620 --> 00:49:08.250

A. Rick Rupan: Your job is done you don't need to hang out you don't need to watch it that's when it's up to us, and we make sure that we did our job correctly.

342

00:49:08.880 --> 00:49:14.640

A. Rick Rupan: Your job is just to get it in the water, but However, I will tell you that you all have the most important job.

343

00:49:15.030 --> 00:49:36.060

A. Rick Rupan: of getting it in the water, you are the last part of our team, and if you all don't get it right, then the float doesn't get get put out there, so just ask any questions or any information, you may need when we're there at port or I can answer questions now as well, but.

344

00:49:37.080 --> 00:49:41.340

A. Rick Rupan: that's all I have tried to keep it sort of short and sweet for you.

345

00:49:43.590 --> 00:49:44.880

A. Rick Rupan: Any questions.

346

00:49:50.490 --> 00:49:51.240



A. Rick Rupan: yeah Jim.

347

00:49:54.270 --> 00:49:55.620

A. Rick Rupan: Are you muted, I believe.

348

00:49:56.850 --> 00:50:05.670

James Holik: There we go I think it's great that that you're putting these out and the people in the leader, are willing to do this right it's pretty trivial deployment.

349

00:50:07.380 --> 00:50:15.600

James Holik: But I think you mentioned it, I just want to make sure that that all the shipping in the in the packaging in the stuff you handle all that stuff.

350

00:50:15.930 --> 00:50:17.130

A. Rick Rupan: Right it's like ready to see.

351

00:50:17.640 --> 00:50:26.040

A. Rick Rupan: The individual the individual float groups will handle the payment the coordination.

352

00:50:27.150 --> 00:50:35.850

A. Rick Rupan: And the you know and, if possible, you know, in times of pre COPA, we would pack it up and stole it aboard ship as well.

353

00:50:36.360 --> 00:50:52.620

A. Rick Rupan: um so that should all be handled by the individual labs even when we do go down to say ships, like the the Palmer we've been trying to cut out Port wine amy and shipped directly down to down.

354

00:50:53.340 --> 00:50:53.820

down to.

355

00:50:55.380 --> 00:50:56.760

James Holik: Okay, thank you yeah.

356

00:50:56.880 --> 00:50:57.360

No problem.

357

00:50:59.460 --> 00:50:59.760

Lee Ellett: Lee.

358

00:51:00.990 --> 00:51:12.450

Lee Ellett: yeah I had a couple cry just what i'm that's i've been keeping in close contact with Susan Becker on this as the, you know as the kind of program expands, I mean we're used to seeing the ARGO floats, as you say.

359

00:51:12.840 --> 00:51:14.700

Lee Ellett: My yeah my concerns have really been.

360

00:51:15.210 --> 00:51:28.200

Lee Ellett: Regarding increased you know scope of logistics when having the ships having this are having the full to right the ship and then receive their ship text taking additional responsibility to receive those load them still them.

361

00:51:28.830 --> 00:51:38.040

Lee Ellett: In my experience some science parties, you know, we have the chief scientist they accept them and then they you know they have their science party contribute, you know.

362

00:51:39.090 --> 00:51:55.560

Lee Ellett: To the deployment and then the and then, but some have just passed that right to the text has been like Oh yes, you can deploy those projects and then pass all those responsibilities to the text, sometimes it's not a problem, sometimes you know increase scope of this.

363

00:51:57.060 --> 00:52:04.110

Lee Ellett: is something that we've been thinking about, but we were very supportive of the program it's just dealing with increase scope is something that.

364

00:52:05.490 --> 00:52:05.850

A. Rick Rupan: I.

365

00:52:05.940 --> 00:52:18.900

A. Rick Rupan: looked in it yeah I do understand that Lee and I will tell you that as an engineer, I actually do prefer hurt when the ship tech do the deployment versus the scientific science groups.

366

00:52:19.800 --> 00:52:22.770

A. Rick Rupan: And I tell you that just because.

367

00:52:24.000 --> 00:52:29.940

A. Rick Rupan: I trust the ship texts more than hi to some of the science groups who don't go to see as much.

368

00:52:31.170 --> 00:52:56.580

A. Rick Rupan: So that is, that is what happens your your community and your groups are so are much better trained some of the science groups just go to see with a Grad student who never been to see before and we put a float in their hand and we worry about it, we were greatly about it, so you can.

369

00:52:57.660 --> 00:53:08.880

A. Rick Rupan: You can blame me a little bit for that increased scope, because I have been a major advocate of making sure that is the ship techs.

370

00:53:09.210 --> 00:53:30.180

A. Rick Rupan: Who do the physical deployment of the instrument, however, it should be the science groups who do so, one thing I didn't mention is the cleaning there are cleaning supplies that we send for the formatter and the nitrate sensor that should be done by the science team.

371

00:53:31.620 --> 00:53:36.480

A. Rick Rupan: on board so for our transit i'm you know we usually just.

372

00:53:37.230 --> 00:53:44.550

A. Rick Rupan: You know the ship techs aren't usually that busy I don't know, but we will definitely check and be respectful of their time.

373

00:53:44.910 --> 00:53:54.570

A. Rick Rupan: But if there is science aboard who can do the cleaning of that all the ship, all we ask of the ship taxes that they do the physical deployment.

374

00:53:55.080 --> 00:54:17.040

A. Rick Rupan: Again, and it's just because we are so much more you know, like when we had the difference between having somebody like Melissa Miller or brandy murph somebody we know do the deployments we feel so much better about, then when we have a Grad student who's never been to see do it so.

375

00:54:18.300 --> 00:54:28.020

A. Rick Rupan: It does become an issue where it takes up too much time, please let me know and we will address that accordingly.

376

00:54:29.400 --> 00:54:39.480

Lee Ellett: And then one issue, they can was the number of boxes if we're dealing with like 21 of these pretty large boxes some ports that may be more prohibitive of getting rid of those than others.

377

00:54:40.740 --> 00:54:49.470

Lee Ellett: Another suggestion I had that came up and I don't know how, as we see MSP rollout I don't know if you've considered submitting.

378

00:54:50.190 --> 00:55:01.980

Lee Ellett: SMEs, for you know coordination so there's more early the the MSP system might allow you know more early coordination is some just talk to just this just an idea at this point, then.

379

00:55:03.000 --> 00:55:18.570

Lee Ellett: As because I think there's a selection for like piggyback programs that way that you know technicians and you know all stakeholders might have more early awareness to a cruises of interest that might be a tool.

380

00:55:19.380 --> 00:55:23.850

A. Rick Rupan: that's that's good, and I will I will actually bring that up to Lynn when I talked to her today.

381

00:55:25.320 --> 00:55:31.650

A. Rick Rupan: She will be coordinating most of that so um you mentioned MSP what was the other acronym used as.

382

00:55:31.920 --> 00:55:34.380

Lee Ellett: A marine facilities planner and.

383

00:55:34.860 --> 00:55:36.090

Lee Ellett: The new the the.

384

00:55:37.350 --> 00:55:47.340

Lee Ellett: what's the ship or i'm blanking on it now SMEs that is it's the replacement for str so instead of a ship time request, it is a someone will help me out.

385

00:55:49.500 --> 00:55:51.780

Brandi Murphy (she/her): Here, what is that SMEs or.

386

00:55:52.230 --> 00:55:56.310

Brandi Murphy (she/her): biking yeah but it's the the request for ship time.

387

00:55:56.340 --> 00:56:08.370

Lee Ellett: it's the request for shipping, but it doesn't have to be requesting ship time I think there's a piggyback you can be an ancillary program on a transit or on a cruise and that that might help identify things a little early on, but.

388

00:56:08.640 --> 00:56:15.600

A. Rick Rupan: Right yeah I think I think that's great and I that's one of the reasons i'm here so that we can try to integrate with your system better.

389

00:56:15.900 --> 00:56:31.260

A. Rick Rupan: um, I think, maybe I will talk with Alice offline about that and see how we can coordinate that somewhat better so that you all do know what's coming and who would from whom it's coming from.

390

00:56:35.340 --> 00:56:36.180

Lee Ellett: yep absolutely.

391

00:56:38.310 --> 00:56:39.210

Lee Ellett: yeah, thank you for.

392

00:56:39.240 --> 00:56:42.840

Lee Ellett: attending and engaging with the Community today is a very helpful.

393

00:56:43.530 --> 00:56:51.660

A. Rick Rupan: No problem, thank you, and if y'all have any questions feel free to contact me my email addresses are up and my last name@uw.edu.

394

00:56:56.430 --> 00:57:00.510

Brandi Murphy (she/her): Thank you rick hopefully we'll see that future rv texts, now that you've got the rv tech bug.

395

00:57:01.530 --> 00:57:01.980

Brandi Murphy (she/her): Thank you.

396

00:57:08.040 --> 00:57:11.880

Lee Ellett: And so net sorry i'm just pulling up stuff here.

397

00:57:14.040 --> 00:57:15.870

Brandi Murphy (she/her): So next up, we have Lee.

398

00:57:15.930 --> 00:57:21.240

Lee Ellett: who's preparing a presentation i'm getting it i'm getting it set up yeah getting set up now just.

399

00:57:23.580 --> 00:57:24.750

Lee Ellett: To do things.

400

00:57:25.140 --> 00:57:28.050

Jules Hummon: he's having trouble keeping all the different hats on that he's wearing.

401

00:57:32.880 --> 00:57:44.220

Brandi Murphy (she/her): While he's doing that lead has been chair of rv tech now for 33 years, this is his third rb tickets chair and last, as chair and he's doing a bang up job of.

402

00:57:45.540 --> 00:57:49.560

Brandi Murphy (she/her): keeping us moving virtually an emptiness so I really appreciate it.

403

00:57:51.540 --> 00:57:53.640

Lee Ellett: There we go, can you tell me see that was.

404

00:57:55.440 --> 00:57:59.460

Lee Ellett: Excellent I said a couple slides here for potentially some discussion.

405

00:58:00.780 --> 00:58:04.140

Lee Ellett: We don't have we have a little bit of time here i'll go through pretty quick.

406

00:58:05.880 --> 00:58:07.890

Lee Ellett: want to talk a little bit about.

407

00:58:09.930 --> 00:58:25.800

Lee Ellett: mock mock ness toad profiling instruments couple of PCs to and a question that's come up in a couple rv tix that throw up there again is a fingers so start with muchness chromatin mattson retired earlier this year.

408

00:58:27.060 --> 00:58:39.750

Lee Ellett: So he's so wish wish him well and retirement he still we've been able to reach out to him with questions, then we greatly appreciate that he's he's very supportive of the of the work that he's done here.

409

00:58:41.400 --> 00:58:53.670

Lee Ellett: We did deliver a strobe system to bios this year earlier this year, I would recommend continue to use the rv tech muchness mailing list there's there's been a few there's every once in a while there are.

410

00:58:54.750 --> 00:59:04.230

Lee Ellett: issues and think brought up on that that mailing list of Magnus users, we can certainly add to that list if there's folks not on not on it that would want to be.

411

00:59:04.890 --> 00:59:10.350

Lee Ellett: john kohler word is providing maintenance and support at this time i'm looking to expand.

412

00:59:11.250 --> 00:59:23.970

Lee Ellett: Our options here, looking at recruitment, but it's been we did have a hiring freeze and stuff like that so it's been a been a tough time for HR activities here at ucsd, but that is getting better and there's a backlog and so.

413

00:59:25.020 --> 00:59:36.570

Lee Ellett: Working on that on next our I wouldn't feel about code profiling inches a pinch point that we had, but I think that there's some nsf programs that.

414

00:59:37.530 --> 00:59:44.400

Lee Ellett: need these types of capabilities, but they're in frequently used and there's some questions about what's out there, so I talked to Jim a little bit.

415

00:59:44.970 --> 00:59:53.160

Lee Ellett: And what I want to, I will be after I can take developing a survey to advise you know how these systems are currently being used, how are they supported.

416

00:59:53.430 --> 01:00:06.660

Lee Ellett: What you know, some have different capabilities and other ones, so that nsf programs that are interested in these getting there, so we kind of have a baseline for where we're at now um so just wanted to let let the Community know about about that.

417

01:00:09.240 --> 01:00:20.760

Lee Ellett: next piece CO2 systems that this has come up at several meetings some of this has been on just not had bandwidth for it with covert activities and increase logistics, but.

418

01:00:21.210 --> 01:00:28.800



Lee Ellett: I do know this, so the current like court for this is for the geo general oceanic specific to the general oceanic systems that the.

419

01:00:30.120 --> 01:00:39.780

Lee Ellett: Li 7000 systems are end of sale is the people has been snatching those up where they can buy them there's not can't you can't go to like corn by him anymore, the new model is a.

420

01:00:41.820 --> 01:00:46.410

Lee Ellett: And then there's a retrofit GE general Shannon says coming out with a retrofit kit.

421

01:00:47.490 --> 01:00:58.080

Lee Ellett: The available anytime now is what I hear I think it's a last time I heard it was somewhere in the 123 thousand dollar range I don't know that's that's generally what i've heard.

422

01:00:58.620 --> 01:01:06.630

Lee Ellett: And then I guess the potentially a new model coming out next year I don't know much about that at this at this time, but I wanted to bring that up.

423

01:01:08.400 --> 01:01:17.220

Lee Ellett: The next item I had was a tone killer its fingers I don't we periodically this comes up on the rv tech mailing lists a pinch point.

424

01:01:18.210 --> 01:01:32.250

Lee Ellett: I think a lot of cruises that speaking more for what i've what i've seen, but some are some activities are being replaced by what we have more usps systems on ships, but every once in a while, these are still the tool for the job.

425

01:01:35.130 --> 01:01:44.730

Lee Ellett: And is and is this a significant challenge for operators, that we should consider that the Community, you know, we should, that we need to be looking for a better solution for I.

426

01:01:45.180 --> 01:01:52.110

Lee Ellett: I seem as him frequently used, but then they but then it comes up and it's a problem it's not a problem until the user really needs it.

427

01:01:53.880 --> 01:02:07.200

Lee Ellett: I think you he was asking about one rb tech last I recall, and if there's anyone so open to discussion on any of those topics with the little bit of time that we have left in this in this session.

428

01:02:11.220 --> 01:02:13.560

Lee Ellett: sit there actually spring get over to my chat.

429

01:02:18.270 --> 01:02:19.470

Brandi Murphy (she/her): yeah Jim go ahead.

430

01:02:20.610 --> 01:02:35.820

James Holik: I just want to want to mention that these is told profilers are a bit confusing to me we there's all sorts of different flavors of them and see sort of trying it out there, they are.

431

01:02:38.160 --> 01:02:45.510

James Holik: I don't think we can support all of these things, or do we want to take us pick something or talk about it a little bit.

432

01:02:46.530 --> 01:03:04.170

James Holik: For years we've been trying to support a bunch of these things, I know, anyway, somebody else say something I just i've talked about it with Leo bit like to see what other people think it just it i'd rather not support something to do it half assed if you know what I mean.

433

01:03:08.040 --> 01:03:09.450

Lee Ellett: yeah that's the the.

434

01:03:12.180 --> 01:03:24.300

Lee Ellett: that's why I like see sort of the way we were still we, I mean we were still doing see store but not anymore so i'm looking at looking at surpluses, the system, I don't have a way to support it going forward.

435

01:03:25.800 --> 01:03:40.560

Lee Ellett: But there's some programs that need it, but then they're infrequently us, so what yeah one you're using a system every two to four once every two to four years, how do you

maintain the staff, how you know how do you maintain it, how do you maintain the equipment and how is.

436

01:03:41.640 --> 01:03:43.170

Lee Ellett: It how's it efficient at.

437

01:03:43.740 --> 01:03:50.850

James Holik: The same thing happened with tracks is right didn't Oregon state have one, and then they send the parts and pieces to.

438

01:03:51.030 --> 01:03:52.620

Alice Doyle: I don't know to.

439

01:03:52.890 --> 01:03:54.330

James Holik: i'm guessing minnesota's.

440

01:03:57.090 --> 01:04:02.610

Lee Ellett: yeah survey might help us with a baseline of where we're at today that's the so that's.

441

01:04:06.150 --> 01:04:20.550

Alice Doyle: I mean yeah it's worth having one of each in the fleet to just so that we can support science, with it, because they are used, like you said Lee pretty every may use them, they love them right the scientists me when they.

442

01:04:20.580 --> 01:04:25.650

Lee Ellett: When they use it to say yeah so we had a cruise ship where it said, you know it was it was critical and with.

443

01:04:27.570 --> 01:04:29.490

Lee Ellett: We there was not a way forward.

444

01:04:30.540 --> 01:04:32.220

Brandi Murphy (she/her): But with the one in the fleet.

445

01:04:32.280 --> 01:04:35.250

Brandi Murphy (she/her): And that infrequent use.

446

01:04:36.570 --> 01:04:43.080

Brandi Murphy (she/her): It brings up the, how do you maintain it, how do you retain staff who know how to use it.

447

01:04:46.320 --> 01:04:47.040

Jules Hummon: I see maps is.

448

01:04:47.430 --> 01:04:47.700

A good.

449

01:04:49.140 --> 01:04:55.200

Alice Doyle: one institution sorry go ahead, one institution, as opposed to multiple institutions trying to do that right so.

450

01:04:59.910 --> 01:05:01.050

Brandi Murphy (she/her): next question.

451

01:05:01.200 --> 01:05:02.730

Maximilian Cremer: Yes, um I.

452

01:05:03.840 --> 01:05:28.200

Maximilian Cremer: We had two of those items come up recently on regarding the muchness systems, I have been asked by PGI what's going on, if we have a replacement if we ordered a best flow meter and apparently these either out of production or the person that's making them is unresponsive.

453

01:05:29.340 --> 01:05:35.910

Maximilian Cremer: I was just wondering if there I heard that scripts has developed a new flow meter and I was just wondering what the.

454

01:05:37.200 --> 01:05:38.190

Maximilian Cremer: status of that is.

455

01:05:38.850 --> 01:05:49.440

Lee Ellett: Yes, four meters so that's actually ethan ethan Roth, that you if it first tried out the hydro hydro bios I think it is the hydro bios flow meter.

456

01:05:50.430 --> 01:05:57.930

Lee Ellett: He tried those those out and we bought a few have been trying those that we had a couple of issues that would it was when we had an issue with mounting and we're trying to.

457

01:05:59.760 --> 01:06:08.670

Lee Ellett: Wait a rough cruise where we lost some flow meters, I think, including the one that you that you he had loaned us so that's why we're trying to get a best original.

458

01:06:09.810 --> 01:06:12.480

Lee Ellett: Out of out of out of best, but then we.

459

01:06:13.680 --> 01:06:23.730

Lee Ellett: were here sporadically about that, but then we've been a lot as as your effort done try going with the hydro bios and then we've been printing 3D printing so we've.

460

01:06:24.540 --> 01:06:39.120

Lee Ellett: we've 3D printed, one that we're using that's got some problems, so you know, we want to we're working to 3D print another try to be able to make her make her own as well as an option but it's inconsistent, whether we can get something from this.

461

01:06:39.540 --> 01:06:48.240

Maximilian Cremer: yeah so Eric Oregon from our end this has gone completely silent, we just can't seem to raise them anymore Erica good.

462

01:06:49.110 --> 01:06:50.280

James Holik: To talk to Eric Oregon.

463

01:06:51.660 --> 01:06:56.610

Lee Ellett: We got an email a few when we were hopeful like a month and a half, two months ago we got an email we thought we.

464

01:06:56.610 --> 01:06:57.930

Lee Ellett: might actually get a flow meter.

465

01:06:57.960 --> 01:06:58.410

James Holik: there's been.

466

01:06:59.760 --> 01:07:01.110

Matt Durham: actually heard from this one.

467

01:07:01.920 --> 01:07:03.030

James Holik: Really okay.

468

01:07:03.090 --> 01:07:10.620

Matt Durham: yeah we heard from recently he got back to john calderwood we were still hopeful that we'll have some best flow meters made.

469

01:07:12.150 --> 01:07:22.080

Maximilian Cremer: Erica good Cisco concerned about the of the newer developments were repeatability just in our channel consistency and in the data.

470

01:07:24.210 --> 01:07:31.470

Lee Ellett: I don't know if ethan had any comments is their experience with the hydro I don't want the newer the newer ones, have been purchased.

471

01:07:33.630 --> 01:07:34.440

Ethan Roth: Can you hear me.

472

01:07:34.830 --> 01:07:35.340

Lee Ellett: yeah yeah.

473

01:07:37.530 --> 01:07:41.280

Ethan Roth: Well, part of the part of the reason why we went to the hydro bios was.

474

01:07:42.750 --> 01:07:50.280

Ethan Roth: Whenever we did a deep toe the best flow meter would basically cut out below a certain depth so.

475

01:07:51.330 --> 01:07:53.580

Ethan Roth: We weren't able to get volumes on deep toes.

476

01:07:55.140 --> 01:07:57.900

Ethan Roth: For the It our program that we do.

477

01:07:59.160 --> 01:08:08.700

Ethan Roth: They use a multi net, which is like the German version of a muchness and so that's that's sort of how we found out about these flow meters.

478

01:08:09.990 --> 01:08:16.290

Ethan Roth: And yeah we're pretty happy with it so far we've run the two side by side on a cruise.

479

01:08:17.610 --> 01:08:38.250

Ethan Roth: But there was, as you pointed out, there are some issues with the hide your bio system it works too well it's been a lot faster than the best flow meter so call had to do a firmware upgrade on that so for anyone who upgrades to the Hydra bios there's a.

480

01:08:39.360 --> 01:08:41.940

Ethan Roth: latest firmware version that you have to have.

481

01:08:43.140 --> 01:08:47.490

Ethan Roth: On that rabbit board inside the case that that Carl developed.

482

01:08:50.640 --> 01:08:56.520

Lee Ellett: yep and we're update we're in the process of updating the you H, we got your we get the you H pk unit.

483

01:08:57.030 --> 01:09:06.570

Lee Ellett: Now we're working working on that so maybe it's too much detail for the whole group but happy to talk with you offline maxim I wanted to bring yeah I wanted to bring these couple of these instruments systems up.

484

01:09:08.910 --> 01:09:13.740

Lee Ellett: And Max was it you H, that it is about fingers on rv taffy with Scott, but do you know.

485

01:09:14.010 --> 01:09:14.370

Maximilian Cremer: Yes.

486

01:09:15.060 --> 01:09:16.230

Lee Ellett: You H pinger usage.

487

01:09:16.560 --> 01:09:41.730

Maximilian Cremer: yeah That was my second comment so we'll have a dredging crews coming up in the winner and they're asking for painters also recently as a backup for Japanese Charter we we got to painters on loan from osu the best of my knowledge, and we also restored to have the older bentos.

488

01:09:43.080 --> 01:09:54.090

Maximilian Cremer: But the technician you all know, i'm Steve satori who who restored as he's retired so that institutional knowledge is going away and now.

489

01:09:54.870 --> 01:10:04.770

Maximilian Cremer: i'm just looking forward to just going with the next generations of instrumentation, even if they might not be you know.

490

01:10:05.160 --> 01:10:16.260

Maximilian Cremer: The gold standard of old if I can't get the gold standard or get the gold standard to repair them it's no use to us, so I think we just got to make gotta make a with the new stuff.

491

01:10:19.140 --> 01:10:21.930

Lee Ellett: That I get let's um.

492



01:10:23.460 --> 01:10:28.020

Lee Ellett: yeah I think we're pretty much at the end of this session, but we can certainly continue with any.

493

01:10:29.610 --> 01:10:42.420

Lee Ellett: conversations in the Community, and I saw there was some comments and activity on those yesterday today so that's that's great i'm loving will end it ended here for a break renting.

494

01:10:44.460 --> 01:10:52.050

Brandi Murphy (she/her): A yes um so next session the next two sessions today are going to be about sat columns.

495

01:10:53.220 --> 01:11:03.660

Brandi Murphy (she/her): And we'll see you over in the other session again if you want to continue conversations about instrumentation there's an instrument Asian tab in the Community um.

496

01:11:05.010 --> 01:11:17.700

Brandi Murphy (she/her): there's an instrumentation chat topic in the Community tab there we go through the right words um so yeah i'll i'll reply to you, Carmen sorry he just sent me a direct message i'll send you an email.

497

01:11:19.020 --> 01:11:19.710

Brandi Murphy (she/her): Thanks everybody.

498

01:11:21.870 --> 01:11:22.470

Lee Ellett: Thank you all.

## SatComms I

1

00:02:38.820 --> 00:02:39.420

Thomas Lockwood: hey brandi.

2

00:02:57.780 --> 00:02:59.640

Thomas Lockwood: i'm not sure if you're seeing my screen share.

3

00:03:00.720 --> 00:03:02.040

Brandi Murphy: I do.

4

00:03:02.100 --> 00:03:03.000

yep excellent.

5

00:03:09.660 --> 00:03:10.770

Lee Ellett: Hello everyone.

6

00:03:14.340 --> 00:03:15.240

Lee Ellett: Welcome back.

7

00:03:15.420 --> 00:03:20.520

Lee Ellett: I think, given the time we'll just jump right into a devaney I think any any objections to that branding.

8

00:03:22.290 --> 00:03:24.300

Lee Ellett: yep we'll jump right in with.

9

00:03:25.980 --> 00:03:31.890

Lee Ellett: Tom lockwood with high seas net presenting updates on the high seas that project.

10

00:03:34.140 --> 00:03:36.990

Thomas Lockwood: Thankfully, Thomas lockwood with the.

11

00:03:37.110 --> 00:03:39.390

Thomas Lockwood: uc San diego's high seas net project.

12

00:03:39.450 --> 00:03:40.470

Thomas Lockwood: that's supporting.

13

00:03:41.850 --> 00:03:43.950

Thomas Lockwood: That comes on the all the.

14

00:03:45.150 --> 00:03:47.220

Thomas Lockwood: Research muscles.

15

00:03:58.590 --> 00:03:59.100

Thomas Lockwood: And sorry.

16

00:04:00.360 --> 00:04:01.890

Thomas Lockwood: Let me permanently unmute myself here.

17

00:04:04.230 --> 00:04:10.980

Thomas Lockwood: For those of you that haven't visited our website, in the last year or two, it is something that we keep a lot of resources on.

18

00:04:12.330 --> 00:04:18.120

Thomas Lockwood: So has information about all the ships, we support the equipment that's on them all the different plans that we have.

19

00:04:19.680 --> 00:04:27.210

Thomas Lockwood: Definitely a work in progress as far as additional functions and features that we're looking to add to the website all the time, but.

20

00:04:29.010 --> 00:04:33.060

Thomas Lockwood: just want to make everyone aware that that resource is there and then.

21

00:04:34.740 --> 00:04:35.190

Thomas Lockwood: You know.

22

00:04:36.300 --> 00:04:42.030

Thomas Lockwood: Not not that all the questions can be answered up there, but there definitely is a trove of information up there.

23

00:04:48.540 --> 00:04:54.900

Thomas Lockwood: Just for this presentation in general kind of listed the topics we're going to go over i'll kind of go straight into personnel.

24

00:04:57.300 --> 00:05:05.040

Thomas Lockwood: Kevin walls that many of you are familiar with from past rv tex used to be the primary on this project, he retired as of.

25

00:05:06.180 --> 00:05:10.440

Thomas Lockwood: July 2021 and his love to new adventures.

26

00:05:11.790 --> 00:05:17.400

Thomas Lockwood: Definitely contributed greatly to this project over the years and we wish him well in his next.

27

00:05:19.260 --> 00:05:28.950

Thomas Lockwood: Phase I took over as a primary on the projects when Kevin retired i've been working on the project for a little over two years so.

28

00:05:31.680 --> 00:05:47.220

Thomas Lockwood: Well, claim it hasn't been along for that Kevin but we're definitely moving forward and other people still working on the project Leah Leah john Meyer can Nielsen and mark pumphrey are also all still supporting this project fairly heavily.

29

00:05:49.200 --> 00:05:50.010

Thomas Lockwood: So state of.

30

00:05:51.330 --> 00:05:52.140

Thomas Lockwood: The fleet.

31

00:05:53.280 --> 00:05:53.670

Thomas Lockwood: You have.

32

00:05:54.810 --> 00:05:59.730

Thomas Lockwood: Two different multi system systems for sat columns that we have.

33

00:06:00.870 --> 00:06:02.460

Thomas Lockwood: In the US academic research fleet.

34

00:06:05.010 --> 00:06:13.230

Thomas Lockwood: Our primary system is ceiling plus that's mostly on the larger ships, which is a combination of.

35

00:06:14.760 --> 00:06:24.120

Thomas Lockwood: Marlene ceiling service, and we also have a radium domes on there as a backup for out of band management.

36

00:06:25.440 --> 00:06:37.470

Thomas Lockwood: Fleet expresses our secondary satcom system that is available in all ships and that's a combination of global express and express so two separate.

37

00:06:38.850 --> 00:06:45.780

Thomas Lockwood: domains on the vessel that provide two different paths for data connectivity.

38

00:06:48.210 --> 00:06:54.180

Thomas Lockwood: Each system has a high performance for ceiling that's going to be the larger domes so here on.

39

00:06:55.740 --> 00:06:57.360

Thomas Lockwood: This vessel that's the one on top.

40

00:07:00.990 --> 00:07:06.060

Thomas Lockwood: The smaller down to the side is the gx Dome for express.

41

00:07:08.010 --> 00:07:11.010

Thomas Lockwood: Bigger donors really do mean better performance.

42

00:07:12.930 --> 00:07:13.530

Thomas Lockwood: We can.

43

00:07:14.910 --> 00:07:19.530

Thomas Lockwood: pretty much first those larger thumbs up to not that we'd ever want to pay for it, but.

44

00:07:20.550 --> 00:07:22.110

Thomas Lockwood: 80 megabits per second.

45

00:07:24.150 --> 00:07:36.150

Thomas Lockwood: And even for a comparison it's cheaper to do an expansion on the larger domes compared to the smaller rooms so, even though we can get some higher performance out of the smaller items on the.

46

00:07:38.310 --> 00:07:44.160

Thomas Lockwood: Number of the shifts expansions on those rooms don't do cost more just, based on the amount of power that's.

47

00:07:46.470 --> 00:07:46.740

Thomas Lockwood: That.

48

00:07:52.410 --> 00:07:56.340

Thomas Lockwood: pretty much for the large domes we've got three models in the fleet.

49

00:07:57.870 --> 00:08:03.270

Thomas Lockwood: Most of the items that we've been installing since 2020 are intelli MBT 40 EMS.

50

00:08:04.410 --> 00:08:10.590

Thomas Lockwood: there's two different flavors of those towns, most of the fleet has the gen ones installed.

51

00:08:12.030 --> 00:08:14.910

Thomas Lockwood: We have the gen tools installed on so cool yak.

52

00:08:16.350 --> 00:08:21.510

Thomas Lockwood: The major difference between those two generations, the gen twos are Leo capable.

53

00:08:23.700 --> 00:08:26.400

Thomas Lockwood: With two domes but.

54

00:08:27.960 --> 00:08:31.140

Thomas Lockwood: that's the only ship we've done an install on so far that.

55

00:08:32.370 --> 00:08:36.000

Thomas Lockwood: Actually, even had to dunn's to potentially look at leveraging that in the future.

56

00:08:38.190 --> 00:08:41.010

Thomas Lockwood: Most the other vessels were running a.

57

00:08:42.120 --> 00:08:45.570

Thomas Lockwood: column duns either 7911.

58

00:08:46.650 --> 00:08:58.530

Thomas Lockwood: For the ones that are dual si K you and those were deployed between 2015 and 2018 and then we've got a couple of vessels with K, you only with column 6000 series stones.

59

00:09:01.980 --> 00:09:02.550

Thomas Lockwood: kind of as.

60

00:09:04.590 --> 00:09:11.760

Thomas Lockwood: mentioned earlier that the 2.4 drums do have the biggest contract and do have the biggest capabilities as far as.

61

00:09:12.810 --> 00:09:15.390

Thomas Lockwood: How much bandwidth we can push over those.

62

00:09:19.980 --> 00:09:23.670

Thomas Lockwood: Global express there's three different models, we have employee.

63

00:09:25.440 --> 00:09:44.010

Thomas Lockwood: The column sailor 100 gx is those are kind of been the the workhorse of the fleet, most of those were those were all replaced in 2019 we still have some items that are older than that and flee but pretty much 2019 and earlier on most of those domes.

64

00:09:46.560 --> 00:09:55.920

Thomas Lockwood: When uc San Diego took over the secondary satellite projects we started replacing domes.

65

00:09:57.240 --> 00:10:03.870

Thomas Lockwood: Most of those in 2020 were intelli in that jack's 100 hdfs.

66

00:10:05.220 --> 00:10:10.230

Thomas Lockwood: And then starting this year we've done a newer version of that down.

67

00:10:12.450 --> 00:10:15.090

Thomas Lockwood: The newer annex ones are.

68

00:10:16.740 --> 00:10:29.850

Thomas Lockwood: Leo capable in the future if there are two domes installed we'll talk about that a little bit later in the presentation, just as far as how we've been refreshing the fleet to potentially take care take advantage of that in the future.

69

00:10:32.880 --> 00:10:34.980

Thomas Lockwood: So kind of a.

70

00:10:36.240 --> 00:10:37.560

Thomas Lockwood: State of the fleet and.

71

00:10:37.860 --> 00:10:39.330

Alice Doyle: high season at with the.



72

00:10:40.770 --> 00:10:41.520

Thomas Lockwood: coven.

73

00:10:43.380 --> 00:10:45.420

Thomas Lockwood: You know it's definitely an interesting year.

74

00:10:48.000 --> 00:10:48.390

Thomas Lockwood: So.

75

00:10:49.650 --> 00:11:04.200

Thomas Lockwood: fully come back to sailing after number coven lockdown so we were kind of taken a lot of vessels off suspension ramping those up as those cruises started, we definitely started seeing more reliance on satellite communications and increased bandwidth requirements.

76

00:11:05.220 --> 00:11:10.140

Thomas Lockwood: Not only just support remote learning but also remote collaboration with.

77

00:11:11.700 --> 00:11:16.230

Thomas Lockwood: parties that were supporting cruises off ship that weren't able to sell.

78

00:11:18.450 --> 00:11:22.200

Thomas Lockwood: Typically, and historically we've always asked for 90 days or more.

79

00:11:23.820 --> 00:11:27.990

Thomas Lockwood: for preparing any expansions on link performance.

80

00:11:29.400 --> 00:11:41.580

Thomas Lockwood: Definitely, something that was tested repeatedly as far as how quickly we could push expansions and move expansions do this changing schedules over the last year, but.

81

00:11:42.810 --> 00:11:46.410

Thomas Lockwood: That still is kind of a good baseline is 90 days.

82

00:11:48.150 --> 00:11:56.790

Thomas Lockwood: Is kind of the minimum that we're asking for to go through with providers look at where the ships are going to be sailing what satellite.

83

00:11:58.830 --> 00:12:06.330

Thomas Lockwood: satellites are available to cover that and ensure that we do have adequate capacity for the performance that you're looking for.

84

00:12:09.300 --> 00:12:14.430

Thomas Lockwood: As a project we pretty much did the most number of expansions.

85

00:12:15.990 --> 00:12:16.500

Thomas Lockwood: ever.

86

00:12:18.600 --> 00:12:24.300

Thomas Lockwood: This last year, and a great deal of great amount of that was due to the.

87

00:12:25.500 --> 00:12:28.080

Thomas Lockwood: The increased reliance and extra bandwidth.

88

00:12:29.280 --> 00:12:40.020

Thomas Lockwood: A lot of what we were seeing was a four meg's ship to shore to ship to ship to shore, which is kind of a minimum baseline required for.

89

00:12:41.250 --> 00:12:46.890

Thomas Lockwood: them and similar telepresence and remote learning applications.

90

00:12:51.720 --> 00:12:57.720

Thomas Lockwood: As this becomes more critical we've had a few cruises where we've done it, but our recommendation is.

91

00:12:59.130 --> 00:13:06.840

Thomas Lockwood: Not only expanding one system it's really primary and secondary so that, if we do have an issue.

92

00:13:08.460 --> 00:13:08.820

Thomas Lockwood: That.

93

00:13:10.290 --> 00:13:15.150

Thomas Lockwood: You know you've got some additional capacity on the fleet express side to support the the cruise.

94

00:13:17.310 --> 00:13:20.700

Thomas Lockwood: As as if this does become more mission critical.

95

00:13:22.650 --> 00:13:24.510

Thomas Lockwood: So by the numbers.

96

00:13:26.070 --> 00:13:44.910

Thomas Lockwood: This year wasn't any less as far as how many domes we actually installed, this was, second only to 2020 for the most freedoms that we've ever deployed in a year current count is 17 and then expansion request we've already done over 30 expansions and that continues to.

97

00:13:47.820 --> 00:13:50.820

Thomas Lockwood: grow we have much of the year left but.

98

00:13:52.230 --> 00:13:57.840

Thomas Lockwood: So, as far as changes last year in 2020 we started migrating.

99

00:14:00.210 --> 00:14:05.580

Thomas Lockwood: Vessels off of the high performance high seas net from our private ground station to.

100

00:14:08.160 --> 00:14:17.280

Thomas Lockwood: marling ceiling service and we pretty much finished all those vessels, this year, so we still have the ground station, but right now it's not serving any.

101

00:14:19.230 --> 00:14:20.280

Thomas Lockwood: anything in the fleet.

102

00:14:21.720 --> 00:14:32.910

Thomas Lockwood: All those are running off a commercial service and on fleet express oceana's actually migrated off of high season at classic and.

103

00:14:33.960 --> 00:14:37.380

Thomas Lockwood: went for a dual dumb setup on fleet express only.

104

00:14:39.960 --> 00:14:44.280

Thomas Lockwood: Rachel Carson is the last vessel, we have in the fleet that still needs to be added to.

105

00:14:48.090 --> 00:14:59.130

Thomas Lockwood: Have X home on plane express their a little they're looking at mass mods to support that Dome the being the smallest vessel in the fleet it's definitely run into some challenges.

106

00:15:02.070 --> 00:15:10.530

Thomas Lockwood: As far as a new installations, a lot of the focus has been on achieving false guide you.

107

00:15:15.540 --> 00:15:16.050

Thomas Lockwood: So.

108

00:15:17.400 --> 00:15:29.370

Thomas Lockwood: Are you mentioned oceana's cool yak also got dual annex stones, one of the nice thing on these newer gx annex domes is, it is just one cable again.

109

00:15:31.020 --> 00:15:32.280

Thomas Lockwood: For a number of the.

110

00:15:34.590 --> 00:15:39.330

Thomas Lockwood: gx 100 domes those were actually to calm tables and power independently.

111

00:15:40.530 --> 00:15:42.150

Thomas Lockwood: So getting back to it just being.

112

00:15:43.260 --> 00:15:46.020

Thomas Lockwood: One cables definitely made installations easier and vessels.

113

00:15:49.440 --> 00:15:50.520

Thomas Lockwood: For Atlanta for.

114

00:15:52.200 --> 00:15:54.330

Thomas Lockwood: rebel we actually.

115

00:15:55.500 --> 00:16:11.610

Thomas Lockwood: installed all domes originally when the ship was deployed, it was just one jack stone with sleep broadband off to the other side that was located relocated down to sleep right banners located relocated to the top of the bridge and we're top of.

116

00:16:12.660 --> 00:16:13.860

Thomas Lockwood: Mass both for the SI.

117

00:16:15.180 --> 00:16:17.820

Thomas Lockwood: K you down and for the two gx terms.

118

00:16:19.170 --> 00:16:25.320

Thomas Lockwood: Atlanta is a similar setup but they're gx terms are actually down off of either flying bridge.

119

00:16:27.930 --> 00:16:32.850

Thomas Lockwood: Thompson was actually just completed last week.

120

00:16:34.320 --> 00:16:34.950

Thomas Lockwood: they've got.

121

00:16:36.180 --> 00:16:45.300

Thomas Lockwood: One down on the flying bridge second ones on the backside off of the chart room so coordinating starboard kind of a little more forward and after the main mass for that vessel.

122

00:16:51.900 --> 00:16:53.190

Thomas Lockwood: we've also been taking.

123

00:16:54.300 --> 00:17:04.320

Thomas Lockwood: A number of old sailor 100 domes we're currently in the middle of an install on sproul testing.

124

00:17:05.520 --> 00:17:09.510

Thomas Lockwood: Dual gx 100 Downs on smaller vessel.

125

00:17:11.730 --> 00:17:23.430

Thomas Lockwood: So kind of a nice little install for the second Dome on top of our lab band, and that will be going live in November, but just mounted that one last week.

126

00:17:25.650 --> 00:17:26.910

Thomas Lockwood: And then Sally ride.

127

00:17:30.960 --> 00:17:31.230

Thomas Lockwood: That.

128

00:17:33.450 --> 00:17:40.800

Thomas Lockwood: was kind of behind our one of the larger see tandems so we did a mastermind in shipyard on Sally ride and kind of.

129

00:17:42.030 --> 00:17:44.670

Thomas Lockwood: going off with some of the earlier work done on.

130

00:17:46.260 --> 00:17:51.420

Thomas Lockwood: Neil Armstrong and relocated that Dome top of masks for better sky these.

131

00:17:53.580 --> 00:17:54.420

See.

132

00:17:55.560 --> 00:18:02.130

Thomas Lockwood: And then on the seabed side for the larger 2.4 meter domes classically act got.

133

00:18:03.180 --> 00:18:08.850

Thomas Lockwood: Dual domes installed in May, and those are the only gentoo domes that we have in the play.

134

00:18:11.100 --> 00:18:12.360

Thomas Lockwood: As noted earlier.

135

00:18:16.950 --> 00:18:19.620

Thomas Lockwood: That That was the first festival that we did that actually had.

136

00:18:21.180 --> 00:18:21.570

Thomas Lockwood: To.

137

00:18:22.680 --> 00:18:25.800

Thomas Lockwood: 2.4 meter drums on it so based on.

138

00:18:27.930 --> 00:18:41.640

Thomas Lockwood: Leah futures and a lot of the work profile profile coeliac we we didn't go with the more expensive generation to drums on that vessel Atlantis also got their own installed coming out of shipyard top of mass.

139

00:18:44.850 --> 00:18:51.660

Thomas Lockwood: Number of the challenges this year kind of already talked about the need for increased reliability and bandwidth.

140

00:18:54.510 --> 00:18:58.770

Thomas Lockwood: You know coca also increased, a lot of the challenges around.

141

00:18:59.820 --> 00:19:06.420

Thomas Lockwood: Logistics for shipping those domes most of these domes are actually coming from Korea so.

142

00:19:07.770 --> 00:19:09.480

Thomas Lockwood: As much as we're asking for 90 day.

143

00:19:11.370 --> 00:19:22.920

Thomas Lockwood: For expansions it's kind of the same thing when we're ordering domes it usually takes at least two to three months to get a Dome ordered manufactured in Korea and shift to its final destination.

144

00:19:25.530 --> 00:19:27.090

Thomas Lockwood: Some other challenges that we've had.

145

00:19:29.400 --> 00:19:29.880

Thomas Lockwood: marlon.

146

00:19:32.190 --> 00:19:35.820

Thomas Lockwood: For the primary ceiling plus system.

147

00:19:39.270 --> 00:19:52.530

Thomas Lockwood: For most of the vessels as they've come into the new tech network, there were a few that were originally deployed on a direct but most came in on new tech or have been migrate and they've all been migrated new tech at this point.

148

00:19:54.720 --> 00:20:06.300

Thomas Lockwood: The new tech platforms break it actually allows for those larger expansions up to 18 eggs, but being earlier adopters hasn't been without its challenges so for.

149

00:20:08.070 --> 00:20:14.460



Thomas Lockwood: Marlene as they're cutting over their older I direct network to new tech, they are somewhat limited on how many satellites they.

150

00:20:15.540 --> 00:20:18.270

Thomas Lockwood: have to provide service on each platform.

151

00:20:21.210 --> 00:20:23.550

Thomas Lockwood: Some of the earliest iterations of this.

152

00:20:25.020 --> 00:20:25.950

Thomas Lockwood: For Thompson.

153

00:20:28.500 --> 00:20:36.900

Thomas Lockwood: A lot of work around their work on these specific price it's kind of a area of the.

154

00:20:37.500 --> 00:20:56.280

Thomas Lockwood: Eastern Pacific that doesn't see a lot of traffic honestly when we originally told my link that's always going to that location, a lot of the assumptions made on Marlene side was more we'd be cruising through not parking in that general area for multiple weeks doing service so.

155

00:20:57.510 --> 00:21:01.110

Thomas Lockwood: Definitely lessons learned, as far as it is kind of a.

156

00:21:02.520 --> 00:21:10.320

Thomas Lockwood: area where we're transitioning between footprints from the Pacific Ocean and Atlantic coverage so.

157

00:21:13.440 --> 00:21:17.550

Thomas Lockwood: Originally, the expansion that we had for Thompson was actually done on the Pacific side and.

158

00:21:18.720 --> 00:21:23.790

Thomas Lockwood: On the Pacific satellite and they really had to be on the Atlantic satellite based on where the vessel was operating.

159

00:21:26.430 --> 00:21:32.790

Thomas Lockwood: When we originally did our first expansion on rebel ran into a number of issues when.

160

00:21:35.040 --> 00:21:46.440

Thomas Lockwood: We were getting full bandwidth but we were seeing a high amount of drop packets so as we did different expansions over the period from ravel.

161

00:21:48.210 --> 00:21:55.140

Thomas Lockwood: Atlanta, yes, and a few others we'd actually been working with Marlene on diagnosing some of that poor performance but.

162

00:21:56.400 --> 00:22:04.140

Thomas Lockwood: Thompson also saw that really come to a head where video streaming on there Jason for us was operating poorly.

163

00:22:06.390 --> 00:22:18.060

Thomas Lockwood: Good news on that one we kind of been working the issue long enough with Marlene that it was acknowledged, we had enough trouble shooting in done that we were able to narrow it down and get it fixed within a week or two.

164

00:22:19.110 --> 00:22:22.560

Thomas Lockwood: of that month on cruise, but it still was.

165

00:22:24.210 --> 00:22:25.860

Thomas Lockwood: A pretty bad impact that cruise.

166

00:22:27.780 --> 00:22:28.680

Thomas Lockwood: So cool yak.

167

00:22:30.630 --> 00:22:31.860

Thomas Lockwood: they've also run into.

168

00:22:33.510 --> 00:22:34.650

Thomas Lockwood: latitude.

169

00:22:35.700 --> 00:22:43.080

Thomas Lockwood: Due to that new tech cut over Marlene had planned on cutting over every every vessel.

170

00:22:44.100 --> 00:22:51.150

Thomas Lockwood: In earlier 2021, but a number of the fishing fleets went out to see and marlon hasn't been able to get them.

171

00:22:52.200 --> 00:23:00.570

Thomas Lockwood: back so there, there is a bit of limited options until they've get marlin gets the rest of the Arctic fishing fleets cut over.

172

00:23:02.730 --> 00:23:10.380

Thomas Lockwood: And there's been severe performance problems with the alternate options that Marlene has had so.

173

00:23:11.550 --> 00:23:13.590

Thomas Lockwood: securely ironically, as much as they.

174

00:23:14.610 --> 00:23:29.730

Thomas Lockwood: Traditionally relied heavily on ceiling high latitude and fx wasn't as reliable we've kind of seen the opposite, this year, where fx has been performing and ceiling has been the poor limited performer.

175

00:23:32.400 --> 00:23:38.550

Thomas Lockwood: That is expected to improve as a more satellites are brought over but.

176

00:23:39.780 --> 00:23:42.660

Thomas Lockwood: definitely something we're working with Marlene on and.

177

00:23:44.550 --> 00:23:45.840

Thomas Lockwood: Continuing the dog.

178

00:23:46.980 --> 00:23:49.470

Thomas Lockwood: You know, even the satellites that we've used historically.

179

00:23:50.700 --> 00:23:59.310

Thomas Lockwood: for supporting sickly at a high latitude isn't something currently in marlin portfolio so we're looking at Reminiscing that as best we can.

180

00:24:02.460 --> 00:24:03.660

Thomas Lockwood: You know, needless to say.

181

00:24:04.980 --> 00:24:13.170

Thomas Lockwood: New tech Mr link is growing so as we work through these problems they'll repeat less but we're definitely paying a lot of the pain.

182

00:24:14.190 --> 00:24:18.150

Thomas Lockwood: In this first year kind of learning, where the trouble spots are and.

183

00:24:19.680 --> 00:24:22.890

Thomas Lockwood: Address addressing those with Marlene both from a.

184

00:24:23.910 --> 00:24:26.760

Thomas Lockwood: capacity and what they can provide standpoint and.

185

00:24:28.380 --> 00:24:30.840

Thomas Lockwood: You know them getting to know kind of our fleet operates.

186

00:24:35.760 --> 00:24:44.160

Thomas Lockwood: On the other side, you know some of the advantages of working with a larger provider steadily writers had hardware issues on their 2.4 meter domes.

187

00:24:45.840 --> 00:24:54.210

Thomas Lockwood: Pretty continuously through the past number of months and we've narrow those down a lot and are coming to a resolution but.

188

00:24:55.320 --> 00:25:01.020

Thomas Lockwood: it's definitely something where we've had to work those fairly hard and.

189

00:25:02.160 --> 00:25:04.710

Thomas Lockwood: Marlene has brought a lot of resources to bear to support that.

190

00:25:07.170 --> 00:25:14.940

Thomas Lockwood: and similarly on rebel even though that was a fairly new Dome we did run into a cruise where.

191

00:25:17.190 --> 00:25:21.060

Thomas Lockwood: We were we did have a hardware failure on that and.

192

00:25:23.340 --> 00:25:32.970

Thomas Lockwood: As lead will attest that's a pretty much the first cruise he's ever been on where the science party said we don't have Internet we can't cruise we can't do this cruise.

193

00:25:33.420 --> 00:25:45.540

Thomas Lockwood: So the ship actually returned the port, we had the we had a field attendance, while the vessel was important repair the problem in the ship went back out and continue the science mission.

194

00:25:47.430 --> 00:25:48.840

Thomas Lockwood: On the fleet express side.

195

00:25:49.950 --> 00:25:56.460

Thomas Lockwood: oceana's definitely had some issues, some growing pains with that little Dome installation.

196

00:25:58.410 --> 00:25:59.910

Thomas Lockwood: They had some issues with the.

197

00:26:00.930 --> 00:26:04.260

Thomas Lockwood: fail over on their dual gx stones and it actually failing back.

198

00:26:05.760 --> 00:26:07.110

Thomas Lockwood: points where it went to.

199

00:26:09.480 --> 00:26:10.470

Thomas Lockwood: sleep broadband only.

200

00:26:12.480 --> 00:26:21.600

Thomas Lockwood: rebel initially based on how we did that installation had very poor jack's coverage before the Dome installation.

201

00:26:23.520 --> 00:26:24.240

Thomas Lockwood: sproul.

202

00:26:25.620 --> 00:26:31.350

Thomas Lockwood: was kind of interesting for being a single Dome we actually were getting.

203

00:26:33.750 --> 00:26:41.070

Thomas Lockwood: 90% uptime but whenever they were doing surveys when they change direction, there was a.

204

00:26:43.230 --> 00:26:45.330

Thomas Lockwood: drops in connectivity is they.

205

00:26:46.800 --> 00:26:54.600

Thomas Lockwood: winning the blind spot in and out of blind spots and we definitely had feedback on those cruises as well as far as it being an operational issue.

206

00:26:56.430 --> 00:26:58.080

Thomas Lockwood: Our future plans at a glance.

207

00:26:59.580 --> 00:27:05.730

Thomas Lockwood: We are looking at bandwidth upgrades so those have been approved enter in next year's budget.

208

00:27:06.810 --> 00:27:14.430

Thomas Lockwood: there's a few vessels that we're looking at doing this calendar year as well for November, December timeframe.

209

00:27:15.840 --> 00:27:16.230

Thomas Lockwood: But.

210

00:27:17.850 --> 00:27:23.070

Thomas Lockwood: Right now it's on the tech side we're looking at increasing all plans to.

211

00:27:24.420 --> 00:27:27.390

Thomas Lockwood: Two by two, which is kind of the.

212

00:27:28.740 --> 00:27:35.280

Thomas Lockwood: magic plan level where we still can do suspensions and then on ceiling we're looking at upgrading those two four by two.

213

00:27:37.770 --> 00:27:38.820

Thomas Lockwood: We are going to continue.

214

00:27:42.240 --> 00:27:52.950

Thomas Lockwood: projects for swapping out aging hardware this next year we're really pursuing a class specific solution so we're looking at.

215

00:27:54.210 --> 00:27:57.390

Thomas Lockwood: Sally ride and Neil Armstrong.

216

00:27:59.430 --> 00:28:09.900

Thomas Lockwood: And those are going to be a little more complex just based on how tight the footprint is on those vessels so that's the plan for next year, as far as the larger items are concerned.

217

00:28:11.490 --> 00:28:12.120

Thomas Lockwood: and

218

00:28:13.170 --> 00:28:22.470

Thomas Lockwood: We are in discussions with marlena about the potential for at see Leo testing in at some point in 2022.

219

00:28:23.730 --> 00:28:25.680

Thomas Lockwood: Stay tuned we'll let you guys know as soon as.

220

00:28:26.730 --> 00:28:29.340

Thomas Lockwood: We have some additional information on that.

221

00:28:31.620 --> 00:28:34.140

Thomas Lockwood: We are additionally looking at.

222

00:28:35.370 --> 00:28:38.340

Thomas Lockwood: Potential addition of some cellular when support.

223

00:28:43.020 --> 00:28:48.330

Thomas Lockwood: And then there is some specialized use of a medium that we can do for backup beta.

224

00:28:50.130 --> 00:28:52.380

Thomas Lockwood: For a number of different options that were investigating as well.

225

00:28:54.420 --> 00:29:01.410

Thomas Lockwood: And that is everything I have not sure how tight i'm on the schedule, right now, but any questions are definitely welcome.

226

00:29:04.710 --> 00:29:05.760

Lee Ellett: toby has a question.



227

00:29:07.440 --> 00:29:08.040

Toby Martin: Can you hear me.

228

00:29:08.490 --> 00:29:09.060

Lee Ellett: yeah yep.

229

00:29:10.650 --> 00:29:13.560

Toby Martin: Has anyone looked at how star link is performing.

230

00:29:17.070 --> 00:29:19.860

Thomas Lockwood: And nothing I can talk about it.

231

00:29:20.040 --> 00:29:22.500

Thomas Lockwood: This point anything would be nda but.

232

00:29:23.310 --> 00:29:25.920

Thomas Lockwood: There are, there are a couple of vessels, looking at it.

233

00:29:27.000 --> 00:29:32.460

Kenneth Olsen: What I can say about starling because they currently don't have any teleports that would work for anything at sea.

234

00:29:33.060 --> 00:29:43.320

Kenneth Olsen: So all their teleports or terrestrial so until they actually do the linking part of star link or they're doing bird a bird comms it won't be available for ocean ships, I mean.

235

00:29:43.980 --> 00:29:45.570

Thomas Lockwood: that's kind of that's kind of the same thing we've.

236

00:29:45.570 --> 00:29:47.370

Thomas Lockwood: gotten on.

237

00:29:49.800 --> 00:29:56.220

Thomas Lockwood: The Leo side as well it's currently for their plans, a lot of it is land based it really is.

238

00:29:58.500 --> 00:30:01.530

Thomas Lockwood: Mid to later in 2022 that we're starting to look at.

239

00:30:02.910 --> 00:30:05.070

Thomas Lockwood: Their yeah something in the plans, where.

240

00:30:06.660 --> 00:30:10.470

Thomas Lockwood: we're looking at ocean area is starting to have potential.

241

00:30:10.770 --> 00:30:18.720

Kenneth Olsen: I should probably introduce myself i'm kind of full send me I wanted members high seas net probably talk to all of you, at some point, and so, when we're talking about Leo.

242

00:30:19.380 --> 00:30:26.760

Kenneth Olsen: Initially it's more of a replacement for sillier than a notion doing technology and tell some of these companies are doing satellite satellite linking.

243

00:30:27.510 --> 00:30:38.160

Kenneth Olsen: Because they are smaller footprints, and so they still need something to collect that data in a footprint, or like a cell like a cell tower and they just don't have them in the middle ocean obviously so.

244

00:30:38.790 --> 00:30:43.350

Kenneth Olsen: Leo will be you know so like if we had started doing today pulling the port, now we.

245

00:30:44.160 --> 00:30:56.580

Kenneth Olsen: Have a terrestrial leak that he could talk to, and you know, be better performance and sell your link but they're not going to you know not not in the next couple years are we going to be seeing Leo as an ocean going technology as far as i've seen.

246

00:30:58.680 --> 00:31:00.600

Lee Ellett: done Katrina.

247

00:31:02.310 --> 00:31:03.780

Don Cucchiara: Can you yeah can you hear me.

248

00:31:06.090 --> 00:31:06.810

Lee Ellett: Yes, we can.

249

00:31:07.950 --> 00:31:21.600

Don Cucchiara: Pre pandemic they used to have the service maintenance calls come out on basis is there any talk of restarting that up Carl cocoon still used to come out down South here, I was just wondering any plans on that.

250

00:31:23.040 --> 00:31:25.020

Thomas Lockwood: yeah so we.

251

00:31:26.310 --> 00:31:31.320

Thomas Lockwood: definitely need to circle in with you guys and do a check in.

252

00:31:34.260 --> 00:31:47.490

Thomas Lockwood: we've been doing, they haven't been as regular as we'd like, but we have been checking in with the individually, universities and then yes to your vessel, specifically, we need to coordinate an annual maintenance visit.

253

00:31:58.410 --> 00:32:07.290

Lee Ellett: With that we should keep moving on, we can do more questions in the Community i'm touching on the on the APP i'm.

254

00:32:08.310 --> 00:32:11.610

Lee Ellett: Right, then I think now we'll turn it over to a.

255

00:32:12.780 --> 00:32:15.600

Lee Ellett: list of credits can folks going to present for sat night.

256

00:32:24.840 --> 00:32:27.840

Ken Feldman: All right, hi everybody Tom if you could stop sharing, I will start.

257

00:32:43.590 --> 00:32:46.230

Thomas Lockwood: Go ahead and start I think my share stop.

258

00:32:46.320 --> 00:32:49.230

Ken Feldman: There we go just start thanks all right.

259

00:32:51.780 --> 00:32:52.680

Ken Feldman: and

260

00:33:00.150 --> 00:33:02.820

Ken Feldman: Doo Doo Doo Doo let's go.

261

00:33:06.630 --> 00:33:07.170

Ken Feldman: All right.

262

00:33:08.400 --> 00:33:09.330

Ken Feldman: Can everybody see that.

263

00:33:10.710 --> 00:33:11.250

Brandi Murphy: Yes.

264

00:33:11.580 --> 00:33:12.180

Ken Feldman: All right, great.

265

00:33:13.470 --> 00:33:17.940

Ken Feldman: Perfect well hi everybody i'm can feldman from university of Washington.

266

00:33:19.980 --> 00:33:24.660

Ken Feldman: Little update on what we've been doing in the satellite network advisor group set bag.

267

00:33:26.460 --> 00:33:37.590

Ken Feldman: So we are comprised of four people or stop from what's hold myself Eric ruble from your dry and john have or lack from university of Alaska fairbanks and.

268

00:33:39.390 --> 00:33:41.400

Ken Feldman: We were started by Jim.

269

00:33:42.870 --> 00:33:49.350

Ken Feldman: to explore ways to make the ship ship to shore communication experience more uniform across the fleet.

270

00:33:51.630 --> 00:33:58.920

Ken Feldman: that's where we started originally and our mission is to store the objective, effective and efficient use of ship to shorten our resources.

271

00:34:00.270 --> 00:34:05.520

Ken Feldman: really looking for what we can do to make life better for everybody involved is the bottom line.

272

00:34:08.820 --> 00:34:12.900

Ken Feldman: So we work, one of the main things is we work in good faith to.

273

00:34:14.100 --> 00:34:25.200

Ken Feldman: To look at things that are best for the fleet as a whole, not what look at those over what might be our personal interests, or what might be better for our individual institutions.

274

00:34:26.850 --> 00:34:38.700

Ken Feldman: And all recommendations that we are presenting to the Community, we are piloting in our home institutions first so we won't recommend something unless we've tried it ourselves first.

275

00:34:41.730 --> 00:34:43.050

Ken Feldman: Last year in review.

276

00:34:44.460 --> 00:34:48.750

Ken Feldman: The cyber infrastructure working group there's going to be a talk on that in the next.

277

00:34:49.800 --> 00:35:02.520

Ken Feldman: Section so I won't go into a whole lot of detail on that, but this year, the IMO International Maritime Organization has set up cyber security requirements that.

278

00:35:03.360 --> 00:35:13.740

Ken Feldman: have been enforced starting this year and, as part of that we've been looking at what we do as a fleet most of that has been happening in the ci wg but all.

279

00:35:15.120 --> 00:35:17.580

Ken Feldman: All the members of satin and had been an active part of that.

280

00:35:19.260 --> 00:35:19.740

Ken Feldman: and

281

00:35:21.270 --> 00:35:32.820

Ken Feldman: Just a little bit of preamble we've been working with an outside organization parents, many of you may be familiar may have interacted with them to get an assessment of where we are with each vessel and.

282

00:35:33.900 --> 00:35:45.000

Ken Feldman: As part of that they deployed a cyber X device them get into more amount in a minute, but just wanted to mention that much for now we've also been continuing.

283

00:35:45.480 --> 00:35:53.520

Ken Feldman: Our efforts on a next generation firewall so we have the cyber homes in place on a number of vessels they've been very useful for.

284

00:35:54.540 --> 00:36:12.000

Ken Feldman: Having captive portals to limit bandwidth usage by individuals and cyber own was end of life, I believe, in April of this year, and so we've been transitioning to SOFA sex G, which is a.

285

00:36:13.350 --> 00:36:18.480

Ken Feldman: While was billed as a as a plugin replacement it hasn't quite been as simple as that.

286

00:36:20.430 --> 00:36:29.160

Ken Feldman: But, but has been relatively straightforward we currently are running SOFA six g's on the oceanic the Armstrong Thompson and Atlantis.

287

00:36:30.840 --> 00:36:31.350

Ken Feldman: and

288

00:36:33.180 --> 00:36:39.270

Ken Feldman: We have a number of tips and tricks if anybody is interested in in moving to that and getting that going.

289

00:36:41.520 --> 00:36:42.870

Ken Feldman: We are also.

290

00:36:44.580 --> 00:37:06.450

Ken Feldman: we're gearing up again, this is part of more of this in the cyber infrastructure working group talk, but we are engaging the research sock as an external entity, to help us with our cyber infrastructure plans moving forward and set mag will be collaborating with them.

291

00:37:08.190 --> 00:37:17.970

Ken Feldman: And what they're doing and what they are recommending that we set up will influence, where we go with a longer term next generation solution for firewall for the vessels.

292

00:37:20.100 --> 00:37:35.520

Ken Feldman: One of the things that is important to us is to try and have it be uniform across the vessels to the extent possible makes life easier for everybody and and makes it the uniform experience for users, as they come on two different vessels.

293

00:37:37.500 --> 00:37:44.790

Ken Feldman: we've also been updating our Internet use policy we raised the daily quarter to 400 megabit megabytes per day.

294

00:37:46.170 --> 00:37:51.150

Ken Feldman: And when those new expansions come in we'll we'll reevaluate in and probably raise that again.

295

00:37:52.560 --> 00:37:59.610

Ken Feldman: we've also got a lot of information on our wiki a lot of information has been added to our wiki more on that.

296

00:38:01.200 --> 00:38:04.830

Ken Feldman: If you haven't looks please go visit set now you'll notice that org.

297

00:38:07.500 --> 00:38:09.480

Ken Feldman: we've got a whole lot of information about.

298

00:38:10.800 --> 00:38:14.400

Ken Feldman: The various cyber security regulations that are coming on.

299

00:38:15.540 --> 00:38:24.300

Ken Feldman: we've got information on a lot of the satellite equipment, the time was just talking about we've also got a lot of tips and tricks on.

300

00:38:25.320 --> 00:38:32.280

Ken Feldman: What people can do to limit their bandwidth usage on their individual devices some a lot of tips.

301

00:38:33.330 --> 00:38:37.770

Ken Feldman: on getting the SOFA os X GS going.

302

00:38:39.630 --> 00:38:42.300

Ken Feldman: shout out to Rebecca who's doing a lot of that work.

303

00:38:44.670 --> 00:38:50.940



Ken Feldman: So anyway there's a lot of use a lot of information on there are full Internet use policy is also on there and.

304

00:38:52.350 --> 00:39:03.510

Ken Feldman: And we are continually improving if you have suggestions for things to add, please let us know we're always looking to make it better and more useful as much as possible.

305

00:39:05.760 --> 00:39:08.820

Ken Feldman: Our goals for the next year.

306

00:39:10.230 --> 00:39:13.620

Ken Feldman: is to continue deploying The SOFA os X G firewalls.

307

00:39:14.670 --> 00:39:16.080

Ken Feldman: and work on.

308

00:39:17.730 --> 00:39:30.360

Ken Feldman: rebuilding the traffic is usage metrics so, the more we had for a while, under the cyber rooms, we were collecting usage information from a number of vessels, and that was really key and.

309

00:39:31.830 --> 00:39:41.730

Ken Feldman: helpful in figuring out what are people doing what is the activity How are things be used and help guide where we can go to help improve things.

310

00:39:42.810 --> 00:39:45.450

Ken Feldman: So get those back and step and.

311

00:39:46.620 --> 00:39:55.650

Ken Feldman: That will help us as we continue to move forward, especially as the as the bandwidth continues to grow and we'll see how you suggest changing in that regard.

312

00:39:57.480 --> 00:40:10.620

Ken Feldman: We are also have been providing technical oversight for high seas net as they've been deploying these multiple systems across the fleet and.

313

00:40:13.980 --> 00:40:19.500

Ken Feldman: we've also will be are setting up to provide technical oversight for the research sock group.

314

00:40:21.360 --> 00:40:28.260

Ken Feldman: With cyber security as they are coming online and getting started with with the research fleet.

315

00:40:30.090 --> 00:40:41.160

Ken Feldman: we're also going to continue with our next generation firewall and and one of the things we really like to be going further on is is creating a network reference architecture.

316

00:40:43.650 --> 00:40:44.940

Ken Feldman: The more we can.

317

00:40:46.200 --> 00:40:47.130

Ken Feldman: get things.

318

00:40:48.480 --> 00:40:52.680

Ken Feldman: In common across the vessels, the easier it will be to.

319

00:40:54.060 --> 00:40:56.670

Ken Feldman: improve experience for everybody.

320

00:40:57.720 --> 00:40:58.860

Ken Feldman: If more.

321

00:41:00.780 --> 00:41:14.100

Ken Feldman: People can get help from a wider audience, if there are issues on a particular vessel because there's more things that are similar It will also allow us user adoption of new technologies, as they come along it'll be easier to implement.

322

00:41:15.330 --> 00:41:22.320

Ken Feldman: Across the fleet and once they're developed on a few vessels so it'll help us going forward.

323

00:41:24.870 --> 00:41:30.390

Ken Feldman: In a lot of different ways and it's not as simple prospect right now we have.

324

00:41:32.190 --> 00:41:35.910

Ken Feldman: You know, every vessel operated by different institutions and they've been set up.

325

00:41:37.350 --> 00:41:39.900

Ken Feldman: In the past, largely standalone.

326

00:41:41.220 --> 00:41:48.060

Ken Feldman: And so it's an effort and a slow process to do that, but important and will gain a whole lot by doing that.

327

00:41:50.550 --> 00:41:52.170

Ken Feldman: we're also continuing to.

328

00:41:53.340 --> 00:41:56.160

Ken Feldman: Add to the to the website, as mentioned before, and.

329

00:41:57.750 --> 00:42:03.870

Ken Feldman: And would love feedback on anything that would be useful, that you find interesting and helpful in there.

330

00:42:06.600 --> 00:42:08.520

Ken Feldman: So I mentioned earlier about the.

331

00:42:10.110 --> 00:42:17.100

Ken Feldman: Cyber infrastructure and the peregrine group that has been working with the fleet as part of that.

332

00:42:18.450 --> 00:42:22.920

Ken Feldman: every vessel has a cyber X device during the initial.

333

00:42:24.810 --> 00:42:39.480

Ken Feldman: The the original promise was that this was a passive monitoring device for all our networks and give us the ability to flag unusual activity report on new and change devices over time and simplify the annual reporting process.

334

00:42:41.940 --> 00:42:53.010

Ken Feldman: The paragraph when when they were starting out we're working with cyber X and and had an understanding that cyber X personnel would help the fleet get those going.

335

00:42:54.180 --> 00:43:09.390

Ken Feldman: Before we got things implemented cyber X was acquired by Microsoft and the mission and focus of that product change that they have been a lot less responsive to our needs and as the devices are configured.

336

00:43:10.440 --> 00:43:22.740

Ken Feldman: we've had a number of questions about the devices from various people, but as the devices are currently configured they the disk fills up in just a couple of days and and it basically becomes brick.

337

00:43:24.540 --> 00:43:31.440

Ken Feldman: So right now they're not worth setting up, as is just just not really worthwhile however it's really.

338

00:43:32.460 --> 00:43:44.640

Ken Feldman: Could very potentially be useful that we have a device that's in common, I am with every vessel on the fleet so as we work with research sock.

339

00:43:47.220 --> 00:43:54.900

Ken Feldman: goal The hope is that we can put these devices to good use in creating uniform monitoring or.

340

00:43:56.400 --> 00:43:56.850

Ken Feldman: or.

341

00:43:57.930 --> 00:44:04.320

Ken Feldman: Some other uniform activity that that will be helpful for gathering metrics from the whole fleet.

342

00:44:06.540 --> 00:44:11.670

Ken Feldman: remains to be seen so stay tuned on what that looks like but for now we have them so.

343

00:44:12.870 --> 00:44:21.000

Ken Feldman: bottom line best to keep it in the box, for now, not worth the time yet, but hopefully we'll have a useful purpose for them soon.

344

00:44:24.780 --> 00:44:32.970

Ken Feldman: We really we really would like to hear more about issues that are facing in this domain network cyber security set calm.

345

00:44:35.340 --> 00:44:46.860

Ken Feldman: And we really especially would like to hear from smaller vessels we we spend a lot of time in our deliberations on things that are happening in the larger vessels, they tend to be complex and.

346

00:44:48.270 --> 00:44:53.700

Ken Feldman: and have a lot of intricacies in what's going on there, but we're also very mindful that.

347

00:44:56.130 --> 00:45:02.850

Ken Feldman: There are fewer resources available for smaller vessels, and we really are trying to come up with things that work.

348

00:45:04.080 --> 00:45:12.420

Ken Feldman: Across the fleet as much as possible and and to simplify things as much as possible so that it's easier for.

349

00:45:14.880 --> 00:45:28.860

Ken Feldman: for everybody, especially for the texts that are on board as all all this new technology comes on and there's more and more complex things that are happening that everybody has to keep track of all the time, the more we can make things simplified, the better.

350

00:45:30.510 --> 00:45:35.310

Ken Feldman: So we'd really like to hear what's going on and where things are today.

351

00:45:36.780 --> 00:45:47.370

Ken Feldman: With that we'd like to know how How would everybody feel about a revised networking survey, so that we get a sense of where things are today what would everybody be open to that that's kind of an open question.

352

00:45:49.200 --> 00:45:52.260

Ken Feldman: feel free to email us and say you know start.

353

00:45:53.760 --> 00:45:56.370

Ken Feldman: With anything along those lines and.

354

00:45:58.620 --> 00:46:08.010

Ken Feldman: So that was a relatively brief overview and that would really love to open it up to questions and discussions for what people are seeing and.

355

00:46:09.630 --> 00:46:10.470

Ken Feldman: And where things are.

356

00:46:13.980 --> 00:46:15.120

Ken Feldman: Anybody have any questions.

357

00:46:24.300 --> 00:46:25.260

Toby Martin: They can this toby.

358

00:46:28.170 --> 00:46:36.300

Toby Martin: One of the things that we've been kicking around in the you H DAS group for a very long time and it's just a.

359

00:46:37.320 --> 00:46:40.170

Toby Martin: kick around point of thought at the moment.

360

00:46:41.400 --> 00:46:42.900

Toby Martin: But that is.

361

00:46:44.310 --> 00:46:52.620

Toby Martin: We need access to the ships and and that happens at the moment on a ship by ship basis.

362

00:46:54.450 --> 00:47:14.490

Toby Martin: Some ships just give us straight access in and some of them we go through multiple hops and and all of that sort of interesting thing, so the the thought has been kicking around that white, we might set up a an internal vpn here here in Hawaii.

363

00:47:16.410 --> 00:47:31.320

Toby Martin: That we could trigger the ship side you H dash server to connect to but that's going to require having all of the proper settings in the firewalls and gateways and all that sort of stuff.

364

00:47:31.800 --> 00:47:32.040

Right.

365

00:47:33.450 --> 00:47:35.940

Toby Martin: toward a more consistent.

366

00:47:37.230 --> 00:47:44.580

Toby Martin: way of doing that, especially as the more and more of the ships get the same sorts of equipment.

367

00:47:46.260 --> 00:47:52.020

Toby Martin: Just bear in mind and provide any feedback, you might have possible.

368

00:47:55.110 --> 00:47:56.730

Ken Feldman: Why, I think one of the.

369

00:47:58.290 --> 00:48:01.290

Ken Feldman: i'll say this is one of the goals of having a.

370

00:48:02.730 --> 00:48:06.030

Ken Feldman: reference network architecture is that we can.

371

00:48:08.970 --> 00:48:12.690

Ken Feldman: Hopefully, not somebody just asked me if i'd stop sharing my screen, so I will do that real quick.

372

00:48:14.430 --> 00:48:20.220

Ken Feldman: There we go so everybody can see everybody a little better thanks for that so so.

373

00:48:21.270 --> 00:48:29.190

Ken Feldman: One of the things we've been looking at is how do we make things more uniform across across the board and what can we do that.

374

00:48:31.260 --> 00:48:38.010

Ken Feldman: That sets things up, so that we can have a straightforward way to do that now part of that is going to depend on.

375

00:48:40.050 --> 00:48:43.260

Ken Feldman: cyber security considerations and.

376

00:48:44.910 --> 00:48:52.290

Ken Feldman: So we want to look at and see what research sock is is going to be recommending and what they have to say before we go too far.

377

00:48:54.180 --> 00:48:55.650

Ken Feldman: down the road but absolutely.

378

00:48:57.120 --> 00:49:00.480

Ken Feldman: I hear you, and that makes a lot of sense and is it.



379

00:49:02.880 --> 00:49:06.840

Ken Feldman: yeah it has been an interesting problem right every every ship is a little different.

380

00:49:08.910 --> 00:49:12.270

Ken Feldman: You know even I mean in an ideal world if we could have the same.

381

00:49:13.440 --> 00:49:18.030

Ken Feldman: IP space where you can pre configure everything I don't know that that's ever going to happen, but.

382

00:49:19.110 --> 00:49:19.530

Ken Feldman: But.

383

00:49:20.640 --> 00:49:30.630

Ken Feldman: To the extent that we can make things look similar and that we have a similar even if it's just the firewalls and the way out of the ship.

384

00:49:31.380 --> 00:49:40.200

Ken Feldman: This process all looks the same it all works, the same that we can follow the same process everywhere and make things easier it's not going to happen overnight.

385

00:49:42.840 --> 00:49:43.560

Ken Feldman: But uh.

386

00:49:45.270 --> 00:49:51.000

Ken Feldman: yeah definitely keeping that in mind for sure and and and you all have done a great job in what you're doing.

387

00:49:53.790 --> 00:49:59.400

Ken Feldman: In creating those tunnels from from the cpu machines.

388

00:50:03.240 --> 00:50:05.730

Ken Feldman: And it'll be interesting to see what research has to say about that.

389

00:50:09.120 --> 00:50:17.700

Brandi Murphy: I just before you leave that topic, too, I think that you H dash probably has the best insight as to what the.

390

00:50:18.750 --> 00:50:24.780

Brandi Murphy: network infrastructure across the fleet, and so it only be real important to.

391

00:50:25.770 --> 00:50:29.370

Brandi Murphy: I see Jules is unmuted herself to respond, but tap into that knowledge.

392

00:50:30.510 --> 00:50:41.130

Jules Hummon: We have a specific view that that doesn't mean that we have the best knowledge, the network architecture on each of the ships We only know about the little part that we interact with.

393

00:50:42.780 --> 00:50:49.980

Brandi Murphy: But, but for that little part that you interact with you have the most complete picture I think of probably anybody else.

394

00:50:52.110 --> 00:50:59.520

Ken Feldman: Well, what you do have is you have you have a good understanding of what it takes to get off the vessel.

395

00:51:00.600 --> 00:51:01.620

Ken Feldman: From on the vessel.

396

00:51:03.630 --> 00:51:05.310

Jules Hummon: All I can say is it's different on every.

397

00:51:05.340 --> 00:51:06.390

Jules Hummon: Different for absolutely.

398

00:51:07.710 --> 00:51:08.550

Ken Feldman: absolutely true.

399

00:51:10.110 --> 00:51:12.090

Ken Feldman: yeah so it's a it's an interesting.

400

00:51:14.190 --> 00:51:28.860

Ken Feldman: it's a it's an interesting set of problems and and different institutions themselves have a different level of involvement in each vessel which you know, some are a lot more autonomous some.

401

00:51:30.000 --> 00:51:40.620

Ken Feldman: Have a lot more functionality that's dictated by the large university and, and that is an added complication to trying to make things more uniform.

402

00:51:42.900 --> 00:51:47.850

Ken Feldman: But we should we should continue to try, because there are a lot of advantages and doing that.

403

00:51:49.350 --> 00:51:50.040

Ken Feldman: And and.

404

00:51:51.630 --> 00:52:01.020

Ken Feldman: You know, one of the well going back to our initial mission, one of our goals is to try and have a uniform experience for.

405

00:52:02.340 --> 00:52:17.430

Ken Feldman: For participants, as they go from vessel a vessel, so if the scientists knows that they're going to see on on an art vessel date have an idea, a good idea of what to expect, and in this realm and and all of these things will contribute to that.

406

00:52:19.410 --> 00:52:21.360

Ken Feldman: Lead you have your hand up yeah.

407

00:52:21.630 --> 00:52:25.350

Lee Ellett: You have one yeah one item was the other thing that i'm.

408

00:52:26.820 --> 00:52:36.660

Lee Ellett: Another topic that concerns me, sometimes when we get like the winch polls are reporting that they want to put these vpn devices and all the winches and talent, so I know a number of times.

409

00:52:37.110 --> 00:52:46.530

Lee Ellett: we've had those things to show up on the ship we you know, try to bring it up the precursors meeting but regardless they show up on the ship and oh yeah one off ship off ship unfettered off ship access.

410

00:52:46.950 --> 00:52:49.080

Lee Ellett: Oh, where did and frank.

411

00:52:49.740 --> 00:52:53.940

Lee Ellett: is so those those those things really don't have the yeah.

412

00:52:54.960 --> 00:53:00.270

Lee Ellett: We don't have the resources to support that at the scale that that's being that's being designed around we're trying to.

413

00:53:00.270 --> 00:53:00.660

Ken Feldman: get there.

414

00:53:01.080 --> 00:53:05.250

Lee Ellett: But it but that's I don't know how much of a pinch point those type of devices have been.

415

00:53:06.480 --> 00:53:16.950

Lee Ellett: But we see more receive see it more and more, not just with winches but with a scientist of all I want to put this this device hook it up to the into a system, and we were going to access it.

416

00:53:17.430 --> 00:53:26.760

Lee Ellett: remotely right and so when we the the bandwidth of thinking, support a lot of that but it's the that unfettered access part that you know.

417

00:53:28.050 --> 00:53:29.550

Lee Ellett: Is a is a concern.

418

00:53:30.000 --> 00:53:33.840

Ken Feldman: In yeah I agree it is, and it is becoming more and more.

419

00:53:36.210 --> 00:53:41.040

Ken Feldman: yeah well it's a security concern and it's a bandwidth concern both and.

420

00:53:42.390 --> 00:53:42.870

Ken Feldman: and

421

00:53:44.520 --> 00:53:51.360

Ken Feldman: You know, and we, and we have a lot of people that are doing more and more work that's in the cloud, for example, that's requiring.

422

00:53:53.040 --> 00:53:59.160

Ken Feldman: You know, like like it was the mention of that one cruise on rebel that had to go back because SEC Council now.

423

00:54:00.660 --> 00:54:04.950

Ken Feldman: These are, I expect these are only going to become more and more.

424

00:54:06.960 --> 00:54:08.430

Ken Feldman: Common as we go.

425

00:54:09.780 --> 00:54:12.060

Ken Feldman: And they're going to answer them, we can do something about it.

426

00:54:13.050 --> 00:54:19.800

Lee Ellett: yep oh another question from web and then we need to wrap it up, so we can have a little break before the next session but go ahead, well.

427

00:54:20.340 --> 00:54:21.960

Webb Pinner: Sure, thank you, can you hear me I.

428

00:54:22.470 --> 00:54:23.670

Webb Pinner: sure can okay.

429

00:54:24.690 --> 00:54:34.860

Webb Pinner: With her as the vpn access and I don't know how kosher This really is but a solution that i've been using to support it and vm it open every gas on your.

430

00:54:35.880 --> 00:54:51.750

Webb Pinner: Vessels is a software based cloud server where the tech has to turn it on and turn it off, so that way, the ship actually retains control, but when they need assistance they can turn it on.

431

00:54:52.020 --> 00:54:55.620

Webb Pinner: Turn it's required zero interaction from the IT staff.

432

00:54:58.860 --> 00:55:09.960

Webb Pinner: So I it's some like I said I don't know if that's the most correct way to do this and IT security world, but that is gotten me to the ship when the text needed me and.

433

00:55:11.040 --> 00:55:14.730

Webb Pinner: made sure that I was not on the ships, when the text did not.

434

00:55:17.040 --> 00:55:21.300

Ken Feldman: And that and that's great that's an awesome thing, and I think that.

435

00:55:23.040 --> 00:55:29.910

Ken Feldman: yeah that's a really good thought, and I think there are certainly some use use cases where that is a great way to go.

436

00:55:31.620 --> 00:55:33.090

Ken Feldman: and yours is yours is one.

437

00:55:34.260 --> 00:55:39.750

Ken Feldman: there's you know there's a lot of things like on the Thompson, for example, the the engines are networked.

438

00:55:40.860 --> 00:55:56.070

Ken Feldman: And, and so is the the wastewater treatment plant and there could potentially be a time when external people want to get in and look at something and that hasn't happened to date but.

439

00:55:57.720 --> 00:56:05.760

Ken Feldman: You know, there are there are there are lots and lots of things and yeah and although inches are now being network so.

440

00:56:07.080 --> 00:56:07.410

Ken Feldman: it's.

441

00:56:08.910 --> 00:56:22.710

Ken Feldman: yeah it's a it's a complex problem, and you know, but one of the issues, too, is with the vpn web the vpn you're talking about is really great for you to get to the application that you're supporting and.

442

00:56:24.510 --> 00:56:26.550

Ken Feldman: And same with.

443

00:56:28.020 --> 00:56:39.060

Ken Feldman: With the tcp equipment right, a solution that works for that is great, but those don't necessarily have to be the same, and they and they the same solution won't necessarily work for all.

444

00:56:40.140 --> 00:56:42.450

Ken Feldman: The more we can make it that way, that the better.

445

00:56:43.620 --> 00:56:45.240

Webb Pinner: The other thing I will add is um.

446

00:56:45.840 --> 00:56:57.150

Webb Pinner: The the non you know ships that I work with do leverage vpn systems that are in some cases, ad authenticated where you know basically.

447

00:56:58.080 --> 00:57:12.840

Webb Pinner: So I know some of them are here with us, and maybe that's a resource that's a that's a somebody worth talking to on at least their experience, both in terms of how effective it is as well as how much effort it takes to maintain.

448

00:57:14.070 --> 00:57:15.750

Ken Feldman: yeah no definitely.

449

00:57:17.100 --> 00:57:18.000

Ken Feldman: Well, I will.

450

00:57:19.350 --> 00:57:20.010

Webb Pinner: I guess.

451

00:57:20.430 --> 00:57:23.190

Ken Feldman: At least for sandbag we are all absolutely interested.

452

00:57:26.220 --> 00:57:33.450

Lee Ellett: I think I think we should go ahead and in things here remember short break before the next session sound good brandy.

453

00:57:36.630 --> 00:57:37.770

Brandi Murphy: Calm down to.

454

00:57:38.100 --> 00:57:45.570

Ken Feldman: Start comes down to So yes, so we are, we are absolutely interested in continuing conversation or dialogue is better.



455

00:57:47.220 --> 00:57:48.930

Ken Feldman: Our emails there and there's the chat.

456

00:57:50.280 --> 00:57:52.920

Ken Feldman: For this session thanks everybody appreciate it.

## SatComms II

1

00:05:15.240 --> 00:05:20.400

Brandi Murphy: we're just giving our Chair Lee a minute.

2

00:05:21.450 --> 00:05:24.810

Brandi Murphy: I think is zoom crashed in between all of our zoom so.

3

00:05:26.070 --> 00:05:29.340

Brandi Murphy: will be our first presenter today on the ci working group.

4

00:05:30.810 --> 00:05:32.910

Brandi Murphy: So we'll give him a minute, and if he doesn't.

5

00:05:34.170 --> 00:05:37.530

Brandi Murphy: isn't able to get in right away, then we might move forward with.

6

00:05:40.140 --> 00:05:48.240

Brandi Murphy: john having like regarding low earth orbit and kepler so stand by just a moment john if we need to do that that'd be okay with you.

7

00:05:51.060 --> 00:05:53.130

John Haverlack: yeah I think we can do that brandi okay.

8

00:05:53.460 --> 00:05:55.110

Brandi Murphy: So let's just give me a second and see if he.

9

00:05:55.110 --> 00:05:57.210

Brandi Murphy: gets in and then, if not we'll move ahead with you.

10

00:06:04.710 --> 00:06:07.560

John Haverlack: yeah I see nate here, so we, we should be able to do it.

11

00:06:11.250 --> 00:06:12.180

John Haverlack: I should say Nathan.

12

00:06:14.700 --> 00:06:15.960

Nathan - Kepler: Either is fine john i've been.

13

00:06:15.960 --> 00:06:17.100

Nathan - Kepler: called fireworks.

14

00:06:25.800 --> 00:06:38.370

Brandi Murphy: Okay, it looks like he's going to need to restart his computer so if it's alright with you, I think we will start with john hammerlock and Nathan, with kepler talking about low earth orbit.

15

00:06:40.320 --> 00:06:45.660

John Haverlack: Okay Nathan, if if you ready why don't you go ahead, first and i'll follow.

16

00:07:15.000 --> 00:07:15.870

John Haverlack: You might be muted.

17

00:07:16.680 --> 00:07:17.580

Brandi Murphy: you're muted.

18

00:07:22.350 --> 00:07:24.330

Nathan - Kepler: Sorry, one second now have we got it.

19

00:07:24.780 --> 00:07:27.630

Brandi Murphy: Guy face voice it's all there.

20

00:07:27.990 --> 00:07:37.200

Nathan - Kepler: awesome excellent unfortunately i'm just a sales and marketing guide, not the technical guy so apologies for that ad misstep there.

21

00:07:37.860 --> 00:07:44.940

Nathan - Kepler: So by way of introduction, my name is Nathan, as I said, part of the sales and business development team here at kepler.

22

00:07:45.540 --> 00:07:52.890

Nathan - Kepler: weather wanted to do in these quick 10 minutes is provide everyone with a very quick introduction to kepler who we are and what we're set out.

23

00:07:53.250 --> 00:08:03.690

Nathan - Kepler: To do give you a couple highlights from the work that we've done with us and the Security Act and then turn it over to john for some more in depth details about the the actual deployment there.

24

00:08:05.220 --> 00:08:08.580

Nathan - Kepler: And then I think we're going to have some time for some questions at the end of this as well.

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00:08:09.030 --> 00:08:19.170

Nathan - Kepler: So kepler we're a relatively small team incorporated back in 2015 there's currently 84 of us and we're based in Toronto Ontario Canada.

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00:08:20.040 --> 00:08:32.520

Nathan - Kepler: We currently have three teleports operating around the globe and supporting our first commercial service, which we call global data services and that's what we have been working with on the Security Act.

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00:08:33.630 --> 00:08:42.840

Nathan - Kepler: Just to give you a sense of where we are so as I mentioned we're based in Toronto, and in Toronto, we have our R and D Center network operations so commanding control of the satellites.

28

00:08:43.260 --> 00:08:55.050

Nathan - Kepler: And we also build design and build our spacecraft our satellites there as well, and then, as I mentioned we've got three gateways spread around the world to support global data services went up in in up.

29

00:08:55.380 --> 00:09:11.940

Nathan - Kepler: In the Northwest territories Canada went over and small bird and one over in New Zealand and then we'll continue to add gateways as necessary to support our customers and we do have a UK presence in the US presence, the US presence we just opened up.

30

00:09:13.200 --> 00:09:22.200

Nathan - Kepler: I guess about two months ago and I the UK presence that pictures a little misleading we actually just have one field application specialists over there in the UK.

31

00:09:24.450 --> 00:09:25.710

Nathan - Kepler: Although we've been incorporated, since.

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00:09:27.660 --> 00:09:38.040

Nathan - Kepler: has really been the kickoff for us, we launched eight satellites back in January and all those satellites that you see lined up there along the bottom were built in Toronto.

33

00:09:39.690 --> 00:09:50.760

Nathan - Kepler: And then we followed that quickly by another two satellites that we launched in March, and right now we're heading towards our next launch in January we currently have 15 satellites on orbit.

34

00:09:51.330 --> 00:10:04.830

Nathan - Kepler: All of them, providing services for global data services and for any Canadians who might be on the call other than myself and Brian that actually makes us the largest satellite operator in Canada, which is one of our little call outs or claims to fame.

35

00:10:05.880 --> 00:10:11.610

Nathan - Kepler: I love sharing this picture, just because it perfectly encapsulates what cube sats and low earth orbit is all about.

36

00:10:11.940 --> 00:10:18.570

Nathan - Kepler: So on the left there you see our lead satellite engineer working on our first satellite that we put into orbit kip.

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00:10:18.990 --> 00:10:23.940

Nathan - Kepler: And then on the right, you see a traditional do satellite the Intelsat 35.

38

00:10:24.390 --> 00:10:31.170

Nathan - Kepler: And just to highlight your what does our satellite look like in comparison to a big deal well, as you can see it's it's quite a bit smaller.

39

00:10:31.560 --> 00:10:43.680

Nathan - Kepler: And I think this just does a great job of putting them to pictures So the first thing that may spring to mind is you know, does that mean low earth orbit is you know far less capable than GEO and, of course, the answer is no.

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00:10:44.400 --> 00:10:58.470

Nathan - Kepler: we've achieved speeds of 200 megabits per second in both directions from our satellites and that's what a point six meter be sad or For those of you who are familiar with pedagogy way to we've done that, with the ESA.

41

00:10:59.220 --> 00:11:06.120

Nathan - Kepler: We were the first in Leo to operate in K K U Bahn so we actually be dope the folks at spacex and one Web.

42

00:11:06.990 --> 00:11:20.760

Nathan - Kepler: And something else that sets us apart from a lot of the other folks out there in Leo is we've established compatibility with existing mechanically cerebral be sets so if you're operating a vast so that uses a.

43

00:11:21.780 --> 00:11:38.100

Nathan - Kepler: dish from carbon like the cto or sailor lines, the Intel lan be series, and soon the APP to send next series or the kinds of panels we odds are we can support or work with those which may save you a bit in terms of upfront capital expenses.

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00:11:39.120 --> 00:11:44.130

Nathan - Kepler: And the other thing that they'll throw out there quickly, although this wasn't part of what we've been working with this clearly icon.

45

00:11:44.940 --> 00:12:00.360

Nathan - Kepler: Are our satellite type of software defined radio and the most recent gen one generation that we've been launching support both K you wideband for global data services, and we support narrowband or s fan for iot type applications.

46

00:12:01.770 --> 00:12:08.100

Nathan - Kepler: Now we only have 15 satellites on orbit right now so just to set things straight from the get go.

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00:12:08.910 --> 00:12:18.930

Nathan - Kepler: We aren't a replacement for your traditional sack condoms, and what I mean by that is today our global data services operates in the store and forward manner.

48

00:12:19.410 --> 00:12:33.180

Nathan - Kepler: So with 15 satellites you're only going to see those birds number of times per day and what we do, why we're above or inside of the user terminal is we upload or download information from that base.

49

00:12:34.020 --> 00:12:40.320

Nathan - Kepler: hitting those high speeds that I talked about before, and that gives us the ability to move gigabytes of data per pass.

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00:12:40.950 --> 00:12:48.990

Nathan - Kepler: We store that on board the satellite and then, as we come in view of one of our ground stations around the world, we download that information back to the gateway.

51

00:12:49.530 --> 00:12:59.310

Nathan - Kepler: And then, as we add additional satellites to the network, the frequency of the visits increases and the speed at which will be able to download that information back to our teleports.

52

00:12:59.730 --> 00:13:02.250

Nathan - Kepler: and make it accessible on the Internet will increase as well.

53

00:13:02.970 --> 00:13:11.220

Nathan - Kepler: So we typically represent that we're we're kind of like a dropbox in the sky or a fedex overnight service.

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00:13:11.520 --> 00:13:21.810

Nathan - Kepler: So for applications where you have large amounts of data that you need to move and they're not time sensitive and they can stand being delivered in you know, a 1224 hour period.

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00:13:22.440 --> 00:13:33.510

Nathan - Kepler: Then that's type of application that lends itself well to global data services and so, as I said, we're not a replacement for you know the iridium services that you may be using for voice.

56

00:13:34.110 --> 00:13:51.990

Nathan - Kepler: Or if you're NGO coverage, you know the services, you may be getting elsewhere but we're a great augmentation to situations where you may be operating outside the bounds of God or you might have so much data that you need to move that moving it by GEO or by a radium is just cost prohibitive.

57

00:13:53.490 --> 00:14:00.960

Nathan - Kepler: And i'll get it i'll explain a bit more about some of our use cases in just a second, so this is what our user terminal looks like, as I mentioned.

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00:14:01.440 --> 00:14:17.550

Nathan - Kepler: If you have an existing be sad that's K you and there's mechanically sterile but talk to us because we may be able to take advantage of that and saving you that additional equipment and then there's a modem and server that needs to be installed to support global data services.

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00:14:19.050 --> 00:14:24.570

Nathan - Kepler: it's odd that we find a modem installed that can support the speech we can achieve up and down.

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00:14:25.050 --> 00:14:33.030

Nathan - Kepler: We are compatible with context CDs 760 So if you have one of those that's great we can work with that, if not we'd have to put one of those in place.

61

00:14:33.420 --> 00:14:42.690

Nathan - Kepler: And then the server is what we use to handle these the store and forward offering and both of those pieces of equipment, as you can see, there are when you rack mount units.

62

00:14:43.800 --> 00:14:50.190

Nathan - Kepler: And so, so what is the value of global data services and why would someone why use a store and forward service.

63

00:14:50.940 --> 00:14:57.510

Nathan - Kepler: You know, as I mentioned, if you're operating outside of GEO then we're a great chewing or a great augmentation there.

64

00:14:57.930 --> 00:15:05.730

Nathan - Kepler: Or if you're moving large quantities of data, because of our architecture, were able to move gigabytes of data around that \$20 mark.

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00:15:06.030 --> 00:15:21.390

Nathan - Kepler: And certainly that's a ballpark figure and other organizations and even with securely act we've done different pricing, but just to give you a comparison to move that amount of data with you know, probably the most popular is in in mercy inmarsat lead broadband solution.

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00:15:22.470 --> 00:15:31.440

Nathan - Kepler: it's quite a bit more expensive to go that type of room so again if you're moving large quantities of data odds are we can save you a bit of money there.

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00:15:33.240 --> 00:15:40.410

Nathan - Kepler: So, in terms of the applications yo as john and I were speaking yesterday and it's definitely a niche application like I said.

68

00:15:40.770 --> 00:15:45.780

Nathan - Kepler: we're focused and operations where you're going to either be outside the bounds of GEO.

69

00:15:46.230 --> 00:15:56.550

Nathan - Kepler: or you're going to be moving so much data that it's just cost prohibitive or impossible so where we've seen a lot of traction certainly science applications, like the Security Act.

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00:15:57.480 --> 00:16:05.910

Nathan - Kepler: Seismic and oceanography hydro geography and oil and gas, you know all these groups that are generating gigabytes of data per day.

71

00:16:06.300 --> 00:16:18.390

Nathan - Kepler: And they may be moving that data using sneaker net you know moving physical hard drives around Those are all operations or situations where where we can take that lift and move that amount of data for you.

72

00:16:20.970 --> 00:16:28.770

Nathan - Kepler: And before we talk about the Security Act, you know, probably our best or most recognized use case thus far and I think this ties in nicely with.

73

00:16:29.220 --> 00:16:39.870

Nathan - Kepler: The Security Act for those of you who are familiar with the mosaic Commission that the Alfred Wegener Institute did on the polar stern back in 2019 We supported that.

74

00:16:40.830 --> 00:16:46.530

Nathan - Kepler: We were able to make use of the sea tell 97 eleven's that they had already installed on that vessel.

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00:16:47.520 --> 00:16:56.520

Nathan - Kepler: And for those of you who are familiar mosaic the mission was to go up to the North Pole freeze and to the ice for a year and then come back at the end of that and share the scientific data.

76

00:16:56.910 --> 00:17:07.650

Nathan - Kepler: And the original plan was exactly that, and what we were able to do with global data service is help them move that data back ahead of end of mission on the daily basis.

77

00:17:08.460 --> 00:17:23.040

Nathan - Kepler: So that it would be more sorry more useful and accessible to the wi group in a more timely fashion and towards the end of the mission, we started sending some big chunks of data to the polar stern to help on the crew welfare side of things as well.

78

00:17:27.030 --> 00:17:31.620

Nathan - Kepler: And you know just speaking very quickly about some of the work that we've done with the coulee act.

79

00:17:33.330 --> 00:17:42.750

Nathan - Kepler: One as as john with test the the Security Act was one of the first maritime operations that we supported, while the vessel was underway.

80

00:17:43.860 --> 00:17:49.710

Nathan - Kepler: So definitely hats offer appreciations to team on board for going through those teething pains with us.

81

00:17:50.490 --> 00:18:04.560

Nathan - Kepler: that's a feature in capability that we rolled out while the vessel was underway and the Security Act was also somewhat unique and that we did install a separate be sad specifically for global data services, which was a sailor 600.

82

00:18:05.730 --> 00:18:18.030

Nathan - Kepler: As I mentioned that's not typically something that we'd like to do we're always mindful of real estate on board the vessel, but certainly if there's that requirement there that's something that we can we can certainly look to support.

83

00:18:19.080 --> 00:18:23.940

Nathan - Kepler: So with that that's kind of the end of my lightning fast overview of Kepler.

84

00:18:25.260 --> 00:18:36.990

Nathan - Kepler: happy to answer any questions now we're at the end, but otherwise let's turn it over to John and he can dig into some of the specifics around the security X experience with local data services over the past several months.

85

00:18:38.130 --> 00:18:41.730

John Haverlack: yep thanks, can you stop sharing and then I'll share that you.

86

00:18:52.650 --> 00:18:54.510

John Haverlack: Okay, can you guys see my screen okay.

87

00:18:56.730 --> 00:18:57.210

Brandi Murphy: Yes.

88

00:18:57.270 --> 00:18:57.870

Ken Feldman: Yes, hey.

89

00:18:57.930 --> 00:19:02.400

John Haverlack: I'll try to move this along so Nathan covered most of how this works.

90

00:19:02.880 --> 00:19:09.570

John Haverlack: What one thing I just mentioned, is that there isn't a full mesh connection of the satellites, so we have to actually.

91

00:19:09.840 --> 00:19:18.060

John Haverlack: send data, up to a satellite wait till orbits around over the ship and then it connects to the ship and stores shares the story and payload.

92

00:19:18.540 --> 00:19:29.160

John Haverlack: And synchronize it and vice versa, so bi directionally coming from the shipper to shore and and the statistics I'll leave because we've we've already covered most of that.

93

00:19:30.420 --> 00:19:45.090

John Haverlack: So our setup was looks something like this, so we had to ship site infrastructure we had kepler's shoreside was s3 and then we had some shoreside servers on Security Act attached into that and a whole lot of voodoo and magic in between.

94

00:19:47.280 --> 00:19:53.820

John Haverlack: What kepler gives us access to via the s3 and on the ship side server is a series of directories.

95

00:19:54.870 --> 00:20:03.120

John Haverlack: And the long short of it is on the ship side outgoing directory when you send something into the outgoing directory.

96

00:20:03.510 --> 00:20:21.210

John Haverlack: It moves to the outgoing completed, and then it moves it finally winds up on the short side incoming completed record and then vice versa, so I can dump something and outgoing directory so what's important about this is it's basically to uni directional sync one to ship one to shore.

97

00:20:22.590 --> 00:20:34.590

John Haverlack: On only files can be synced so you cannot sync directory structures it doesn't support nested directory structure levels so just a single directory gets sync between ship ensure with this directory structure.

98

00:20:36.990 --> 00:20:49.770

John Haverlack: Okay, so what we did, is, I wrote a sinker script On top of that that would basically translate directory structures into files and then re translate them back out recreate the directory structure on the remote side.

99

00:20:50.370 --> 00:20:55.740

John Haverlack: So it did it bi directional inside, then it created a little web monitor, so I can monitor how many files were pending.

100

00:20:56.310 --> 00:21:01.380

John Haverlack: And what the transfer sized that was pending was so it could kind of keep an idea on the status.

101

00:21:01.920 --> 00:21:11.640

John Haverlack: kepler also put together a dashboard web interface for us that showed daily payload being transferred to tops to ship and the i'm sorry the tops to shore and the bottoms ship.

102

00:21:12.150 --> 00:21:20.760

John Haverlack: And we didn't i'll show you a little bit more about what we actually moved, so we did a 70 day test and 70 days we move 205 gigabytes to ship.

103

00:21:21.780 --> 00:21:32.430

John Haverlack: With an average rate of 119 megabits per second and 226 megabits per second Max think we maxed out around eight gigabytes per day one day.

104

00:21:33.570 --> 00:21:42.030

John Haverlack: But typically around one one to two and to shore was a lot less we just weren't sending that payload there's nothing asynchronous about it.

105

00:21:42.360 --> 00:21:44.100

John Haverlack: it's just that we didn't have that much data.

106

00:21:44.130 --> 00:21:46.140

John Haverlack: To send to to the shore.

107

00:21:48.870 --> 00:21:51.990

John Haverlack: And how we doing on time Randy I got about four minutes.

108

00:21:55.590 --> 00:21:58.080

John Haverlack: Okay, so latency I.

109

00:21:58.110 --> 00:22:01.950

John Haverlack: Think our gut feeling is it's about 12 to 24 hours.

110

00:22:02.040 --> 00:22:06.570

John Haverlack: That the metric data that I started to analyze says one to.

111

00:22:07.740 --> 00:22:12.480

John Haverlack: kind of block in that however that's ashore was around 10 hours, according to the same data.

112

00:22:12.900 --> 00:22:29.880

John Haverlack: So I I need to go back and do further analysis on this I haven't really this was just a first pass assessment of it so there's there's a lot of stuff missing in here this only takes into account this data set your also only take some account files that were successfully transferred.

113

00:22:31.440 --> 00:22:45.270

John Haverlack: And so we were moving from short to ship about a gig gig one to two gigabytes a day, we had a MAC so as I mentioned, and that's about 250 files, is what it came out to be so quick summary.

114

00:22:46.320 --> 00:22:49.500

John Haverlack: The pros about \$20 per gigabyte so.

115

00:22:50.550 --> 00:23:01.020

John Haverlack: Relatively cost effective compared to other things global coverage about 100 hundred plus megabits per second call it 12 hour latency 24 hour latency.

116

00:23:02.160 --> 00:23:10.770

John Haverlack: And you can move large payloads single cons are it's a single directory structure single sync direction so it's not bi directional sinking.

117

00:23:12.120 --> 00:23:19.860

John Haverlack: Integration automation is challenging and user access is also something we had to incorporate integrate ourselves.

118

00:23:21.570 --> 00:23:30.870

John Haverlack: And our antenna lease was about 20 K for the antenna that we least that will also cover by Nathan, some some of the issues we ran into where latency is high.

119

00:23:31.740 --> 00:23:43.770

John Haverlack: For near real time data, so if you need something within hours it's that's one of the problems we ran into at least data we weren't able to get it fast enough so for our use case it was challenged performance is variable.

120

00:23:45.180 --> 00:23:58.530

John Haverlack: vessel tracking was initially problematic because we had to know where the ship was going to be within 100 miles to predict it but, as was mentioned as Nathan mentioned, we kind of work that issue out and it got automated and that got a lot more stable over time.

121

00:24:00.180 --> 00:24:06.600

John Haverlack: And so that just the overall, general visibility and status they're working on the dashboard and they have new features to working to add to that.

122

00:24:06.960 --> 00:24:16.590

John Haverlack: But we need more visibility, because everybody wants to know okay what's what's pending, it would be great if there was a way to prioritize data to say Okay, I want to move this one to the front of the queue and moved it for.

123

00:24:18.060 --> 00:24:19.470

John Haverlack: potential use cases I see.

124

00:24:20.910 --> 00:24:31.170

John Haverlack: Continuous data sinking sure moving data in remote locations sinking it updates to ships that that can move the payload, but we still have another.

125

00:24:31.920 --> 00:24:40.410

John Haverlack: Part of that problem to solve moving videos and other large files back and forth for outreach and such things so i'll stop there, and that is.

126

00:24:41.970 --> 00:24:44.550

John Haverlack: Questions if we got any we got about 10 seconds.

127

00:24:46.470 --> 00:25:00.240

Brandi Murphy: yeah i'm curious, so this is a future with this would be something that's alongside existing network infrastructure for real time connectivity and so that's an additional antenna.

128

00:25:00.510 --> 00:25:01.800

Brandi Murphy: right that we're talking about.

129

00:25:01.860 --> 00:25:12.630

John Haverlack: Get can or can't be so you can let as Nathan mentioned and Nathan jump in if you want, you can leverage existing antennas if they support Leo tracking.

130

00:25:13.380 --> 00:25:29.340

John Haverlack: And so you can do that, in our case, one of the things that could complicate that as we lease our antennas now from mar link so more link would have to agree to let us use them for another service so that could be a problem we'll work that out yet.

131

00:25:30.450 --> 00:25:38.880

John Haverlack: But so if you have antennas that you can use, you can do that that's fine otherwise in our case, we didn't want to mess with that we were just getting stuff set up we didn't want to.

132

00:25:39.360 --> 00:25:40.680

John Haverlack: Have a conflict so we put.

133

00:25:41.190 --> 00:25:49.770

John Haverlack: A separate antenna on and because we only have one antenna in the front of the ship, one of the reasons, one of the things that could impact our ability and our latency to get things.

134

00:25:49.980 --> 00:25:56.160

John Haverlack: will be matched block because depending on where the ships oriented that antenna might not be able to see the satellite pass for that particular pass.

135

00:25:56.730 --> 00:25:57.030

Right.



136

00:25:58.560 --> 00:26:01.440

Brandi Murphy: Interesting any other questions.

137

00:26:05.850 --> 00:26:08.010

Sarah Kaye: Any plans for our US ground station.

138

00:26:10.140 --> 00:26:11.430

Nathan - Kepler: So at this stage.

139

00:26:11.880 --> 00:26:23.430

Nathan - Kepler: we're putting our ground stations as far north as far south as we can, because that's what gives us the most beloved visibility to the satellites in terms of the most frequent passes.

140

00:26:24.120 --> 00:26:30.630

Nathan - Kepler: But certainly if there's some other you know strategic need it's very easy for us to spin up another ground station.

141

00:26:31.440 --> 00:26:37.650

Nathan - Kepler: The one other thing that they'll throw quickly, as you know, many of the items that john helped us discover over the course of this beta.

142

00:26:38.010 --> 00:26:43.740

Nathan - Kepler: Like the support for more complex directory structure user account profiles and those types of things.

143

00:26:44.040 --> 00:26:55.680

Nathan - Kepler: Those are all on the roadmap at kepler and so again, you know, thank you to john and the team on board the Security Act for a lot this beta testing, a lot of the Info that we can feedback we got is going directly into the roadmap.

144

00:26:56.220 --> 00:27:06.060

Nathan - Kepler: So hopefully build the next time we do something like this there'll be new suggestions in terms of improvement and we'll cross have crossed the number of those items off the list.

145

00:27:07.620 --> 00:27:21.150

John Haverlack: I might just add, so the \$20 per gigabyte is the production rate, this was a beta test, so we didn't get charged any data fees, so all the data we moved in cost us, the only costs, we can close the antenna lease.

146

00:27:22.650 --> 00:27:24.870

Brandi Murphy: How much data, did you move, you have an idea.

147

00:27:26.070 --> 00:27:31.620

John Haverlack: I think we said it was around 100 and some gigabytes let me pull that slide back up.

148

00:27:33.240 --> 00:27:33.360

To.

149

00:27:34.950 --> 00:27:36.960

John Haverlack: Around 105 gigabytes over 70 days.

150

00:27:41.850 --> 00:27:47.520

Sarah Kaye: And I saw the US, South pole station go by, are you currently supporting South pole.

151

00:27:49.680 --> 00:27:53.820

Nathan - Kepler: So at this stage we don't have an active engagement with us ap.

152

00:27:56.400 --> 00:28:04.680

Nathan - Kepler: But we are in discussions with a number of academic and scientific and government groups around the world, so hopefully you'll see some some different folks on there in the future.

153

00:28:06.180 --> 00:28:09.180

Sarah Kaye: yeah yeah no see a New Zealand ground station there.

154

00:28:14.100 --> 00:28:24.390

John Haverlack: yeah for me I don't I don't think we maxed out our data capacity so one thing we didn't figure out was how much data can we move per day, which we move this is just what we did.

155

00:28:27.810 --> 00:28:34.260

Brandi Murphy: Well, I appreciate it that was very interesting and if folks have further questions we have the.

156

00:28:35.280 --> 00:28:47.220

Brandi Murphy: satcom Community topic and I encourage you, as more questions if you have them, but other than that it looks like our Chair has managed to return Lee.

157

00:28:47.730 --> 00:28:55.170

Lee Ellett: yep after restart zoom was not cooperating so sorry for the for the shuffle but i'm sharing screen now and we'll get.

158

00:28:56.850 --> 00:28:57.300

Lee Ellett: going.

159

00:29:08.490 --> 00:29:09.450

Here we go.

160

00:29:12.060 --> 00:29:13.830

Lee Ellett: So yeah i'm going to go through this.

161

00:29:13.860 --> 00:29:25.110

Lee Ellett: relatively quickly, so we have plenty of time for Ryan Kaiser who's next there we go, so this update on the cyber infrastructure working group so um.

162

00:29:25.620 --> 00:29:33.690

Lee Ellett: here's our regular participants for most of this past year i've got highlighted there Ken Pam and Scott.

163

00:29:34.440 --> 00:29:55.260

Lee Ellett: They ran the pilot program which the contractor was ended up being Karen who many in the fleet have engaged with for your your cyber security plans about value mo compliance i'm so really big thanks to them for taking this on and getting this getting this pilot Program.

164

00:29:56.340 --> 00:30:06.330

Lee Ellett: started making it successful could not have done it without their support and ever and I very much appreciate everyone who's contributed to this this working group.

165

00:30:08.370 --> 00:30:13.800

Lee Ellett: A little bit about agencies and frameworks that we're dealing with here, so if the IMO for the inspected.

166

00:30:14.910 --> 00:30:27.120

Lee Ellett: vessels which is documenting your cyber risk management plan in the SMS do D there's a lot of as i'll talk about there was a lot of discussions with.

167

00:30:27.930 --> 00:30:36.780

Lee Ellett: navy about what applies what doesn't what's what's going forward what's going things are going to look like and that's a diff ours it's a contracting.

168

00:30:37.320 --> 00:30:55.890

Lee Ellett: term that's in the the charters for the ships for the navy vessels and in cmc the cybersecurity maturity model certification that's coming soon to most universities as as part of the deal as God adopts that universities are following suit for the contracts and Greens.

169

00:30:57.240 --> 00:31:07.680

Lee Ellett: US coast guard is agrees with IMO but they're not there's not any new prescriptive coast guard regulation but we're monitoring those published cyber threats, the.

170

00:31:08.220 --> 00:31:18.570

Lee Ellett: Strategic cyber outlook and the National Science Foundation has several security requirements in a major facilities guide and the end of requirement for a cyber infrastructure plan.

171

00:31:19.140 --> 00:31:26.370

Lee Ellett: So these are all things we've been working on these are things, these are these are things have been invited that have been feeding into what we do.

172

00:31:28.560 --> 00:31:45.960

Lee Ellett: The program nsf supported the pilot program for getting the vessels to pass their first inspections, where the car car MP was necessary, these are require continual improvement, I have a slide about what came through this morning from from paragraph.

173

00:31:49.080 --> 00:31:51.390

Lee Ellett: Through this program the.

174

00:31:53.070 --> 00:31:55.470

Lee Ellett: Members of the CW G, we met with.

175

00:31:57.210 --> 00:32:09.420

Lee Ellett: navy with rob spiric we individually, we engage with our contracts and grants office and trying to get idea as rob said at the beginning of our V tech.

176

00:32:10.110 --> 00:32:22.020

Lee Ellett: he's not a contracting officer, so you can only advise us on one to certain you know, to a certain extent, so what we came to the closure there's there's not widespread see why at this time.

177

00:32:22.830 --> 00:32:35.010

Lee Ellett: There is there, there are there is some that it's not widespread so right now that everyone's in agreement that cmc Level one is the best baseline but that's going to continue to evolve and change it's just that's where we're at right now.

178

00:32:35.670 --> 00:32:48.000

Lee Ellett: And nsf supports the continued need for cybersecurity program to address the needs of the ship so that support has been been been great for to make this possible.

179

00:32:50.760 --> 00:32:58.320

Lee Ellett: The scope of work was for the vendor to at each operator so it's the upper this one well this was one concern from.

180

00:32:59.310 --> 00:33:10.230

Lee Ellett: Some stakeholders, which is the the universities that accept the terms of the kind of what are your contracts and your grants are ultimately responsible for cyber security compliance but.

181

00:33:10.560 --> 00:33:30.240

Lee Ellett: The there were you know where these boundaries live with ships is variable so eating operators to get to this to see him CRM P in their SMS was key, and this is not just to address the it on the ship but operational technology that is expanding on vessels.

182

00:33:31.800 --> 00:33:32.250

Lee Ellett: and

183

00:33:33.540 --> 00:33:34.140

Lee Ellett: The.

184

00:33:35.220 --> 00:33:50.190

Lee Ellett: program was able to get the contractor was able to work with each operator for specific needs to him, and that they were they were flexible to meet with ships to be on site to help with inventories and things like that so adaptability was important.

185

00:33:51.570 --> 00:34:07.860

Lee Ellett: i'm a little bit about cmc Level one it's the base level of cmc it's 17 practices it's to focus focused on safeguarding the federal contract information rob referred to this, and his his slides that yesterday to architect.

186

00:34:09.540 --> 00:34:09.990

Lee Ellett: and

187

00:34:11.910 --> 00:34:29.520

Lee Ellett: Many requires organization for the specified practices, so this is there's a more on cmc there's some registration things that the university should be doing at some point at various points along the way, so more to come on that it's it's in the early days of rolling out.

188

00:34:32.160 --> 00:34:41.850

Lee Ellett: Open on timeline so November of last year, the peregrine contract began, and we started doing this vendor presentations in February, about what what's next.

189

00:34:42.270 --> 00:34:50.250

Lee Ellett: How do we, you know, have, what do we do if this is the peregrine was a one year one year contract for this pilot program to get a baseline of where the ships or.

190

00:34:51.240 --> 00:35:04.830

Lee Ellett: Then we start working with an owner and stakeholders with defar 7012 ci how widespread is our ci what do we need to worry about and cmc How should we incorporate that, since we know it's coming, then we convert the.

191

00:35:07.230 --> 00:35:24.810

Lee Ellett: campaign and Scott converted the peregrine contract to cmc level ones, instead of this de forest just based on those discussions and then in November, the parent contract or in and what was what came out of all this is we're going to be, you have a contract that.

192

00:35:26.010 --> 00:35:29.520

Lee Ellett: Scott is working on for research sock and to begin in January.

193

00:35:31.290 --> 00:35:42.690

Lee Ellett: um what I want to talk about with some of these policy documents So these are the policy documents that paragon recently sent these are IMO required policies and then they send along another 37 optional policies.

194

00:35:43.800 --> 00:35:56.280

Lee Ellett: me and first glance, is how to manage all this, then we will we will get there, but it's a little daunting with the resources we have, but I just want to throw that up there, so that we can we will get there.

195

00:35:58.170 --> 00:36:10.980

Lee Ellett: And next a brief i'm Brian will talk more about this, but research sock is we're looking forward to that that that were coming on in January i'll let Ryan talk more about that.

196

00:36:11.700 --> 00:36:24.120

Lee Ellett: think that maybe Oh, and this is going to look a little bit a little bit of the statement of work highlights So these are the key areas i'm not going to go long on this because Ryan will.

197

00:36:25.830 --> 00:36:28.920

Lee Ellett: be talking more about that um.

198

00:36:31.890 --> 00:36:36.150

Lee Ellett: Any I think that's it for me any questions.

199

00:36:38.820 --> 00:36:42.960

Brandi Murphy: yeah I have only um we have Ryan coming up to introduce research off, but.

200

00:36:43.530 --> 00:36:45.090

Brandi Murphy: Did you touch it all on.

201

00:36:46.170 --> 00:36:52.290

Brandi Murphy: The choice that we made for reason or sock and why we determined that was the choice to move forward with.

202

00:36:52.740 --> 00:36:55.080

Brandi Murphy: You I can touch on it so um.

203

00:36:55.500 --> 00:37:03.780

Lee Ellett: One positive thing about this is that it's been something Jim may be able to chime in more, and this is being it's being subsidized by.

204

00:37:05.850 --> 00:37:24.090

Lee Ellett: Another director of nsf so it's so research sock was created for the was a proposed program for other large facilities to meet the unique needs of research large large facility cybersecurity and so it's.

205

00:37:25.560 --> 00:37:33.510

Lee Ellett: One of the last one is if large facilities was first customer research sock, and this is being subsidized by.



206

00:37:33.990 --> 00:37:39.600

Lee Ellett: nsf in year one that may not continue that's that's not that's not the way it's it's not going to continue that way.

207

00:37:40.440 --> 00:37:48.540

Lee Ellett: Research shock is going to stand on its own, with customers, instead of being a wholly funded nsf program with various facilities.

208

00:37:49.170 --> 00:38:02.460

Lee Ellett: But it's that that, but we also that means it's the unique needs of research is what is where you know where where we landed after working looking at various vendors and what they could provide what was commercially available.

209

00:38:03.750 --> 00:38:16.650

James Holik: yeah i'll just i'll just verify just second what Lisa is that be right, we looked at a lot of people research stock was a consensus choice was pretty easy choice, and it was.

210

00:38:18.000 --> 00:38:31.320

James Holik: helped out by the fact that another director in SF these the Center for my hand can never remember exactly the Center for excellence cyberinfrastructure or something like that.

211

00:38:32.910 --> 00:38:38.400

James Holik: i'm sorry I i'm bad at these things but it's another huge record and nsf.

212

00:38:40.380 --> 00:38:50.280

James Holik: contributed and substantially to the first year, with the hope that research sock will make it on their own, and they will appear good, because what continue to work with them.

213

00:38:51.060 --> 00:39:02.760

Lee Ellett: And I will say that we spoke with some with some folks at ucsd john Meyer and Kevin Washington alluded, we spoke with several program managers at nsf and sys and some of it.

214

00:39:04.650 --> 00:39:18.720

Lee Ellett: And they're responding and their response was that the academic research fleet needed to articulate what their needs, were in order to get you know more support from other areas of nsf outside of.

215

00:39:20.340 --> 00:39:34.800

Lee Ellett: It we see ips and so that's what we've been doing that's what the trusted ci report was about that's what the cyber infrastructure working, we need to as a community say what we need in order to articulate well, what we need in order to get support.

216

00:39:35.940 --> 00:39:39.330

James Holik: office of advanced cyber infrastructure that was it.

217

00:39:45.600 --> 00:39:46.200

Toby Martin: So.

218

00:39:47.730 --> 00:39:50.310

Toby Martin: The in the vein of.

219

00:39:50.430 --> 00:39:59.010

Toby Martin: getting everyone on the same page and, in this instance i'm meaning large governmental organizations like the nsf and Noah.

220

00:40:01.020 --> 00:40:04.170

Toby Martin: Noah has been doing a bunch of.

221

00:40:05.850 --> 00:40:17.670

Toby Martin: orienting a bunch of their stuff toward the Defense information systems agency, the Di essays stick Stig security technical in implementation guide.

222

00:40:19.980 --> 00:40:30.240

Toby Martin: And we've been looking at that for a while now, but no, it is pushing for us to become staying compliant.

223

00:40:36.510 --> 00:40:37.200

Lee Ellett: interesting.

224

00:40:39.210 --> 00:40:45.840

Lee Ellett: yeah there's a lot of there's a lot of change in this area, right now, whether any in the chat chat time.

225

00:40:48.090 --> 00:41:02.280

Lee Ellett: Okay, so i'd like to introduce Ryan Kaiser he is going to present half and half of research talk he's going to be our PRC is the for the virtual Cecil service so i'll let him take it away here.

226

00:41:03.870 --> 00:41:08.940

Ryan Kiser: For just a second to start by meditation here and share.

227

00:41:22.530 --> 00:41:23.970

Ryan Kiser: All right, everybody see the slide.

228

00:41:25.380 --> 00:41:26.310

Lee Ellett: yep looks it.

229

00:41:27.720 --> 00:41:29.820

Ryan Kiser: right but we'll see a little bit of the.

230

00:41:30.060 --> 00:41:31.980

Ryan Kiser: browser tab but that's just fine.

231

00:41:34.080 --> 00:41:42.990

Ryan Kiser: So, my name is Ryan Kaiser like we said I don't have a ton of slides i'm going to try to get through them pretty quickly so that you will have a chance to ask me the questions.

232

00:41:43.590 --> 00:41:47.430

Ryan Kiser: i'm a senior analyst at the indiana university Center for applied cyber security research.

233

00:41:48.300 --> 00:42:00.690

Ryan Kiser: Most of my time is split between to nsf funded efforts to secure research, the first of these is trusted ci through which some of you actually in the audience have already met me before.

234

00:42:01.410 --> 00:42:08.310

Ryan Kiser: And I first got the chance to attend rb tech, I think it was in 2019 during a trust in ci engagement with the fleet.

235

00:42:10.020 --> 00:42:14.490

Ryan Kiser: The second of these is what i'm going to be talking with you all about today, though it's research.

236

00:42:16.410 --> 00:42:23.070

Ryan Kiser: So research sock is a security operations Center is made up of programs and services at four different higher ED institutions.

237

00:42:23.640 --> 00:42:34.530

Ryan Kiser: And indiana university provides project leadership project liaisons who are the people who are working directly with each of our clients to make sure that they're getting the most out of the services that we provide.

238

00:42:35.250 --> 00:42:40.290

Ryan Kiser: run I sack for threat intelligence omni socks 24 by seven security monitoring.

239

00:42:41.010 --> 00:42:48.840

Ryan Kiser: And we also provide what i'm just going to jump into a category of professional cybersecurity staffing services, and these will scale all the way from.

240

00:42:49.380 --> 00:42:59.460

Ryan Kiser: advisory roles, all the way up to full virtual security teams and sometimes temporary emergency staffing in case there aren't enough personality able to respond to something like a major security incident.

241

00:43:01.380 --> 00:43:16.590

Ryan Kiser: And uc San Diego provides training for higher ED information security to help you understand both how security effects research and also how the research mission itself influences cyber security practice at research institutions.

242

00:43:18.030 --> 00:43:27.360

Ryan Kiser: And the Pittsburgh supercomputing Center provides the through the three rivers optical exchange provides the vulnerability identification service, which we call this.

243

00:43:28.560 --> 00:43:35.490

Ryan Kiser: to identify vulnerabilities in research and infrastructure, such as the vulnerability scanning service that we integrated into our operations.

244

00:43:36.270 --> 00:43:44.250

Ryan Kiser: And Duke university provides stinger, which is a service to deploy and manage honey pots to collect information about.

245

00:43:44.610 --> 00:43:55.530

Ryan Kiser: Things that attackers are actually doing and to provide that information in a way that's practical to us and then operational security so, for example, by making signatures good blocking and alerting.

246

00:43:57.390 --> 00:44:00.720

Ryan Kiser: All of this feedback into our monitoring service as well.

247

00:44:02.040 --> 00:44:18.930

Ryan Kiser: And, as I alluded to, before we have a strong partnership with trusted CA is the nsf cyber security Center of excellence and that close relationship allow us for deliberate sharing of best practices and lessons learned from supporting the research community as well as staff expertise.

248

00:44:20.010 --> 00:44:26.760

Ryan Kiser: justin ci focuses on cybersecurity programs, the Community and building up cyber security culture throughout the science community.

249

00:44:28.290 --> 00:44:40.800

Ryan Kiser: and research shock is tightly focused on operational services and cyber security operations, so that we can be their day to day to help build up the capabilities of our clients cyber security programs.

250

00:44:41.400 --> 00:44:48.780

Ryan Kiser: And to provide needed resources so that research infrastructure operations, like the fleet can focus on research, rather than on security.

251

00:44:50.970 --> 00:44:59.700

Ryan Kiser: The strategy is pretty simple we take all the services that I mentioned before, on the socks 24 seven monitoring the vulnerability identification service.

252

00:45:00.600 --> 00:45:10.350

Ryan Kiser: The honeypot service and the security staffing services and we bundle them up together in a way that's constantly being updated and tailored to the realities of the research world.

253

00:45:12.660 --> 00:45:22.320

Ryan Kiser: And i'd like to take some time to talk a little bit about omni sock to omni sock is a shared cyber security operations Center for education and research.

254

00:45:22.770 --> 00:45:33.870

Ryan Kiser: Networks pioneered by five members of the big 10 academic alliance and our platform engineering team managers and supports our security analytics.

255

00:45:34.260 --> 00:45:45.870

Ryan Kiser: So they're working or day in, day out, make solutions that will help our analysts and engineers to make sense of all the security data that's coming in from all the different sources that the Member institutions and our clients are actually providing.

256

00:45:47.220 --> 00:45:55.680

Ryan Kiser: And our security engineering team monitors and analyzes our Member institutions networks and endpoint activity for anomalies threats, using all of that data.

257

00:45:56.190 --> 00:46:03.420

Ryan Kiser: So, because all this data is provided to them across all these Member institutions get an alert shows up for one Member institution.

258

00:46:03.780 --> 00:46:14.310

Ryan Kiser: They can take that data and then start to look for those patterns, to find threats at other institutions as well, so it's allowing you to search for threats across all of the numbers.

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00:46:16.770 --> 00:46:22.470

Ryan Kiser: i'm looking at this now, and the slide is a little bit old so those numbers might actually be higher now.

260

00:46:24.360 --> 00:46:32.190

Ryan Kiser: we're relying pretty heavily on the Open Source tools that make up the elastic stack and elastic is a key technology partner for us.

261

00:46:35.520 --> 00:46:43.800

Ryan Kiser: And we've earned herself some super lives as well, I can brag about a few of these so like the last one, this is an old slide.

262

00:46:44.430 --> 00:46:52.530

Ryan Kiser: But to my knowledge, these statements are also true, we are the only collaborative multi state sock operated for and by academic institutions.

263

00:46:53.160 --> 00:47:06.600

Ryan Kiser: Whether you only collaborative sock serving nsf research facilities and we're the only sock with a multi state institutional data sharing agreement for researchers and i'm still confident that we have the top higher end founding team in the country.

264

00:47:09.570 --> 00:47:16.470

Ryan Kiser: So, from the beginning, we intended to provide our core services that I talked about already and I think these are even more capable today so.

265

00:47:17.010 --> 00:47:20.370

Ryan Kiser: security operations Center services to nsf major facilities.

266

00:47:21.330 --> 00:47:33.900

Ryan Kiser: Providing honey pots of vulnerability scanning and providing poor personalized support to each facility to close the integrate with our operations, so that our services are as directly applicable to the operation as they can be.

267

00:47:36.210 --> 00:47:42.930

Ryan Kiser: And also, since we started we've been improving our services and extending what we can do, and we intend to continue to do so, so that might be by.

268

00:47:43.410 --> 00:47:51.630

Ryan Kiser: Adding new services or working with researchers to analyze our data to generate some practical improvements for us and for our clients we're always looking for ways to get better.

269

00:47:54.060 --> 00:48:01.860

Ryan Kiser: So the overview out of the way and with the caveat that this is still in contracting and this technically still subject to change.

270

00:48:03.030 --> 00:48:09.240

Ryan Kiser: These are what we're looking to provide for the fleet so we've got staff services and some security infrastructure as well.

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00:48:12.750 --> 00:48:20.970

Ryan Kiser: In year one we're going to be working to get the basics in place and take on activities that helps to understand how to best serve that leads, that means.

272

00:48:21.540 --> 00:48:31.350

Ryan Kiser: Basic monitoring and security services, as long as tailoring programmatic fundamentals to meet the needs of the fleet and building on the work done during the pilot project that we discussed.

273

00:48:32.490 --> 00:48:38.940

Ryan Kiser: It also means experimenting with some security architecture, by doing things like testing different locations for security monitoring appliances.

274

00:48:40.500 --> 00:48:51.360



Ryan Kiser: And, in turn, in year two we intend to build on what we learned in year one in order to do both improve the support for ship operations and to build up this purity of the ship networks themselves if we can.

275

00:48:54.720 --> 00:48:58.380

Ryan Kiser: And so that was me very quickly running through the slides.

276

00:48:59.700 --> 00:49:01.050

Ryan Kiser: Thank you for taking the time to listen to me.

277

00:49:02.130 --> 00:49:02.760

Ryan Kiser: You can.

278

00:49:03.090 --> 00:49:07.470

Ryan Kiser: Our website is up there, you can contact us at research or socket I you that you can do.

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00:49:08.520 --> 00:49:14.790

Ryan Kiser: And that's all I have for the basic overview I know it's really brief, but I want to stop here and leave as much room for questions as possible.

280

00:49:15.990 --> 00:49:24.210

Ryan Kiser: And in advance, I want to apologize, this is the case, but if we can't get to something in time can always reach out to me directly, using the email address that is on screen right now.

281

00:49:26.040 --> 00:49:27.870

Ryan Kiser: So I'll stop here for questions.

282

00:49:29.880 --> 00:49:39.900

Lee Ellett: Thank you very much, Brian for taking the time to present today, and I know the contract is still going forward but we're yeah we're we're looking forward to.

283

00:49:42.360 --> 00:49:50.730

Lee Ellett: Going are there questions we have questions for Ryan or button or in general questions about research suck.

284

00:49:54.810 --> 00:49:55.590

Lee Ellett: A good Kenny.

285

00:49:56.940 --> 00:50:00.390

Kenneth Olsen: yeah so you're collecting all this data on on the threat actors.

286

00:50:01.920 --> 00:50:09.930

Kenneth Olsen: are being presented to academia, how much is that, like cyber criminals versus State Actors versus just kind of you know script kiddie type stuff.

287

00:50:13.080 --> 00:50:15.960

Ryan Kiser: i'd say it probably depends most than what you have.

288

00:50:18.000 --> 00:50:33.390

Ryan Kiser: It vague generalities, most of it is just going to be automated scanning and script kiddies because those are the the most common tender attacker because they require the least amount of expertise and they tend to be pretty indiscriminate.

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00:50:35.490 --> 00:50:50.460

Ryan Kiser: That said, there have been instances that I know of of people targeting research infrastructure oceanographic research infrastructure as well that are from nation state actors.

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00:50:51.660 --> 00:50:52.080

Ryan Kiser: So.

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00:50:53.250 --> 00:50:54.960

Ryan Kiser: you'll get a bit a bit of everything.

292

00:50:59.340 --> 00:50:59.670

Kenneth Olsen: Thank you.

293

00:51:04.800 --> 00:51:09.690

Ryan Kiser: And the current topic on everyone's mind is obviously ransomware.

294

00:51:11.490 --> 00:51:12.720

Ryan Kiser: that's been around for.

295

00:51:13.740 --> 00:51:20.670

Ryan Kiser: Almost as long as i've been on the earth, but it's now really, really prevalent and that's mostly criminal gangs.

296

00:51:24.060 --> 00:51:29.010

Kenneth Olsen: Has there been an increase in sophistication of that type of stuff or just more of it out there.

297

00:51:30.180 --> 00:51:38.340

Ryan Kiser: Both it's much more much more sophisticated and it will continue to get more sophisticated just because the problem is there.

298

00:51:39.420 --> 00:51:39.780

Is.

299

00:51:40.860 --> 00:51:45.480

Lee Ellett: Okay, let john john go ahead and go first and then I had something.

300

00:51:45.660 --> 00:51:48.510

John Haverlack: yeah Ryan, can you just maybe touch bases on.

301

00:51:50.130 --> 00:52:00.330

John Haverlack: The program that we're looking to develop for the fleet, how it may or may not be compatible with university efforts or other external compliance efforts that we have.

302

00:52:02.820 --> 00:52:07.770

Ryan Kiser: my desk for a little bit more clarification, the question, but I can speak generally but I might not answer.

303

00:52:08.010 --> 00:52:10.890

John Haverlack: What so the thing one of the things would be like.

304

00:52:11.130 --> 00:52:22.860

John Haverlack: What efforts we do with research sock how did those align with cmc for university for institutions and or like the question that toby just asked about I think Noah has a compliance.

305

00:52:23.970 --> 00:52:31.260

John Haverlack: restriction, how does this help us does it muddy the waters, what is your perspective on that yeah.

306

00:52:31.890 --> 00:52:33.420

Ryan Kiser: So it's.

307

00:52:35.160 --> 00:52:39.120

Ryan Kiser: In my view, and I think I can speak generally about research talk.

308

00:52:40.380 --> 00:52:48.030

Ryan Kiser: We believe that the right approach to take for cyber security programs is the trusted ci framework.

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00:52:49.260 --> 00:52:51.360

Ryan Kiser: For for research Center infrastructure.

310

00:52:53.040 --> 00:52:57.600

Ryan Kiser: And within the framework you'll find.

311

00:52:59.130 --> 00:53:07.470

Ryan Kiser: plenty of room to address regulatory requirements like that for cmc in very different ways and it's primarily because there's such a.

312

00:53:08.610 --> 00:53:19.770

Ryan Kiser: variety of different requirements, and I think the academic research fleet might be an example of one that has a particularly wide range of requirements, compared to other.

313

00:53:21.000 --> 00:53:23.160

Ryan Kiser: Researchers infrastructure operations.

314

00:53:25.500 --> 00:53:33.090

Ryan Kiser: So my objective would be to get us going down that path of implementing the framework.

315

00:53:34.140 --> 00:53:37.380

Ryan Kiser: And a huge part of that is going to be the regulatory requirements.

316

00:53:43.650 --> 00:53:54.060

Lee Ellett: And i'm through some of the mailing was some on at ucsd have seen some of the research sock some of your presentation some other presentations Is there something we should consider.

317

00:53:54.840 --> 00:54:02.250

Lee Ellett: For folks that may want to opt in and learn more about some of the educate some of the initiatives that the resources that are out there.

318

00:54:03.210 --> 00:54:11.520

Ryan Kiser: yeah so we do have a webinar series is that might be what you're referring to, I can pick up right now i'm just sending the chat.

319

00:54:11.550 --> 00:54:15.210

Lee Ellett: I think that's what it was yeah I just kind of stumbled across it through some.

320

00:54:15.300 --> 00:54:21.000

Ryan Kiser: mailing list yeah you can find it on our website that's what i'm actually going to do right now.

321

00:54:25.050 --> 00:54:28.950

Ryan Kiser: Okay, so yeah we started, are you that you use slash.

322

00:54:30.120 --> 00:54:33.390

Ryan Kiser: Training, let me just drop that link directly into the zoom chat.

323

00:54:37.320 --> 00:54:40.950

Lee Ellett: settings those had some good topics for folks that may not be directly.

324

00:54:42.330 --> 00:54:48.090

Lee Ellett: For your activities and see right now, but the I mean, these are the thing, and I think, but some of them were relevant to.

325

00:54:50.670 --> 00:54:50.940

Ryan Kiser: them.

326

00:54:51.210 --> 00:54:55.740

Ryan Kiser: And there's also all of the like trusted cios webinars as well.

327

00:54:56.850 --> 00:55:04.320

Ryan Kiser: and trusted say also offers trainings On top of that, so so both of us often end up collaborating on a lot of these things.

328

00:55:05.370 --> 00:55:06.390

Lee Ellett: yeah yeah.

329

00:55:07.890 --> 00:55:13.020

James Holik: So for Victor medians would you rather go by Ryan or Cecil.

330

00:55:17.010 --> 00:55:18.120

Ryan Kiser: Definitely Ryan.

331

00:55:26.730 --> 00:55:28.320

Brandi Murphy: um you know, one of the things that.

332

00:55:29.850 --> 00:55:31.830

Brandi Murphy: I hear sometimes is.

333

00:55:33.240 --> 00:55:44.550

Brandi Murphy: Why is cyber security, important to that the research fleet, because the data is all public and we're not trying to keep the data under lock and key so what's the risk.

334

00:55:46.080 --> 00:55:49.950

Brandi Murphy: Would you mind touching on that a little bit and and.

335

00:55:51.000 --> 00:55:54.030

Brandi Murphy: Not into the details, clearly, but you know broadly.

336

00:55:55.080 --> 00:55:59.670

Brandi Murphy: Why it's not just about our public we funded data.

337

00:56:00.720 --> 00:56:02.370

Ryan Kiser: Right yeah so.

338

00:56:02.430 --> 00:56:03.780

Ryan Kiser: This is actually a.

339

00:56:04.800 --> 00:56:19.470

Ryan Kiser: Something that's different about research infrastructure just broadly and trusted ci has been kind of wrestling with this question for a long, long time and actually has very good answers for it so i'll defer to that answer, which is that.

340

00:56:21.390 --> 00:56:31.200

Ryan Kiser: In the research world we tend to focus not on confidentiality, which is what we're used to in cyber security practice and every other domain, the unfamiliar with.

341

00:56:32.370 --> 00:56:42.300

Ryan Kiser: But rather than confidentiality we're focused on integrity we're focused on things like do we trust the results that we're getting from our scientific instruments.

342

00:56:43.140 --> 00:56:56.850

Ryan Kiser: Do we trust the integrity of the data that we collected before are we able to go back and reproduce our results from before and if somebody can tamper with those in ways that are hard to notice or hard to.

343

00:56:58.830 --> 00:57:00.450

Ryan Kiser: or hard for us to realize.

344

00:57:02.070 --> 00:57:12.960

Ryan Kiser: They can change our perceptions of the world in unsettling ways so and they can also reduce the trust in the research that we are doing ourselves and our own.

345

00:57:14.130 --> 00:57:16.020

Ryan Kiser: Research Infrastructure operations to.

346

00:57:18.270 --> 00:57:19.470

Ryan Kiser: Does that answer the question.

347

00:57:21.840 --> 00:57:23.040

Brandi Murphy: yeah that's an excellent answer.

348

00:57:26.460 --> 00:57:27.030

Brandi Murphy: anybody else.

349

00:57:27.720 --> 00:57:27.990

That.

350

00:57:34.650 --> 00:57:37.230

Lee Ellett: I had one more comment um I mean we.

351

00:57:38.490 --> 00:57:53.100

Lee Ellett: We presented to there's the presentation about expanding bandwidth I mean one thing we've been concerned about here is, as we expand bandwidth on the ships that makes us a bigger target before the link was too slow and, but if we if we have more.



352

00:57:53.100 --> 00:57:54.090

Ryan Kiser: bandwidth it.

353

00:57:54.150 --> 00:57:56.550

Lee Ellett: can have more issues yeah.

354

00:57:57.360 --> 00:58:00.270

Ryan Kiser: And if so, the thing that people have often heard was the.

355

00:58:00.300 --> 00:58:01.170

Lee Ellett: CIA triad.

356

00:58:01.200 --> 00:58:09.360

Ryan Kiser: The confidentiality integrity and availability and that you're trying to balance between those those three characteristics, personally I think they're more.

357

00:58:09.870 --> 00:58:18.540

Ryan Kiser: than just those three, but I think that that idea that you're always balancing your efforts between some limited set of characteristics, is really apt.

358

00:58:19.080 --> 00:58:25.560

Ryan Kiser: And I just think that in in most other places, say in finance for example you're highly concerned about the confidentiality.

359

00:58:26.370 --> 00:58:37.530

Ryan Kiser: But sure and you're probably pretty concerned about say integrity as well, and for some systems, you might not care as much about availability, so you just prioritize those two or you prioritize confidentiality.

360

00:58:39.150 --> 00:58:46.620

Ryan Kiser: But it's a little uncommon outside of the research world to have your primary focus not be a competition.

361

00:58:56.940 --> 00:59:02.910

Lee Ellett: Great Thank you very much for all the for the answers and for presenting.

362

00:59:03.930 --> 00:59:13.620

Lee Ellett: We can continue questions in the Community tab there any discussions, they wouldn't comes up with through the remaining course of the meeting.

363

00:59:16.020 --> 00:59:24.330

Lee Ellett: I think we'll be wrapping up this session now and next we have the poster session is the live poster session that's it one.

364

00:59:24.360 --> 00:59:32.190

Brandi Murphy: yeah so i'm Finn more McGregor is doing a live presentation for mcgregor's poster this afternoon.

365

00:59:33.000 --> 00:59:44.100

Brandi Murphy: Tomorrow afternoon Rebecca who Doc hope, I said that right i'm will be presenting on transmits on what are best practices, there might be another one that pops up so.

366

00:59:44.550 --> 00:59:55.050

Brandi Murphy: It would be a good idea to go and browse the poster sessions today, and we have a lot of MacGyver entries now so take a look at those and we'll get a survey put together for that.

367

00:59:56.550 --> 01:00:06.810

Brandi Murphy: Otherwise i'm will see the rest of you tomorrow morning, and we look forward to seeing more of Ryan, and all of our future me to see so.

368

01:00:08.250 --> 01:00:09.360

Ryan Kiser: Hopefully we can be a person.

369

01:00:10.830 --> 01:00:13.950

Lee Ellett: yep yep that's what we're looking forward to as well.

370

01:00:14.250 --> 01:00:15.750

Jules Hummon: Now you have to learn everybody's name.

371

01:00:17.580 --> 01:00:18.450

Ryan Kiser: Oh, I remember you.

372

01:00:20.550 --> 01:00:22.110

James Holik: were in Alaska right right.

373

01:00:22.860 --> 01:00:23.550

Ryan Kiser: Yes, I was.

374

01:00:24.000 --> 01:00:25.050

Ryan Kiser: scared yeah.

375

01:00:25.290 --> 01:00:28.140

Ryan Kiser: yeah yeah That was a great a great time I really enjoyed it it.

376

01:00:28.140 --> 01:00:31.560

James Holik: was a great meeting that was the last one we had wasn't it.

377

01:00:32.430 --> 01:00:33.330

It was.

378

01:00:34.410 --> 01:00:35.880

Lee Ellett: yeah yeah.

379

01:00:36.930 --> 01:00:38.250

James Holik: Your store.

## 28 October 2021 - Thursday

### Introductions & Committees

00:00:39.150 --> 00:00:42.390

Brandi Murphy: I did not hear you, is it me my audio.

2

00:00:58.800 --> 00:00:59.940

Brandi Murphy: Now I hear you.

3

00:01:00.720 --> 00:01:01.020

know.

4

00:01:02.550 --> 00:01:04.800

Alice Doyle: I gotta go do something about this here once I guess.

5

00:01:07.320 --> 00:01:09.030

Alice Doyle: You don't look at yourself in the morning.

6

00:02:40.920 --> 00:02:41.550

Brandi Murphy: Make coffee.

7

00:03:10.320 --> 00:03:15.570

Brandi Murphy: Now that it's the last meeting day I was able to have breakfast.

8

00:03:17.160 --> 00:03:25.620

Brandi Murphy: I was able to contact me ahead of time and say hey, by the way, this is what the morning looks like instead of waiting for him to call me 10 minutes before we start.

9

00:03:31.710 --> 00:03:32.670

Alice Doyle: Speakers change.

10

00:03:34.500 --> 00:03:35.160

Alice Doyle: Can you hear me.

11

00:03:35.580 --> 00:03:36.120

Yes.

12

00:03:38.790 --> 00:03:39.810

Brandi Murphy: Yes.

13

00:03:40.230 --> 00:03:41.970

Alice Doyle: I can hear you okay hold on.

14

00:03:42.990 --> 00:03:44.280

Brandi Murphy: let's see well my MIC.

15

00:03:50.670 --> 00:03:52.080

Alice Doyle: yeah I heard your thing oh.

16

00:03:53.850 --> 00:03:54.450

Alice Doyle: No, no.

17

00:04:13.230 --> 00:04:15.060

Brandi Murphy: So we're going to start with you Alice.

18

00:04:17.460 --> 00:04:17.940

Alice Doyle: saw that.

19

00:04:19.170 --> 00:04:23.550

Brandi Murphy: That way, I figured you were want I wouldn't have to tell that we're out of time.

20

00:04:25.020 --> 00:04:29.610

Alice Doyle: Maybe Sometimes I get excited i'm going to set myself a timer here.

21

00:04:33.120 --> 00:04:34.440

Alice Doyle: never turn my phone on this morning.

22

00:05:13.890 --> 00:05:14.610

Alice Doyle: Sorry, where.

23

00:05:15.330 --> 00:05:16.140

Brandi Murphy: Did it stop.

24

00:05:16.950 --> 00:05:18.000

Brandi Murphy: Yes, okay.

25

00:05:18.330 --> 00:05:18.960

Alice Doyle: that's fine you.

26

00:05:20.010 --> 00:05:21.030

Alice Doyle: can be a water feature.

27

00:05:22.740 --> 00:05:26.010

Brandi Murphy: Well, I have a fish tank behind me bubbling away already.

28

00:05:27.270 --> 00:05:27.930

Alice Doyle: I don't hear that.

29

00:05:29.130 --> 00:05:29.370

Brandi Murphy: Good.

30

00:05:30.960 --> 00:05:31.800

Alice Doyle: don't use.

31

00:05:33.210 --> 00:05:34.470

Alice Doyle: salt water fresh water.

32

00:05:35.340 --> 00:05:35.940

fresh water.

33

00:05:37.800 --> 00:05:43.740

Brandi Murphy: i'm kind of just waiting for him to die at this point i've had it for a long time and i'm tired of maintaining your had it for.

34

00:05:45.510 --> 00:05:46.230

Brandi Murphy: six.

35

00:05:49.050 --> 00:05:49.620

Brandi Murphy: years.

36

00:05:50.550 --> 00:05:51.480

Alice Doyle: Six years yeah.

37

00:05:51.600 --> 00:06:00.390

Brandi Murphy: yeah i'm actually down to just like a couple of shrimp and the only reason I have those shrimp is because I accidentally bought one that was pregnant and had babies.

38

00:06:00.750 --> 00:06:01.620

Brandi Murphy: And the babies.

39

00:06:03.060 --> 00:06:05.430

Brandi Murphy: And there's this little itty bitty tiny renter him.

40

00:06:07.800 --> 00:06:15.030

Brandi Murphy: Which are cute and all and it's a plan to take so it's got Live Plants I literally don't even feed them because they eat plants, so that.

41

00:06:16.530 --> 00:06:23.790

Brandi Murphy: I never have to feed the tank I just popped off once in a while I am ready for them to disappear.

42

00:06:27.900 --> 00:06:29.460

Alice Doyle: character to your apartment.

43

00:06:30.960 --> 00:06:35.520

Brandi Murphy: yeah I mean it's kind of tucked away in a corner behind all of our desk so nobody can see it.

44

00:06:42.090 --> 00:06:45.630

Brandi Murphy: Everywhere else is carpeted don't want to put it there.

45

00:06:50.400 --> 00:07:00.870

Brandi Murphy: i'm also kind of I have an issue with clutter, and this is clutter than i'm ready to get rid of you know, when you find something you're ready to let go of when you have a clutter problem, you should let go it.

46

00:07:04.290 --> 00:07:05.700

Alice Doyle: Someone else wants to tank.

47

00:07:08.880 --> 00:07:11.880

Brandi Murphy: i've gotten rid of a lot of tank stuff on my by nothing group.

48

00:07:13.140 --> 00:07:13.560

Brandi Murphy: Already.

49

00:07:15.030 --> 00:07:17.640

Brandi Murphy: So yeah i'll be able to find somebody for it but.

50

00:07:24.870 --> 00:07:27.780

Brandi Murphy: It has occurred to me somebody may want to adopt.

51

00:07:27.780 --> 00:07:29.670

Brandi Murphy: Here, as is but yeah highly.

52

00:07:29.880 --> 00:07:31.350

Lee Ellett: Oh, I can't hear you.

53

00:07:31.590 --> 00:07:32.700

Lee Ellett: Oh, let me get.

54



00:07:35.310 --> 00:07:37.020

Lee Ellett: Let me get my audio figured out here.

55

00:07:37.260 --> 00:07:38.580

Alice Doyle: Sure here you.

56

00:07:40.050 --> 00:07:42.720

Alice Doyle: have it, you can hear us to know that we can hear you okay.

57

00:07:45.030 --> 00:07:45.870

Brandi Murphy: Nobody.

58

00:07:46.710 --> 00:07:47.250

Thanks.

59

00:07:52.410 --> 00:07:54.300

Lee Ellett: About now can I hear you.

60

00:07:54.360 --> 00:07:57.300

Brandi Murphy: I can hear you can you hear me know.

61

00:07:59.850 --> 00:08:00.660

Lee Ellett: Let me see here.

62

00:08:02.070 --> 00:08:05.520

Brandi Murphy: I am so glad that we have this attendee list.

63

00:08:07.350 --> 00:08:09.930

Brandi Murphy: Because I keep seeing names that I don't know.

64

00:08:10.230 --> 00:08:10.560

Alice Doyle: Oh.

65

00:08:10.770 --> 00:08:13.590

Brandi Murphy: You can go back and be like who the hell is that person.

66

00:08:17.580 --> 00:08:19.770

Alice Doyle: What surprised me you.

67

00:08:23.850 --> 00:08:24.960

Alice Doyle: know somebody moved on.

68

00:08:28.980 --> 00:08:29.400

Lee Ellett: here.

69

00:08:29.430 --> 00:08:31.590

Alice Doyle: I can hear no yeah.

70

00:08:32.430 --> 00:08:34.470

Lee Ellett: Too many bluetooth headsets.

71

00:08:35.430 --> 00:08:37.560

Alice Doyle: I know right which one is it connected to.

72

00:08:38.010 --> 00:08:39.660

Lee Ellett: Which is where's my phone what's.

73

00:08:44.370 --> 00:08:51.090

Alice Doyle: With me sometimes like some devices are like more powerful if you want to say that and they'll overtake it from something else but.

74

00:08:51.090 --> 00:08:52.230

Lee Ellett: Others, you have to you know.

75

00:08:52.230 --> 00:09:00.210

Alice Doyle: turn it off before you can get the other one for some reason, like i'm wearing that car my husband's phone will always win the bluetooth.

76

00:09:01.410 --> 00:09:03.540

Lee Ellett: In the priority list or wherever it is yeah.

77

00:09:04.140 --> 00:09:05.010

Alice Doyle: I don't know what it is.

78

00:09:06.780 --> 00:09:14.850

Brandi Murphy: I don't know if it's like a serial number device list or something that sorted out, but if I ever hack that I would like to be the first one on my sister's car.

79

00:09:17.250 --> 00:09:20.880

Lee Ellett: Behind it's a priority, my wife's hundreds of priority list I added my.

80

00:09:20.940 --> 00:09:26.490

Lee Ellett: own, and it was there's a you can move on honda's been other ones, good luck.

81

00:09:27.450 --> 00:09:28.800

Alice Doyle: Their branding you can find.

82

00:09:31.440 --> 00:09:34.350

Lee Ellett: These things okay yeah.

83

00:10:12.000 --> 00:10:14.640

Brandi Murphy: I learned how to pronounce maria's last name, by the way.

84

00:10:15.180 --> 00:10:15.840

Alice Doyle: yeah how was.

85

00:10:16.350 --> 00:10:17.910

Alice Doyle: That what.

86

00:10:18.510 --> 00:10:19.470

Brandi Murphy: asha dodge.

87

00:10:20.520 --> 00:10:22.920

Lee Ellett: I was listening to that when she was.

88

00:10:23.460 --> 00:10:29.280

Brandi Murphy: I asked her the other day, said, the emphasis is on the second syllable asha dodge.

89

00:10:30.810 --> 00:10:32.970

Alice Doyle: dots like do DS.

90

00:10:33.480 --> 00:10:34.770

Brandi Murphy: Know docs like.

91

00:10:35.130 --> 00:10:36.360

Brandi Murphy: Doc cheaters.

92

00:10:38.190 --> 00:10:38.850

Alice Doyle: ch.

93

00:10:41.850 --> 00:10:43.950

Alice Doyle: Option dodge what does that mean.

94

00:10:44.730 --> 00:10:47.250

Brandi Murphy: You know I didn't get that far in the conversation.

95

00:10:51.510 --> 00:10:52.260

Alice Doyle: Yes.

96

00:11:02.970 --> 00:11:06.810

Brandi Murphy: We have three minutes i'm gonna go ahead and open the doors.

97

00:11:10.680 --> 00:11:13.170

Brandi Murphy: Everybody working okay yeah.

98

00:11:13.560 --> 00:11:15.150

Lee Ellett: yeah yeah.

99

00:11:36.690 --> 00:11:39.540

Alice Doyle: hi Barry how are you I saw you yesterday.

100

00:11:43.980 --> 00:11:45.300

Barry Bjork: synced up just yet.

101

00:11:45.840 --> 00:11:46.410

Oh.

102

00:11:48.840 --> 00:11:50.070

Barry Bjork: that's good to see you too.

103

00:11:50.400 --> 00:11:54.960

Alice Doyle: yeah yeah did you hear the big news about bias was all over the road.

104

00:11:57.150 --> 00:12:04.890

Alice Doyle: bios they got there being what's the right word but asu they're doing a really big killer.

105

00:12:06.600 --> 00:12:08.760

Alice Doyle: collaboration with Arizona state.

106

00:12:09.300 --> 00:12:21.660

Alice Doyle: Right yeah I don't know if they're buying them or but it's I guess Arizona state's interested in putting a lot into bios so it's not by us anymore, is it it's nobody's bios yeah it's not being you.

107

00:12:24.600 --> 00:12:25.740

Alice Doyle: Know miles you I forget.

108

00:12:26.940 --> 00:12:27.330

Lee Ellett: No.

109

00:12:27.600 --> 00:12:28.260

Alice Doyle: So we're you.

110

00:12:31.740 --> 00:12:32.790

Lee Ellett: Know what's up.

111

00:12:33.510 --> 00:12:34.260

Everybody.

112

00:12:35.550 --> 00:12:36.480

Alice Doyle: hey sheldon.

113

00:12:37.110 --> 00:12:37.590

Good.

114

00:12:41.850 --> 00:12:44.100

Alice Doyle: We and Barry overlapping.

115

00:12:44.610 --> 00:12:45.600

Sheldon Blackman: I slowed down.

116

00:12:47.370 --> 00:12:54.960

Lee Ellett: Barry was still on the island heat, but I was, I was working there after after he had left, but even still you're still in the Solomon Islands for a while.

117

00:12:56.880 --> 00:12:57.810

Barry Bjork: whoa whoa whoa whoa.

118

00:12:58.320 --> 00:12:59.970

Alice Doyle: yeah I remember that Barry.

119

00:13:00.870 --> 00:13:01.170

trip.

120

00:13:04.440 --> 00:13:04.980

Barry Bjork: yeah.

121

00:13:06.840 --> 00:13:07.320

Barry Bjork: So.

122

00:13:08.880 --> 00:13:13.440

Barry Bjork: yeah when I first went to it was like 91 and.

123

00:13:14.760 --> 00:13:25.440

Barry Bjork: Man, I was, I was playing but thankfully army track it just started, and I was just going to start so those two things really helped me out.

124

00:13:27.360 --> 00:13:33.960

Barry Bjork: And guys I don't fanning you know they helped me out quite a bit here, somewhere, thank you.

125

00:13:35.220 --> 00:13:36.240

Barry Bjork: and happy retirement.

126

00:13:39.210 --> 00:13:39.810

Barry Bjork: hey.

127

00:13:40.170 --> 00:13:40.320

I.

128

00:13:42.390 --> 00:13:42.900

Barry Bjork: don't.

129

00:13:43.620 --> 00:13:44.730

Alice Doyle: Know that's sheldon.

130

00:13:44.730 --> 00:13:45.270

Sheldon Blackman: Oh, this is.

131

00:13:47.070 --> 00:13:47.670

Barry Bjork: I see show.

132

00:13:53.610 --> 00:13:57.060

Barry Bjork: I got my screen split up in three different put two different poses here.

133

00:14:00.660 --> 00:14:01.500

Barry Bjork: yeah so yeah.

134

00:14:03.570 --> 00:14:04.470

Sheldon Blackman: Okay we've.

135

00:14:05.010 --> 00:14:06.420

Sheldon Blackman: got lots of work for you.

136

00:14:12.420 --> 00:14:13.830

Sheldon Blackman: show you the whiteboard.

137

00:14:14.220 --> 00:14:14.910

Barry Bjork: I just want to say.

138

00:14:16.440 --> 00:14:18.180

Barry Bjork: quite a bit a lot of stuff so.

139

00:14:19.770 --> 00:14:20.340

Barry Bjork: I mean.



140

00:14:23.070 --> 00:14:24.600

Alice Doyle: All right, take it away.

141

00:14:26.220 --> 00:14:29.610

Lee Ellett: yeah so we'll go ahead and get started today.

142

00:14:31.140 --> 00:14:33.540

Lee Ellett: So we're still a seeking.

143

00:14:34.650 --> 00:14:45.540

Lee Ellett: chair elect nominees so it's it's an excellent opportunity to get more involved with the Community, so please, please consider that the rest of this week.

144

00:14:47.850 --> 00:14:56.910

Lee Ellett: And we really participate really appreciate all the participation in everyone attending and especially the presenters for contributing.

145

00:14:57.570 --> 00:15:07.290

Lee Ellett: it's been we I know how hard things are continue to be on to just get our jobs done but and so sharing with the Community and make taking the time to make presentations.

146

00:15:07.680 --> 00:15:23.010

Lee Ellett: and participate in the chat is is greatly appreciated i'm really looking forward to where we can have a more normal rv tech meeting with seeing everyone, and all the networking, so we can keep looking forward to that.

147

00:15:24.420 --> 00:15:31.860

Lee Ellett: So I think I think that's all the announcements, for now, in past brandi had a few things I think and.

148

00:15:32.880 --> 00:15:33.930

Lee Ellett: Then we'll get going.

149

00:15:35.580 --> 00:15:46.950

Brandi Murphy: I do i'm going to share something real quick so as our last introduction meeting this morning, I just want to take the time to thank leave for his contributions.

150

00:15:47.610 --> 00:15:56.580

Brandi Murphy: To the rv tech community as Chair for the last three years lee's drive and guidance, has been a massive contribution to the fleet cyber security efforts.

151

00:15:56.940 --> 00:16:03.330

Brandi Murphy: you've been an advocate for the value of our technicians time and capping the ever expanding responsibility list for.

152

00:16:03.330 --> 00:16:17.010

Brandi Murphy: Our technicians and much to the benefit of our Community Lee has been generous of his time and for that we just wanted to express our sincere thanks and appreciation and the good news is you don't you can't go very far so.

153

00:16:18.750 --> 00:16:21.450

Lee Ellett: I think, thank you very much for India for appreciate that.

154

00:16:21.990 --> 00:16:24.030

Brandi Murphy: So you'll be getting this a.

155

00:16:25.050 --> 00:16:26.820

Brandi Murphy: In the mail framed in pretty.

156

00:16:28.740 --> 00:16:40.890

Lee Ellett: I appreciate that it's been great contributing to the Community appreciate the help from everyone that's that's helped out on in working groups for meetings.

157

00:16:42.480 --> 00:16:52.680

Lee Ellett: And yeah I think I think I tend to my first rv tech in 2000 so look forward to continuing I contributing to the Community anymore I can't that's great.

158

00:16:54.450 --> 00:16:55.710

Alice Doyle: will be calling annually.

159

00:16:58.380 --> 00:17:00.150

Brandi Murphy: yeah don't change your number anytime soon.

160

00:17:00.780 --> 00:17:11.010

Lee Ellett: No, no changes, you know where to find me um so think our first presentation today is is Alice with them MSP.

161

00:17:11.760 --> 00:17:15.120

Alice Doyle: right that is going to share my screen here.

162

00:17:17.820 --> 00:17:19.860

Brandi Murphy: Before we get started um.

163

00:17:21.270 --> 00:17:28.980

Brandi Murphy: let's if we're not presenting or speaking directly to the meeting let's be sure to mute ourselves as we can reduce echoes and background noise.

164

00:17:31.920 --> 00:17:39.600

Alice Doyle: Right, can you see the right thing all right so i've given this talks about MSP a whole bunch lately, and so I gave a.

165

00:17:40.050 --> 00:17:52.380

Alice Doyle: Pretty detailed talk about well 1015 minute talk at the annual meeting discussing like where we are and I don't want to repeat any of that or any of the stuff we've done before my biggest focus today is just kind of going to be.

166

00:17:52.740 --> 00:17:59.310

Alice Doyle: Introducing mfb yet again for those who haven't seen it real quickly and then go into a quick DEMO so you can at least navigate and look around.

167

00:17:59.790 --> 00:18:12.390

Alice Doyle: So yeah I did create a Community link in Hoover, and so I put a bunch of links in there, that you guys can use our resources that you can use so.

168

00:18:13.440 --> 00:18:19.320

Alice Doyle: So what is MSP marine facilities planner and it's you know we talked about it as being a.

169

00:18:19.800 --> 00:18:36.210

Alice Doyle: replacement for us trs but really it's a lot more than that right it's the whole bunch of modules that are integrated together that do everything from you know getting like accepting ship time requests to scheduling to cruise planning to crew and inventory management.

170

00:18:37.260 --> 00:18:47.190

Alice Doyle: So, and then big thing to keep in mind, you know this has been this is used around the world now it's originally created by a Dutch software company.

171

00:18:48.150 --> 00:18:56.730

Alice Doyle: And it's used by several other research vessel best research vessel organizations that specifically.

172

00:18:57.300 --> 00:19:11.040

Alice Doyle: crew plan cruises for science right it's not something for commercial for container ships or anything like that, so it was built for research vessel planning so it's it's, which is a great feature.

173

00:19:12.030 --> 00:19:21.930

Alice Doyle: So next one, these are just i'm not going to go through these in detail green means we're they're pretty much out there and ready to go yellow means that there.

174

00:19:22.350 --> 00:19:31.080

Alice Doyle: were working on it and red means we haven't even started with it, yet, and so, these are all the modules that could eventually be available depending on who you are.

175

00:19:32.010 --> 00:19:40.800

Alice Doyle: To in this within the system and the the the system works on what they call workflows so a P, I would enter their.

176

00:19:41.490 --> 00:19:56.370

Alice Doyle: Ship request here, and then, once they put submit it then triggers a workflow here and scheduling and that can be scheduled and once the schedule publishes a schedule, it creates another project management or cruise planning workflow and could also.

177

00:19:57.690 --> 00:20:06.060

Alice Doyle: trigger these other excuse me equipment planning and technician planning so again, everything is integrated, which is pretty cool features.

178

00:20:06.420 --> 00:20:10.080

Alice Doyle: And then we have this research planner over here, which is a way.

179

00:20:10.560 --> 00:20:20.640

Alice Doyle: kind of it's a way to help plan cruises we'll go over that real quickly and the reporting module is when I i'm kind of excited about online because it's going to be an easy way to get super cool reports out of the system.

180

00:20:21.210 --> 00:20:30.030

Alice Doyle: Eventually, will also have an APP or an offline functionality specifically kind of for well it'll integrate with everything but also.

181

00:20:30.810 --> 00:20:45.180

Alice Doyle: The inventory management, so the developer gave a real detailed presentation on inventory management last year at the rv tech meeting, so I put a link to that in the Community session.

182

00:20:46.500 --> 00:20:57.480

Alice Doyle: But we're still kind of in the early stages of that all right, the first thing I wanted to show you guys is that, so this is msp.us This is our websites right.

183

00:20:58.050 --> 00:21:08.910

Alice Doyle: And you do not need to log in to view the schedules so everyone can see my screen right so there's this schedule button up here I haven't logged in I click schedule.

184

00:21:09.930 --> 00:21:22.380

Alice Doyle: And it brings me to this page here, so what you're looking at here, this is a map, obviously, and what it's showing is the ships that I have selected from this list.

185

00:21:23.070 --> 00:21:35.760

Alice Doyle: And the projects on those ships from that list within this time period that's here, so you can select a different time period if you choose to using the calendar, you can select a different.

186

00:21:36.600 --> 00:21:43.650

Alice Doyle: length of time period so that's what these are so if we kind of zoom in you can see these projects over here.

187

00:21:46.710 --> 00:21:51.900

Alice Doyle: we've got the security as a project as Robert Cohen project This, unfortunately.

188

00:21:52.290 --> 00:22:03.540

Alice Doyle: we've already been told that you know, like scripts has three different vessels so we're not exactly sure which vessel, this is associated with, but we will we are working on clarifying that information so again it's the projects that are.

189

00:22:04.380 --> 00:22:19.110

Alice Doyle: On the ships that you select in the time period that you select so a neat thing about this map is over here in this top left corner we've got these layers, and so this get co layer is actually the symmetry.

190

00:22:21.390 --> 00:22:24.000

Alice Doyle: So it shows all the imagery in the area.

191

00:22:25.620 --> 00:22:33.180

Alice Doyle: And then we have easy's and marine protected areas that are already in there, so you can see all that.

192

00:22:35.130 --> 00:22:37.380

Alice Doyle: And one of the coolest is the chip tracks.

193

00:22:38.730 --> 00:22:40.470

Alice Doyle: This takes a little bit to load.

194

00:22:44.100 --> 00:22:50.130

Alice Doyle: So there we go so here's the cool ship track to look at is up here, you can see, as the coulee Eric.

195

00:22:51.210 --> 00:22:54.720

Alice Doyle: has gone almost up to 80 North and its previous cruise.

196

00:22:56.250 --> 00:23:01.950

Alice Doyle: So again, these are the ship tracks of the ships you select in that time period that you select okay.

197

00:23:04.050 --> 00:23:11.340

Alice Doyle: what's next let's go if we click hybrid here i'm going to just do it here oh.

198

00:23:12.420 --> 00:23:22.080

Alice Doyle: Well, I wanna okay these we see the ship schedules that are published for the ships again that we select in the time period that we select.

199

00:23:22.560 --> 00:23:36.720

Alice Doyle: So let's change our time period because we know, most of our schedules we're getting there with 2022 so I want to see the schedules from January 1 2022 the January January 1 2023 and so here are all the ship schedules.

200

00:23:38.100 --> 00:23:45.990

Alice Doyle: That are published so far so some neat things here, you can mouse over the cruise and you can get the information.

201

00:23:48.270 --> 00:23:51.900

Alice Doyle: And if you click on the project.

202

00:23:52.950 --> 00:23:56.550

Alice Doyle: You actually get the request form over here on the right.

203

00:23:57.240 --> 00:24:09.390

Alice Doyle: And you can see what the specific equipment that they've requested on their ship time request this isn't the cruise planning, yet this is strictly their SME is what it's called now so strictly their SME so again.

204

00:24:10.200 --> 00:24:19.440

Alice Doyle: click on the project, and then you can see their their actual request and all the information if you scroll down, and it can see the equipment over here also.

205

00:24:20.490 --> 00:24:29.250

Alice Doyle: um what else oh another one, I wanted to point out, if you see here some of these projects have a skinny little line underneath.

206

00:24:29.550 --> 00:24:36.180

Alice Doyle: And those are what's called it we're calling a piggyback project or an ancillary project, and so you can actually click on that ancillary project.

207

00:24:36.450 --> 00:24:47.370

Alice Doyle: Not that one there's an obviously a few little glitches still you can click on an ancillary project, and so you can see the details for that specific ancillary project, as opposed to the main project.

208

00:24:51.060 --> 00:24:59.610

Alice Doyle: And that oh one other thing I wanted to point out, there are these different views underneath the ship name if you click these buttons.

209

00:25:00.990 --> 00:25:13.470

Alice Doyle: You start to see oh you start to see more information about the schedule so here, you can see that this cruise has an interim port call in honolulu right, and if you click one more button.

210

00:25:14.610 --> 00:25:21.000

Alice Doyle: You can see that there are some more details about it, how many days port dates and who, who is the API.



211

00:25:22.620 --> 00:25:32.640

Alice Doyle: Okay, so one thing I wanted to show you now is when i'm logged in, so this is a similar view but right now see over here on the top right.

212

00:25:33.270 --> 00:25:41.940

Alice Doyle: I am logged in, and so one thing I want to point out here is this button that looks like a stack of Blocks right if you click that button.

213

00:25:42.810 --> 00:25:56.220

Alice Doyle: It shows you the various modules that are available to you, you won't have nearly as many as I do at this point, but will be working on that, but just know that that's how you navigate around so to see the ship schedules you click on schedule here.

214

00:25:57.450 --> 00:26:10.200

Alice Doyle: And what I wanted to show you here is a neat feature which I will say about the equipment usage, so you can use these crews filters and Oh, you know what I want to see every cruise that has a.

215

00:26:10.890 --> 00:26:24.060

Alice Doyle: has requested a CD, and so this then highlights all those cruises that have requested a CD and I could see this being very useful for the vm pools, and the facilities, especially, I will say that.

216

00:26:25.080 --> 00:26:32.640

Alice Doyle: Anyway, if you're a facility operator and are interested in using these filters i'm happy to talk to you about it, there was a little snafu.

217

00:26:33.240 --> 00:26:43.710

Alice Doyle: on my part, the way we set up the SME so it's not perfect, for 2022 but it'll be great for 2023 so that's a pretty neat feature there eventually.

218

00:26:44.340 --> 00:26:55.710

Alice Doyle: When we actually have cruises going on the current cruises will be featured over here, and you can click on it it'll show the ship and then the current cruise and you can click on that to get more information.

219

00:26:57.300 --> 00:27:05.130

Alice Doyle: Alright, so we went to the navigation button and the last thing I want to show you because I don't have a lot of time is the research planner.

220

00:27:06.150 --> 00:27:17.160

Alice Doyle: So, again here, and this research planner right here okay so i'm just going to click over here because I already have it ready, and so what this is is a tool for.

221

00:27:17.880 --> 00:27:25.920

Alice Doyle: For the scientist, but also a tool for you guys let's say you have to plan a cruise to do a multi beam patch test start test your.

222

00:27:26.640 --> 00:27:49.320

Alice Doyle: Co founders or something so this is a tool that you guys can use to plan that so you can add sampling stations directly if you click sampling station, you can click on here and add them or you can actually upload import import a set of of stations and here's one select a file.

223

00:27:50.940 --> 00:27:57.300

Alice Doyle: So there's a template you can download the p eyes can download and see have one in here, here we go.

224

00:28:01.500 --> 00:28:04.950

Alice Doyle: So you'll see just the second Nancy rebel as.

225

00:28:06.360 --> 00:28:21.570

Alice Doyle: All of her stations are now uploaded to this chart it's a little bit there's a lot of stations going on there, so as part of this, you know you can you can add a part of port of departure it's thinking now.

226

00:28:23.430 --> 00:28:25.230

Alice Doyle: I will say cookery.

227

00:28:26.820 --> 00:28:28.470

Alice Doyle: coconut tree Louisiana.

228

00:28:29.940 --> 00:28:33.150

Alice Doyle: And she's going to arrive back in coconut tree Louisiana.

229

00:28:36.780 --> 00:28:37.230

Alice Doyle: well.

230

00:28:39.480 --> 00:28:45.120

Alice Doyle: let's take a little time here it's thinking here we go Coco drury Louisiana.

231

00:28:46.560 --> 00:28:59.100

Alice Doyle: And then you can do things like this, this actually shows you the seed depth at that location from the gecko data set this obviously it's not perfect, but it's a pretty good assumption, you know pretty good guess.

232

00:28:59.910 --> 00:29:03.060

Alice Doyle: You can change the ship speed by clicking on there.

233

00:29:03.330 --> 00:29:15.390

Alice Doyle: You can change if she knows, she wants to be at the station for 10 days, she can click the days or you could click the days and say, I want to be on there for 10 days and change these things, or you can delete stations.

234

00:29:15.720 --> 00:29:28.590

Alice Doyle: And so, all of that see you can change just about everything here, and all of that comes together to give a total time, so it gives you an idea of how much time, you need to do that specific project.

235

00:29:28.920 --> 00:29:36.090

Alice Doyle: So you could use it for your projects or potentially, for you know verifying cruise tracks for P eyes or if you're trying to.

236

00:29:36.540 --> 00:29:43.920

Alice Doyle: They don't you know you don't want to go to coca dri anymore, you need to go to Florida, I know that's mostly a scheduler thing but it's still it's a good tool for everyone to use.

237

00:29:45.210 --> 00:29:48.480

Alice Doyle: So i'm going to stop my DEMO there.

238

00:29:50.100 --> 00:29:59.910

Alice Doyle: Like I said I encourage you just for the sake of keeping on time, I could talk a long time about empty, but so the things that are coming up we've got.

239

00:30:00.570 --> 00:30:07.440

Alice Doyle: Our crews planning and project management we're doing a detailed talk for a long time on Friday.

240

00:30:07.890 --> 00:30:17.940

Alice Doyle: For the cruise planning specifically and I encourage you all to be there because it's a super powerful module and I think it could really be useful for all of you.

241

00:30:18.570 --> 00:30:27.000

Alice Doyle: we're going to reassess kind of the scheduling construction module and how that worked for us we're going to we've already been working with inventory management with our crv.

242

00:30:27.330 --> 00:30:32.250

Alice Doyle: and hope to get that populated pretty soon, so that we could make that available to the Community.

243

00:30:33.180 --> 00:30:48.660

Alice Doyle: And they also the big big one for me is the reporting module so that's available for everyone, so I don't know that we have time for questions, right now, but if you put your questions in the Community chat and i'm happy to answer them or just even shoot me an email.

244

00:30:50.490 --> 00:30:51.150

Alice Doyle: that's all I got.

245

00:30:52.920 --> 00:30:55.440

Lee Ellett: Thank you very much Ellis was great summary.

246

00:30:58.710 --> 00:31:05.610

Lee Ellett: I think we move right along to Kate qubo from osu for with the tech training subcommittee update.

247

00:31:06.180 --> 00:31:07.110

Kate Kouba: Say everyone.

248

00:31:08.160 --> 00:31:09.000

Kate Kouba: Can everybody hear me.

249

00:31:10.020 --> 00:31:13.950

Kate Kouba: Yes, great and i'm going to share my screen.

250

00:31:16.740 --> 00:31:18.150

Kate Kouba: Okay, we all can see everything.

251

00:31:19.470 --> 00:31:19.830

Kate Kouba: awesome.

252

00:31:21.780 --> 00:31:28.830

Kate Kouba: Okay hi everybody, my name is Kate quba i'm with osu and i'm going to talk a little bit about the tech training subcommittee.

253

00:31:29.940 --> 00:31:34.050

Kate Kouba: We are a small but mighty group of people.

254

00:31:35.130 --> 00:31:52.170

Kate Kouba: We got a couple members currently Brett hambro is leaving our group, so we are looking to fill that spot, so please send us some nominations and if you feel like you would like to become part of our tech training Community that'd be really great.

255

00:31:53.640 --> 00:32:02.760

Kate Kouba: yeah and so kind of moving through what we're currently working on on for everyone is we've been doing a quarterly zoom chat called what went wrong wednesday's.

256

00:32:03.270 --> 00:32:12.870

Kate Kouba: Where we just informally talk about the problems that texts have been experiencing on the ship new resources that they've discovered or started to create.

257

00:32:13.680 --> 00:32:22.890

Kate Kouba: we've been pulling in subject matter experts to answer questions we had marsanne Paul gave a really nice talk in September.

258

00:32:23.520 --> 00:32:33.240

Kate Kouba: and coming up in November we're to have a chat with Nixon and then, as you heard during the Multi beam talk Kevin germs going to give a talk at the beginning of the year.

259

00:32:33.780 --> 00:32:44.730

Kate Kouba: So, on top of using this format to have an informal discussion about things we've seen on the ship it's also nice to just share stories.

260

00:32:46.260 --> 00:32:50.310

Kate Kouba: You know pictures and then also opportunities that are coming around.

261

00:32:51.840 --> 00:32:55.620

Kate Kouba: Some other things we're working on is a digital series.

262

00:32:57.000 --> 00:33:08.130

Kate Kouba: Which is via the mailing list and it's just little snippets of things that you've learned that you might not know that the whole community knows.

263

00:33:09.120 --> 00:33:19.260

Kate Kouba: Dave started this off with a nice little segment about par sensors and how those measurements differ between the par installed on your CD to the one installed on the bridge of the ship.

264

00:33:19.740 --> 00:33:28.020

Kate Kouba: And so, these are really nice resources that we can keep within the Community and share and really kind of just build out what we know.

265

00:33:29.700 --> 00:33:40.980

Kate Kouba: And then finally i'm happy to announce that we have the first day of the network training that osu hosted in February of 2020.

266

00:33:41.310 --> 00:33:52.830

Kate Kouba: All done so those will be uploaded to the you know YouTube page, and I believe brandy is putting a link to those videos on the website as well.

267

00:33:53.730 --> 00:34:02.640

Kate Kouba: And then, once all those go live, we will send out an email to the tech Community letting you know that they're there and we'd love your feedback on those.

268

00:34:03.660 --> 00:34:09.660

Kate Kouba: yeah oh i'm going to take a step back and talk a little bit more about feedback with the what went wrong Wednesday.

269

00:34:10.740 --> 00:34:20.220

Kate Kouba: Surveys we've been sending out, and those are really nice metric for us to see where we can build out more training and when we bring in these.

270

00:34:20.520 --> 00:34:28.710

Kate Kouba: subject matter experts, they it kind of gives them a little bit more background as to what the tech Community was like people to talk about.

271

00:34:29.310 --> 00:34:41.310

Kate Kouba: So I know surveys, can be a bit of a bummer sometimes but I encourage you so much to fill those out when we send them they're very helpful for us and really all we want to do is make sure we're providing you with the best.

272

00:34:42.960 --> 00:34:44.310

Kate Kouba: Training materials we can.

273

00:34:45.570 --> 00:34:56.400

Kate Kouba: And then moving forward we're always looking to create new training opportunities on but those things come from you all all so if there's.

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00:34:56.790 --> 00:35:08.250

Kate Kouba: Something that you have struggled to find information on please email us or if you found things, let us know, and we can make a little did you know series about it.

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00:35:09.570 --> 00:35:17.880

Kate Kouba: we're still trying to identify training opportunities aboard the ship and, hopefully, in the next year as those code restrictions keep rolling back, we can do that.

276

00:35:19.080 --> 00:35:35.250

Kate Kouba: We are creating trainings for the ocean best practices and they will be giving a talk as well, and currently there's five working groups working with ocean best practices with kristin beam and katie walk in France so keep an eye out for those as they keep going.

277

00:35:36.720 --> 00:35:45.540

Kate Kouba: it's really quick and then really just to sum up what we are we're here for you guys and we want to create really good training materials.

278

00:35:45.960 --> 00:35:55.770

Kate Kouba: And we are we looking for new committee members, so please send us your nominations, or if you yourself want to become part of the group shoot us an email.

279

00:35:57.360 --> 00:36:04.890

Kate Kouba: send us tips and tricks for the did you know and then yeah come chat with us on the slack channel here.

280

00:36:06.480 --> 00:36:16.770

Kate Kouba: yeah I don't have much we're we're just really trying to make really good things for you all and, yes, but we can't do it without you so you know send us what you got.

281

00:36:21.240 --> 00:36:23.220

Lee Ellett: Thank you very much katie really appreciate.

282



00:36:24.360 --> 00:36:26.790

Lee Ellett: All the work the training subcommittee has.

283

00:36:28.650 --> 00:36:29.490

Lee Ellett: Put into this.

284

00:36:31.140 --> 00:36:31.410

Kate Kouba: yeah.

285

00:36:35.400 --> 00:36:37.920

Lee Ellett: And just keeping things.

286

00:36:39.390 --> 00:36:45.570

Lee Ellett: I closed my agenda the yep there it is so now we have the.

287

00:36:47.760 --> 00:36:48.990

Lee Ellett: score committee.

288

00:36:50.040 --> 00:36:53.940

Lee Ellett: presentation from Chris sacca and Andrew Wigan.

289

00:36:55.740 --> 00:37:06.570

Christopher Zappa: Yes, Hello everybody thanks for inviting me to update you on what we're doing it score i'm going to share the screen here.

290

00:37:09.750 --> 00:37:10.680

Christopher Zappa: You see that.

291

00:37:11.010 --> 00:37:12.150

Lee Ellett: yep, we can see it.

292

00:37:12.690 --> 00:37:24.960

Alice Doyle: Let me stop for folks who don't know score is the same Scientific Committee on oceanographic aircraft research so they're talking about aircraft.

293

00:37:27.480 --> 00:37:29.520

Lee Ellett: We see the notes, we have the notes.

294

00:37:31.980 --> 00:37:32.550

Lee Ellett: Right one they're.

295

00:37:32.760 --> 00:37:35.850

Christopher Zappa: Great so yeah thanks again for inviting me and.

296

00:37:37.020 --> 00:37:42.930

Christopher Zappa: Now it's just mentioned that score is the scientific community for oceanographic aircraft research.

297

00:37:43.980 --> 00:37:44.640

Christopher Zappa: and

298

00:37:47.640 --> 00:38:02.130

Christopher Zappa: The the focus of this, so I just became the Chair of the score Committee, just a few months ago, I was on the committee for for years for a term and then cycled on to become the Chair now Luke linnean cycled off.

299

00:38:03.210 --> 00:38:07.740

Christopher Zappa: And so myself Andrew Logan is also going to present a little bit today and.

300

00:38:09.330 --> 00:38:19.080

Christopher Zappa: The focus, I wanted to talk about was how can we expand the reach of the research fleet using autonomous and or piloted airborne systems and supportive ocean sciences.

301

00:38:20.910 --> 00:38:32.400

Christopher Zappa: So kind of goal today is to inform the broader Community on the use of airborne assets and supportive ocean scientist, in particular, coordinating with the academic research vessels.

302

00:38:33.930 --> 00:38:45.510

Christopher Zappa: And I just want to highlight that score is available as a resource to rv techs and P eyes are interested in adding such capabilities to future field programs.

303

00:38:46.680 --> 00:38:50.250

Christopher Zappa: So we want to receive Community impact from from you.

304

00:38:52.470 --> 00:39:00.090

Christopher Zappa: And on the feedback of the best ways of implementation, so we welcome follow up discussions about all types of us.

305

00:39:01.110 --> 00:39:06.060

Christopher Zappa: Not just small uas but larger drones like the ones you see above my head here.

306

00:39:08.010 --> 00:39:15.210

Christopher Zappa: And that's something that Andrew and I will just briefly touch on later we'll show a few different examples of what the uses are.

307

00:39:16.650 --> 00:39:31.620

Christopher Zappa: And we also have ongoing square activities, one is which we are always trying to develop a roadmap to make you a vs a standard capability on the academic fleet so again your input is welcome.

308

00:39:33.360 --> 00:39:40.620

Christopher Zappa: anytime and also to start conversations with either through Andrew or myself or other people on the committee.

309

00:39:42.180 --> 00:39:49.200

Christopher Zappa: So this is the charge of score and I don't want to read the whole thing, but I do want to highlight one important part, which is the committee is.

310

00:39:49.560 --> 00:40:06.930

Christopher Zappa: Our charges to promote collaboration and cooperation between facility operators, the funding agencies and the scientific community, to improve the availability, the

capabilities and the quality of aircraft facilities supporting ocean sciences so few things there the cooperation between.

311

00:40:08.610 --> 00:40:13.320

Christopher Zappa: rv you know facility operators in the scientific community, I think, is key.

312

00:40:16.560 --> 00:40:23.100

Christopher Zappa: So a couple resources one the there's we have a website for score, this is the current membership.

313

00:40:24.540 --> 00:40:30.930

Christopher Zappa: So you can always just when you get you'll have these available this presentation will be available, and you can.

314

00:40:32.010 --> 00:40:33.390

Christopher Zappa: have that information.

315

00:40:35.730 --> 00:40:40.410

Christopher Zappa: So we have a number of academic and operations.

316

00:40:41.580 --> 00:40:42.600

Christopher Zappa: People involved.

317

00:40:43.830 --> 00:40:54.780

Christopher Zappa: We meet normally would meet in non COPA times would be once a year, but now we've been reading kind of quarterly first day meeting, which is remotely virtually.

318

00:40:58.200 --> 00:41:05.490

Christopher Zappa: So again, we want to promote the use of you a vs or an piloted aircraft and supportive research.

319

00:41:06.960 --> 00:41:08.700

Christopher Zappa: One of the key things we've done.

320

00:41:10.500 --> 00:41:17.580

Christopher Zappa: Up to now, was developed an operations manual for the academic fleet that was.

321

00:41:19.590 --> 00:41:29.010

Christopher Zappa: approved or endorsed by the universe Council and the handbook is designed to provide detailed guidance on how to operate us from the academic research fleet.

322

00:41:30.360 --> 00:41:33.000

Christopher Zappa: So if you haven't seen this or.

323

00:41:34.140 --> 00:41:41.010

Christopher Zappa: read through it, it is, is it's a manageable document but 40 pages, but it goes through a number of things.

324

00:41:41.490 --> 00:41:57.780

Christopher Zappa: and, obviously, your feedback is welcome, we should you know it's it's a we can always do more versions, and it is always changing because the FDA comes out with the regulations and you always have to adapt, but in general it's it provides general information about various rabies.

325

00:41:59.340 --> 00:42:08.070

Christopher Zappa: will try and go through a flow chart for decision making, so the science party in the operator institution as a tool to to assist them with safe us operations.

326

00:42:08.910 --> 00:42:28.410

Christopher Zappa: goes through a timeline of when the p I should start planning to do this operation is early as possible to work with the the ships and making a solid plan and we go through requirements for breakdown of these three sections of planning and procedures and post crews accident.

327

00:42:29.430 --> 00:42:35.430

Christopher Zappa: So that's one thing we've been doing is developing safe procedures or an operations.

328

00:42:36.570 --> 00:42:50.040

Christopher Zappa: But there's a range of us after you have the small kind of octo copter type things you have these catapult systems, you have hand thrown systems, and you have these also Vitaly type systems.

329

00:42:51.180 --> 00:43:00.510

Christopher Zappa: So i'm going to hand off to Andrew now who's going to talk a little bit about the capabilities of using smaller Jones with his experiences so Andrew i'll just.

330

00:43:01.560 --> 00:43:02.160

Christopher Zappa: Let you go ahead.

331

00:43:02.910 --> 00:43:10.590

Woogen, Andrew: And thanks Chris i'll be quick as Andrew at osu and marine tight group and I just wanted to highlight what Chris said that our committee is a resource.

332

00:43:10.950 --> 00:43:21.120

Woogen, Andrew: For the technicians in the fleet so feel free to reach out to us if you need some support or preparing for you know these operations in any way and also we encourage you to.

333

00:43:22.110 --> 00:43:33.900

Woogen, Andrew: promote this technology, you know utilizing this technology in the fleet, you know I personally believe it's the future and one tool that will be used quite a bit in our operations.

334

00:43:34.470 --> 00:43:45.690

Woogen, Andrew: And just this morning, we saw an email from university of southern Mississippi for some on man marine systems so it's it's moving forward and we'd be wise to stay in front of it.

335

00:43:46.800 --> 00:43:54.300

Woogen, Andrew: There are issues that you know related to this, and the biggest issue that we've had is deployment recovery it's challenging.

336

00:43:55.620 --> 00:44:01.230

Woogen, Andrew: and honestly, I think it makes my marine text nervous to pilot off the ship so that's something we're.

337

00:44:01.770 --> 00:44:09.450

Woogen, Andrew: we're hopefully can find a solution for, and if you have any any ideas, please pass them on, and I know that may gimbal platforms.

338

00:44:09.930 --> 00:44:17.520

Woogen, Andrew: That work and land on safely Chris and I briefly talked about possibly having beacons installed on the ship that's native to the ship that the.

339

00:44:17.940 --> 00:44:25.110

Woogen, Andrew: The drone can communicate with and and land easier, that is a big challenge, right now, but hopefully we can overcome.

340

00:44:25.830 --> 00:44:37.020

Woogen, Andrew: Another challenge but consideration is the payload and the logistics of that and coming up with something that can carry a you know, a wide variety of sensors that folks may want to use.

341

00:44:38.610 --> 00:44:49.110

Woogen, Andrew: And you go the next slide there, I just want to quickly mention if you a few things that I know as you as you use their drone for we've had a couple of drones over the years.

342

00:44:50.730 --> 00:44:59.550

Woogen, Andrew: I mean that was our first one pretty outdated are now running a maverick to entry level enterprise i'll be submitting a.

343

00:45:00.060 --> 00:45:05.250

Woogen, Andrew: ocean interpretation proposal that might get funded for an upgrade to ours.

344

00:45:05.760 --> 00:45:13.110

Woogen, Andrew: One of the reasons why we're doing the upgrading, it is no, there was an executive order prohibiting certain types of drones and government operations.

345

00:45:13.710 --> 00:45:19.500

Woogen, Andrew: Basically, national security China tech, so we need different technology so we're not limited by that.

346

00:45:20.310 --> 00:45:33.750

Woogen, Andrew: But some some things that we've used our drone for it's got some really good footage of see glider deployment recoveries this here is a picture of US installing a new satellite Internet system on the ocean's.

347

00:45:34.770 --> 00:45:42.210

Woogen, Andrew: we've used it to monitor code vehicles for R amp D research fight alongside the ship, you know the next one, Chris.

348

00:45:43.200 --> 00:45:51.960

Woogen, Andrew: We used it to analyze our peer for some significant pure upgrades we're going to be doing, and just recently we use it on the ship to see.

349

00:45:52.500 --> 00:46:00.570

Woogen, Andrew: Biomass disturbance of the ship going through you know the surface of the water, and one thing to highlight is every single time.

350

00:46:01.140 --> 00:46:04.110

Woogen, Andrew: We break this thing out and use it, the scientists love it they.

351

00:46:04.530 --> 00:46:17.880

Woogen, Andrew: They love it they put it up on display they they use it for their presentations and it's all these ideas coming up how it could be better used, so I do think that there's interest if we can continue using it, and you can go to the next slide.

352

00:46:19.110 --> 00:46:25.740

Woogen, Andrew: yeah This was our first flight many, many years ago it's kind of neat I mean go the next slide.

353

00:46:27.060 --> 00:46:42.060



Woogen, Andrew: And this was a Gray whale researcher did some testing, and you can see how we use the thermal camera on there, and the scientists was thrilled because you could see the shape of the whale under the water which they correlate to measuring the size of it and save them a lot of work.

354

00:46:43.440 --> 00:46:51.090

Woogen, Andrew: But uh yeah cuz that's all I had no again we're here to support you, I encourage you to help promote this technology forward and are.

355

00:46:51.480 --> 00:47:05.490

Woogen, Andrew: Our future plans are to hopefully upgrade our vehicle to have a spare and get away from that executive order limitations and explore options for better deployment recoveries and and and that sort of thing, like the egress thanks.

356

00:47:05.610 --> 00:47:07.560

Christopher Zappa: It thanks angie how much time we have but.

357

00:47:10.740 --> 00:47:10.800

I.

358

00:47:13.050 --> 00:47:14.190

Lee Ellett: don't have an exact.

359

00:47:15.810 --> 00:47:16.950

Lee Ellett: we've got a little bit the time.

360

00:47:17.100 --> 00:47:18.510

Lee Ellett: I have some create something else.

361

00:47:19.050 --> 00:47:24.660

Christopher Zappa: um I was just going to show some larger scale larger drones that we would have been using.

362

00:47:25.800 --> 00:47:43.080

Christopher Zappa: This is um, so this is a vertical takeoff and landing type system, and we have, so we can carry payloads up to 15 pounds and the nice thing about vertical takeoff is that it takes it you just need a small area on the ship and as Andrew pointed out, we we use.

363

00:47:44.160 --> 00:48:03.000

Christopher Zappa: A dual GPS on the aircraft and also a ground base station on the air on the on the way on the ship, so that the the aircraft knows what relative to the ship at all times it's with a trained technician it can land rather easily and I just wanted to show you a movie of how it works.

364

00:48:04.350 --> 00:48:12.510

Christopher Zappa: So this is a from the falco or that we we did a read before kovats hit but there's a UV on the back deck.

365

00:48:17.580 --> 00:48:18.870

Christopher Zappa: Is vertical takeoff.

366

00:48:20.100 --> 00:48:27.390

Christopher Zappa: And then it switches to fixed wing flight and these things have endurance have up to eight hours, we can fly two at a time.

367

00:48:31.230 --> 00:48:39.720

Christopher Zappa: The we actually eliminate all the data back so everything comes back in real time, which allows you to kind of as I was saying, extend.

368

00:48:40.440 --> 00:48:54.780

Christopher Zappa: Your view of the ocean and allows you to target features and then take the ship to where you want to go as opposed to waiting for something to pass by, for those kinds of operations, when you don't have a fixed location.

369

00:48:58.080 --> 00:49:07.530

Christopher Zappa: And as interested in you, we build them payloads to specific to what the scientists need and this just talks about what we I just mentioned, in that video.

370

00:49:08.280 --> 00:49:25.560

Christopher Zappa: But we have this long range capability of telemetry we can fly the aircraft actually 50 nautical miles away from the ship and go out and search search for things and then come back, which is really something really useful, and you can see it from your from your little command station.

371

00:49:27.300 --> 00:49:32.940

Christopher Zappa: But if you go look for things like this, these slicks these regions of you know algal blooms or cyanobacteria.

372

00:49:33.780 --> 00:49:43.680

Christopher Zappa: For this cruise we found it with the wavy it was 10 nautical miles away and we were able to take the ship over to where we wanted to study this in depth so it's really useful tool.

373

00:49:45.360 --> 00:49:47.940

Christopher Zappa: And this is just what the some of the.

374

00:49:48.990 --> 00:50:05.970

Christopher Zappa: On the left is a is the color picture the ocean color of the of that balloon and then on the right, is what the thermal signature looks like but i'll just that'll be the end of my discussion, but just to give you a sense of what your views are capable of and.

375

00:50:08.400 --> 00:50:21.240

Christopher Zappa: Engaging in the conversation to you know make these more accessible on ships and make them safer and easier to use for everybody, so i'll just leave it there okay.

376

00:50:21.720 --> 00:50:23.640

Alice Doyle: Thank you very much for the great information.

377

00:50:24.930 --> 00:50:25.920

Lee Ellett: there's one shop.

378

00:50:26.160 --> 00:50:27.600

Christopher Zappa: Please reach out everyone who.

379

00:50:27.930 --> 00:50:29.460

Lee Ellett: Oh there's a question in the chat.

380

00:50:30.030 --> 00:50:30.630

Christopher Zappa: Oh go ahead.

381

00:50:31.560 --> 00:50:36.360

Lee Ellett: And the question was what's the flight time battery life I think i'm not sure which one.

382

00:50:37.830 --> 00:50:42.210

Christopher Zappa: So for those look for the largest ones, the flight time is.

383

00:50:43.830 --> 00:50:54.660

Christopher Zappa: Either eight hour endurance or more so eight to 12 hours, depending on what your payload sizes so and I said roughly a payloads or roughly 15 pounds so 15 pounds we'd have an eight hour flight time.

384

00:50:55.440 --> 00:50:57.810

Christopher Zappa: The battery life is only required for vertical.

385

00:50:57.810 --> 00:51:00.780

Christopher Zappa: takeoff the fixed wing part is.

386

00:51:02.580 --> 00:51:12.600

Christopher Zappa: The fixed wing part ISM guess do you don't feel empowered to ask our hope that answered your question great and then matt maximally.

387

00:51:13.770 --> 00:51:27.660

Maximilian Cremer: Yes, hi great stuff on hasn't been considered a has has this technology been used and ship emergency, such as men overboard man overboard or last equipment that's floating around somewhere out of sight.

388

00:51:28.680 --> 00:51:35.160

Christopher Zappa: We have not, but we definitely could I think angel maybe something more useful for a smaller town okay.

389

00:51:35.730 --> 00:51:49.890

Woogen, Andrew: yeah I mean it, it makes a lot of sense to me, I mean the thermal camera on there, we make you know SAR you know search and recovery much easier, so we haven't yet, but that that makes a lot of sense to me it's a good suggestion.

390

00:51:50.130 --> 00:51:55.200

Maximilian Cremer: It seems always you know if you can make a solid safety argument you can you know.

391

00:51:56.730 --> 00:52:00.150

Maximilian Cremer: get some easing on the restrictions from the Federal side.

392

00:52:02.460 --> 00:52:07.320

Lee Ellett: And then skip one more question from ethan and then we'll move move on to the next presentation.

393

00:52:07.860 --> 00:52:12.930

Ethan Roth: Thanks uh yeah my interest is piqued when you said eight hour it's like China.

394

00:52:14.910 --> 00:52:27.210

Ethan Roth: So I wanted asked about the other kinds of SAR synthetic aperture radar has anyone looked at that, for these types of drones, it is the best way for remote sensing of see is so.

395

00:52:27.240 --> 00:52:28.860

Ethan Roth: great interest to them.

396

00:52:29.220 --> 00:52:34.320

Christopher Zappa: So, to answer your question, yes, there are we have looked into getting a syrah payload and there are.

397

00:52:34.920 --> 00:52:46.350

Christopher Zappa: off the shelf mini sirens, that we could integrate into the into the payloads that I was showing you so yes they're out there for sure and it's something we could you could integrate into a USB payload.

398

00:52:47.880 --> 00:52:48.240

Ethan Roth: Okay.

399

00:52:48.300 --> 00:52:49.770

Ethan Roth: Great Thank you.

400

00:52:50.220 --> 00:52:51.450

Lee Ellett: yeah I keep them, you can.

401

00:52:51.780 --> 00:52:54.660

Lee Ellett: feel free to keep the conversation going in the Community.

402

00:52:55.830 --> 00:52:57.690

Lee Ellett: chat for this for this session.

403

00:52:58.320 --> 00:53:00.060

Christopher Zappa: yep thanks everyone, I appreciate it.

404

00:53:01.320 --> 00:53:09.840

Lee Ellett: And next up, we have the meat program with Maria asha dash and she will be you're presenting it.

405

00:53:12.840 --> 00:53:19.140

Maria Osiadacz: Good morning, everyone hope you can all see and hear me I think brandy is going to help me with my slideshow.

406

00:53:19.590 --> 00:53:20.190

Okay.

407

00:53:22.920 --> 00:53:26.010

Brandi Murphy: Thank you for the reminder Maria I forgot to pull that up.

408

00:53:26.400 --> 00:53:28.320

Maria Osiadacz: If it's not too much trouble think.

409

00:53:28.320 --> 00:53:29.040

Oh, I gotta.

410

00:53:36.030 --> 00:53:37.560

Brandi Murphy: Go to the zoom.

411

00:53:40.530 --> 00:53:42.480

Brandi Murphy: Sorry, I have a lot of windows open this morning.

412

00:53:43.590 --> 00:53:44.340

Maria Osiadacz: No worries.

413

00:53:45.750 --> 00:53:46.800

Maria Osiadacz: appreciate the help.

414

00:53:48.180 --> 00:53:48.990

Brandi Murphy: Can you see that.

415

00:53:51.180 --> 00:53:53.010

Maria Osiadacz: Yes, wonderful.

416

00:53:56.100 --> 00:54:09.120

Maria Osiadacz: Okay, so good morning again, thank you all so much for inviting me it's so wonderful to see you and to be able to connect to everyone in this great community.

417

00:54:10.230 --> 00:54:18.120

Maria Osiadacz: For those of you who don't know me who might be new my name is Maria or shout dodge and i'm the coordinator for the mate etsy internship program.

418

00:54:18.750 --> 00:54:29.010

Maria Osiadacz: The program is run by the Marine advanced technology, education Center, which is in Monterey peninsula college in Monterey on the central California coast.

419

00:54:30.210 --> 00:54:35.280

Maria Osiadacz: And deidre Sullivan, is a director of our program next slide please.

420

00:54:40.050 --> 00:54:50.970

Maria Osiadacz: So, to offer a little bit of background about our program the mentorship program started back in 1999 with a grant from nsf partnered with you and alls.

421

00:54:51.600 --> 00:55:05.640

Maria Osiadacz: And it was created to help meet the demand for skilled marine technicians, while giving women and underrepresented minorities more opportunities to learn from experience technicians and other crew working on research vessels.

422

00:55:06.840 --> 00:55:19.140

Maria Osiadacz: And in more recently in 2020 our program was significantly impacted by the pen down make the majority of our internships were cancelled for 2020 and 2021.

423

00:55:19.680 --> 00:55:30.840

Maria Osiadacz: But we were able to convert some to land based or dockside work and in May of 2021 We were encouraged by our nsf director to fund more land based opportunities.

424

00:55:31.290 --> 00:55:44.910

Maria Osiadacz: And, as a result, there has been an increase in interest for hosting those kind of marine technical land based internships and we're planning for those type of internships in 2022 as well.

425

00:55:46.710 --> 00:56:02.490

Maria Osiadacz: Also, in July of this year we were given permission to have three interns on board the rv Atlantis so in 2021 in total for internships for completed one was land based and the and three were at sea.

426

00:56:02.880 --> 00:56:12.480



Maria Osiadacz: And i'll introduce those four interns in just a moment, but I wanted to also announce that we are planning for a full year of internships for next year.

427

00:56:13.200 --> 00:56:25.470

Maria Osiadacz: We hope to do to plan a long term internship which can be approximately six months hosted by one organization or even two on two different ships.

428

00:56:26.640 --> 00:56:46.920

Maria Osiadacz: We are also hoping to do placements for 10 to 12 short term internships, depending on the length, each one of those short term internships can last anywhere from four to 16 weeks each and if they are shorter internships, then we might be able to do somewhere between 12 to 15 of those.

429

00:56:48.720 --> 00:56:59.400

Maria Osiadacz: And there is a new announcement for on our website listing the requirement for applying and a link to our application form.

430

00:57:00.810 --> 00:57:15.210

Maria Osiadacz: The the list of requirements on that announcement includes Cobra protocols that the state that covert proof of covert vaccination may be required.

431

00:57:16.590 --> 00:57:28.620

Maria Osiadacz: Do taking covert tests before travel may be required, as well as taking additional tests before boarding the ship and maybe even core period of quarantine before boarding the ship.

432

00:57:29.040 --> 00:57:34.560

Maria Osiadacz: So that applicants understand that those are the conditions, you know that are part of the application process.

433

00:57:35.070 --> 00:57:49.020

Maria Osiadacz: And as we speak applicants are already working on their applications contacting me submitting their applications, so there is a continued interest and i'm very excited about that next slide please.

434

00:57:52.410 --> 00:58:09.060

Maria Osiadacz: So, to introduce our talented and very strong entrance for 2021 all four were hosted by Julio and Angelica De Luca picture here she completed a 12 week land based internship working on the elven upgrade.

435

00:58:10.080 --> 00:58:18.930

Maria Osiadacz: She is currently working as a power generation technician for comments and she's a very experienced and talented electronics technician.

436

00:58:19.620 --> 00:58:27.420

Maria Osiadacz: She but as a result of completing her internship at who he she really wants to transition to the marine engineering field.

437

00:58:27.840 --> 00:58:43.740

Maria Osiadacz: And perhaps even returning to who he after she completes her education, if the opportunity arises and she's particularly interested in pursuing her Q MED certification and is currently working on that as well next slide please.

438

00:58:46.710 --> 00:59:00.240

Maria Osiadacz: So there were also three interns who completed five to six week internships at see this was on board the rv rv Atlantis assisting with its midlife refit in preparation for the science verification cruise.

439

00:59:01.020 --> 00:59:17.280

Maria Osiadacz: sherry's Figaro a pictured here was one of those three she is currently collecting marine species data with the Alaskan fisheries on the Bering sea and she's also looking for work additional work in the marine technical field next slide please.

440

00:59:18.930 --> 00:59:31.800

Maria Osiadacz: The second intern on the Atlantis was grace fulton pictured here and i'm happy to announce that, after she completed her mate internship she's been hired to join the universe tech pool.

441

00:59:32.220 --> 00:59:41.670

Maria Osiadacz: And she'll be working on the Sally ride soon as an e DNA sampling technician conducting a pilot studies so congratulations to grace on that next slide.

442

00:59:43.530 --> 00:59:53.730

Maria Osiadacz: And then the third entering on the Atlantis was Bella lacks she has returned to CSU maritime academy to finish her bachelor's just since completing the internship.

443

00:59:54.480 --> 01:00:03.750

Maria Osiadacz: She wants to work at sea and hydro graphic surveying is pursuing her certification in that area, as well as looking for work in the marine technical field.

444

01:00:04.830 --> 01:00:14.040

Maria Osiadacz: And all for interns you know they worked really hard followed all the required procedures, including covert protocols like providing you know vaccine.

445

01:00:14.370 --> 01:00:26.580

Maria Osiadacz: Proof of covert vaccine and taking a covert tests whenever required and they completed their internship successfully, so it was it was a it was a good year for them next slide.

446

01:00:29.190 --> 01:00:46.860

Maria Osiadacz: So I also want to mention that our nsf program director Lisa Rom recently introduced us to Dr Lilita Montoya, who is the internship coordinator for the in the naval architecture and ocean engineering department at the US naval Academy.

447

01:00:47.970 --> 01:01:07.470

Maria Osiadacz: Lisa asked us to explore potential options for me to assist placing naval academy students on board you know vessels to complete for week internships so we're looking for potential hosts for one or two internships in 2022 to see if the opportunities available or a good match.

448

01:01:08.640 --> 01:01:27.000

Maria Osiadacz: naval academy students would ideally join cruises that are departing from continental us that support science missions and they can host interns for four week periods during their specific summer term blocks, which less from May to August.

449

01:01:28.590 --> 01:01:32.010

Maria Osiadacz: I do want to point out that the naval academy students.

450

01:01:32.820 --> 01:01:46.830

Maria Osiadacz: I typically returned to school after internships to complete their degrees and serve five years in the navy or the Marine corps after graduation, so they may not necessarily apply for full time employment, with the universe vessel right after completing their internship.

451

01:01:47.880 --> 01:02:00.510

Maria Osiadacz: However, they are very qualified applicants with desirable skill and relevant skills and training and could potentially join the Marine workforce in the future, they are motivated and interested.

452

01:02:01.950 --> 01:02:06.390

Maria Osiadacz: And, and I also want to point out and people have asked if this pilot Program.

453

01:02:07.980 --> 01:02:15.450

Maria Osiadacz: would interfere with a mate internship placement and it's not it's it's separate funding will be provided for this pilot Program.

454

01:02:15.990 --> 01:02:27.390

Maria Osiadacz: If you're interested in learning more about this program have any comments about it or advice for me, you know i'm still learning as well, so I would love to hear from you next slide.

455

01:02:29.520 --> 01:02:42.780

Maria Osiadacz: So um I wanted to emphasize that a very important purpose of our main internship program is to raise awareness about and give interns an opportunity to experience the Marine technical field.

456

01:02:43.890 --> 01:02:52.740

Maria Osiadacz: I know i've said this before, but over the years, we have realized that many students who are starting college, who are interested in ocean related careers.

457

01:02:52.980 --> 01:03:08.700

Maria Osiadacz: And working on board seagoing vessels don't always know that being a marine technician is an option for them, but once they gain an understanding through these internships of the type of work that's involved many are likely to pursue a career as a marine technician.

458

01:03:10.410 --> 01:03:15.270

Maria Osiadacz: And we have seen many benefits to connecting interns with professionals at sea.

459

01:03:16.170 --> 01:03:24.720

Maria Osiadacz: hosts not only get an extra pair of hands on board but also someone who is enthusiastic about learning and hopes to develop a career in the field.

460

01:03:25.470 --> 01:03:41.160

Maria Osiadacz: hosts can also be directly involved in training the next generation of a marine technicians have an opportunity to get to know interns to see if they're a good fit and recruit new talent that have already received that specialized training through the internship process.

461

01:03:42.360 --> 01:03:51.780

Maria Osiadacz: interns received the opportunity to gain the hands on experience that is essential for employment that they don't always have through completing their college coursework.

462

01:03:52.500 --> 01:04:01.650

Maria Osiadacz: They get a real understanding of what the work involves on board the ships and exposure to oceanographic instrumentation that's not available to them in the classroom.

463

01:04:02.790 --> 01:04:03.780

Maria Osiadacz: Next slide please.

464

01:04:06.060 --> 01:04:15.630

Maria Osiadacz: I also want to emphasize that this program would not be possible without the contribution of organizations willing to host so please consider hosting and 2022.

465

01:04:16.200 --> 01:04:22.740

Maria Osiadacz: or spread the word to those you think might be interested if you are interested in hosting next year.

466

01:04:23.400 --> 01:04:36.510

Maria Osiadacz: We do have a host form that you can complete it asked some questions about what you're looking for in the in a candidate what you would like the minimum qualifications to be when you special requirements that must be met.

467

01:04:37.800 --> 01:04:47.100

Maria Osiadacz: We carefully match the candidates with the hosts requirements and send the shortlist of the top applicants and application responses to choose from.

468

01:04:47.790 --> 01:05:01.290

Maria Osiadacz: I assist in the complete hiring process, including scheduling interviews, if needed, checking references making offers overseeing all the pre boarding requirements and all and planning all the.

469

01:05:02.040 --> 01:05:15.720

Maria Osiadacz: Travel needs may pace for travel to and from the ship's location any lodging needed outside the ship and entrance also receive a weekly stipend next slide.

470

01:05:17.790 --> 01:05:25.980

Maria Osiadacz: So in conclusion, I want to express thanks to the technicians and crew members that work with our interns you really are excellent mentors.

471

01:05:26.340 --> 01:05:32.040

Maria Osiadacz: And the very best role models, I know interns are extremely grateful for the opportunity to work with you.

472

01:05:32.730 --> 01:05:39.840

Maria Osiadacz: I also want to thank everyone at nsf and units for your support and hard work, thank you brandi for handling so much.

473

01:05:40.680 --> 01:05:55.920

Maria Osiadacz: Of this stuff and my contact information and the link to the host form, as well as the link to our website with the announcement for next year and the application form are all on this slide.

474

01:05:57.450 --> 01:06:11.010

Maria Osiadacz: And if you, you know you can contact me at any time, of course, with questions email me call me, but if anybody has any questions right now i'm happy to take them if there's time or I can do so through the chat Thank you so much.

475

01:06:13.740 --> 01:06:14.310

Lee Ellett: Thank you, Maria.

476

01:06:15.720 --> 01:06:23.010

Lee Ellett: pleasure yeah we only we will, I know as a tech manager very much appreciate the the meat Program.

477

01:06:23.610 --> 01:06:25.350

Maria Osiadacz: Thank you, thank you so much.

478

01:06:26.280 --> 01:06:28.470

Lee Ellett: Are there any any quick questions.

479

01:06:29.850 --> 01:06:32.700

Lee Ellett: I don't see any, but there is the committee's.

480

01:06:34.950 --> 01:06:41.430

Lee Ellett: Top in the topics of for this session, the for the Community part of the APP.

481

01:06:42.690 --> 01:06:45.840

Lee Ellett: I think, with that will end this session and.

482

01:06:47.070 --> 01:06:49.440

Lee Ellett: Take a quick break and be back for the next.

483

01:06:50.520 --> 01:06:51.420

Lee Ellett: The next session.

484

01:06:53.460 --> 01:06:54.990

Brandi Murphy: and recovery systems.

485

01:06:55.080 --> 01:06:56.970

Brandi Murphy: it's gonna be a good one yep.

486

01:06:57.060 --> 01:06:59.010

Lee Ellett: yep sure will Thank you everyone.

## Launch and Recovery Systems

1

00:01:07.980 --> 00:01:08.550

Ethan Roth: hey brandi.

2

00:01:10.740 --> 00:01:11.940

Brandi Murphy: here's my volume, how you doing.

3

00:01:14.580 --> 00:01:16.770

Ethan Roth: Okay i'm trying to make sure Fred can get.

4

00:01:18.450 --> 00:01:18.720

Brandi Murphy: Okay.

5

00:01:20.670 --> 00:01:24.180

Ethan Roth: cuz he was he got hit by that nor'easter.

6

00:01:28.380 --> 00:01:31.980

Brandi Murphy: yeah, of course, it was Friday and who else was presenting.

7

00:01:34.890 --> 00:01:39.630

Ethan Roth: A so yo go then horse and cocaine.

8

00:01:41.430 --> 00:01:42.900

Ethan Roth: And then Fred denton.

9

00:01:47.340 --> 00:01:53.040

Brandi Murphy: I just want to add them sooner rather than later, so they can get their audio.



10

00:01:54.390 --> 00:01:55.080

Brandi Murphy: Before.

11

00:01:57.120 --> 00:01:57.600

Brandi Murphy: Maybe.

12

00:02:00.360 --> 00:02:01.560

Ethan Roth: Yours okay.

13

00:02:02.580 --> 00:02:03.660

Ethan Roth: Do you see either of them.

14

00:02:04.440 --> 00:02:09.750

Brandi Murphy: I see Carson and I admitted him but he's joining slowly so.

15

00:02:11.250 --> 00:02:22.290

Brandi Murphy: um we uh we have ethan guest hosts this time for this one, so I know you have some things to do today, so if you can't stay or make it that's fine.

16

00:02:23.250 --> 00:02:31.710

Lee Ellett: i'm good i'm good, I have to step out from 1130 to 1230 is probably probably like 1130 to 1230.

17

00:02:32.100 --> 00:02:33.420

Lee Ellett: that's what that's my pinch point.

18

00:02:37.980 --> 00:02:39.420

Brandi Murphy: Still says he's joining.

19

00:02:46.020 --> 00:02:54.300

Ethan Roth: And then yeah depending on fred's connection one of us might have to share this slides which I can do.

20

00:02:54.810 --> 00:02:57.570

Brandi Murphy: Okay Oh, there is emitting.

21

00:03:36.120 --> 00:03:39.090

Brandi Murphy: I think I just mean do you just need to introduce ethan.

22

00:03:40.530 --> 00:03:42.990

Brandi Murphy: And then he'll take it away from there he's got the order.

23

00:03:45.000 --> 00:03:45.420

Lee Ellett: Okay.

24

00:03:48.930 --> 00:03:50.280

Brandi Murphy: Trying to admit hearts and again.

25

00:03:57.930 --> 00:03:58.320

Brandi Murphy: Okay.

26

00:03:59.010 --> 00:03:59.670

Ethan Roth: So far, so.

27

00:04:02.730 --> 00:04:03.360

Brandi Murphy: Good this year.

28

00:04:04.770 --> 00:04:09.180

Brandi Murphy: Okay i'm gonna go ahead and open the doors everybody's ready.

29

00:04:14.670 --> 00:04:16.650

Ethan Roth: hey arson thanks for joining us.

30

00:04:17.640 --> 00:04:18.720

Harsen: Thanks for reminding me.

31

00:04:21.960 --> 00:04:24.180

Ethan Roth: hey Fred do you want to test your audio.

32

00:04:25.380 --> 00:04:26.010

Frederick Denton: Do you hear me.

33

00:04:26.460 --> 00:04:27.210

Ethan Roth: I do hear you.

34

00:04:28.530 --> 00:04:32.850

Ethan Roth: Good do you would you like me to do your slides or do you think you can do.

35

00:04:34.470 --> 00:04:34.950

Harsen: let's.

36

00:04:35.130 --> 00:04:36.780

Frederick Denton: let's Let me give it a try and.

37

00:04:38.340 --> 00:04:42.660

Frederick Denton: Really time to test it now so we'll just try and keep those.

38

00:04:44.310 --> 00:04:45.420

Frederick Denton: keep those slides ready.

39

00:04:47.280 --> 00:04:48.930

Frederick Denton: But I get a good feeling from.

40

00:04:50.400 --> 00:04:52.560

Frederick Denton: seems like the solid connection from the video here.

41

00:04:55.230 --> 00:04:59.670

Ethan Roth: We just got a three inches of snow last night and seaward if that makes you feel any better.

42

00:05:01.650 --> 00:05:04.680

Frederick Denton: Well, I think we have you beat with hurricane force winds.

43

00:05:04.950 --> 00:05:05.610

Ethan Roth: I know you do.

44

00:05:08.370 --> 00:05:15.210

Frederick Denton: I think it's gonna be a few days power outage here, but I found power and I found Internet the village sports hall so proud of myself.

45

00:05:16.110 --> 00:05:16.560

You go.

46

00:05:17.820 --> 00:05:20.370

Ethan Roth: I see even got a prop crane in the background.

47

00:05:20.940 --> 00:05:22.020

Frederick Denton: yeah it's just a prop.

48

00:05:25.980 --> 00:05:26.730

Lee Ellett: Thank you everyone.

49

00:05:27.240 --> 00:05:40.710

Lee Ellett: Thank you everyone for joining so ethan raw from USF has put together a session with multiple presenters for launch and recovery systems so with that i'll let him take it away thank.

50

00:05:40.860 --> 00:05:46.170

Ethan Roth: Thanks Lee and i'm just going to provide an introduction and kind of moderate a little bit so.

51

00:05:47.220 --> 00:05:53.010

Ethan Roth: This this will be on launching recovery systems, which we also call Lars The focus is going to be on.

52

00:05:53.460 --> 00:06:04.260

Ethan Roth: hands free systems, so these are systems that you know preclude the need for for taglines that's because at the end of the boom or the crane there's some sort of docking head mechanism.

53

00:06:04.950 --> 00:06:17.130

Ethan Roth: And we're either using the tension Member or we're also going to talk to talk about latching mechanisms today as solutions for holding packages in in talking heads so.

54

00:06:18.270 --> 00:06:27.330

Ethan Roth: brandy is going to start off talking to us about summarizing a meeting that we had in July that sort of provides the motivation for why.

55

00:06:27.720 --> 00:06:36.030

Ethan Roth: we're having this session this morning and then after brandy we're going to hear from Carson cogan from McGregor triplex he'll talk about the.

56

00:06:36.570 --> 00:06:46.590

Ethan Roth: Lars that is being built or has been built for the new RC R vs so it'll be interesting to hear about and then we'll hear from Fred denton who's with the WHO he.

57

00:06:47.490 --> 00:06:59.400

Ethan Roth: Jason R Ob group who works extensively with their large system, so I thought it'd be good to get some different perspectives, so we can come up with some ideas and solutions for.

58

00:07:00.540 --> 00:07:06.330

Ethan Roth: You know what what the operators are looking at in the future so with that i'll hand it over to brandi.

59

00:07:07.440 --> 00:07:21.870

Brandi Murphy: Thank you, even yeah as ethan mentioned, we had a meeting in July with participants, including a combination of cruise tech managers and technicians.

60

00:07:23.070 --> 00:07:25.650

Brandi Murphy: From institutions that have some of these.

61

00:07:26.910 --> 00:07:34.260

Brandi Murphy: auto rendering launch and recovery systems, with the goal of determining if we were having.

62

00:07:35.370 --> 00:07:40.470

Brandi Murphy: Consistent issues if there was a recurring theme, and if there were perhaps tools that.

63

00:07:42.120 --> 00:07:46.290

Brandi Murphy: would benefit the community and users of those systems.

64

00:07:47.070 --> 00:07:55.830

Brandi Murphy: The rook i'm writing a report right now it's stuck in the editing phase that is not good at that so it's going to be a minute, but some of the takeaways that I wanted to share with you.

65

00:07:56.370 --> 00:08:13.680

Brandi Murphy: Was that we saw consistently we're seeing increased tension, at the end of the wires at the termination because of the nature of the docking and then using the amateurs to determine, you know if the packages in place, so it seemed more attention at the termination than.

66

00:08:14.820 --> 00:08:22.770

Brandi Murphy: traditional systems have in the past there have been a couple of ways that folks have mitigated them that might make a good.

67

00:08:23.190 --> 00:08:40.770

Brandi Murphy: Best Practice document, perhaps in the future, one of which is all stops when it doesn't operate as expected, so that you can figure out where it's at and then also custom tension limits for different packages depending on your system, the ease of setting that might be different, but.

68

00:08:42.180 --> 00:08:59.700

Brandi Murphy: It can prevent you from having more attention than necessary we've also talked about locking mechanisms to prevent the loss of packages and keep importing and perhaps there's a feature in in development of something like that, and we also touched on the idea of an advisory body.

69

00:09:01.710 --> 00:09:06.330

Brandi Murphy: To help people with these things with, especially since everybody has a little bit of a different system.

70

00:09:07.290 --> 00:09:15.300

Brandi Murphy: Now the group that met in July to talk about it once I finished editing this report are going to meet again.

71

00:09:15.990 --> 00:09:28.200

Brandi Murphy: To see how it should proceed and if there's anything that we could produce that would benefit the community using the systems and in the future utilizing these systems as they become more popular so.

72

00:09:29.730 --> 00:09:43.740

Brandi Murphy: That was what I had also if this I expect this to be a very active session, and so, if questions or discussion runs long, there is a Community tab for wanting recovery systems.

73

00:09:48.930 --> 00:09:54.510

Ethan Roth: Okay, thanks brandi i'm Carson do you want to share your screen and give your talk.

74

00:10:06.510 --> 00:10:08.850

Harsen: yeah Can you see my screen.

75

00:10:09.870 --> 00:10:10.440

Ethan Roth: Yes.

76

00:10:11.580 --> 00:10:12.750

i'm just gonna.

77

00:10:14.370 --> 00:10:15.060

Harsen: run it in.

78

00:10:18.270 --> 00:10:18.750

slideshow.

79

00:10:21.480 --> 00:10:26.130

Harsen: So you're only seeing the the PowerPoint right you don't see yourself.

80

00:10:27.210 --> 00:10:28.560

Ethan Roth: In presentation mode.

81

00:10:28.950 --> 00:10:32.850

Harsen: yeah i'm just sharing the presentation, not the screen so.

82

00:10:34.530 --> 00:10:34.800

Harsen: Now.

83

00:10:36.060 --> 00:10:42.840

Harsen: Anyway, just a short introduction, my name is Carsten cotton and i'm design engineer in.

84

00:10:44.220 --> 00:10:47.640

Harsen: McGregor triplex former triplex been.

85

00:10:48.750 --> 00:11:03.390

Harsen: Working with the different research equip equip lifting appliances for almost 11 years now and started back in 2010 my first project was security.

86

00:11:04.620 --> 00:11:09.900

Harsen: So it's it's i'm really honored to be invited here by even.

87

00:11:12.000 --> 00:11:35.700



Harsen: So what i'm going to present here, it is the integrated the city dealers system, the system that we have developed triplets together with rob last night, my colleague Finn, have made an introduction about this whole joint venture before, and now we are basically one company so.

88

00:11:36.810 --> 00:11:37.500

Harsen: Actually.

89

00:11:38.670 --> 00:11:41.430

Harsen: I will take one example, the first.

90

00:11:42.600 --> 00:11:56.400

Harsen: example that i'm going to take for the for the mechanism, the talking head is based on the last CD David or the alarm system that we delivered to our crv.

91

00:11:58.140 --> 00:12:03.270

Harsen: The first vessel, we have delivered already, and the next two vessels, we have.

92

00:12:04.890 --> 00:12:26.430

Harsen: ready for shipment so here for basically all of these systems that I will present now here are working in more or less the same the same way it can be a derivative can be an overhead crane but the principle, the dog and cat is the same document and the bench are working together.

93

00:12:28.110 --> 00:12:48.990

Harsen: Just short introduction on the system itself, the system consists of like a bottle arm linkage mechanism with telescopic boom and we have a double Shiva guiding unit with main block, which is also people think work and the docking head.

94

00:12:49.140 --> 00:12:50.400

Harsen: Which is not connected.

95

00:12:50.940 --> 00:13:11.280

Harsen: To the building block itself, this is a an improvement, we have made on security, up to this document is connected to the sheet itself and that the that we had some trouble with side pool, so we decided to split these two and we also have.

96

00:13:13.380 --> 00:13:14.340

Harsen: On the right the.

97

00:13:15.450 --> 00:13:17.460

Harsen: On the 3D illustration on the right side you.

98

00:13:17.460 --> 00:13:18.540

Harsen: can see also this red.

99

00:13:18.570 --> 00:13:20.370

Harsen: cylinder so.

100

00:13:20.970 --> 00:13:24.150

Harsen: In principle, what the cylinder is used for.

101

00:13:24.540 --> 00:13:25.200

Harsen: We have.

102

00:13:26.790 --> 00:13:33.570

Harsen: When we start lifting off from the import position the cylinder is set to bypass.

103

00:13:33.630 --> 00:13:35.790

Harsen: mode, so there is a small.

104

00:13:37.890 --> 00:13:38.610

Harsen: damping.

105

00:13:39.120 --> 00:13:56.190

Harsen: Due to the small fitting sizes and on the oil flow and we have the cylinder free for movement, so when we leave the the reserve in the import position, and then we take them out.

106

00:13:56.970 --> 00:14:03.750

Harsen: So from inward to cast and from cast all the way down to deployment position where we are.

107

00:14:04.320 --> 00:14:11.700

Harsen: close to the water level so about a meter with the document so that means that the 15 years that is already in the water and.

108

00:14:12.240 --> 00:14:33.060

Harsen: From this position well eventually we will go back to cast when we want to do the cast and and cast position we use the cylinder to live the document up in order to prevent the rope to swing inside the rollers in the talking head and to leave the sheep for free swiveling.

109

00:14:35.100 --> 00:14:48.030

Harsen: We can see it more described here the show you that it is balanced, so it means when we leave the city looking up the cylinder and the rope can freely move around.

110

00:14:50.070 --> 00:15:12.990

Harsen: I will also show this later in one hour either one simulation or mention that we have here the principle of the world, the safety for having the termination safe and rope connection safe or the cable safe is that on the document itself, we have two sensors.

111

00:15:14.250 --> 00:15:15.600

James Holik: In these two sensors.

112

00:15:16.020 --> 00:15:16.770

Harsen: are being.

113

00:15:17.970 --> 00:15:30.060

Harsen: activated by the bolt on looking at we have six springs with the stainless boat and these bolts are running in composite bearings so.

114

00:15:30.660 --> 00:15:41.640

Harsen: The sensors that we have placed is basically First is the half compression of the spring, and the second sensor is well almost a full compression on spring.

115

00:15:42.960 --> 00:15:56.010

Harsen: That idea behind the the sensors and the control system on the bench is that we want to make sure that the winch is always in attention, that is, between the full.

116

00:15:57.570 --> 00:16:11.910

Harsen: The Spring being fully uncompressed and spring being half compressed so we don't want to go between half compressed and full compressed in that area is something that we don't want to go so.

117

00:16:13.050 --> 00:16:14.190

Harsen: What we.

118

00:16:15.240 --> 00:16:19.620

Harsen: Do is that in our human interface.

119

00:16:21.300 --> 00:16:31.260

Harsen: Or the human machine interface on the on the system that we have in our Pentagon system for the controls of the wrenches we are setting up a value of.

120

00:16:32.640 --> 00:16:44.040

Harsen: Of load with a bit more increased due to the springs, and this is done normally during the commissioning so this setup of the of the load.

121

00:16:45.810 --> 00:16:55.680

Harsen: and also the centaurs sensors that we have, so if we are having a preset load in the in the control system.

122

00:16:56.760 --> 00:17:07.050

Harsen: And when we activate the first sensor the load will be in in case that that happens because of the dynamic motions.

123

00:17:07.710 --> 00:17:18.090

Harsen: When the first time the reactivated the load of the winch will be reduced for a percentage that we set up in the in this.

124

00:17:18.540 --> 00:17:30.750

Harsen: In the system, the control system, so it can be, for example, 20% less than what we have preliminary setup or setup at the at the beginning for the constant tension feature.

125

00:17:32.070 --> 00:17:46.380

Harsen: So that is the principal and the sounds are two stops the the winch completely the holding in on the bench how the system works is that the actually.

126

00:17:47.400 --> 00:17:56.460

Harsen: Do when when the system is in constant moment in this constant tension mode, we are moving the crane.

127

00:17:57.480 --> 00:18:12.840

Harsen: And by doing that the springs are compressing the load and creating the the engine that the winch and make the winch pay out so as we move or stop with the crane doing she will fall.

128

00:18:14.160 --> 00:18:27.120

Harsen: and, eventually, if there are higher see states, when we have, or when we have like 10 centimeters of movement on the on the spring the range will pay out more than it should so.

129

00:18:28.170 --> 00:18:38.190

Harsen: That is the principle of this of this system, and what is good here is that we have the integrated controls with the David and the winch so that means that.

130

00:18:38.700 --> 00:18:48.600

Harsen: at any point, if we want to pay out which manually we can do that from the same place as you can see, on my presentation here the two Laughter

131

00:18:49.350 --> 00:19:03.300

Harsen: joysticks are the David one is for till the other one is for telescope and then we have the middle is the winch and the screen, where we can see the load the tension read out the speed and the payout length.

132

00:19:04.650 --> 00:19:07.710

Harsen: The right joystick is the lifting of the document.

133

00:19:08.850 --> 00:19:18.930

Harsen: So yeah, this is the the principle that the 340 documents that we are delivering in let's say 90% of the cases.

134

00:19:20.220 --> 00:19:30.030

Harsen: I have also prepared next to this one, I also prepared one more solution that we have, but maybe.

135

00:19:31.140 --> 00:19:38.910

Harsen: We should first have a look at the this is to come out of the simulator that we also have delivered to.

136

00:19:40.380 --> 00:19:43.050

Harsen: pursue for the.

137

00:19:44.130 --> 00:19:46.170

Harsen: Actually, we can control any.

138

00:19:47.310 --> 00:20:03.450

Harsen: Any any equipment of the vessel if if you would like, I have the simulator I can only show it, fortunately, we cannot share it, but I have created a video with the with the system in in action so i'm just gonna play it here.

139

00:20:05.760 --> 00:20:07.710

Harsen: it's a four minutes we do, I think.

140

00:20:11.730 --> 00:20:15.300

Harsen: There are now we are selecting okay i'm going to talk you through this.

141

00:20:16.860 --> 00:20:30.510

Harsen: Here we have the tangent button on the right side of the range and you will see that being selected when the Rosary is in contact with looking at, so now we are only.

142

00:20:31.950 --> 00:20:33.900

Harsen: Moving the city David.

143

00:20:37.230 --> 00:20:45.180

Harsen: yeah and the docking had doesn't have a swing in he'll direction so it's only in role.

144

00:20:50.580 --> 00:20:53.850

Harsen: There, so we are fully out with.

145

00:21:00.360 --> 00:21:12.900

Harsen: The sea state in this simulator I think it's not set up at all, we have also this option that we can change the to have a bigger city state, but here I think it's normally like to.

146

00:21:15.780 --> 00:21:16.260

Harsen: default.

147

00:21:18.900 --> 00:21:19.920

James Holik: So we are.

148

00:21:20.190 --> 00:21:25.350

Harsen: telescoping lowering the result it's already in the water.

149

00:21:28.830 --> 00:21:30.600

Harsen: yeah you can see here the readout.

150

00:21:32.850 --> 00:21:36.210

Harsen: On the on the docking and actually the simulator gives.

151

00:21:37.980 --> 00:21:49.860

Harsen: reread out so here I just made a fast drive with the range So in principle, looking at this being lifted in recovery in deployment position.

152

00:21:51.390 --> 00:21:57.030

Harsen: And then we are safe to lift up to David in cash position.

153

00:22:03.660 --> 00:22:04.800

Harsen: And then we are ready to cast.

154

00:22:06.060 --> 00:22:08.490

Harsen: In principle, the The same goes with.

155

00:22:09.810 --> 00:22:10.710

Harsen: The recovery.

156

00:22:12.270 --> 00:22:14.430

Harsen: When they see the result is in the US.

157

00:22:15.600 --> 00:22:17.940

Harsen: or almost close to the surface.

158

00:22:21.060 --> 00:22:25.230

Harsen: we're lowering the docking had to make sure that the rope doesn't go away.

159

00:22:30.810 --> 00:22:33.750

Harsen: Also inside the docking can we have some rollers to prevent the.

160

00:22:34.860 --> 00:22:40.350

Harsen: Damage of the cable against the construction of the docking can adjust.

161

00:22:43.890 --> 00:22:53.160

Harsen: But the whole idea with lifting looking at these to avoid touching these rollers because the cable is they're all small against the cable so that.

162

00:22:55.290 --> 00:22:57.180

Harsen: that's not really good yeah.

163

00:23:03.990 --> 00:23:05.520



Harsen: And then we are back.

164

00:23:10.590 --> 00:23:11.430

James Holik: And here.

165

00:23:12.330 --> 00:23:13.140

Harsen: This is also a.

166

00:23:15.750 --> 00:23:29.550

Harsen: package movement system that we create or made specially for osu it was a new product for us, so, in principle, we have also handling go for that on board, where we are moving with.

167

00:23:31.020 --> 00:23:34.260

Harsen: A pilot and the Jane system inside the hunger.

168

00:23:38.850 --> 00:23:40.620

Harsen: Okay, this was the video.

169

00:23:42.210 --> 00:23:53.370

Harsen: And now I would like to present also another concept that we have we have delivered this to wrestle the coin made in Japan.

170

00:23:54.570 --> 00:23:55.950

Harsen: owned by drumstick.

171

00:23:57.690 --> 00:24:00.570

Harsen: And this system is based on.

172

00:24:01.980 --> 00:24:10.140

Harsen: Electric mechanism we have three largest with the on the docking head here on this photo, we can see the lattice.

173

00:24:11.400 --> 00:24:19.650

Harsen: So we have elections that are released by the cylinder and they are made in a fail safe way so.

174

00:24:20.880 --> 00:24:26.160

Harsen: yeah sorry I skipped one thing and it's very important the frame.

175

00:24:27.240 --> 00:24:46.500

Harsen: That is order the plate, that is being left is attached to the CCD frame, so we are not attaching anything to the termination or the bullet the rope itself doesn't have any influence on this lecture so latching plates the latching.

176

00:24:47.640 --> 00:24:50.760

Harsen: part is connected to the ctv friend.

177

00:24:54.060 --> 00:24:58.020

Harsen: draws and the plate when it.

178

00:25:00.450 --> 00:25:04.470

Harsen: depends, of if we want to deploy it or recover it it's.

179

00:25:05.550 --> 00:25:19.470

Harsen: Lifting the jaws by the geometrical shape and in that way we don't need the cylinders, in order to block it we're using this leaders only to unlock the the mechanism.

180

00:25:21.150 --> 00:25:25.710

Harsen: This system also has multiple sensors for.

181

00:25:26.730 --> 00:25:30.270

Harsen: Stopping the range or indicating when the latches.

182

00:25:31.320 --> 00:25:41.760

Harsen: All three lattice are safely closed or if something is wrong so it's a good system for winches where we don't.

183

00:25:42.840 --> 00:25:58.200

Harsen: have constant tension or well because mostly the liver would is winters but where we have, for example, to suppliers that have different control systems and they don't work together so.

184

00:25:58.740 --> 00:26:18.030

Harsen: In a way, it's also, from my point of view, I think, also save system for safer system, then the the control system because it causes you always have to be sure that you set up the right values, but the bad thing is, of course, you need to have a doctor.

185

00:26:19.320 --> 00:26:30.510

Harsen: This adapter plate, that is connected to the frame and if you change the frame maybe also need to change the frame the the adapter played the plate, that is connected to the jaws.

186

00:26:32.190 --> 00:26:38.220

Harsen: it's also good to say that when the plate is in the jaws it is impossible to unlock it.

187

00:26:39.300 --> 00:26:47.160

Harsen: So the shape of the job is made in a way that you get self locked.

188

00:26:47.940 --> 00:27:03.180

Harsen: So first you need to lift with lunch, and when we are lifting with which we then again have the springs, and the same story that we had with the first knocking so that we make sure that whenever we lift we can compress the springs and then unlock the jaws and release.

189

00:27:07.050 --> 00:27:20.640

Harsen: yeah here on the right side we just have the picture from the faq where we have the plate locked Unfortunately I don't have a photo from the real system, we were visiting the.

190

00:27:21.840 --> 00:27:22.530

Harsen: Japanese.

191

00:27:25.650 --> 00:27:27.300

Harsen: This vessel and we have been.

192

00:27:29.070 --> 00:27:34.500

Harsen: With the service people on board and and the system works fine so.

193

00:27:35.580 --> 00:27:41.460

Harsen: But unfortunately, due to the rules we're not allowed to take any photos in Japan so.

194

00:27:42.750 --> 00:27:46.680

Harsen: So it is everything that I have is what i'm showing here.

195

00:27:49.950 --> 00:27:53.160

Harsen: that's everything from my side, it was 15 minutes.

196

00:27:56.850 --> 00:27:57.630

Ethan Roth: Thank you Harrison.

197

00:27:59.220 --> 00:28:02.550

Ethan Roth: Just a couple quick question for the latching mechanism.

198

00:28:04.680 --> 00:28:12.690

Ethan Roth: Is that something that you guys manufactured or you worked with the operator, for them to manufacturer, the place to go on their ctv.

199

00:28:14.130 --> 00:28:15.330

James Holik: yeah the we work.

200

00:28:15.450 --> 00:28:36.900

Harsen: Together with them manufacturer in this case for human factor, the blank and we have been discussing about the yeah some I think two years ago, we have been discussing with seaver to try to make custom late for their frames.

201

00:28:38.070 --> 00:28:46.920

Harsen: So in this case I don't know who was the first one, the frame it was going through the shipyard, so we made it based on some drawings that we received.

202

00:28:48.150 --> 00:28:53.250

Harsen: But then, in general, for us, is not the problem, to make this blatant delivery system.

203

00:28:57.720 --> 00:28:58.110

Ethan Roth: Okay.

204

00:28:59.340 --> 00:29:11.070

Ethan Roth: Thanks a lot only I got ahead of myself why don't we save questions for you, for the for the end of the session if there's time so let's um let's have Fred present next.

205

00:29:12.870 --> 00:29:15.870

Ethan Roth: So if you wouldn't mind sharing your screen.

206

00:29:18.270 --> 00:29:20.850

Ethan Roth: Thank you, and then Fred do you want to try sharing.

207

00:29:22.290 --> 00:29:23.010

Frederick Denton: Your thing.

208

00:29:39.510 --> 00:29:40.740

Frederick Denton: Initiating share.

209

00:29:44.040 --> 00:29:45.570

Ethan Roth: So yes, good yep.

210

00:29:47.820 --> 00:29:51.810

Frederick Denton: Okay yeah so thanks for inviting me ethan.

211

00:29:54.030 --> 00:29:58.050

Frederick Denton: And nice talk Carson some interesting.

212

00:29:59.430 --> 00:30:00.720

Frederick Denton: Thanks features there.

213

00:30:01.740 --> 00:30:02.070

Frederick Denton: That.

214

00:30:03.450 --> 00:30:05.190

Frederick Denton: Some are shared by the system.

215

00:30:07.230 --> 00:30:09.840

Frederick Denton: So yeah ethan asked me to talk.

216

00:30:11.220 --> 00:30:13.980

Frederick Denton: about the Jason Lars.

217

00:30:16.260 --> 00:30:19.050

Frederick Denton: Talking head the specifics of the docking.

218

00:30:20.970 --> 00:30:22.500

James Holik: Sorry, let me go to the beginning here.

219

00:30:28.770 --> 00:30:30.330

Frederick Denton: Okay, that looks like a slideshow right.

220

00:30:31.410 --> 00:30:32.100

Ethan Roth: yep you're good.

221

00:30:32.400 --> 00:30:39.690

Frederick Denton: Okay, so yeah so we're talking today i'm well i'm Fred denton research engineer with the Jason group.

222

00:30:42.120 --> 00:30:47.130

Frederick Denton: I integrated this system back in 2015.

223

00:30:48.630 --> 00:30:55.890

Frederick Denton: it's a combination of a wrap winch that the overall launcher recovery system that is is a combination.

224

00:30:56.970 --> 00:30:58.590

Frederick Denton: Of a wrap which.

225

00:30:59.940 --> 00:31:04.200

Frederick Denton: shown here on the left, you see my cursor.

226

00:31:07.590 --> 00:31:08.850

Ethan Roth: Can you see me, yes, we can.

227

00:31:09.090 --> 00:31:09.990

Yes, we can fix.

228

00:31:11.040 --> 00:31:18.840

Frederick Denton: So that's the rap which there and then this is the npc crane that's North Pacific crane and rap, which of course is.

229

00:31:19.950 --> 00:31:20.670

Frederick Denton: Now part of.

230

00:31:21.990 --> 00:31:39.660

Frederick Denton: McGregor with triplex horses company, so we have this rap winch from previous iteration that carried 681 cable and in 2015 we over.

231

00:31:40.800 --> 00:31:43.440

Frederick Denton: took over undertook a.

232

00:31:45.600 --> 00:31:51.720

Frederick Denton: conversion to a heavier lift system for the Jason rv.

233

00:31:52.830 --> 00:31:54.360

Frederick Denton: The goal is to.

234

00:31:55.560 --> 00:31:57.360

Frederick Denton: Service, the Oli.

235

00:31:58.380 --> 00:31:59.820

Frederick Denton: Regional cable the Ray.

236

00:32:01.620 --> 00:32:03.480

Frederick Denton: Which is out off of Seattle.

237

00:32:04.860 --> 00:32:05.910

Frederick Denton: Pacific Northwest.

238

00:32:08.790 --> 00:32:12.750

Frederick Denton: So we're we're moving these packages shown here on the left.

239

00:32:14.430 --> 00:32:20.850

Frederick Denton: Some that can be up to 4000 pounds, so we haven't now 11,000 pound rv.

240

00:32:22.410 --> 00:32:24.420

Frederick Denton: That is latching on to.

241

00:32:25.650 --> 00:32:30.180

Frederick Denton: Up to 4000 pound packages so 15,000 pound.

242

00:32:31.800 --> 00:32:33.210

Frederick Denton: capacity for this system.

243

00:32:35.520 --> 00:32:41.790

Frederick Denton: So yeah that's that's what drove the design so because we are integrating.

244

00:32:43.290 --> 00:32:45.150

Frederick Denton: Two systems a crane from.



245

00:32:46.500 --> 00:32:50.340

Frederick Denton: North Pacific crane and it crane and docking head.

246

00:32:51.480 --> 00:32:52.560

James Holik: which was built new.

247

00:32:52.980 --> 00:32:55.050

Frederick Denton: With our rap which.

248

00:32:56.940 --> 00:32:58.410

Frederick Denton: which was a conversion.

249

00:32:59.790 --> 00:33:04.710

Frederick Denton: We did this, you know, in order to not have to throw out the rap which we already had.

250

00:33:06.960 --> 00:33:08.310

Frederick Denton: Because it was a conversion.

251

00:33:09.960 --> 00:33:10.560

Frederick Denton: We.

252

00:33:11.670 --> 00:33:21.000

Frederick Denton: have a system where the operator has to do a lot of things in sequence, in order to do a docking.

253

00:33:22.260 --> 00:33:25.830

Frederick Denton: or to use the dock any head and the latching of the docking had.

254

00:33:27.510 --> 00:33:28.140

Frederick Denton: safely.

255

00:33:29.040 --> 00:33:33.690

Frederick Denton: We have a set of procedures and we've been following them and they work great.

256

00:33:36.180 --> 00:33:39.240

Frederick Denton: So I will get into those.

257

00:33:42.690 --> 00:33:44.070

Frederick Denton: Oh yeah well before I do.

258

00:33:45.210 --> 00:33:53.820

Frederick Denton: i'll i'll just say that this is an eight or two inch cable 0.842 inch it's got a 70,000 pound breaking strength.

259

00:33:55.470 --> 00:33:56.490

Frederick Denton: We have this cable.

260

00:33:57.510 --> 00:34:00.990

Frederick Denton: custom designed and built for for this application.

261

00:34:02.760 --> 00:34:03.510

Frederick Denton: So.

262

00:34:05.100 --> 00:34:08.520

Frederick Denton: that's what's on the which drum 5000 meters of it.

263

00:34:12.660 --> 00:34:13.050

Frederick Denton: yeah.

264

00:34:13.110 --> 00:34:18.420

Frederick Denton: So the largest cranes got a 20 foot reach at sea state for some of the main specs.

265

00:34:20.790 --> 00:34:26.280

Frederick Denton: And it can ship as one piece, which is handy considering how large it is.

266

00:34:28.230 --> 00:34:37.260

Frederick Denton: And it's got it comes with this latching docking head that was designed by npc and then some mods were made by by me.

267

00:34:38.610 --> 00:34:40.050

Frederick Denton: To get it to work smoothly.

268

00:34:41.250 --> 00:34:46.800

Frederick Denton: So the which it's a key feature of it is that, as a constant tension mode.

269

00:34:48.150 --> 00:35:02.040

Frederick Denton: it's it's got that as there's a button on the control box at the that the crane operator has the largest operator they're sitting on the crane when they operate the crane using the.

270

00:35:03.210 --> 00:35:05.490

Frederick Denton: manual hydraulic controls.

271

00:35:06.600 --> 00:35:08.340

Frederick Denton: prints right behind you there actually.

272

00:35:09.780 --> 00:35:12.960

Frederick Denton: So, then, we also have a.

273

00:35:15.960 --> 00:35:23.910

Frederick Denton: joy box for the which sitting at the same operator station so they're operated as one Lars.

274

00:35:25.980 --> 00:35:26.490

Frederick Denton: one seat.

275

00:35:28.980 --> 00:35:30.120

Frederick Denton: So this is the.

276

00:35:31.560 --> 00:35:32.760

Frederick Denton: The sequence for.

277

00:35:33.780 --> 00:35:36.510

Frederick Denton: A recovery so, starting with the.

278

00:35:37.740 --> 00:35:39.120

Frederick Denton: Vehicle in the water.

279

00:35:40.740 --> 00:35:44.550

Frederick Denton: Allow walk through the steps and, as you can see each step.

280

00:35:45.900 --> 00:35:54.060

Frederick Denton: In blue, you have a winch command and black do you have a crane command we're going to move to the pictures here.

281

00:35:57.570 --> 00:35:59.730

Frederick Denton: So yeah, this is a close up of the docking head.

282

00:36:03.690 --> 00:36:05.580

Frederick Denton: The latching goes on, right here.

283

00:36:07.860 --> 00:36:12.510

Frederick Denton: You have air springs, and they of course.

284

00:36:14.370 --> 00:36:20.940

Frederick Denton: come up as as the vehicle hits this or kisses up against this.

285

00:36:22.950 --> 00:36:25.830

Frederick Denton: This bottom piece of the of the docking head.

286

00:36:28.200 --> 00:36:31.440

Frederick Denton: And what stops the vehicle.

287

00:36:32.910 --> 00:36:35.760

Frederick Denton: or stop yeah stops the winch from hauling in.

288

00:36:37.020 --> 00:36:39.090

Frederick Denton: Is the attention.

289

00:36:40.380 --> 00:36:48.750

Frederick Denton: Setting the Max tension torque setting of the winch winch is set to render at 16,000 pounds.

290

00:36:51.000 --> 00:36:57.090

Frederick Denton: hasn't stopped stopped hurting won't pull more than that so that's how we prevent a two block scenario.

291

00:36:58.950 --> 00:37:02.940

Frederick Denton: So so basically yeah you're pulling up.

292

00:37:04.380 --> 00:37:10.530

Frederick Denton: The this bullet here shown here that's sitting on the top of the rv.

293

00:37:11.640 --> 00:37:14.790

Frederick Denton: So that's pinned to the frame.

294

00:37:16.410 --> 00:37:24.930

Frederick Denton: So that that barbed bullet there is pulled up through the Center of the docking head to above the lashes.

295

00:37:26.070 --> 00:37:30.240

Frederick Denton: there's to latch plates hydraulically activated simple it out.

296

00:37:32.340 --> 00:37:38.670

Frederick Denton: here's a here's a close up of that latch it's got some some features there.

297

00:37:39.750 --> 00:37:41.100

Frederick Denton: To prevent it from.

298

00:37:42.960 --> 00:37:45.180

Frederick Denton: unlocking it's also got.

299

00:37:46.560 --> 00:37:54.300

Frederick Denton: A counterbalance valve on the hydraulic rams to prevent them from moving unless commanded.

300

00:37:57.300 --> 00:37:59.640

Frederick Denton: So yes, and the cable termination.

301

00:38:01.170 --> 00:38:07.710

Frederick Denton: Is screwed into the top of this bullet, so the whole load path goes through this bullet.

302

00:38:10.050 --> 00:38:14.130

Frederick Denton: Okay oops sorry so there's there's step two is.

303

00:38:15.570 --> 00:38:21.360

Frederick Denton: The operator drives in the lash plates and step three have a Doc.

304

00:38:23.400 --> 00:38:32.010

Frederick Denton: While holding the handle of the latch engage function on the docking head.

305

00:38:33.450 --> 00:38:43.530

Frederick Denton: The winch is lower down manually onto the jaws of the which i'm sorry of the latch at that point you slack off.

306

00:38:44.910 --> 00:38:49.680

Frederick Denton: The continue to pay out on the winch until you see some visual.

307

00:38:49.770 --> 00:38:51.060

slack in the cable.

308

00:38:53.100 --> 00:38:54.900

Frederick Denton: We then have we have three.

309

00:38:59.820 --> 00:39:10.920

Frederick Denton: Three checks that we do to make sure that we're fully latched before starting to move the docking had we're going to be checking for that slack catenary.

310

00:39:12.300 --> 00:39:15.180

Frederick Denton: The operator is going to be checking for a latch light.

311

00:39:16.680 --> 00:39:17.370

Frederick Denton: Which is.

312

00:39:18.390 --> 00:39:21.690

Frederick Denton: indicating that the two products, which is.

313

00:39:23.520 --> 00:39:42.420

Frederick Denton: tied to the monitoring the lash plates that they are closed so as an that's telling the operator, that the latches are fully engaged and the third thing we have a camera, and so we got a call out from the control band telling the operator.

314

00:39:45.150 --> 00:39:50.880

Frederick Denton: latch visually confirmed so that's how we got a good, solid latch latch at that point.

315

00:39:51.810 --> 00:40:11.790

Frederick Denton: We engage the constant tension mode of the winch where it goes from manual stick control to an auto following constant tension mode, the setting of that constant tension mode is roughly 1000 pounds out of the 15,000 pound.

316

00:40:14.850 --> 00:40:22.200

Frederick Denton: load so much smaller percentage, so we have a little bit of tension there to manage the cable and prevent slack.

317

00:40:23.370 --> 00:40:36.300

Frederick Denton: So that gives lots of over head overhead and under head really as the crane then starts to knuckle in and move from over boring position to the deck.

318

00:40:37.380 --> 00:40:44.130

Frederick Denton: The which follows, and you know it's not perfect, so the winch that is and it's responding to.

319

00:40:47.160 --> 00:40:52.710

Frederick Denton: In responding to the change in the tension, as the crane knuckles in or out.

320

00:40:54.720 --> 00:40:58.200

Frederick Denton: That thousand pounds setting is worked well for us.

321

00:40:59.730 --> 00:41:00.570

Frederick Denton: in maintaining.

322

00:41:02.820 --> 00:41:07.170

Frederick Denton: Lack of slack maintaining a top cable and certainly not.

323

00:41:08.250 --> 00:41:09.690

James Holik: Over tension in the cable.

324

00:41:13.050 --> 00:41:13.650

Frederick Denton: So yeah.

325

00:41:14.700 --> 00:41:15.510

Frederick Denton: That is.

326

00:41:18.930 --> 00:41:28.740



Frederick Denton: yeah well, well, I guess, to finish up you get to over the deck over your spot where you want to drop off the Jason vehicle and at that point.

327

00:41:30.600 --> 00:41:33.240

Frederick Denton: it's somewhat in reverse the operator.

328

00:41:34.350 --> 00:41:35.100

Frederick Denton: pushes that.

329

00:41:36.390 --> 00:41:46.530

Frederick Denton: constant tension button again to deactivate it and bring back manual stick control of the winch and at that point, the operator can haul in on the winch.

330

00:41:47.820 --> 00:42:00.570

Frederick Denton: And then it's going to go right up to the Max tension which can pull 16,000 pounds, so that, at that point that's 1000 pounds more than the weight of the vehicle, so the vehicle and package will come up.

331

00:42:03.630 --> 00:42:17.460

Frederick Denton: off of and then you're you know running this in reverse, so you come up to this and then you can pull out your lashes out of the way and lower the which so yeah you have that feature where.

332

00:42:18.900 --> 00:42:19.500

Frederick Denton: The.

333

00:42:20.610 --> 00:42:23.610

Frederick Denton: flash plates cannot be opened up.

334

00:42:25.170 --> 00:42:26.670

Frederick Denton: With the load hanging on.

335

00:42:28.140 --> 00:42:33.270

Frederick Denton: The bullet and you have to load of the which sorry the rv being on the bullet.

336

00:42:38.370 --> 00:42:43.800

Frederick Denton: yeah, I think, let me get over to these elements of a safe, secure Doc.

337

00:42:45.270 --> 00:42:46.860

Frederick Denton: Make sure I covered all of those.

338

00:42:48.000 --> 00:42:51.750

Frederick Denton: yeah the the the compliant mechanism is air springs.

339

00:42:52.770 --> 00:42:54.240

Frederick Denton: that's worked pretty well for us.

340

00:42:55.320 --> 00:42:58.740

Frederick Denton: Like what you have on suspension of a tractor trailer.

341

00:43:00.180 --> 00:43:07.800

Frederick Denton: And we, the pre The pre load pre-charge is actually zero PSI just fully.

342

00:43:08.610 --> 00:43:09.720

James Holik: relaxed at zero.

343

00:43:09.870 --> 00:43:10.260

James Holik: And then.

344

00:43:10.890 --> 00:43:12.930

James Holik: As it gets compressed it comes up to.

345

00:43:13.830 --> 00:43:18.630

Frederick Denton: Providing some resistance enough resistance to slow slow things down.

346

00:43:20.760 --> 00:43:23.310

Frederick Denton: yeah we've got whatever the three latch indicators.

347

00:43:24.390 --> 00:43:25.350

Frederick Denton: and

348

00:43:26.430 --> 00:43:38.370

Frederick Denton: When storage limits cure latch yep that's all of it so that's how our system works apologize it's not the slickest sales pitch us as what Carson has there but.

349

00:43:39.450 --> 00:43:45.120

Frederick Denton: That gets our more manual way of doing things across to you guys.

350

00:43:46.440 --> 00:43:48.060

Harsen: We can make, we can improve that.

351

00:43:51.570 --> 00:43:54.180

Harsen: No, but I like it it's a it's really it looks simple it's.

352

00:43:54.390 --> 00:43:54.750

Frederick Denton: yeah.

353

00:43:54.810 --> 00:43:57.330

Harsen: it's a horrible thing is that it works, yes.

354

00:43:59.640 --> 00:44:03.690

Frederick Denton: Okay, so and i'll take it take it off take it away.

355

00:44:05.160 --> 00:44:09.000

Ethan Roth: Thank you very much Fred that was an excellent presentation.

356

00:44:10.050 --> 00:44:14.130

Ethan Roth: I think definitely for the gearheads as far as the way these things work so.

357

00:44:14.820 --> 00:44:27.600

Ethan Roth: um so I just want to say one more thing and then i'll open it up for questions, so this is really directed towards the operators that were you know involved in the July meeting that have these hands free systems on their ships.

358

00:44:29.010 --> 00:44:43.440

Ethan Roth: You know I think with any new type of system like this there's going to be growing pains, I certainly went through it myself on so cool yak it's it's i'm not trying to dig into the vendors I just think the systems are pretty one off.

359

00:44:44.700 --> 00:44:51.300

Ethan Roth: And we have to find the right way for them to work with the platform and the package that we're trying to use so.

360

00:44:52.500 --> 00:44:56.100

Ethan Roth: The big takeaways I think from parsons and fred's talks.

361

00:44:57.390 --> 00:45:09.600

Ethan Roth: Are the latch control systems, I see a lack of those on on the large that we currently have on the newer ships that is an alternative to.

362

00:45:10.770 --> 00:45:13.620

Ethan Roth: solely relying on the tension Member.

363

00:45:14.820 --> 00:45:23.370

Ethan Roth: To provide the high tension needed to keep that thing sucked up and into the document and there's some other fail safes as well.

364

00:45:23.790 --> 00:45:39.360

Ethan Roth: Like proximity sensors and the way that the control software is us, so I just, I hope, people are getting some ideas as far as solutions go with that I will open it up to questions or comments from the audience, thank you.

365

00:45:45.720 --> 00:45:48.420

Jules Hummon: Right, can you stop sharing screens that we can see faces.

366

00:45:48.720 --> 00:45:50.070

Jules Hummon: Sorry sorry.

367

00:45:55.020 --> 00:45:56.190

Jules Hummon: or printed names.

368

00:46:03.300 --> 00:46:03.720

Ethan Roth: Really.

369

00:46:12.630 --> 00:46:14.850

Ethan Roth: Oh sorry go ahead MAC you have your hand up.

370

00:46:17.430 --> 00:46:23.490

Maximilian Cremer: yeah just thank you very much for these presentations that we've been talking about both of these.

371

00:46:24.510 --> 00:46:30.840

Maximilian Cremer: Principles and resolving the issue, some of the issues that we've seen constant tension and latching.

372

00:46:32.100 --> 00:46:42.000

Maximilian Cremer: just out of interest, a question for for the Jason group how far off the deck is Jason when you remove the latches on a recovery.

373

00:46:45.930 --> 00:46:48.510

Frederick Denton: that's a good question that is.

374

00:46:49.890 --> 00:46:50.700

Frederick Denton: A few images.

375

00:46:52.260 --> 00:46:52.680

Maximilian Cremer: Great.

376

00:46:53.820 --> 00:46:59.190

Maximilian Cremer: They have they have it so you're not coming down from three or four or five feet.

377

00:47:00.270 --> 00:47:04.740

Frederick Denton: No yeah right, if anything, were to go awry.

378

00:47:05.940 --> 00:47:09.270

Frederick Denton: We would want not to drop too far yeah.

379

00:47:09.420 --> 00:47:15.660

Frederick Denton: Of course, but, of course, at the same time you can't you can't be on the deck so we go down close.

380

00:47:16.860 --> 00:47:19.500

Maximilian Cremer: And then, a question for Carson was.

381

00:47:21.060 --> 00:47:26.640

Maximilian Cremer: Especially with the with the latch system when you have you know, several moving parts.

382

00:47:28.110 --> 00:47:30.000

Maximilian Cremer: What are your maintenance.

383

00:47:31.080 --> 00:47:43.740

Maximilian Cremer: Recommendations that's something that I, that we noticed that sometimes you know when the system works well people tend to get a little complacent and forget to.

384

00:47:44.730 --> 00:47:58.080

Maximilian Cremer: lubricate stuff and then check everything every time that you know the latches of moving parts are probably working, what are the materials and your maintenance protocols, I mean not not to go into too much details.

385

00:47:58.710 --> 00:48:17.550

Harsen: You know, for all these let's say small parts, we are kind of a rule to to to design the system with composite earrings and stuff that doesn't need lubrication because the loads are small and so it's in principle on the end you have seen, there is.

386

00:48:19.230 --> 00:48:25.920

Harsen: I think there is not one single reasonable on these parts also not for a top.

387

00:48:27.420 --> 00:48:29.850

Harsen: Top part where we have the big strings.

388

00:48:31.230 --> 00:48:31.770

Harsen: We have.

389

00:48:33.420 --> 00:48:34.170

Harsen: owner's equity.

390

00:48:37.980 --> 00:48:41.100

Harsen: We have changed that to being called.

391

00:48:42.150 --> 00:48:42.840

Harsen: The light.

392

00:48:43.890 --> 00:48:45.720

Harsen: Fromgroupon.

393

00:48:46.920 --> 00:48:55.770

Harsen: I think it's those that we are using and also they are we are using those for our telescopic booms and we are very happy and the clients are very happy.

394

00:48:56.250 --> 00:49:08.310

Harsen: So we're trying to reduce also the maintenance bar and the same this strings are made of senior systems stainless steel So those are also the same goes for the bolts for pins.

395

00:49:09.360 --> 00:49:13.980

Harsen: So it's really not much of that needed.

396

00:49:15.540 --> 00:49:17.040

Harsen: Like what I see as a.

397

00:49:18.510 --> 00:49:21.810

Harsen: problem here is that maybe when we have a.

398

00:49:23.940 --> 00:49:27.480

Harsen: Low temperature operation and these small.

399

00:49:29.910 --> 00:49:51.360

Harsen: cylinders with small hoses and there is no way for some parts of the old to go back to the system and get heat up so then we actually we would need to provide additional heat for that, and it will make the make the system more complex but yeah.

400

00:49:52.920 --> 00:49:56.100

Harsen: it's a, all in all, I think.

401

00:49:57.270 --> 00:50:00.720

Harsen: We should try to put more of these out in the market.

402

00:50:01.830 --> 00:50:05.640

Maximilian Cremer: yeah Thank you, the low temperature won't be an issue here in Hawaii.

403

00:50:06.570 --> 00:50:10.170

Harsen: yeah, of course, security, I have no.

404

00:50:10.710 --> 00:50:10.980

yeah.

405

00:50:12.000 --> 00:50:19.950

Ethan Roth: yeah I installed the D glide bearings couple years ago and, as you mentioned those don't need to be lubricated there's no way to there's no way to.



406

00:50:20.220 --> 00:50:22.380

Harsen: Remember, we replaced the man Okay, yes.

407

00:50:22.980 --> 00:50:30.090

Ethan Roth: yeah and then for the stainless Parts I just dry lube them with a product called MC lube.

408

00:50:31.440 --> 00:50:35.970

Ethan Roth: it's a it's a sailing product and that that works pretty well for the stainless parts.

409

00:50:38.670 --> 00:50:40.290

Ethan Roth: Okay matt go ahead.

410

00:50:42.180 --> 00:50:56.370

Matt Durham: yeah I was just interested in that from from Carson the the docking had that moves off from the ship is that is that what you have on school Eric now or is that just for the arby's.

411

00:50:56.670 --> 00:50:57.090

yeah.

412

00:50:59.580 --> 00:51:10.680

Harsen: We have it on there as equally but it's not the same, the The thing that cylinders, a 301 security our keys for actually for manually pointing the talking head towards the wrong direction.

413

00:51:11.760 --> 00:51:20.760

Harsen: And we wanted that we have on our cr V, is to remove the knocking it out of the picture, when we are in the cast, so the rope is free to go anywhere.

414

00:51:21.840 --> 00:51:31.020

Matt Durham: yeah that's a cool it's a cool idea i'm interested to see how that works out in real life we've recently on so I work at scripts where we have allied.

415

00:51:32.520 --> 00:51:46.410

Matt Durham: crane with the Marquis winch Lars system and it was designed with toning and things like that in mind, but we've had issues, sometimes with how that wire comes in contact with different parts of the larger system i'm wondering how.

416

00:51:46.440 --> 00:51:48.060

Harsen: Good we are before.

417

00:51:48.630 --> 00:51:56.550

Matt Durham: This movement so that's that's that was curious if that's actually been put to see it, or if that's still in.

418

00:51:56.850 --> 00:52:13.680

Harsen: It is we have one in Germany on muscle called i'll tell you it was three years ago we deliver that and then I think for the obvious, do you know the you are our speaker from Australia also there.

419

00:52:14.730 --> 00:52:25.920

Harsen: it's just being actually delivered to the line so it's not much of that, but in China, we have delivered I think five and all of them are working good pretty Nice.

420

00:52:26.400 --> 00:52:27.690

Matt Durham: or pretty good and.

421

00:52:27.990 --> 00:52:28.470

Matt Durham: rothwell.

422

00:52:29.010 --> 00:52:32.940

Harsen: hangs out and out of the way, because it is made of Armenian.

423

00:52:33.180 --> 00:52:33.840

Harsen: So it's.

424

00:52:34.350 --> 00:52:35.370

Harsen: Like very like.

425

00:52:36.540 --> 00:52:40.020

Matt Durham: Nice that's cool yeah that's interesting Thank you.

426

00:52:40.590 --> 00:52:42.510

Ethan Roth: I will say for the Security Act.

427

00:52:43.830 --> 00:52:44.550

Ethan Roth: Talking head.

428

00:52:45.750 --> 00:52:59.190

Ethan Roth: Because it was built for site side telling it's got all that play in the cylinders, and the docking head and we don't use it for side telling we never well it's solely for our CD and on a waves cruise.

429

00:53:00.300 --> 00:53:05.760

Ethan Roth: It scared the shit out of me how close the CD came to hitting the doorframe every time so.

430

00:53:07.230 --> 00:53:13.830

Ethan Roth: Because it it moves around like that, so I actually added counterbalance valves to the cylinders on the docking head.

431

00:53:14.160 --> 00:53:19.590

Ethan Roth: To prevent it from swinging around i'd rather not have it swing around and not have the feature.

432

00:53:20.040 --> 00:53:31.800

Ethan Roth: And I think that protects the ctv a lot more, because the docking heads not swinging but that's your application because we're stuck with the docking had being integral to the to the over boarding shift.

433

00:53:32.370 --> 00:53:34.530

Matt Durham: Do you guys ever get asked to do till you see.

434

00:53:36.570 --> 00:53:38.820

Ethan Roth: A we do.

435

00:53:39.570 --> 00:53:40.440

Ethan Roth: But it's pretty rare.

436

00:53:41.430 --> 00:53:46.080

Matt Durham: yeah that's where we that's where we run it and and, most recently, I think it was.

437

00:53:47.070 --> 00:53:57.810

Matt Durham: A combination of weather and crab angle to the survey line it just happened to find exactly where it didn't work, whereas i've done Toyota with our system and it's kind of rough on that.

438

00:53:58.260 --> 00:54:05.040

Matt Durham: roller shelves for after dealerships but that we kind of those almost become consumable on a long Toyota Prius.

439

00:54:06.000 --> 00:54:17.550

Matt Durham: Having more freedom in our our dog and head is not aluminum so it's very heavy and so, you know as you start telling you put a lot of kind of strain on on things that maybe shouldn't have.

440

00:54:18.060 --> 00:54:34.260

Ethan Roth: yep and and that's, not to say we can't tell anymore off the docking head it just means that rather than allow that play in the hydraulic cylinders, it just means the operator has to operate those cylinders, you know they they have to pressurize cylinders.

441

00:54:34.560 --> 00:54:35.190

Matt Durham: We do have.

442

00:54:36.540 --> 00:54:45.750

Matt Durham: You know, we have dampers cylinders on there so you're in theory, I haven't seen it work quite as advertised but, in theory, you should be able to turn the damper up and it's very stiff and turn the damper down.

443

00:54:46.230 --> 00:54:47.010

Ethan Roth: And it moves yep.

444

00:54:48.210 --> 00:54:49.440

Matt Durham: So a lot of weight to that.

445

00:54:50.190 --> 00:55:00.180

Ethan Roth: So by adding the counterbalance valves I eliminated that dampening feature, but you can still exercises, so you can still pressurize the cylinders and move the docking head so.

446

00:55:00.750 --> 00:55:01.950

Harsen: That they can you turn them off.

447

00:55:03.690 --> 00:55:09.660

Ethan Roth: A I mean I can I can turn the valves all the way down so there's no pressure on them so.

448

00:55:09.990 --> 00:55:23.340

Harsen: But the the thing with your cr V, is that we have a over Center wall with an electric power, so we can actually turn this into a completely off and just make it the swing and we can turn it on and control it, and also keep it in place.

449

00:55:24.750 --> 00:55:26.880

Ethan Roth: Well, you didn't give us that cool feature arson.

450

00:55:27.570 --> 00:55:29.460

Harsen: The security, I was the first one so.

451

00:55:29.520 --> 00:55:29.880

Ethan Roth: I know.

452

00:55:30.750 --> 00:55:31.200

I like.

453

00:55:33.720 --> 00:55:35.280

Ethan Roth: Alex has a question go ahead.

454

00:55:35.760 --> 00:55:49.380

Alex Wick: it's this really quick here is a for Fred and i'm wondering how you deal with your load cells, and if you calibrate them every time you, you know, put the thing on the boat you water bag it or how do you deal with that.

455

00:55:50.970 --> 00:55:52.110

Frederick Denton: yeah good question.

456

00:55:53.790 --> 00:56:05.370

Frederick Denton: yeah so we have a load pin in the level wind of the rap winch so it's a 90 degree level wind constant 90 degrees on it.

457

00:56:06.900 --> 00:56:13.290

Frederick Denton: And we we don't calibrate it every cruise but we calibrate it about once a year.

458

00:56:15.210 --> 00:56:15.690

Frederick Denton: it's.

459

00:56:17.190 --> 00:56:31.320

Frederick Denton: We do the calibration at the same time that we are setting our termination the mechanical termination of the cable so we're going to have a calibrated ships.

460

00:56:32.550 --> 00:56:34.140

Frederick Denton: boat cell tie anemometer.

461

00:56:37.020 --> 00:56:42.090

Frederick Denton: tied to a hard point on the ship so we're just pulling against the ship and.

462

00:56:43.260 --> 00:56:44.100

Frederick Denton: that's what we use.

463

00:56:46.230 --> 00:56:47.190

Alex Wick: right on thanks.

464

00:56:48.060 --> 00:56:59.220

Frederick Denton: Oh, and it's also, in a sense, you when you're doing that pole you're we're just pulling up to 100% of that the torque limit of the winch.

465

00:57:00.450 --> 00:57:03.000

Frederick Denton: And so that's sort of a built in.

466

00:57:04.590 --> 00:57:08.790

Frederick Denton: master I see no reason why that would drift.

467

00:57:11.760 --> 00:57:15.000

Frederick Denton: So that's that's what we're pulling up to and then.

468

00:57:16.200 --> 00:57:17.310

Frederick Denton: So we sort of have two.

469

00:57:18.480 --> 00:57:23.580

Frederick Denton: sources but were made were using the load sell on the shackle.

470

00:57:24.900 --> 00:57:25.200

got it.

471

00:57:30.930 --> 00:57:31.470

Ethan Roth: Okay.

472

00:57:32.550 --> 00:57:39.660

Ethan Roth: Are there any other questions I jewels says we have until 1055 so we got a couple more minutes.

473

00:57:40.590 --> 00:57:42.210

Jules Hummon: zoomed out man, I need a break.

474

00:57:46.410 --> 00:57:47.370

Marshall S: ethan it's Marshall.

475

00:57:48.480 --> 00:57:49.200

Marshall S: like to know.

476

00:57:50.250 --> 00:57:58.770

Marshall S: i'd like to know if there are any specific plans by operators with current large systems to have a regular dummy load.

477

00:57:59.010 --> 00:58:00.180

James Holik: testing procedure.

478

00:58:00.390 --> 00:58:01.080

Marshall S: in place.

479

00:58:02.850 --> 00:58:04.620

Ethan Roth: i'm gonna let Jim holic answer that.

480

00:58:07.830 --> 00:58:08.490

James Holik: proposal.

481

00:58:11.460 --> 00:58:20.970

Ethan Roth: And I my two cents Marshall is that you know, based on the meeting in July and then hopefully the discussion we're having today, this will.

482

00:58:21.900 --> 00:58:32.490

Ethan Roth: Only continue to blossom into what brandi mentioned earlier, as you know, we more or less have kind of an advisory group for the fleet for these types of systems.

483



00:58:33.000 --> 00:58:50.220

Ethan Roth: And and those kinds of recommendations or actions could could come out of that group at least that's the way I I would envision it and I I see Jim nodding his head that I think he's supportive of the idea so nothing's going to happen overnight, but.

484

00:58:51.510 --> 00:58:58.290

Ethan Roth: I think some of us are interested in in having this type of discussion carry into.

485

00:58:59.580 --> 00:59:02.970

Ethan Roth: something bigger for the fleet so stay tuned.

486

00:59:03.960 --> 00:59:04.140

and

487

00:59:05.310 --> 00:59:13.590

Brandi Murphy: Oh just real quick on the same topic is I forgot to mention it when we were talking about the report, but at least one institution has already implemented a standard practice of.

488

00:59:14.730 --> 00:59:18.300

Brandi Murphy: Starting with their crews, with the dummy load make sure it works.

489

00:59:19.110 --> 00:59:21.900

Maximilian Cremer: yep that's awesome good I don't have to waste any more.

490

00:59:21.930 --> 00:59:22.680

Harsen: Time Thank you.

491

00:59:24.240 --> 00:59:26.640

Ethan Roth: Alright, one more session you.

492

00:59:27.690 --> 00:59:43.230

Woogen, Andrew: know that that was my That was my question I was hoping, you could provide more details on your plans for that that committee, you know, would it be just a temporary

advisor community to solve a specific problem, are you thinking long term or or or you don't know yet.

493

00:59:44.310 --> 00:59:50.310

James Holik: You know, let us meet again we have a bunch of people, and it was a really big meeting very good meeting actually.

494

00:59:51.480 --> 01:00:03.240

James Holik: we're going to get the Minutes out or the summary out and then we'll meet again and we'll decide i'm not sure I mean we have a lot of committees, but this is a really good one in a great session, by the way, I.

495

01:00:05.490 --> 01:00:10.890

James Holik: know this is long overdue, to get down to the to the essence of these things.

496

01:00:13.260 --> 01:00:15.240

Ethan Roth: yeah and we have a lot of great.

497

01:00:16.650 --> 01:00:26.250

Ethan Roth: Technical engineering folks in the fleet, I think, who have brought these kinds of solutions to bear to the kinds of issues that we've been discussing so.

498

01:00:27.600 --> 01:00:29.400

Ethan Roth: That that's why we have these venues right.

499

01:00:30.060 --> 01:00:37.710

James Holik: Correct so you get it, you still have your your chart that you've set before every deployment based on history.

500

01:00:39.810 --> 01:00:46.740

Ethan Roth: uh yeah so again, you know our our system on school yak is is kind of a older generation system.

501

01:00:48.090 --> 01:00:53.910

Ethan Roth: And we've chosen to run it a little differently than I think the vendor intended us to.

502

01:00:55.440 --> 01:00:58.590

Ethan Roth: And so yeah we provide look up tables to our operators.

503

01:00:59.760 --> 01:01:17.100

Ethan Roth: Just kind of emphasizing what Fred mentioned about those kinds of step by step, procedures and sequences that's what it's all about for these types of in integrated systems is is the ability for the operator to go, step by step, through a procedure have positive.

504

01:01:19.290 --> 01:01:25.950

Ethan Roth: Positive controls, telling them that they can move on to the next thing and that they get that feedback, as far as.

505

01:01:27.090 --> 01:01:33.930

Ethan Roth: You know, this is the state of my package, this is what it weighs, this is what I need to do to my system to have a safe recovery or or launch.

506

01:01:35.010 --> 01:01:39.510

James Holik: We had we had too many last packages in the past few years, but.

507

01:01:40.830 --> 01:01:47.790

James Holik: This is why we're we're talking to her addressing this and according to Marshall they're going out to get the one they've lost so.

508

01:01:49.620 --> 01:01:50.850

James Holik: fingers are crossed good luck.

509

01:01:53.430 --> 01:02:00.060

Brandi Murphy: I am sorry to cut an active conversation short but we do need to queue up the next session of instrumentation.

510

01:02:00.720 --> 01:02:13.620

Brandi Murphy: If you want to continue the discussion there is a Community topic for lunch and recovery systems, and I think you'll be hearing more about this is the report subsequent meetings continue, so thank you and thank you ethan for putting this together.

511

01:02:15.210 --> 01:02:16.050

Brandi Murphy: Thank you very much.

512

01:02:16.920 --> 01:02:18.210

Ethan Roth: Thank you appreciate it.

513

01:02:19.080 --> 01:02:20.100

Harsen: Thank you for inviting me.

514

01:02:21.720 --> 01:02:23.130

Frederick Denton: My my pleasure.

## Instrumentation

1

00:01:52.830 --> 00:01:53.550

Suzanne O'Hara (she/her): brandi.

2

00:01:55.650 --> 00:01:56.850

Brandi Murphy: hi Suzanne how are you.

3

00:01:57.450 --> 00:02:00.660

Suzanne O'Hara (she/her): i'm fine, so I guess i'm going to try to do the zoom.

4

00:02:01.800 --> 00:02:02.280

Suzanne O'Hara (she/her): screen.

5

00:02:05.940 --> 00:02:07.710

Brandi Murphy: i'm just pulling up.

6

00:02:21.600 --> 00:02:22.050

yeah.

7

00:02:27.420 --> 00:02:32.070

Jules Hummon: hey it's nine o'clock i'm Leigh Ellis introducing today's session.

8

00:02:34.020 --> 00:02:35.130

Jules Hummon: We had to step out briefly.

9

00:02:36.150 --> 00:02:38.400

Jules Hummon: So today we have Suzanne first.

10

00:02:39.480 --> 00:02:49.980

Jules Hummon: Talking about our to our and then a Dino will show us something about 3D printing and then we have best practices and brandy may have already said all that, I don't know.

11

00:02:52.530 --> 00:02:53.250

Brandi Murphy: Thank you to go.

12

00:02:54.210 --> 00:02:55.140

Jules Hummon: take it away Suzanne.

13

00:02:58.410 --> 00:02:58.800

Suzanne O'Hara (she/her): So i'm.

14

00:03:00.150 --> 00:03:03.000

Suzanne O'Hara (she/her): going to share my screen can people see the US the cover slide.

15

00:03:03.630 --> 00:03:04.020

Jules Hummon: Yes.

16

00:03:04.530 --> 00:03:09.360

Suzanne O'Hara (she/her): Okay, great so I have quite a few slides i'm going to go through relatively quickly, I think.

17

00:03:09.990 --> 00:03:22.710

Suzanne O'Hara (she/her): People can come back and click on things or review later and and talk, but I just had information, I want to get out so our doors a large team of people from many institutions, I think most of you know us.

18

00:03:23.850 --> 00:03:38.490

Suzanne O'Hara (she/her): Were multiple jobs here archiving organizing and disseminating the original underway data and documents that you collect we do some data quality assessment and make some products and provide an etsy event Lager.

19

00:03:41.460 --> 00:03:46.080

Suzanne O'Hara (she/her): just give you an idea, the of the coverage that we currently have in our to our this is.

20

00:03:47.220 --> 00:03:55.080

Suzanne O'Hara (she/her): The crews data that you send into us so most of these red lines have data that is all available for free on the web to anyone.

21

00:03:57.630 --> 00:04:06.090

Suzanne O'Hara (she/her): So we're looking at the volume of data here, and one thing I wanted to tell people that they might not have known as you can actually tell us the type of cruise.

22

00:04:06.450 --> 00:04:15.780

Suzanne O'Hara (she/her): by default it's a science cruise, but we do classify other types of cruises So if you have that information to be good to pass it on because in instances.

23

00:04:16.650 --> 00:04:22.440

Suzanne O'Hara (she/her): For instance, if it's a transit or maintenance period we know not to back to data distribution to bother you.

24

00:04:23.220 --> 00:04:35.790

Suzanne O'Hara (she/her): The Gray line here shows the total size of data we received for that year and it's been increasing pretty steadily but it's interesting that last year, though, we only received about half the cruises.

25

00:04:36.150 --> 00:04:41.850

Suzanne O'Hara (she/her): We received more data than ever before, some of these devices are really collecting large amounts.

26

00:04:44.190 --> 00:04:48.840

Suzanne O'Hara (she/her): One thing that we want to think about is how fast did the operators get data to our to our.

27

00:04:49.170 --> 00:04:56.400

Suzanne O'Hara (she/her): Once it's in our to our it's going to be archived it's going to be secure and we're going to start looking at it in evaluating that everything's there.

28

00:04:57.210 --> 00:05:09.720

Suzanne O'Hara (she/her): So the black line on this plot shows the weighted average for the number of days after the end of a cruise to we receive the data and we're still looking at as of last year.

29

00:05:10.110 --> 00:05:18.330

Suzanne O'Hara (she/her): about six months, which means that most people send us the data after the entire year is done so, the last cruise comes quickly the first cruise.

30

00:05:18.630 --> 00:05:26.250

Suzanne O'Hara (she/her): takes a year it averages six months so we're working as you can see there's some people sending data already from the 2021 season.

31

00:05:26.850 --> 00:05:35.130

Suzanne O'Hara (she/her): So we'd like people to consider sending data faster, and we can help you do that i'll have a bit of information on that later.

32

00:05:36.000 --> 00:05:48.960

Suzanne O'Hara (she/her): Along with that the cruise manifest the information that tells us when where who for cruise is also taking about six months most operators send them separately from the data.

33

00:05:49.500 --> 00:05:57.030

Suzanne O'Hara (she/her): And, in some cases, we need to go asking for them, but this is something that's part of the universe requirement, they have a.

34

00:05:57.420 --> 00:06:12.750

Suzanne O'Hara (she/her): form to fill out, but if you have a standard form that has the same information we're more than happy to work on harvesting it directly from that and eventually it'd be great to use the nfp but until everything's in place, we still have to use the old stuff.

35

00:06:14.940 --> 00:06:27.360

Suzanne O'Hara (she/her): So how can you get data and metadata to us, we currently receive things via Globus s ftp cloud downloads from various systems USB drives the through the mail.

36

00:06:27.660 --> 00:06:32.730

Suzanne O'Hara (she/her): Some people email mostly crews manifest but smaller data set sometimes come as male.

37

00:06:33.210 --> 00:06:41.730

Suzanne O'Hara (she/her): dropbox either one we share with you, or when you share with us and then other random methods and we're certainly happy to try something new.

38

00:06:42.300 --> 00:07:00.810

Suzanne O'Hara (she/her): So if you want to talk to us about different methods we're happy to help if sending you a USB drive to send back to us will make life easier, we can do that too so get in touch with us reach out and we'll try to make this work, so you can get your data to our to our an archive faster.

39

00:07:02.340 --> 00:07:13.170

Suzanne O'Hara (she/her): Now i'm going to cover a couple of data issues one thing when our to our started, not even though all the vessels seem to have a DNS s or ins system.

40

00:07:13.890 --> 00:07:31.530

Suzanne O'Hara (she/her): Oh, most of them weren't sending if you look at the green line in 2009 That was the number of raw navigation data sets we were receiving for the year, whereas the blue bar is the total number of cruises and the yellow line is the number of devices installed so by.

41

00:07:33.090 --> 00:07:40.230



Suzanne O'Hara (she/her): we're doing pretty well at people collecting raw data but there's still a few vessels that don't collect it originally raw.

42

00:07:40.590 --> 00:07:48.750

Suzanne O'Hara (she/her): And we're having to harvest it out of other things, so if you aren't already collecting full resolution raw data, you should think about it, and we can talk to you.

43

00:07:49.320 --> 00:07:58.350

Suzanne O'Hara (she/her): there's also here on this plot the pink vertical bar is the number of cruise data distress or data we received for cruises.

44

00:07:58.740 --> 00:08:08.340

Suzanne O'Hara (she/her): So we have a gap it's gotten better since 2009 but not everything has a data distro and we'd like to be able to figure out.

45

00:08:08.760 --> 00:08:26.490

Suzanne O'Hara (she/her): If it's because the cruise didn't collect distro like it was a transit or didn't collect data or if we're missing it so we now have an operator dashboard that i'll show quickly in a little while to let you see what we have and don't have for your cruises.

46

00:08:28.830 --> 00:08:33.780

Suzanne O'Hara (she/her): Okay, I have a couple of years with lots of tech sorry there was nothing interesting to put on it.

47

00:08:34.560 --> 00:08:46.680

Suzanne O'Hara (she/her): So recently we've been seeing some problems in the last two years, with people either changing the names of their files, how they named their files or their directory structures.

48

00:08:47.160 --> 00:08:57.420

Suzanne O'Hara (she/her): or, even worse, putting things like spaces commas special characters in the file names so here are some suggestions for your file naming first of all.

49

00:08:57.930 --> 00:09:08.490

Suzanne O'Hara (she/her): don't change your names and directories and, but if you do tell us, because we need to do pattern matching to extract data if we don't know it's changed we've just see it doesn't exist.

50

00:09:10.080 --> 00:09:23.220

Suzanne O'Hara (she/her): Also, another suggestion is where people are naming things like the example here, where every cruise has a CD oh one hex file, that means when the CD data is all extracted from a cruise.

51

00:09:23.820 --> 00:09:32.550

Suzanne O'Hara (she/her): they're all called CD oh one and at best you don't know what cruise it came from at worse you put them all in the same directory, and only the last one exists.

52

00:09:33.060 --> 00:09:50.490

Suzanne O'Hara (she/her): So we're recommending you do something unique like the cruise ID to prefix everything or some ID so it's it can be maybe the date, but some way to keep file names unique, not only within a distro within a cruise a from cruise cruise.

53

00:09:52.200 --> 00:09:57.030

Suzanne O'Hara (she/her): be aware since nci only accept files and stuff that.

54

00:09:58.890 --> 00:10:12.030

Suzanne O'Hara (she/her): Is Linux format, it means you have to be able to program and read live in on a Linux system, the files, otherwise I won't accept it, so your data won't get archived.

55

00:10:12.960 --> 00:10:24.180

Suzanne O'Hara (she/her): And that means these special characters matter, it means that if you change case sensitive from some capital to small random mixes up, it may not get extracted.

56

00:10:25.830 --> 00:10:28.020

Suzanne O'Hara (she/her): And there's some other suggestions on this link.

57

00:10:31.620 --> 00:10:50.610

Suzanne O'Hara (she/her): So um next step, we want to do is start collecting more documentation from the vessels programmatically like we do data so some of the things we'd

like you to start putting on are telling us about if you already do or any sort of technical or science reports any sort of.

58

00:10:51.900 --> 00:11:03.420

Suzanne O'Hara (she/her): calibration or configuration documentation like for the CD the p FP laptop files, especially the GT the gravity time file.

59

00:11:04.170 --> 00:11:16.320

Suzanne O'Hara (she/her): Or if you don't use P, a P, the equivalent if you aren't using an event log or any sort of deployment information that would be useful when, if you are using event log or make sure that gets on the distro.

60

00:11:17.820 --> 00:11:29.310

Suzanne O'Hara (she/her): And vendor documentation said help people know more about the make model software versions any underweight flow devices patch test information and.

61

00:11:30.840 --> 00:11:44.490

Suzanne O'Hara (she/her): Ship surveys event logs reports, the idea being if someone 10 years or 50 years from now wants to use the data we want to provide any documentation that will make it useful to them at that time.

62

00:11:47.700 --> 00:12:00.780

Suzanne O'Hara (she/her): Okay, so this is the operator dashboard there's two ways to reach it we're hoping to re design some of our website, because some of the most important things are hidden hidden down inside other menus.

63

00:12:01.980 --> 00:12:10.620

Suzanne O'Hara (she/her): But for any vessel, you can click on the link, for your vessel then click on the link for the year and see an image like what we have here.

64

00:12:11.730 --> 00:12:30.510

Suzanne O'Hara (she/her): To see did we receive the data, did we receive the metadata do we have the crew the personnel manifest how many data sets did we get so once you have an idea, and when you float over the little colored lamps it'll explain why it was green yellow or red.

65

00:12:32.880 --> 00:12:38.610

Suzanne O'Hara (she/her): So this and we would like feedback on this as well, what makes it useful to you is there stuff we should have.

66

00:12:40.200 --> 00:12:40.800

Suzanne O'Hara (she/her): clarified.

67

00:12:42.330 --> 00:12:54.150

Suzanne O'Hara (she/her): And then, looking forward we're want to improve the search facility faculty functionality on the website and some organizational issues i'm.

68

00:12:54.510 --> 00:13:05.190

Suzanne O'Hara (she/her): extracting the documentation in serving that we'd like to move forward with harvesting the cruise manifests from the M P once that's all set.

69

00:13:05.790 --> 00:13:15.720

Suzanne O'Hara (she/her): And one thing we're always trying to figure out is how to better exchange information about devices when they're changed updated taken on or off the ship.

70

00:13:16.650 --> 00:13:30.240

Suzanne O'Hara (she/her): And do more with near real time data streams, to see what we can either for crews metadata or actual data, and we always look for your suggestions on what you think would improve things.

71

00:13:33.660 --> 00:13:40.950

Suzanne O'Hara (she/her): And we also are looking for someone to join our team at the Lamont campus.

72

00:13:41.730 --> 00:13:55.770

Suzanne O'Hara (she/her): That and we're kind of looking from two different angles so it's one position but we're looking at both someone That would be a PhD scientist level that has technical familiarity.

73

00:13:56.310 --> 00:14:05.160

Suzanne O'Hara (she/her): or someone That would be a bachelor's degree with engineering and equipment experience that would grow into the position.

74

00:14:06.180 --> 00:14:16.350

Suzanne O'Hara (she/her): So if you're interested, let us know you can contact us or follow the links on this page to see the application and job descriptions.

75

00:14:18.540 --> 00:14:21.360

Suzanne O'Hara (she/her): And here's some contact information.

76

00:14:22.890 --> 00:14:25.770

Suzanne O'Hara (she/her): And we'd like to thank all the various funders.

77

00:14:28.530 --> 00:14:33.060

Suzanne O'Hara (she/her): So I only had 10 minutes I don't know how well I did i'm.

78

00:14:33.480 --> 00:14:33.990

Jules Hummon: pretty well.

79

00:14:34.890 --> 00:14:41.640

Jules Hummon: Okay um, what do you think ready questions now or or do them in the Community.

80

00:14:42.480 --> 00:14:43.590

Brandi Murphy: Jim has a question.

81

00:14:43.950 --> 00:14:52.020

James Holik: is not really a big question it's a small question and says, I can ask her really quickly, first of all great job I mean our to our has become the standard.

82

00:14:53.520 --> 00:14:57.510

James Holik: The fleet in the world for what we're doing so congratulations you guys did great.

83

00:14:58.140 --> 00:15:00.270

James Holik: Thank one thing Suzanne if you can do.

84

00:15:00.360 --> 00:15:02.610

James Holik: One dictate I know you you're.

85

00:15:03.600 --> 00:15:04.680

James Holik: you're reluctant to make.

86

00:15:04.680 --> 00:15:15.900

James Holik: demands, but if you can make one demand to all these people that are listening to you now What would it be get your data in get your formats right what's one thing that you would tell people.

87

00:15:16.800 --> 00:15:19.770

Suzanne O'Hara (she/her): um well there's.

88

00:15:19.830 --> 00:15:26.640

Suzanne O'Hara (she/her): My wish is big so what I would say today what i'd like people to do is work on getting the data to us.

89

00:15:26.940 --> 00:15:42.720

Suzanne O'Hara (she/her): Faster because, while it's on your systems, it might not be as robust lead archived I don't know what individual groups do, but once it gets to us it gets archived at nci and located so it's safe.

90

00:15:43.170 --> 00:15:52.140

Suzanne O'Hara (she/her): It gets reviewed in case something's missing, we might be able to recover it before you clean your just saw or whatever happens um so that's.

91

00:15:52.830 --> 00:16:01.950

Suzanne O'Hara (she/her): That would be both the metadata so we know cruise is coming, and it happened, and we haven't correct, which could be set out right at the end of the cruise and then the data.

92

00:16:03.420 --> 00:16:06.660

Suzanne O'Hara (she/her): And my I have a much longer wish list but let's just say that.

93

00:16:10.530 --> 00:16:13.050

Jules Hummon: sounds like a good choice it's it's got a hand up.

94

00:16:14.100 --> 00:16:17.970

Ethan Roth: Who um thanks to them, for your talk.

95

00:16:19.050 --> 00:16:24.090

Ethan Roth: I know that you've been working very closely with some of the folks at osu.

96

00:16:24.360 --> 00:16:26.340

Ethan Roth: Our security for data presence.

97

00:16:27.630 --> 00:16:36.210

Ethan Roth: Did you could you comment just on where do you see things heading as far as your work with them for.

98

00:16:37.440 --> 00:16:40.620

Ethan Roth: You know the existing operators as far as how we can improve.

99

00:16:42.330 --> 00:16:51.420

Ethan Roth: Our documentation with you metadata workflow things like that I know there's some things in the pipe it might be valuable for other folks to hear about it.

100

00:16:53.220 --> 00:16:59.190

Suzanne O'Hara (she/her): um so you talking about the the near real time aspect of it is that what you mean or.

101

00:17:00.450 --> 00:17:15.720

Ethan Roth: Whatever you want to talk about that I might not know about I do know about, for example, like the xml metadata files that they're looking to do daily that will help all of us keep track of what sensors are installed on the ship at any one time things like.

102

00:17:16.560 --> 00:17:25.110

Suzanne O'Hara (she/her): Right, so that that is true, the information that they're doing where they're acquiring what's up and running what's installed.

103

00:17:25.980 --> 00:17:33.090

Suzanne O'Hara (she/her): And theoretically that could also like we were talking about it could be sent to us, while the cruise is underway.

104

00:17:33.990 --> 00:17:42.330

Suzanne O'Hara (she/her): But the idea with a lot of what they're doing is we'd receive at the end of the cruise if not before what actually happened and one.

105

00:17:43.140 --> 00:17:50.190

Suzanne O'Hara (she/her): gap, we have that we keep trying to figure out how to do is we don't know what instruments were collected We only know what you sent us.

106

00:17:51.150 --> 00:18:03.210

Suzanne O'Hara (she/her): So when equipment changes or is running or not running, it would be really handy so that kind of X it's an xml but other institutions might do it differently would be useful to know.

107

00:18:04.920 --> 00:18:05.370

Suzanne O'Hara (she/her): and

108

00:18:06.510 --> 00:18:07.230

Suzanne O'Hara (she/her): Do I know.

109

00:18:08.460 --> 00:18:12.600

Suzanne O'Hara (she/her): We can have a discussion or do something in the Community, but I.

110

00:18:12.960 --> 00:18:14.460

Jules Hummon: yeah we should probably move on.

111

00:18:15.810 --> 00:18:19.050

Suzanne O'Hara (she/her): But thank you everybody everybody's been really helpful for our to our.

112



00:18:20.040 --> 00:18:20.940  
Jules Hummon: that's because we love you.

113  
00:18:22.080 --> 00:18:22.530  
Suzanne O'Hara (she/her): Thank you.

114  
00:18:25.020 --> 00:18:26.520  
Jules Hummon: i'm edina.

115  
00:18:27.150 --> 00:18:28.710  
Jules Hummon: hi hi there you are.

116  
00:18:29.010 --> 00:18:29.370  
yep.

117  
00:18:30.930 --> 00:18:34.470  
Adina: All right, let me figure out this screen sharing business.

118  
00:18:36.270 --> 00:18:56.340  
Adina: and bring up my PowerPoint so For those of you who don't know me, I am a dina I work for the US Antarctic program as an electronics tech and brandi approached us to talk a little bit about our experience with 3D printing so.

119  
00:18:57.930 --> 00:18:58.860  
Adina: Let me.

120  
00:19:01.920 --> 00:19:02.850  
Adina: bring this up.

121  
00:19:06.270 --> 00:19:10.350  
Adina: All right, can everybody see that there we go.

122  
00:19:10.950 --> 00:19:20.760

Adina: Excellent excellent so um so we have a couple 3D printers they're pretty fun tool for those of you who don't know.

123

00:19:21.510 --> 00:19:34.170

Adina: 3D printing is a layer by layer additive process, so you have a plastic filament that is heated and extruded and they are in the bad move relative to each other to.

124

00:19:34.650 --> 00:19:48.480

Adina: form an arbitrary shape based on the the G code file or similar file that the slicer sort of feeds to the to the printer, and so I mean here's just an example you have sort of.

125

00:19:49.170 --> 00:20:01.830

Adina: A couple different stages, the first, is what the the first stage, when the material sticking to the bed it's sort of a finicky stage, and then it builds up layer by layer to get to get your final product.

126

00:20:03.540 --> 00:20:14.190

Adina: um the specific printers that we have on the on the Palmer we have a little spot has five and on the cool who have a little spot has many.

127

00:20:15.240 --> 00:20:25.380

Adina: We did those with considerations for our space for a while Lol spot didn't exist, then the last time I went to the website there back with some new product so.

128

00:20:26.220 --> 00:20:32.610

Adina: But there, there are a number of different companies maker bought and and in different spots, that you can get 3D printers.

129

00:20:32.970 --> 00:20:53.250

Adina: So we've been happy with these i'm not endorsing this as a particular product that's just what I have experienced with things to look into is how fast does it grow what materials is it compatible with how big of a volume, can you print and then other features like bed leveling.

130

00:20:54.870 --> 00:21:02.550

Adina: We found these to perform really well with the motion of the boat, whereas some earlier sort of less featured.

131

00:21:03.600 --> 00:21:22.620

Adina: printers that we had had a had a hard time with the the the bed sort of shaking around relative to the print had with the with the motion to the ocean so i'm getting something that's got sort of fairly robust steppers and and and that kind of mechanism is important to us.

132

00:21:23.850 --> 00:21:32.700

Adina: Another key thing for us has been how easy, these are to repair and they're well documented, so a lot of the parts on these printers are printed, and so we.

133

00:21:32.940 --> 00:21:43.350

Adina: Have printed up a bunch of spare parts, so we can we can fix our printers as we go and that's you know that's been pretty clutch to take keeping them running.

134

00:21:47.760 --> 00:21:53.580

Adina: There we go so i'm just going to intersperse a few examples of things of projects that we've.

135

00:21:55.200 --> 00:21:57.480

Adina: use this for so in this example.

136

00:21:58.770 --> 00:22:12.060

Adina: Kevin was making a bunch of battery packs and it turns out the batteries roll around and it's really hard to hold them in place when you're welding tabs on, and if you print up a little holder to hold your batteries in place while you're building tabs you can.

137

00:22:13.230 --> 00:22:21.210

Adina: bang out a bunch of battery packs really quickly so there's there's a little widget that we made another problem that we've solved well.

138

00:22:22.650 --> 00:22:27.360

Adina: repurposing pressure vessels for other purposes, so.

139

00:22:29.370 --> 00:22:37.410

Adina: These have been great for making all kinds of mounting brackets and enclosures and things like that in this example we.

140

00:22:38.310 --> 00:22:50.520

Adina: took a took a little gopro and repurpose that deep sea and white, housing and needed to present to position the camera fairly precisely and keep them from wobbling around so you could.

141

00:22:51.330 --> 00:22:59.580

Adina: Take pictures out of it and use that to to monitor some of our coring when we're having trouble with the Multi car misfiring.

142

00:23:00.750 --> 00:23:03.750

Adina: we've repurpose that their houses to hold.

143

00:23:05.040 --> 00:23:09.000

Adina: 90 sensor so motion sensors to look at.

144

00:23:10.290 --> 00:23:27.360

Adina: Why why rap issues with our CDs and things like that so it's been a really, really great MacGyver tool to be able to repurpose things that we have print the appropriate mounting brackets to get some really solid instrumentation together.

145

00:23:32.340 --> 00:23:36.990

Adina: i'm lagging a little bit here too, oh there we go um so.

146

00:23:38.820 --> 00:23:39.750

Adina: materials.

147

00:23:40.950 --> 00:23:48.090

Adina: The materials that you can print our plastics and there are a bunch of different materials that are available.

148

00:23:48.780 --> 00:24:06.000

Adina: lots of different considerations for choosing appropriate materials so some of them are easier or harder to print based on, you know how evenly did they extruded how hot do they have to get how much thermal expansion is there, do they out gas.

149

00:24:07.410 --> 00:24:18.330

Adina: Their considerations for for the mechanical properties that you need what kind of environment they'll be in so some are more or less good around water UV.

150

00:24:19.980 --> 00:24:21.690

Adina: organic solvents.

151

00:24:23.340 --> 00:24:25.560

Adina: And so.

152

00:24:26.820 --> 00:24:38.760

Adina: there's a lot of there's a lot of information out there on on choosing a particular material for a particular thing So these are things to keep in mind when you're sort of stocking up is like.

153

00:24:39.120 --> 00:24:53.790

Adina: Oh, if i'm going to be printing a lot of things that I need to use with organic solvents, maybe I want some nylons and and things like that, whereas if i'm printing things that will get wet a lot, maybe ABS would be a good choice.

154

00:24:55.320 --> 00:25:00.330

Adina: And so, choosing your material carefully for your application and.

155

00:25:01.860 --> 00:25:08.460

Adina: It is pretty important and one thing that I found that has been really key for us for for me for.

156

00:25:08.730 --> 00:25:20.940

Adina: Keeping the equipment Nice is that there is an extra water cleaning filament and that's really great when you're switching between materials and getting drunk build up and and so being able to keep the water clean.

157

00:25:22.110 --> 00:25:29.550

Adina: Keep keeps the equipment operating well here's another example where for our dough DECO sounder we.

158

00:25:30.000 --> 00:25:45.990

Adina: needed the deck personnel to be able to shut off the pinging and pull the transducers out of the water when we're approaching ice, and so we put together this system where there's a flashing light to alert the deck personnel as to when the instrument is.

159

00:25:47.070 --> 00:25:59.190

Adina: Is energized and this little wireless shut off button, and so we needed to make cases that were watertight and robust and use a ball, so we could do fun things like.

160

00:25:59.550 --> 00:26:08.400

Adina: printing these enclosures with magnets so that we could stick this flashy light onto the onto the onto the walls, where it's visible and.

161

00:26:09.180 --> 00:26:15.570

Adina: watertight enclosure using ABS and solvent welding for the button, so that the.

162

00:26:16.140 --> 00:26:27.810

Adina: The Marine tech can carry the button around in their pocket, and then you can't see it on this photo but on the on the far side there's a little loop for a lanyard attachment so that so that it doesn't get lost and.

163

00:26:29.400 --> 00:26:32.940

Adina: So, like on the on the topic of being able to print.

164

00:26:34.590 --> 00:26:38.940

Adina: enclosures for things it's great because you can you can integrate.

165

00:26:40.230 --> 00:27:01.410

Adina: standoff posts, you can integrate all of the different paths through that you need for the for the wires and use different materials to get either watertight properties or or, to be able to heat set some screws in or other things like that so very versatile flexible tool.

166

00:27:03.600 --> 00:27:05.370

Adina: I feel like I missed the oh.

167

00:27:07.710 --> 00:27:20.310

Adina: So we miss a slide back here so good and bad things about free 3D printing is great because it's versatile you can generate a lot of arbitrary shapes and a lot of things that are hard to do with like machining.

168

00:27:21.390 --> 00:27:37.800

Adina: there's a pretty good choice of materials as long as it's plastic so it's great for all those little like this tiny little plastic widget in here broke, and all of a sudden render this big piece of equipment non functional and it's such a simple little thing but it's hard to do well.

169

00:27:38.880 --> 00:27:59.400

Adina: There are big repositories of models so if you want a particular thing somebody's probably already made it, you can probably download an spl and just print it out go to finger verse or someplace like that, and the footprint of the piece of equipment is relatively small so.

170

00:28:00.480 --> 00:28:08.250

Adina: bad things about it, it can be really slow this layer by layer additive thing is not the quickest thing to do, it's.

171

00:28:08.730 --> 00:28:19.230

Adina: Some geometries are hard and you need to be able to use the computer programs to to draw the things you need, and it can be really finicky depending on the material that you're working with so.

172

00:28:19.950 --> 00:28:25.770

Adina: Like most mature, like most tools, there are things that it's really good at, and things but it's really not good at.

173

00:28:27.150 --> 00:28:28.170

Adina: i'd say you know.

174

00:28:29.460 --> 00:28:33.720

Adina: We found that there are a lot of applications where this is great because.

175

00:28:35.550 --> 00:28:50.430

Adina: you're only using the amount of material that you need so unlike starting with a piece and machining it down you don't end up with all that waste is doing the additive process so that's nice i'm lessons that we've learned.

176

00:28:52.230 --> 00:29:10.950

Adina: Their tools they break have spare bits and print backup parts as soon as you can a lot of the printing is is temperature and moisture sensitive so having an enclosure and managing managing your moisture with your filament storage is important.

177

00:29:12.270 --> 00:29:25.380

Adina: Some materials out gas a lot, particularly ABS, which is a very common one, so in an enclosed space, this can be a problematic and it's kind of an art form it's really fun be patient experiment.

178

00:29:26.100 --> 00:29:46.290

Adina: And we've used it also a lot for morale, so this is one of the projects that I thought was just super fun, as I when one of our texts head has lost a couple fingers in a motorcycle accident much, much earlier, and so I found this parameter eyes printable finger that.

179

00:29:47.670 --> 00:29:49.350

Adina: works and ben's.

180

00:29:52.350 --> 00:30:01.050

Adina: So just to give an example of how complex of steps that can be made with this tool it's it's been really fun for morale we've done things like.

181

00:30:03.000 --> 00:30:07.470

Adina: we've we've done some other things like like for people who have.

182

00:30:08.820 --> 00:30:22.860

Adina: have come and and done some mapping we've been able to print out 3D topographic map, so if some of our study areas and other fun things like that that that have been both both entertaining and helpful so.



183

00:30:24.090 --> 00:30:36.810

Adina: that's just a little overview of a few of the things that we've been able to do with our 3D printers and a few of the considerations that we have so anyone has any questions, yes brandi.

184

00:30:37.200 --> 00:30:48.150

Brandi Murphy: I do, but as the host I can't raise my hand in the APP so um, I just wanted to ask about underwater applications like I don't know if are there gaps in the.

185

00:30:49.350 --> 00:30:53.820

Brandi Murphy: Air gaps, perhaps in the construction of these plastics that might not perform well at pressure.

186

00:30:54.510 --> 00:31:00.540

Adina: So um so there there, there are things to perform well at pressure.

187

00:31:02.010 --> 00:31:16.080

Adina: ABS is ketone soluble so you can do acetone if you give it an acetone treatment, it will fill in every little gap in there, and you can also solvent well that, without acetone so that can make.

188

00:31:17.100 --> 00:31:23.730

Adina: make things that have that definitely have no gaps nylons print, to be quite watertight as well.

189

00:31:25.440 --> 00:31:31.590

Adina: And there are printable gasket materials as well, so they're flexible materials that one can use to make.

190

00:31:33.090 --> 00:31:37.050

Adina: Like boxes that have a little gasket that will seal to be watertight.

191

00:31:38.280 --> 00:31:45.900

Adina: We haven't tested I haven't made any enclosures for like doing fairly deep things a lot of thing i'm.

192

00:31:46.320 --> 00:32:01.680

Adina: The standard printing practices to have some sort of a you have a wall and then a fill so they're usually without 100% filling you do have air gaps in there and so it's pretty slow and uses a lot of material to print solid forms.

193

00:32:04.410 --> 00:32:06.270

Adina: Okay, and.

194

00:32:06.510 --> 00:32:07.500

Adina: You see.

195

00:32:09.540 --> 00:32:10.080

Jules Hummon: Max.

196

00:32:10.950 --> 00:32:27.150

Maximilian Cremer: Yes, I just got control and we printed out some things very similar to that a little brackets and cable holders and such for our V and we took them down a 5000 meters and they survive just fine living, it was pk mushroom.

197

00:32:27.180 --> 00:32:34.080

Adina: yeah we we've printed a lot of brackets for ctv and things like that, and they they those have done fine, but those we.

198

00:32:35.220 --> 00:32:40.800

Adina: We sort of purposefully made sure that there were the there were.

199

00:32:41.850 --> 00:32:49.620

Adina: places for the water to move in any place that might happen there you know and wouldn't have air gaps for so yeah those have done, find it up.

200

00:32:53.040 --> 00:32:53.580

Jules Hummon: ethan.

201

00:32:55.620 --> 00:32:59.520

Ethan Roth: This is just more of a comment first thanks for your presentation like dina.

202

00:33:00.660 --> 00:33:15.180

Ethan Roth: I got into printing a few years ago, first with an ABS printer and then the last year i've moved up to continuous carbon fiber printing so a little bit a step above plastics it's composite materials.

203

00:33:15.510 --> 00:33:27.150

Ethan Roth: Yes, oh it's a mix of nylon with carbon fiber and I now I can make parts for structural applications, so I work with the engineering department to make things like.

204

00:33:27.600 --> 00:33:45.060

Ethan Roth: packing glands and actuator latches it's been a game changer and I think probably in the next five to 10 years we're going to see metal printing become more affordable and and small enough to fit in the form factor of of what we can do on ships.

205

00:33:46.650 --> 00:34:00.030

Adina: Oh cool so so the does that have like some sort of like centering process afterward after you've done the printing because that's I mean that's the only like metal printing that i've seen has like a high temperature step after you.

206

00:34:00.420 --> 00:34:11.640

Ethan Roth: yeah metal metal printing uses like a powder powder base material for for the printing and then afterwards, you have to bake it in a simulator.

207

00:34:12.690 --> 00:34:19.590

Ethan Roth: To fuse all those layers together so right now it's it's a large form factor, I think the cheapest one is like 100 K.

208

00:34:20.640 --> 00:34:22.980

Ethan Roth: But from where it was a few years ago.

209

00:34:24.030 --> 00:34:27.600

Ethan Roth: You know I think it's just going to keep getting smaller and more affordable oh.

210

00:34:28.770 --> 00:34:29.220

Adina: Thank you.

211

00:34:29.610 --> 00:34:35.610

Jules Hummon: that's great um is there a 3D printing Community thingy that brandi created.

212

00:34:38.910 --> 00:34:40.830

Brandi Murphy: there's a instrumentation topic.

213

00:34:41.010 --> 00:34:52.440

Jules Hummon: good enough good enough Andrew had an interesting chat there about, but that would be a well attended training session um alright let's move on to best practices katie.

214

00:34:54.600 --> 00:34:59.040

Katie Watkins-Brandt (she/her): yeah everyone share my screen here can you hear me okay.

215

00:35:00.360 --> 00:35:00.840

Jules Hummon: yep.

216

00:35:01.980 --> 00:35:02.760

Katie Watkins-Brandt (she/her): Right.

217

00:35:11.190 --> 00:35:30.000

Katie Watkins-Brandt (she/her): Oh right so hi everyone thanks for joining us today we're going to provide you with an update on our initiatives develop best practices for seagoing operations, so I will start us off with who we are a little history on how we got started, where we are now and our goals for the future.

218

00:35:33.300 --> 00:35:39.930

Katie Watkins-Brandt (she/her): So I wanted to take a moment and recognize our group members and working group leads, you know we're basically a group of like minded individuals.

219

00:35:40.200 --> 00:35:50.370

Katie Watkins-Brandt (she/her): interested in developing best practices for seagoing operations for the US academic research sleep really developing you know best practices for technicians by technicians.

220

00:35:50.910 --> 00:36:01.140

Katie Watkins-Brandt (she/her): I did want to just note to folks on the slide here Jay perlman and mark Michelle, who are both part of the ocean best practices system or they'll bps you'll hear that acronym quite a bit.

221

00:36:01.710 --> 00:36:14.250

Katie Watkins-Brandt (she/her): And who are really great supporters of our initiative and then, of course, marine technicians all of those who you know, are part of active working groups your contributions to these groups and sharing your knowledge with the Community is so very important.

222

00:36:14.760 --> 00:36:22.200

Katie Watkins-Brandt (she/her): And if you're not part of the working group and you hear about what we're doing today and interest you then we encourage you to reach out and get involved.

223

00:36:23.220 --> 00:36:35.250

Katie Watkins-Brandt (she/her): So, how did this all get started well, a group of us develop the best practices for shipboard underway transmits amateurs and published it to the ocean best practices system repository.

224

00:36:35.730 --> 00:36:44.580

Katie Watkins-Brandt (she/her): This document was really meant to provide best practices to improve access to transit summit or data and metadata as well as improved data quality.

225

00:36:45.090 --> 00:36:49.560

Katie Watkins-Brandt (she/her): And I do want to just take a moment and put a plug in for Rebecca who deck and we're assault.

226

00:36:50.160 --> 00:37:01.740

Katie Watkins-Brandt (she/her): They will be live presenting a poster today at 1300s showing results from Neil Armstrong in situ transit summit or calibration so please go and check it out, I have no doubt it's going to be awesome.

227

00:37:02.130 --> 00:37:11.100

Katie Watkins-Brandt (she/her): And then Sean Smith, he gave a couple presentations on this document, in particular at you know, an rv tech and it generated a lot of interest.

228

00:37:11.550 --> 00:37:22.860

Katie Watkins-Brandt (she/her): And we thought to ourselves well let's you know let's use that momentum and see if we can't generate more documents for marine technicians so with that you know we've presented at rv tech virtual meeting last October.

229

00:37:23.700 --> 00:37:37.320

Katie Watkins-Brandt (she/her): Mark Michelle came and he gave really great introduction into obs background capabilities and we introduced, our group and kind of proposed our initiative for developing best practices for smuggling operations and really discussed why it was important.

230

00:37:38.130 --> 00:37:43.500

Katie Watkins-Brandt (she/her): there's a lot of interest in the fleet and the standardization of best practices leverage calibration funding.

231

00:37:44.130 --> 00:37:55.710

Katie Watkins-Brandt (she/her): professional development, which is a really important aspect that I don't think we consider nearly enough for technicians, you know, and the fact that you're the experts and it's important for you to share your knowledge and experience.

232

00:37:57.540 --> 00:38:08.640

Katie Watkins-Brandt (she/her): So what was our approach um well following our B tech we compiled survey results, and we had 25 responses, we held an initial meeting in February of 2021 to.

233

00:38:09.030 --> 00:38:18.090

Katie Watkins-Brandt (she/her): organize groups and identify group leads and i'll talk about this a bit more moment and at current we have five active working groups established with two on the horizon.

234

00:38:18.750 --> 00:38:27.690

Katie Watkins-Brandt (she/her): we're going to switch things up a little bit and each active working group is actually going to give a lightning slide of the update on their status, so you don't have to hear me talk the whole time.

235

00:38:28.590 --> 00:38:41.280

Katie Watkins-Brandt (she/her): But once these you know documents are generated, then we hope to get them beta tested hopefully through working with the tech training subcommittee and then ultimately publish to the Ob PS repository.

236

00:38:43.410 --> 00:38:54.930

Katie Watkins-Brandt (she/her): So there are 27 potential best practice documents that were identified by the Community, and you know just from the last you know few days and listening at our V tech it sounds like there could be a lot more.

237

00:38:56.250 --> 00:39:08.580

Katie Watkins-Brandt (she/her): And with those 27 that we identified there was actually you know, a ton of overlap with people interested in working on multiple different documents, so we kind of took a step back and identify prioritize five groups to start out with.

238

00:39:09.090 --> 00:39:18.540

Katie Watkins-Brandt (she/her): So we have the ekg general flow through system cpd profiler SP 43 and a tcp again with those two on the horizon for the SP 45 and what start.

239

00:39:19.290 --> 00:39:31.770

Katie Watkins-Brandt (she/her): So for now i'm going to turn it over to our working group leads to introduce themselves and give a quick status, update and we are going to start with the each ad group with justin being.

240

00:39:35.460 --> 00:39:46.650

Rebecca Hudak: thanksgiving my name is Rebecca who deck I am a co lead on the E katie best practice, our first meeting was march of 2021.

241

00:39:47.730 --> 00:40:03.510

Rebecca Hudak: But since then we've kind of taken a step back from break because a lot of our Members were busy during the sailing season, a lot of texts that were out and couldn't really contribute so we've decided not to push because this is primarily a volunteer volunteer effort.

242

00:40:04.560 --> 00:40:17.250

Rebecca Hudak: We have 17 active members that are contributing, including people from noaa unh osu your I who we so we have a nice variety, those are texts and scientists.

243

00:40:18.450 --> 00:40:28.350

Rebecca Hudak: Primarily, we decided as a best practice group to focus on calibration of the katie including a kit um and what that would look like.

244

00:40:28.740 --> 00:40:39.600

Rebecca Hudak: As well as what features, at the very basic can be run to get the best data of course it's gonna be a lot of other things in there, but those are primary focuses.

245

00:40:48.000 --> 00:40:56.730

Shawn Smith: hi hello, this is Sean Smith from Florida State University i'm leaving the group that is working on the general flow through systems practice.

246

00:40:57.210 --> 00:41:01.230

Shawn Smith: We actually kicked off in September this year, so we only had one meeting.

247

00:41:01.920 --> 00:41:09.660

Shawn Smith: The main thing i'm going to bring up today is that the scope of this this best practice curve is really we're looking at a flow through system from.

248

00:41:09.870 --> 00:41:15.840

Shawn Smith: Basically, the intake all the way through all the pipes, all the way up to the water wall wherever that is in the ship.

249

00:41:16.440 --> 00:41:25.590

Shawn Smith: and looking at best practices for cleaning and placement of sensors and just you know any of those things that have to do with the system itself.

250

00:41:26.400 --> 00:41:38.310

Shawn Smith: we're not really addressing the individual sensors connected to the flow through system that will actually be handled by individual best practice documents, like the one for transfer some letters that was brought up earlier.



251

00:41:38.880 --> 00:41:47.190

Shawn Smith: So we're basically just gathering our background knowledge and existing documents and starting to think about what needs to be in this best practice.

252

00:41:47.610 --> 00:41:53.070

Shawn Smith: The one thing that came up in the group and if anybody's interested in joining we'd appreciate having you.

253

00:41:53.370 --> 00:42:01.020

Shawn Smith: As we realized, we may need some people that aren't just the technicians, but we need some people that are on the engineering side of the battles.

254

00:42:01.500 --> 00:42:12.330

Shawn Smith: For some of the plumbing and piping, and that kind of stuff as well as some additional science advisors so we'll be meeting and hopefully in November so feel free to join us if you're interested.

255

00:42:18.450 --> 00:42:33.180

Laura W Stolp: hi i'm Laura stole i'm Rebecca who Doc and I are leading this TD best practice we started in September and we have decided that we're going to meet the first Tuesday of every month, so if you're looking for something to do the first Tuesday of every month feel free to join us.

256

00:42:35.310 --> 00:42:45.030

Laura W Stolp: There are hundreds of documents out there and we are currently working through a lot of them to see yes we're not redoing what's already out there and try and organize and see what we have.

257

00:42:47.010 --> 00:42:56.820

Laura W Stolp: We are working on organizing the different needs we have people from science, we have the technicians, we have so everybody has a different.

258

00:42:59.820 --> 00:43:02.820

Laura W Stolp: Look at the CCD data so which is really cool.

259

00:43:03.930 --> 00:43:13.320

Laura W Stolp: And then, our ultimate goal, I think, is to have it like a standard best practices for the one of the ultimate goal is is to have a standard best practices for the text of it, the.

260

00:43:13.980 --> 00:43:24.750

Laura W Stolp: Follow so that we can make a product similar across the fleet, for all the cpd data that's collected because there's a lot that we're collecting and queuing mvp and sending off to world ocean database.

261

00:43:25.980 --> 00:43:29.250

Laura W Stolp: So yeah first Tuesday of every month join us.

262

00:43:37.800 --> 00:43:42.060

Gabriel Matthias: i'm GABE Matthias i'm oxygen best practices for lead.

263

00:43:43.290 --> 00:43:54.240

Gabriel Matthias: we've got a couple baseline best practice documents already completed by a couple of groups and we already have a ton of supporting documentation, similar to the other groups.

264

00:43:56.790 --> 00:44:01.140

Gabriel Matthias: Since auction is used on CDs flow through and and more applications we're.

265

00:44:02.310 --> 00:44:05.190

Gabriel Matthias: In discussions with other conceited.

266

00:44:06.330 --> 00:44:10.980

Gabriel Matthias: we're in discussions with the CD and flow through groups to do some cross pollinating.

267

00:44:12.960 --> 00:44:15.090

Gabriel Matthias: Making sort of indices were.

268

00:44:16.980 --> 00:44:17.520

applicable.

269

00:44:18.810 --> 00:44:27.780

Gabriel Matthias: And if you're interested in contributing we'd love to have you we've got 16 or so people on the email list always looking to add more our next phone call is November 18.

270

00:44:28.830 --> 00:44:30.780

Gabriel Matthias: Please get in touch.

271

00:44:32.220 --> 00:44:33.420

Gabriel Matthias: Jules is tech stuff.

272

00:44:37.260 --> 00:44:37.920

Jules Hummon: I am.

273

00:44:38.970 --> 00:44:50.070

Jules Hummon: uh let's see, I think we, so we have 15 people in our email group um I was a bad lead and didn't convene any meetings at all, but we populated a.

274

00:44:50.610 --> 00:45:10.470

Jules Hummon: Google drive with some a Google folder with basically people went out and googled best practice at CP, so there are multiple flavors of https there's vessel mounted, which is what I care about most lowered and on moorings and they're probably others, including our movies.

275

00:45:11.790 --> 00:45:12.870

Jules Hummon: or movies, I guess.

276

00:45:13.890 --> 00:45:14.460

Jules Hummon: anyway.

277

00:45:15.840 --> 00:45:33.300

Jules Hummon: What this really did was catalyzed me to put the best practices, page into the ux DAS documentation if this best practices scenario is limited to the academic research fleet, then

we don't need to talk about vm DAS best practices, but we do have some vm DAS recommendations and.

278

00:45:35.970 --> 00:45:51.600

Jules Hummon: it's a work in progress, as the software gets updated on the ships, the best practices, page will be there, right up at the top of operations and I encourage anybody who wants to click on a link here to go look at it and let us know what needs to be added.

279

00:45:53.070 --> 00:45:58.800

Jules Hummon: And I think we will we will work more together as a group, as we move forward.

280

00:46:03.180 --> 00:46:03.840

Jules Hummon: Back to katie.

281

00:46:04.740 --> 00:46:11.010

Katie Watkins-Brandt (she/her): All right, well, thank you for all those updates, this is a really good moment to kind of give a shout out to our leads.

282

00:46:11.820 --> 00:46:19.740

Katie Watkins-Brandt (she/her): This is, you know it's a volunteer effort, and this is a lot on top of their day job, so I just want to say they are all excellent cat herders and.

283

00:46:20.250 --> 00:46:24.690

Katie Watkins-Brandt (she/her): I think these documents will be a really great valuable Community so big thanks to Leeds.

284

00:46:25.650 --> 00:46:31.620

Katie Watkins-Brandt (she/her): I did want to give an update on the ocean best practices workshop that several of us attended in September.

285

00:46:32.310 --> 00:46:38.730

Katie Watkins-Brandt (she/her): We provided an update to members of obs and there's a lot of interest in our initiative and what we're doing and.

286

00:46:39.360 --> 00:46:53.490

Katie Watkins-Brandt (she/her): And there was a lot of discussion about how they might help support us, you know we discussed how official recognition could really help bolster our efforts, we also discussed how obs may post endorsement panel to the best practice documents that we generate.

287

00:46:53.970 --> 00:47:07.380

Katie Watkins-Brandt (she/her): You know, current they have a boost panel a global mission of serving systems endorsement process, and these are really for like science based best practices, so we discussed what that might look like to have a technician centric endorsement animal.

288

00:47:08.430 --> 00:47:17.010

Katie Watkins-Brandt (she/her): Really, the endorsement of a best practice, makes it just more visible to others if it's endorse that can be searchable by that endorsement in the repository itself.

289

00:47:18.300 --> 00:47:24.960

Katie Watkins-Brandt (she/her): We also discussed house teams met for reaching kind of short term goals One good example being decision trees.

290

00:47:25.410 --> 00:47:31.260

Katie Watkins-Brandt (she/her): there's a lot of interest in the best practice community as a whole to develop decision trees, but no real.

291

00:47:31.770 --> 00:47:38.100

Katie Watkins-Brandt (she/her): clear guidance on how to design a tree to be effective and, of course, you know that process is going to look very different between.

292

00:47:38.580 --> 00:47:49.290

Katie Watkins-Brandt (she/her): Science based on tech based trees so with tech trees, we really wanted to focus on these kind of time based recommendations, so what can I do if I have five minutes versus an hour to work in a particular Center.

293

00:47:50.790 --> 00:48:01.470

Katie Watkins-Brandt (she/her): And then, lastly, we discussed, you know how to promote international involvement, you know right now we are primarily a group of us, you know academic research technicians, with a few international participants but.

294

00:48:01.740 --> 00:48:10.080

Katie Watkins-Brandt (she/her): You know whether or not we should try to expand those efforts and for more promote more international involvement so reaching out to in martek such so we actually wrote.

295

00:48:11.310 --> 00:48:25.860

Katie Watkins-Brandt (she/her): two articles in the bps October newsletter that discuss decision trees and kind of promoting our initiative and the link to those to that newsletters here on the slide if you check it out, I think I also posted it in our Cuba.

296

00:48:26.460 --> 00:48:36.540

Katie Watkins-Brandt (she/her): channel, they just wanted to emphasize, you know obs is very enthusiastic about what we're doing and and always looking for ways to help support our efforts it's really appreciated.

297

00:48:37.590 --> 00:48:49.680

Katie Watkins-Brandt (she/her): And I just wanted to end on you know if you're interested, please get involved, you know reach out to the lead of the working group that you're interested in joining if you know someone who would be great and they may be interested let them know.

298

00:48:50.160 --> 00:48:56.010

Katie Watkins-Brandt (she/her): always feel free to you know contact me if you have any questions or comments or if you just you know, like to learn more about what we're doing.

299

00:48:57.450 --> 00:49:07.980

Katie Watkins-Brandt (she/her): And like I said i've heard a lot of discussion this week about various you know best practices that we might consider adding to the queue you know for multi beam.

300

00:49:09.180 --> 00:49:10.260

Katie Watkins-Brandt (she/her): Maybe even 3D printing.

301

00:49:11.520 --> 00:49:13.920

Katie Watkins-Brandt (she/her): Or you know large system so.

302

00:49:15.180 --> 00:49:22.170

Katie Watkins-Brandt (she/her): I think that you know it's a great community and the more that you guys can get information out and share it the better.

303

00:49:23.340 --> 00:49:35.820

Katie Watkins-Brandt (she/her): And I think we might have just a few minutes, if not, then you know you can always interact with us on Cuba and again, thanks to our leads, and all of them read definitions that are involved in the process.

304

00:49:38.610 --> 00:49:45.570

Jules Hummon: Thank you let's see first thing can you stop sharing, so that we can see each other's faces to Leah's back back to you later.

305

00:49:47.250 --> 00:49:49.770

Lee Ellett: yeah Thank you yep i'm in listen for a while, since I got back.

306

00:49:51.270 --> 00:49:53.340

Lee Ellett: No, there any, are there any questions.

307

00:49:57.600 --> 00:49:58.200

Brandi Murphy: ethan.

308

00:49:59.640 --> 00:50:15.390

Ethan Roth: yeah Thank you i'm great presentation thanks katie so in some of the things you listed, such as CD profile or at CP those are somewhat generic they're not narrowed down on a specific type of sensor let's say.

309

00:50:16.800 --> 00:50:32.070

Ethan Roth: So i'm kind of curious why, with the oxygen Center you chose to focus on the SP 43 and not look at oxygen sensors as a whole and compare you know that the plenum flow through is to like an opt out, for example.

310

00:50:34.050 --> 00:50:45.390

Katie Watkins-Brandt (she/her): yeah even that's a great question and you know when we first started it was how specific, do we really want to get so with the 43, in particular, we had some existing documentation.

311

00:50:46.260 --> 00:51:04.650

Katie Watkins-Brandt (she/her): That was any kind of an easy place to start with the ctv it is really and I think we'll you know, or can talk about this a little bit more, but it is really focused on the 911 system and potential ancillary sensors that with that could be you know, added to that system.

312

00:51:08.340 --> 00:51:09.360

Katie Watkins-Brandt (she/her): Did I answer your question.

313

00:51:10.740 --> 00:51:12.210

Ethan Roth: yeah more or less.

314

00:51:13.920 --> 00:51:26.190

Ethan Roth: Since you ended on the 911 you know, I wonder if you guys should be talking to seabird because I know they're trying to build the next generation of 911 and maybe they need input from a group, like you.

315

00:51:28.230 --> 00:51:29.880

Katie Watkins-Brandt (she/her): yeah that's great idea.

316

00:51:34.080 --> 00:51:45.270

Jules Hummon: He said, you did give me an idea, though I could refine the best practices not refine it but add a little bit of context, having to do with what different frequencies are good for for what.

317

00:51:47.520 --> 00:51:47.880

Jules Hummon: Thanks.

318

00:51:51.690 --> 00:51:52.590

Lee Ellett: Yes, thank you.

319



00:51:57.090 --> 00:52:11.700

Lee Ellett: um so brandi we're coming up against the 10 till um what our next steps with poster you said, we have time for a poster session after this but I don't see what's yeah.

320

00:52:11.820 --> 00:52:30.990

Brandi Murphy: Ah that's technically, I believe the end of rv tech officially, we have to live poster session scheduled this afternoon, as mentioned by Laura earlier when by her and Rebecca and we have another one by Emily shimada will be talking about the heli through the Northwest Passage I believe.

321

00:52:32.010 --> 00:52:45.030

Brandi Murphy: Tomorrow, we have two training sessions one with Alice for MSP cruise planning which will be fascinating and another by john have or lack who will be.

322

00:52:45.450 --> 00:53:05.790

Brandi Murphy: doing a demonstration and walk through, if you will, of installing his new IT asset manager tool about this year so both of those are a look really interesting they're scheduled for two hours, I think they might be more like an hour and a half, so it's a lighter day tomorrow.

323

00:53:05.790 --> 00:53:07.950

Brandi Murphy: But I would encourage.

324

00:53:09.420 --> 00:53:27.570

Brandi Murphy: Everybody anybody and everybody to participate they'll they, as well as the rest of our meetings will be available on the YouTube for the you know the website, once they have gone through some editing and that's all I have Alice do you want to say anything about training tomorrow.

325

00:53:28.710 --> 00:53:35.640

Alice Doyle: No, I think you did a good job right there I do encourage folks to come and I hope to not pick two hours an hour and a half, would be great.

326

00:53:37.620 --> 00:53:38.010

Brandi Murphy: Jim.

327

00:53:38.460 --> 00:53:41.580

James Holik: I just gotta say that every year y'all impressed me more.

328

00:53:42.000 --> 00:53:59.670

James Holik: I mean, with your enthusiasm with your intelligence and my gosh you guys the best you guys rock technicians are fabulous I just, all I can ask is it maybe next year, hopefully we'll be live, but if we're ever in this four day long meetings where we.

329

00:54:00.030 --> 00:54:00.690

James Holik: Sit all day.

330

00:54:00.840 --> 00:54:06.990

James Holik: come up with something for all means, but man, this is a tough one, after all, these days, but.

331

00:54:08.220 --> 00:54:12.150

James Holik: All that foolishness besides Thank you all so much you guys the best.

332

00:54:12.960 --> 00:54:15.720

Toby Martin: We can ask somebody to print something for your buck.

333

00:54:17.400 --> 00:54:18.150

Jules Hummon: touchable.

334

00:54:19.470 --> 00:54:21.780

Brandi Murphy: um i'm also last.

335

00:54:23.040 --> 00:54:40.500

Brandi Murphy: Last plug I just sent an email to rv tech, but we are still looking for nominees for the architecture if you're interested, please send me a very short message about your interest and something that we can share with the Community for voting.

336

00:54:40.500 --> 00:54:47.520

Brandi Murphy: purposes, and if you are want to elect someone else, let me know and i'll follow up with them and see if they're interested but.

337

00:54:48.540 --> 00:54:50.310

Brandi Murphy: Man I think that's it, I think.

338

00:54:50.880 --> 00:54:56.370

Brandi Murphy: I think that's all rv tech and as ethan said in the chat let's let's have one in person, please.

339

00:54:56.790 --> 00:55:00.810

Alice Doyle: Yes, I mean still live in charge now hmm you.

340

00:55:01.710 --> 00:55:02.610

James Holik: were coming to Hawaii.

341

00:55:02.670 --> 00:55:02.970

Yes.

342

00:55:04.920 --> 00:55:07.140

Jules Hummon: I wasn't crying because I was in charge, I put the.

343

00:55:07.140 --> 00:55:09.210

Jules Hummon: Cry out because this is the end of the meeting.

344

00:55:12.840 --> 00:55:13.650

James Holik: Okay y'all.

345

00:55:14.760 --> 00:55:15.360

Take care of.

346

00:55:16.620 --> 00:55:17.820

Brandi Murphy: The poster sessions.

**2021 RVTEC Meeting Adjourned**