

Ocean Class AGOR

Dakota Creek Industries

Guido Perla & Associates



DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

SMR/Design Comparison

SMR Parameter	Capability or Characteristic	Design
Accommodations	<ul style="list-style-type: none"> • 20 to 25 science berths (original SMR) • Target all single berths for crew 	<ul style="list-style-type: none"> • Meets: 24 in 12 doubles • Meets target: 20 singles
Working deck area	<ul style="list-style-type: none"> • 1,500 – 1,800 sq ft aft of deckhouse • 2,000 – 2,600 sq ft total clear stern working area • 80 ft clear deck area on one side 	<ul style="list-style-type: none"> • Exceeds: 1,873 sq ft • Meets: 2,557 sq ft • Meets: 80 ft
Laboratory Area	<ul style="list-style-type: none"> • Main lab 900 - 1,000 sq ft • Wet lab 350 - 400 sq ft • Computer lab 250 - 300 sq ft • Staging Bay 250 – 300 sq ft 	<ul style="list-style-type: none"> • Exceeds: 1,023 sq ft • Meets: 398 sq ft • Exceeds: 311 sq ft • Exceeds: 303 sq ft
Science Storage	4,000 to 5,000 cu ft	Exceeds: 5,017 cu ft
Science payload	150 to 250 LT	Meets target: 250 LT

SMR/Design Comparison

SMR Parameter	Capability or Characteristic	Design
Vans	Two 8 ft by 20 ft deck vans with target of capability to carry additional vans	Meets target: 3 vans
Towing	<ul style="list-style-type: none"> • 10,000 lbs at 6 knots • 25,000 lbs at 4 knots 	<ul style="list-style-type: none"> • Meets • Meets
Sustained Speed	10 to 11 knots through SS4 12 to 12.5 kts at 80% MCR calm seas	Meets: 12 kts at 80% MCR in calm seas
Endurance	40 to 45 days	Meets: 40 days
Range	Up to 10,800 nm at optimal transit speeds	Exceeds: 11,500 nm at sustained speed
Seakeeping	Maximize ability to work in SS5 and higher	Meets: 86% (arrival load) and 88% (full load) in SS5

SMR/Design Comparison

SMR Parameter	Capability or Characteristic	Design
Station keeping	35 knot wind, SS5, and 2 knot current	Meets: ± 5 meters in SS5
Track line following	± 5 meters of intended track with a crab angle of less than 45 degrees with 30 knot wind, up to SS5 and 2 knots current	Meets: ± 5 meters in SS5
Handling Systems	Main crane; portable crane; 2 hydro winches; stern frame; CTD handling system, starboard side handling system; traction winch with 2 drums	Meets equipment requirements and capabilities
Ice strengthening	Work near 1 st year ice	Meets: Ice Class D0

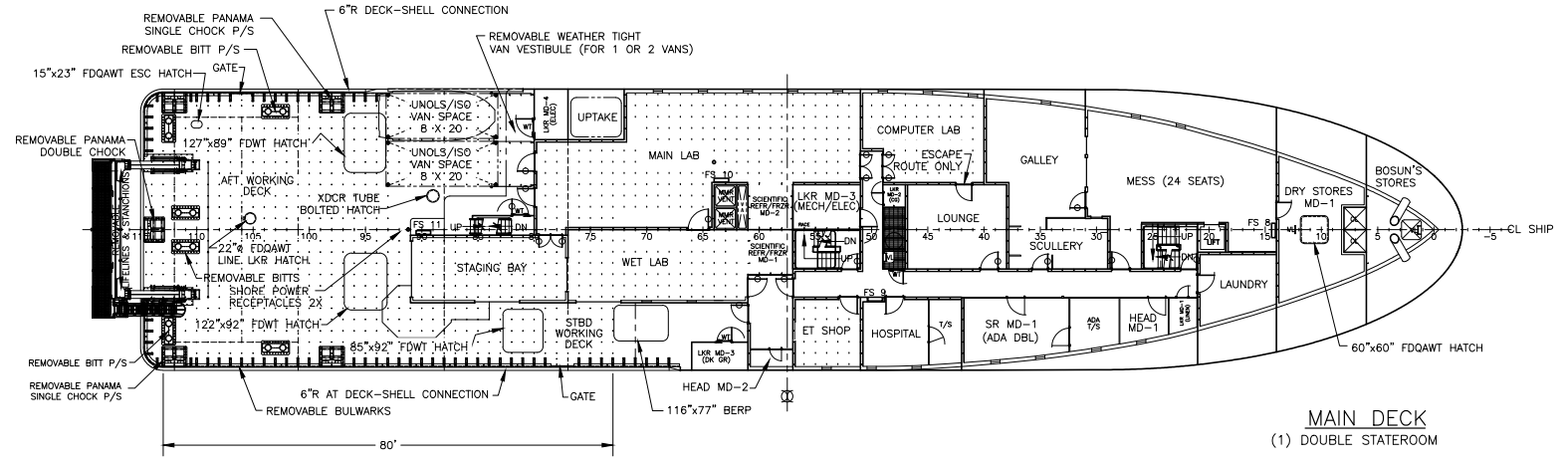
General Characteristics

Length overall	238'-0"
Waterline length	230'-0"
Maximum breadth (molded)	50'-0"
Depth to Main Deck	22'-0"
Draft	15'-0"
Sustained speed	12 knots
Max speed (estimated)	12.8 knots
Installed brake horsepower	2,324 hp
Installed total power	3,952 kw

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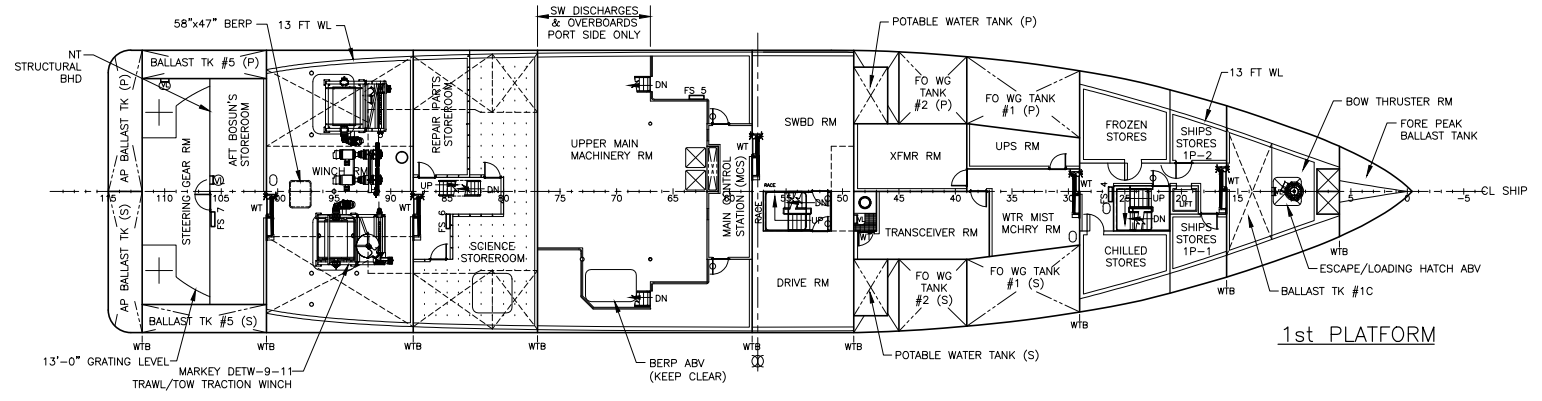
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 FILE NAME: 65411-801-01-1880.DWG

HALF SIZE PRINT	DESIGNER GUIDO PERLA & ASSOCIATES, Inc.	TITLE GENERAL ARRANGEMENT DRAWINGS
	SUPPLIER DAKOTA CREEK INDUSTRIES, Inc.	DWG NO. 65411-801-01
PROJECT DWG NO. 8565942	SCALE 3/32" = 1'-0"	SHEET 4 OF 7

8 7 6 5 4 3 2 1

ID	QTY	DESCRIPTION	MATERIAL	MFR	REMARKS
1	18	1/2" - 13 x 1 1/4" HEX HEAD BOLT	316L SS		LOCKTITE, BLUE
2	18	3/8" - 16 x 1" SOCKET HEAD BOLT	316L SS		LOCKTITE, BLUE
3	8	M10 - 1.5 x 60 SOCKET HEAD BOLT	316L SS		LOCKTITE, BLUE
4	12	3/4" - 10 x 2 1/2" HEX HEAD BOLT	316L SS		LOCKTITE, BLUE
5	16	ISOLATION SLEEVE AND WASHER 1/2" OD	PLASTIC		
6	2	GASKET, 1/8" THICK	NEOPRENE		
7	20	7/16" - 14 x 2" SOCKET FLAT HEAD CAP SCREW	316L SS		LOCKTITE, BLUE
8	16	3/8" - 13 x 2" HEX HEAD BOLT	316L SS		LOCKTITE, BLUE
9	26	3/8" - 16 x 1 1/2" SOCKET FLAT HEAD CAP SCREW	316L SS		LOCKTITE, BLUE
10	22	GASKET - 1/4" THICK	SILICONE RUBBER		
11	12	1/2" - 16 x 1 3/4" HEX HEAD BOLT	316L SS		LOCKTITE, BLUE
12	9	1 TON WELD ON PIVOT LINK	S-256	CROSBY	

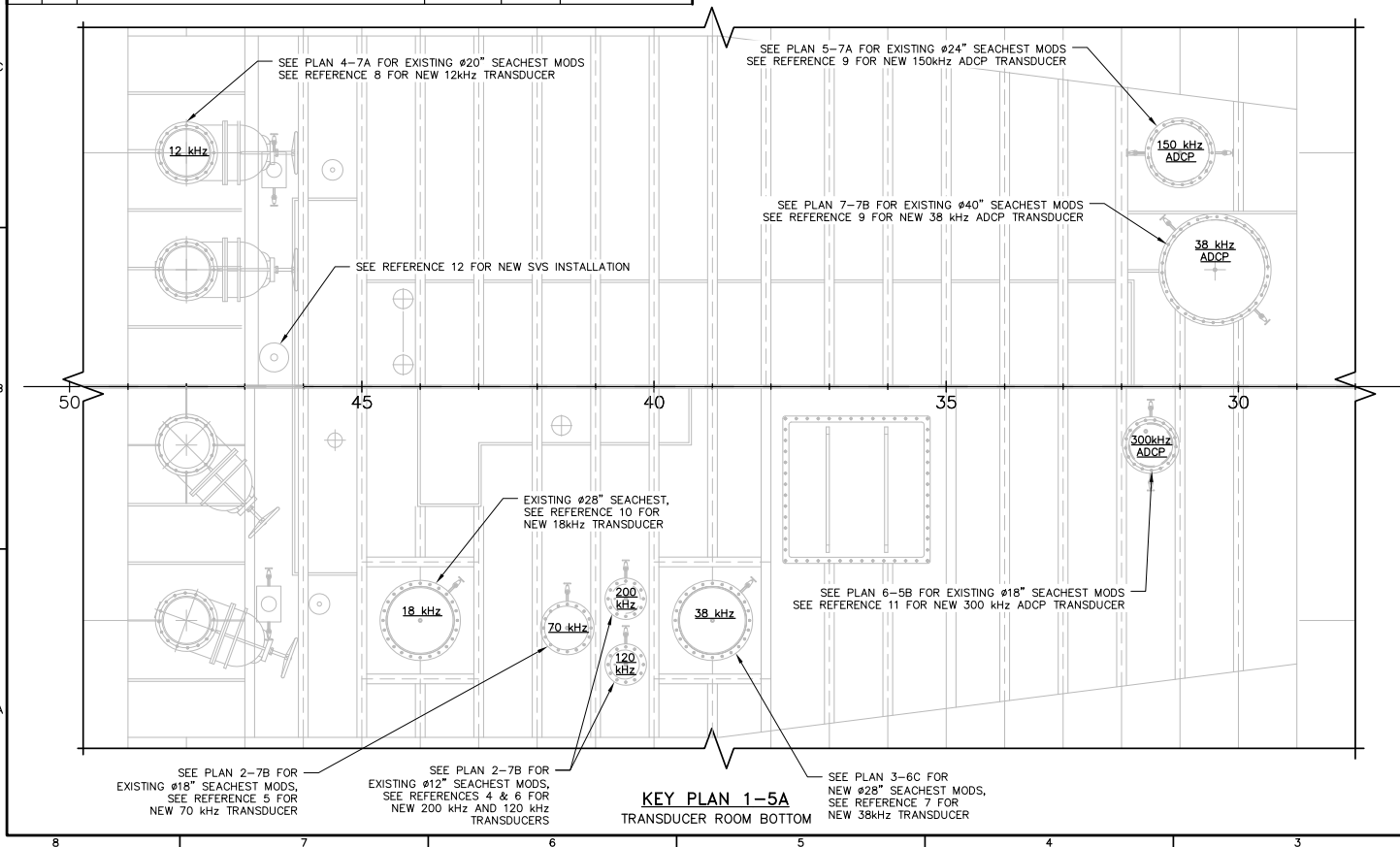
13	1	GASKET, 1/8" THICK	NEOPRENE		
14	20	3/8" - 16 x 1 1/4" SOCKET FLAT HEAD CAP SCREW	316L SS		LOCKTITE, BLUE
15	48	3/8" - 16 x 2 1/2" SOCKET FLAT HEAD CAP SCREW	316L SS		LOCKTITE, BLUE
16	2	SIZE C, GROUP II CABLE GLAND, 501/421	316 SS	HAWKE	1" NPT
17	5	SIZE O, GROUP II CABLE GLAND, 501/421	316 SS	HAWKE	1/2" NPT
18	1	SIZE B, GROUP II CABLE GLAND, 501/421	316 SS	HAWKE	1" NPT
19	2	PIPE PLUG	STAINLESS		1" NPT
20	4	PIPE PLUG	STAINLESS		1/2" NPT
21	3	PIPE COUPLING	STAINLESS		1" NPT
22	5	PIPE COUPLING	STAINLESS		1/2" NPT


- ### GENERAL NOTES
- ALL MATERIALS, WORKMANSHIP, FIT-UP AND WELDING SHALL BE TO THE SATISFACTION OF THE ATTENDING SURVEYOR AND IN ACCORDANCE WITH ABS RULES FOR BUILDING AND CLASSING STEEL VESSELS UNDER 90 METERS (295 FEET) IN LENGTH, LATEST EDITION
 - ALL WELDS SHALL BE DOUBLE CONTINUOUS 3/16" FILLET, UNLESS NOTED OTHERWISE.
 - ALL PLATE STEEL SHALL BE ASTM A36 OR ABS GRADE A UNLESS NOTED OTHERWISE.
 - ALL DIMENSIONS ARE SHOWN NEAT AND NO ALLOWANCE FOR FIT-UP, SHRINKAGE, OR ERECTION HAS BEEN INCLUDED.
 - DE-BURR AND BREAK ALL SHARP EDGES PRIOR TO COATING.
 - ALL NEW STEEL, OTHER THAN STAINLESS STEEL, SHALL BE COATED WITH INORGANIC ZINC PRIMER AND FOLLOWING COATS IN ACCORDANCE WITH THE OWNERS SPECIFICATIONS (REFERENCE 3).
 - ALL DAMAGED COATINGS SHALL BE REPAIRED TO THE OWNERS SPECIFICATIONS (REFERENCE 3).
 - APPLY LOCKTITE BLUE TO ALL THREADED CONNECTIONS
 - ALL SHIP INTERFACE BOLTING CIRCLES AND SEACHEST INSIDE DIAMETERS SHALL BE VERIFIED PRIOR TO FABRICATION OF NEW COMPONENTS. THE CONTRACTOR SHALL ADJUST MOUNTING RINGS, CLAMPING RINGS, COVER PLATES, AND WINDOWS ACCORDINGLY TO FIT THE EXISTING SEACHEST DIMENSIONS.
 - ALL TRANSDUCER BOLT HOLES SHALL BE TEMPLATED WHERE POSSIBLE OR CONFIRMED WITH OWNER PRIOR TO FABRICATION OF NEW COMPONENTS
 - TRANSDUCERS SHALL BE ALIGNED RELATIVE TO THE VESSEL CENTERLINE. CARE SHALL BE TAKEN TO ENSURE BOLTING RINGS ARE ALIGNED PRIOR TO WELD OUT.

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPD

- ### REFERENCES
- DRAWING: STRUCTURAL FOUNDATIONS, SONAR & TRANSDUCER TUBE A&D, GUIDO PERLA & ASSOCIATES, INC., DWG. NO 65411-184-10, REV F, 1/23/12
 - DRAWING: AGOR 28, SCIENTIFIC SONAR VENTS AND HEAD TANK, GLOSTEN, DWG. NO 14012.02-506-01, REV -
 - SPECIFICATION: PAINT SCHEDULE, AGOR 28, DAKOTA CREEK INDUSTRIES, INC., DI-027-34, REV. 4, 9/18/14
 - OUTLINE DIMENSIONS, COMPOSITE 200 kHz ES200-7CD, SIMRAD, 834-207133, REV A
 - OUTLINE DIMENSIONS TRANSDUCER, ES70-7C, SIMRAD, 834-204603, REV A
 - OUTLINE DIMENSIONS TRANSDUCER ES120-7C, SIMRAD, 834-204579, REV A
 - OUTLINE DIMENSIONS TRANSDUCER ES38-B AND 38-7-E, KONGSBERG MARITIME AS, REV C
 - INSTALLATION DRAWING HOUSING, 02-234/02-229-1, AIRMAR, 95-001, REV 01
 - OCEAN SURVEYOR / OCEAN OBSERVER INSTALLATION GUIDE, P/N 95A-6012-00, APRIL 2014
 - OUTLINE DIMENSIONS TRANSDUCER 12 AND 18 kHz, SIMRAD, 830-107783, REV B
 - WORKHORSE SENTINEL, MONITOR, & MARINER OPERATION MANUAL, P/N 957-8150-00, FEBRUARY 2013
 - DRAWING: AGOR 28, SVS INSTALLATION, GLOSTEN, DWG. NO 14012.02-523-01, REV -





SCRIPPS INSTITUTION OF OCEANOGRAPHY
LA JOLLA, CALIFORNIA

AGOR 28 - R/V SALLY RIDE
TRANSDUCER SEACHEST MODIFICATIONS
KEY PLAN

Drawn: SMG
Scale: 1/4" = 1'-0"

Checked: WLV
Drawing Number: 14012.02-184-01

Approved: TSL
Sheet: 7 of 7

Issue Date: 10/16/2015

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