

From: Tim Askew <TAskew@HBOI.edu>

Subject: RESEARCH VESSEL OPERATORS COMMITTEE REPORT

The RVOC membership had a successful and very productive 2004 meeting hosted by the Bermuda Biological Station for Research in Ferry Reach, Bermuda. A special presentation by Dr. Maureen Conte (WHOI) on findings from the BATS station off Bermuda during the passage of hurricane "Fabian" demonstrated the importance of UNOLS vessels and the role they play in supporting science both regional and worldwide. The RVOC plans to have a special presentation by a UNOLS vessel user from the host institution at all future meetings as a way to kick off the meeting by giving the membership a glimpse at the science taking place on our vessels.

Several special reports were given. An update on the East and West coast van pools, group purchases and van standards brought everyone up to date. Other reports of interest were "Load Handling System "workshop, "Long Core System" and "Winch and Wire "safe working loads.

Invited speakers covered several important topics. A representative from Glosten Associates talked about weight and stability management for research vessels as well as tonnage (regulatory vs. convention) and it's impact on the Ocean Class vessels since the ISPS (International code for the Security of Ships and of Port Facilities) regulations use convention tonnage which in all cases is over the minimum (500 GRT). Additionally a representative from Medaire (formerly Medical Advisory Systems) provided an overview of their services. Essentially the transition is invisible to the operators with the benefit of now having global coverage on land and can provide assistance for foreign medical evaluation.

The meeting schedule provided an opportunity for a workshop session on day two. The topics were "Load Handling System Design Standards" Matt Hawkins facilitator, "Safety" Tom Althouse facilitator, "Uniformity of Fees" Dan Schwartz facilitator, and "Security Plans" Tim Askew facilitator. Summary reports for each group were presented and by the end of day two we decided that having workshops at each annual meeting was more beneficial than having additional speakers or vendors. Much was accomplished by providing a forum for the operators to contribute their knowledge, ideas and suggestions on the various topics.

Other topics of interest were the Navy's X-Craft which resulted in a letter from RVOC regarding the various aspects of the hull as an Ocean Class Research Vessel. Post Cruise Assessments (PCA) were discussed as was the winch vendor field visits by Markey and Dynacon.

The membership also voted to move the annual RVOC meeting to the April time slot so it wouldn't be in conflict with many of the other fall meeting and proposal deadlines. Since April 2005 was only six months from the previous meeting in October 2004 an email vote was initiated to pick an intermediate date or defer to 2006. The later date won out and the meeting will be hosted by the University of Washington in Seattle in April of 2006.

RVTEC Report to UNOLS

The annual RVTEC meeting was held November 3-5, 2004. The meeting was hosted by Rob Walker of the Florida Institute of Oceanography.

Highlights of the meeting included reports from UNOLS, NSF, NOAA, ONR, US Coast Guard, FIC, AICC, RVOC and RVOC Safety Committee. Vessel replacements for the R/V Ewing and Cape Henlopen were presented as well as an update for the new Alaska Region Research Vessel (ARRV). Various technical and instrumentation topics relative to our community were discussed. Presentations regarding collating installation data and performance information from vessel mounted ADCPs, current and future installations of the HiSeasNet satellite communication system, SeaWave communication system, dragging for a lost mooring, and towed vehicles supported within the RVTEC community were given, to list a few.

Ongoing issues and topics of discussion included:

- RVTEC community involvement with the upcoming INMARTECH 2006 conference. The conference will be hosted by Barrie Walden of WHOI in the fall of 2006.
- We continue to work through the "Defined Level of Service". Currently the subcommittee is creating a standard web-based structure for presenting institutional information. It is hoped that a standard structure, used by all institutions, will make it easier for science users to find proposal writing and cruise planning information.
- The RVTEC representative to the RVOC Safety Committee is working with the committee to rewrite the Research Vessel Safety Standards Manual (RVSS). Individual chapters were assigned to committee members to begin the rewriting process. Each member submitted their chapter revision on January 15, 2005.
- The HiSeasNet Earth Station has a link operating through a Pacific satellite (IntelSat IS-701) out to R/V Revelle, R/V Melville, R/V Thompson, R/V Atlantis and R/V Kilo Moano. Shore-to-ship bandwidth is 160 kbps and each ship has 96 kbps bandwidth ship-to-shore. The earth station also has its Atlantic satellite antenna built and certified on IntelSat IS-707 and is expected to bring the R/V Knorr online this April. Bandwidth will be 64 kbps shore-to-ship and 96 kbps ship-to-shore. Atlantis will move to the Atlantic satellite later this year. A Ku-Band antenna is partially built and is expected to go into service in the next 3-6 months. R/V New Horizon and R/V Endeavor will be connected through this antenna. Bandwidth will be 128 kbps shore-to-ship and 64 kbps ship-to-shore (each ship)
- During the RVTEC meeting the issue regarding safe working loads was debated. RVTEC believes this issue should be discussed and guidelines determined by the RVOC Safety Committee. A letter was written by the outgoing RVTEC Chair (Dale Chayes) to the RVOC Safety Committee Chair (Captain Tom Althouse) expressing our belief that the safety committee should take the lead in resolving this issue. I believe the safety committee will not address this issue because their priority is to complete the rewriting of the RVSS manual. If the UNOLS council believes this to be an issue the safety committee should address it may be helpful for the Council to send a letter to RVOC and the RVOC Safety Committee chair expressing the importance in addressing this issue and that the RVOC Safety Committee should take the lead. This topic directly impacts other current projects such as new cable specifications and load handling systems. (a copy of Dale Chayes' letter to Tom Althouse is included in this report as Attachment 1)

Steve Hartz from the University of Alaska was elected as the RVTEC representative to SCOAR. He will be attending the SCOAR committee meeting scheduled April 6th as a guest awaiting formal appointment through the UNOLS Council.

The meeting concluded after determining that the 2005 RVTEC Meeting will be hosted by Marc Willis of Oregon State University from November 8-10. In addition the 2006 RVTEC Meeting will be hosted by Barrie Walden at the Woods Hole Oceanographic Institution in conjunction with the INMARTECH 2006 conference.

Attachment 1

Date: Sun, 02 Jan 2005 20:31:42 -0500
From: Dale Chayes <dale@ldeo.columbia.edu>
Subject:
To: Thomas Althouse <talthouse@ucsd.edu>
Cc: Marc Willis <willis@coas.oregonstate.edu> , Tim Askew
<TAskew@hboi.edu> ,
Richard Findley <Findley@hboi.edu> , Annette UNOLS Office <office@unols.org> ,
Bill Martin <bmartin@ocean.washington.edu>

Tom (in your role as chair of the Safety Committee):

The general question of safe working loads and safety factors has been raised at RVTEC in conjunction with the work of the UNOLS Subcommittee on Wire and Cable Specifications. In the current regulatory and legal environment, what is the current guidance on safety factors for overboarding cables? That is, for a cable with a given breaking strength, what is the derating factor to be applied to arrive at safe working load? The answer to this question bears directly on the specifications for new cables, which generally consider package weight or operating load rather than breaking strength.

It seems to us that it would be appropriate for the Safety Committee to take the lead in resolving this important issue.

Regards,
-Dale

Scheduling Committee March 2005 Report
Rose Dufour

Fall Scheduling Outcome:

As reported to the Council last October, in September the UNOLS scheduling committee reviewed proposed 2005 schedules. The flow of cruises for all ships was accepted and the UNOLS operators had the foundation for their impending NSF operating proposals. This was the first funding cycle in which external merit review of ship operation proposals took place. During this meeting NOAA requested that all NOAA-sponsored cruises be listed as "pending" until Congress approved their budget.

In early November drastic cuts during the Congressional appropriations process made it apparent to NOAA that they had over committed on ship time for VENTS, FOCI, and DART to the tune of 100 days (\$3.7M worth of sea time was scheduled on UNOLS charters, NOAA's appropriations came in at \$1.5 M.) This discovery and eventual retraction of DART left *Melville* stranded in Hawaii, and affected *Kilo Moana*, *Thompson*, *Revelle*, *Melville*, *Knorr* and *Atlantis* schedules for 2005.*

Estimated Daily Rate	NOAA OAR SHIP TIME		Sept. 15th		NEW BUDGET		Notes
	Ship	PI	Operating Days	Ttl Cost	Operating Days	Ttl Cost	
14000	Alpha Helix	Stabeno P.	12	168,000	0	-	
23000	Kilo Moana	Stabeno, Phyllis	30	690,000	0	-	
		Transit	4	92,000	0	-	1
26000	Melville	McArthur, S.	30	660,000		-	2
		Transit		-	9	198,000	3
		Transit		-	5	110,000	4
26000	Thomas G. Thompson	Stabeno, P	50	1,150,000	43	989,000	
		Embley, R	23	529,000	0	-	
		Transit	17	391,000	7	161,000	5
15000	Wecoma	Embley, Robert	2	26,000	2	26,000	
	Total DART, FOCI, VENTS		168	3,706,000	66	1,484,000	
1. 1/2 of transit from Alaska to Honolulu (this needs to be settled with Armstrong mapping project) 2. DART Program cancelled 3. 9 days transit Hono to San Diego to get MELVILLE Home 4. There is an extra 5 days transit for ECOHAB as a result of the change in schedule, who pays? 5. Transit for FOCI and VENTS							

("Estimated" Daily rates include ship & technical services)

Meanwhile, other agency usage of the UNOLS fleet has been static or shrinking and as a result NSF's portion of ship costs has been increasing during a period of diminishing budgets. While NSF use of the total fleet remains at about 65%, their use of the largest vessels is closer to 75%, which represents the bulk of the UNOLS fleet total cost. NSF (OCE, OPP, ODP, BE) anticipated spending 46M for sea going operations in 2005, however with increased daily rates due in part to NOAA's withdrawal in the Pacific, and to higher than expected ship proposal requests (escalating fuel costs, added expenditures for

security/regulatory requirements, MOSA long-term planning & travel costs, all equated to across the board daily rate increases), the number of days NSF could afford needed to be trimmed by \$3M. Therefore, like a line of dominoes, the large ship schedules were once again unraveled leaving large ship operators without settled schedules at the start of 2005. The list of NSF deferrals for 2006 grew to 577 days, mostly for large ships.

Deferred to, Yr.	Deferred From, Yr.	Reason for Deferral	P.I.	Requested Ship	#of Days	
2006	2004	Instrumentation	BACH, WOLFGANG	<i>Melville</i>	24	
		Instrumentation Total				24
		Permits	Andronicos, Christopher L	<i>Marcus Langseth</i>	15	
		Permits Total				15
		PI	Duennebier, Frederick K	Large	15	
			Hickey, Barbara M	<i>Thomas G. Thompson</i>	21	
		PI Total				36
		Ship	Floyd, Jacqueline S	<i>Marcus Langseth</i>	39	
			Remote Location/OBS	Gurnis, Michael	<i>Marcus Langseth</i>	24
			Plus ROV availability	Smith, Kenneth L	<i>Melville</i>	14
			Remote location	Steckler, Michael S	<i>Marcus Langseth</i>	35
		Ship Total				112
		OBS availability/budget	McGuire, Jeffrey J	<i>Roger Revelle</i>	17	
		OBS/Budget Total				17
	2005	PI Instrumentation	Chave, Alan D.	<i>Roger Revelle</i>	32	
		ROV availability	Levin, Lisa A	Large	22	
		late funding decision/eager PI	Moyer, Craig L	<i>Kilo Moana</i>	14	
		Instrumentation Total				68
		PI	Bauer, James E	<i>Cape Henlopen</i>	12	
			Howe, Bruce M	<i>Thomas G. Thompson</i>	12	
			Von Damm, Karen L	<i>Atlantis</i>	11	
			Webb, Spahr C	<i>Oceanus</i>	2	
			Wells, Mark L	Large	23	
		PI Total				60
		Ship	Alexander, Clark R	Large	6	
			Clearance issue	DeMenocal & Eglinton,	<i>Knorr</i>	28
		Two-ship op, late funding	Gulick, Sean S	<i>Marcus Langseth</i>	18	
			Holbrook, W. Steven	Large	28	
		IHA needed ancillary		<i>Marcus Langseth</i>	49	
			Lonsdale, Peter F.	<i>Roger Revelle</i>	30	
			Miller, Scott D	Large	10	
Late funding decision	Murray, James W.	<i>Thomas G. Thompson</i>	45			
Ship Total				242		
Budget	Cormier, Marie-Helene	Medium	3			
	Webb, Spahr C	Large	28			
Budget Total				31		
2006 Total					577	

Final settlements in 2005 schedules were achieved by various conference calls and compromises during the early part of this year. For 2005 schedules, none of the Global, Ocean or Intermediate Class vessels will operate at their utilization target. (Global Class vessels – 300 days; Ocean Class vessels – 270) In addition, adherence to NSF/ONR guidance of having ships return to homeports for maintenance and down time was by and large met.

Large Ship*	Sept. 05 Op. Days	Final 05 Op. Days	NSF	Navy	NOAA	State	Other	04 Final Op days	04/05 % decline
<i>Revelle</i>	290	280	232	42	0	6	0	311	10%
<i>Melville</i>	271	262	208	0	54	0	0	299	12%
<i>Atlantis</i>	279	271	233	1	28	0	9	291	7%
<i>Knorr</i>	273	206	206	0	0	0	0	277	26%
<i>Thompson</i>	291	256	134	24	53	45	0	311	18%
<i>Kilo Moana</i>	270	236	116	17	68	35	0	309	24%
<i>Ewing**</i>	50	59	59	0	0	0	0	243.5	76%
NSF days on UNOLS fleet*	3032	3030*						3303.5	8%
ONR days on UNOLS fleet	503	576						737	22%
NOAA days on UNOLS fleet	647	576.5*						685	15%
Other days on UNOLS fleet	986	617.5						617.5	0%
Total fleet usage	5168	4800						5343	11%

*Several schedules include additional transits that were not in the "original" September schedules, therefore fewer science days are represented in the totals.

** Ewing's reduction reflects out-of service status.

[Note: NSF's final 05 total is substantially higher; NSF was able to retain the Talley cruise (51 days) on the Knorr schedule and the Ewing's Gulick (53 days) cruise was delayed after the September scheduling meeting from December 04 until Jan. 05 for permitting reasons]

Other Scheduling News:

In February, NOAA held a Buoy Deployment Summit in which they invited UNOLS to present possible opportunities for future buoy deployments. Peter Wiebe did an outstanding job of conveying to NOAA the benefits of entering the UNOLS process early enough to realize the fiscal gains from efficiently stringing together cruises that are regionally concentrated. The prospect of fleet underutilization in 2006 was conveyed. We asked NOAA to have 2006 needs prioritized well before the July scheduling meeting, and have a mechanism in place for follow-up and budgetary guarantees.

2006 Scheduling:

At the moment, the issue of federal funding for ocean research generally and for seagoing research operations in particular is looming over 2006 scheduling, especially with regard to NSF requests, which accounts for about 70% of all the funding for UNOLS ship and shipboard technical operations. With NSF's recent notification to the entire oceanographic community that it expects a \$7-10M cut in ship operations funds in 2006, and rather flat funding in later years, 2006 scheduling will be complicated. Preliminary estimates from NSF/OCE indicate the need for \$44M worth of ship-time, while having a projected budget of \$34-37M. The dichotomy here is the consideration of the prospect of underutilizations (and possible large ship lay-ups**) on the one hand while not being able to schedule all funded 2006-field work (deferred and newly funded).

The work plan prior to the July 2005 scheduling meeting is to identify early on possible new uses of the UNOLS fleet by NOAA and/or the Navy (functionally similar to the NAVOCENO use some year ago but from R&D funds vs. Navy operations and maintenance funds). Secondly, NSF will need to prioritize their needs based on their list of deferred days and already "funded" work for 2006. Finally, schedulers will start to weave together draft schedules to present at the July meeting. The UNOLS Ship Scheduling Committee plans to hold its summer meeting in Washington D.C. on Wednesday July 20.

**Once an agency affects the flow of cruises by maneuvering schedules during the regular scheduling process in such a way as to accommodate a "pending" request (because of seasonal or location considerations) which has repercussions for other funded cruises, or leaves a ship stranded away from home port without possibility of picking up work if they withdraw their pending request, then should there be a cancellation penalty? It can be argued that if some penalty is not assessed then other funding agencies are left with the burden of subsidizing the offending agency because of the need to re-distribute transit costs and absorb elevated daily ships rates.*

*** For reference, one large ship like Revelle costs about \$6M per year to operate, and the entire \$6M could not be saved by a lay-up - there are some significant costs of ship keeping even without operating. This lay-up cost is another source of money chipping away at accomplishing science, no matter the agency.*

Fleet Improvement Committee Activities

- Fleet Renewal Activities
 - Review Regional Class Performance Specifications
Be involved in Acquisition Strategy
 - Hull form evaluation for Ocean Class
Letter sent to RADM Cohen recommending monohull design
 - Development of SMRs for Global Class underway
 - Started UNOLS Fleet Improvement Plan
Coordinating with the FOFC WG on their revised plan
 - Examine ADA requirements for planned inclusion into SMRs

Fleet Improvement Committee Activities (cont.)

- Vessel Updates
 - KILO MOANA debriefs
decided to continue debriefs: eliminated repeated cruises like HOTS; new types of work on some of the new cruises
 - Retirement Dates/SLEP report completed
Included comparison of present vessel capabilities to SMRs of Regional and Ocean Classes
(Again, thanks to the Marine Superintendents for their assistance!)
 - Tour of CHRV while under construction
- Other items
 - Recommend Niall Slowey for a 2nd term

SCOAR Report

John Bane, SCOAR Chair

March 2005

The Scientific Committee on Oceanographic Aircraft Research met via telephone/web conference on November 12, 2004. At the meeting the committee voted on its first new member since SCOAR's inception, and Dick Zimmerman's nomination was subsequently approved by the UNOLS Council. Dick is a marine biologist who, among other activities, uses aircraft remote sensing to study coastal kelp communities. He is presently Chair of the Department of Ocean, Earth and Atmospheric Sciences at Old Dominion University in Norfolk, VA. UNOLS and SCOAR welcome Dick.

Reports from NOAA (Beth White), NASA (Cheryl Yuhas), NSF (Jim Huning's report was read in his absence), UNOLS (Mike Prince) and CIRPAS (Haf Jonsson) were delivered.

We were fortunate to have Rob Poston, NOAA Corps CDR, AOC Operations Division, with us for a discussion of safety standards for UNOLS aircraft. Rob, who flies the NOAA G4 jet, is Dept. Chief for Operations Division. Numerous aspects of this multi-faceted and detailed subject were covered in a very productive discussion. The sense at the end of the deliberations was that there can be a reasonable set of safety standards developed for UNOLS aircraft that do not make the situation more cumbersome, but that help inform and prepare non-air-crew participants (scientists, science techs, etc.) for operations on these aircraft. Further development will be pursued by the SCOAR committee members.

It was suggested that a letter to the community be drafted by UNOLS stating the need for a long-range assessment of aircraft and satellite requirements for ocean sciences. A workshop is envisioned, where users, operators, instrumentation/information specialists and engineers could come together to look ahead to estimate the upcoming needs and desired advances.

One of the successes of CIRPAS is the pivotal role it has played in the effective use of the SBIR program for aircraft instrumentation development. SCOAR would like to promote this for the broader ocean science community in order to advance the usability of aircraft platforms. SCOAR will be giving a final review to the Standard Aircraft Instrumentation List to see how well ocean sciences needs are covered, and this will help highlight any future opportunities for new instrumentation design.

The next SCOAR meeting is scheduled for April 6 at the NCAR/RAF facility in Boulder, CO. The new NSF HIAPER jet is now there, and this will give SCOAR an opportunity to view the new platform. The ICCAGRA will meet in the same location the day prior to SCOAR, so most members will attend both meetings.



UNIVERSITY OF WASHINGTON

School of Oceanography

Seattle, WA 98195

Dr. Deborah S. Kelley
Marine Geology and Geophysics

March 24, 2005

RE: UPDATE ON DESSC ACTIVITIES

The bi-yearly DESSC meeting was held on December 12th, 2004 just prior to the Fall AGU meeting. At this meeting the chairmanship was passed over to Debbie Kelley. Similar to past meetings, numerous presentations by the user community provided overviews of science conducted with facility and non-facility vehicles, new outreach activities, and ship-vehicle scheduling. In addition, operators provided updates on the development and building of the new HROV, the 11,000 m hybrid vehicle, and Sentry (the new ABE).

In addition to the overviews and presentations mentioned above, two major items were discussed at the Fall meeting that focused on 1) the future admittance of new vehicles into the National Deep Submergence Facility and 2) the possibility of transitioning a hard-rock drill, which is currently owned and operated by the Monterey Bay Aquarium Research Institute (MBARI), to the remotely operated vehicle Jason 2 at Woods Hole. The first item was discussed at length during a working lunch at the meeting, and resulted in a mandate that a subcommittee of DESSC work towards the development of formal criteria for adding new vehicles into a facility. It is anticipated that a working draft of this document will be completed, presented, and discussed at the Spring DESSC meeting at Woods Hole June 13-14, 2005. DESSC hopes to have a final draft of this document by Fall 2005.

There has been a long history of support from the marine community regarding the need for a drill to support biological, geochemical and geologic researchers and this need was revisited again at the Fall DESSC meeting. At this meeting and in prior dialogues MBARI expressed a desire to transfer their drill to the community for use on Jason 2. As an outcome of the public discussion at DEESC and subsequent communications, Dan Fornari and Maurice Tivey recently submitted a proposal to Oceanographic Instrumentation for the acquisition and transitioning of the MBARI drill onto Jason 2. Their recommendation in this proposal is that the drill be operated as a Third Party Tool (<http://www.unols.org/committees/dessc/3rdpartytool.html>) in close collaboration with the NDSF and with regular reporting to UNOLS.

A handwritten signature in black ink, appearing to read "Deborah S. Kelley". The signature is fluid and cursive, with a prominent initial "D" and a long, sweeping underline.

Deborah S. Kelley

Healy's 2004 Field Season

NOAA DART
Shelf-Basin Interaction
Two process cruises
One mooring cruise
NOAA EEZ mapping



Photo: SBI

Healy performance

90-105% of goals met for all cruises.

Kudos to ship's crew, especially CO Dan Oliver.

Kudos to LDEO group for shipboard science support.

Healy 2005

Science shakedown: April 11-15; April 17-23

Mapping/Coring the Alaska Margin: 2nd half June

NOAA Ocean Exploration: End June - End July

HOTRAX (Healy-Oden Trans-Arctic Expedition):

Early August - End September

BOTTOM LINE: All goes very well for HEALY...

...the News is not as good for POLAR Class

SLEP

UNOLS/AICC completed science needs report

USCG completed engineering feasibility study

USCG and Booz Allen Hamilton have final draft
mission needs analysis

This may all be shutting the barn door....

From the President's Budget

MAKING GOVERNMENT MORE EFFECTIVE

Coast Guard Polar Icebreaking

The Program Assessment Rating Tool (PART) assessment of the Coast Guard Polar Icebreaking Program yielded an outcome of Results Not Demonstrated due to a combination of poor alignment of the program with the user community and inadequate performance measures. By contrast, the National Science Foundation's Polar Tools, Facilities, and Logistics program received an Effective PART score.

The Budget proposes to transfer funding for the Polar Icebreaking Program to the National Science Foundation to better align resources with those who benefit from the program. While the Coast Guard will continue to operate the polar icebreaking fleet on a reimbursable basis, the National Science Foundation will ultimately be responsible for the long-range planning required to refurbish or replace the ships, as necessary, which are nearing the end of their serviceable lives.

170E

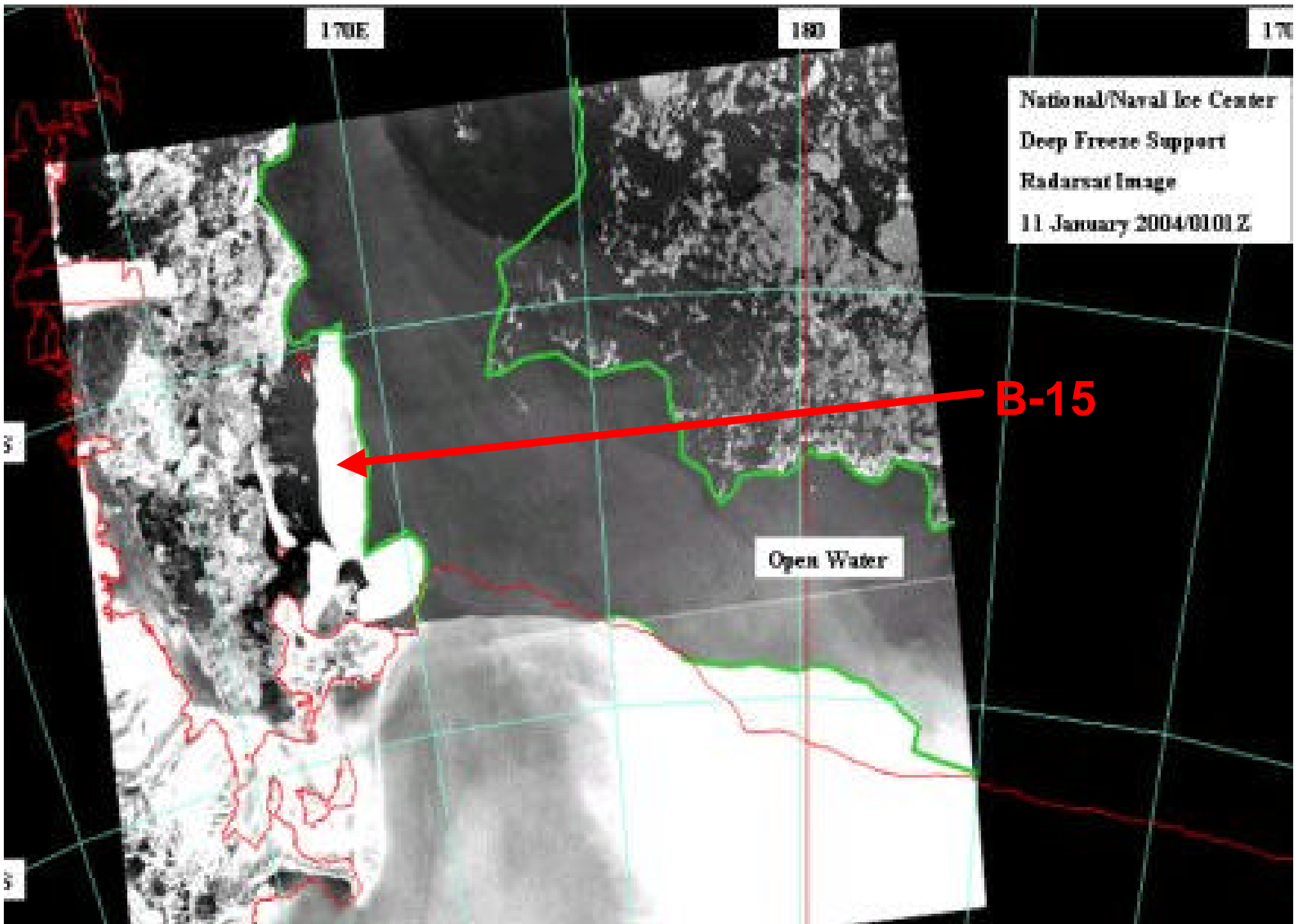
180

170

National/Naval Ice Center
Deep Freeze Support
Radarsat Image
11 January 2004/0101Z

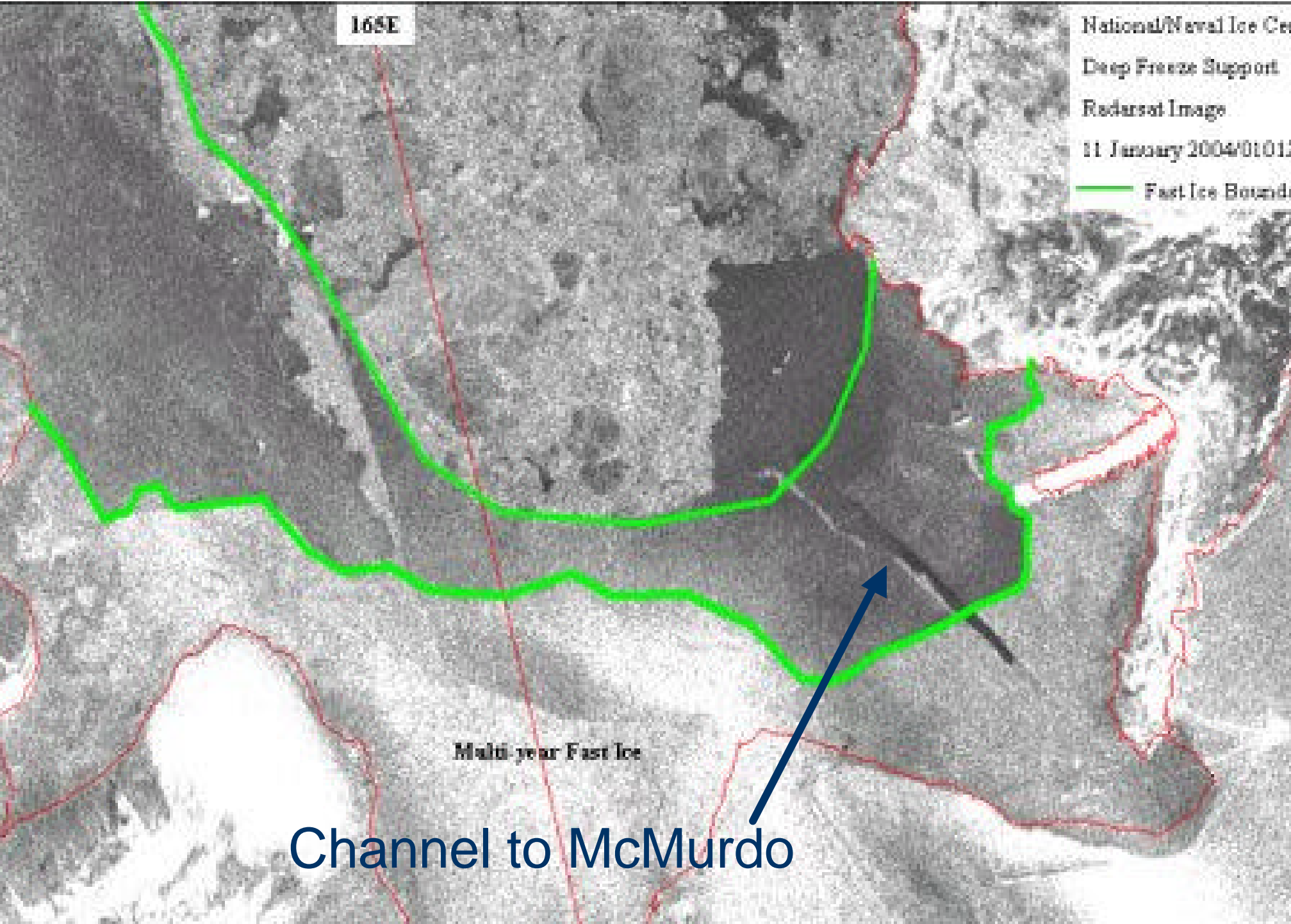
B-15

Open Water



168E

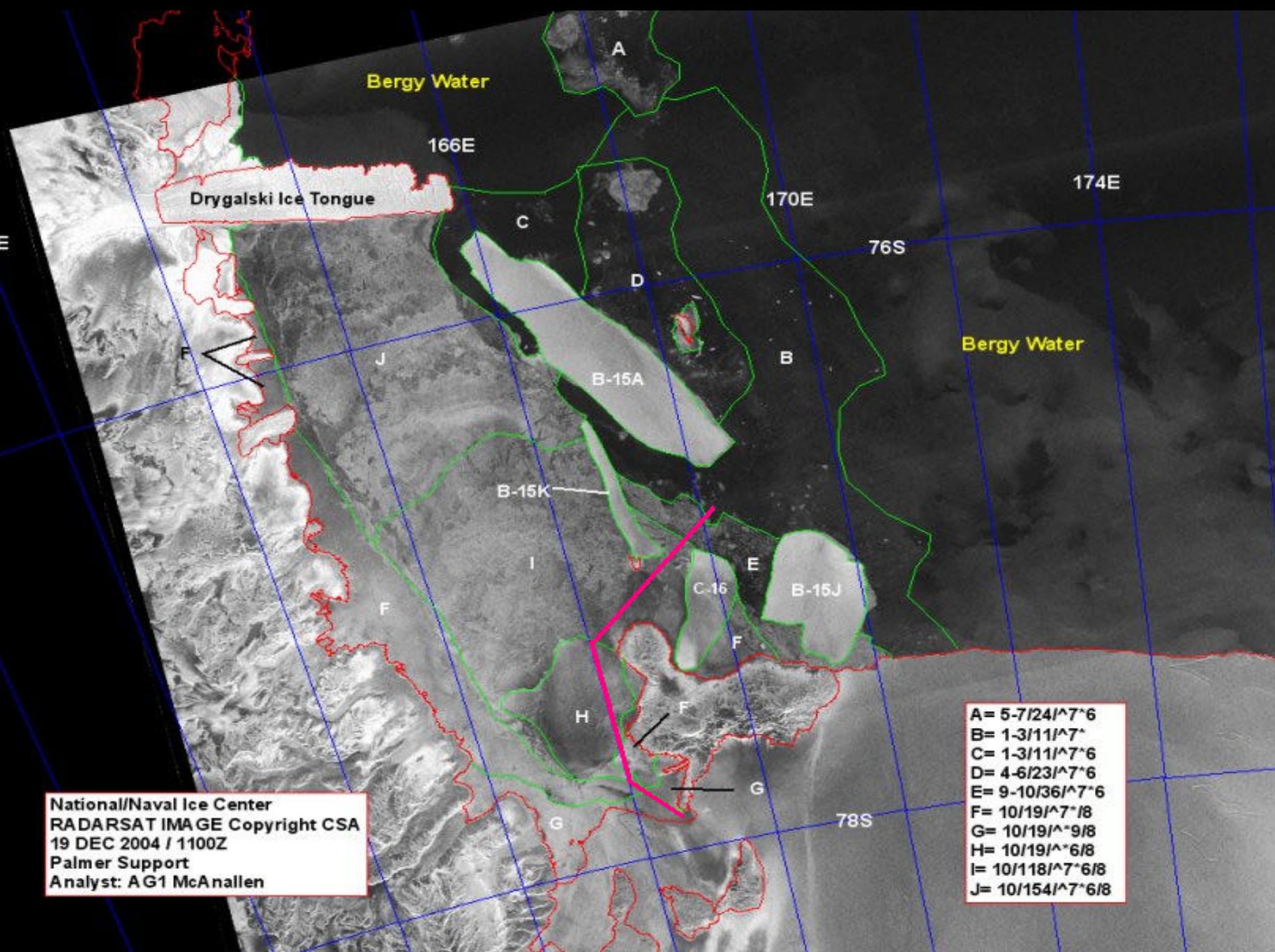
National/Naval Ice Center
Deep Freeze Support
Radarsat Image
11 January 2004/01:01:11
Fast Ice Boundary



Multi-year Fast Ice

Channel to McMurdo

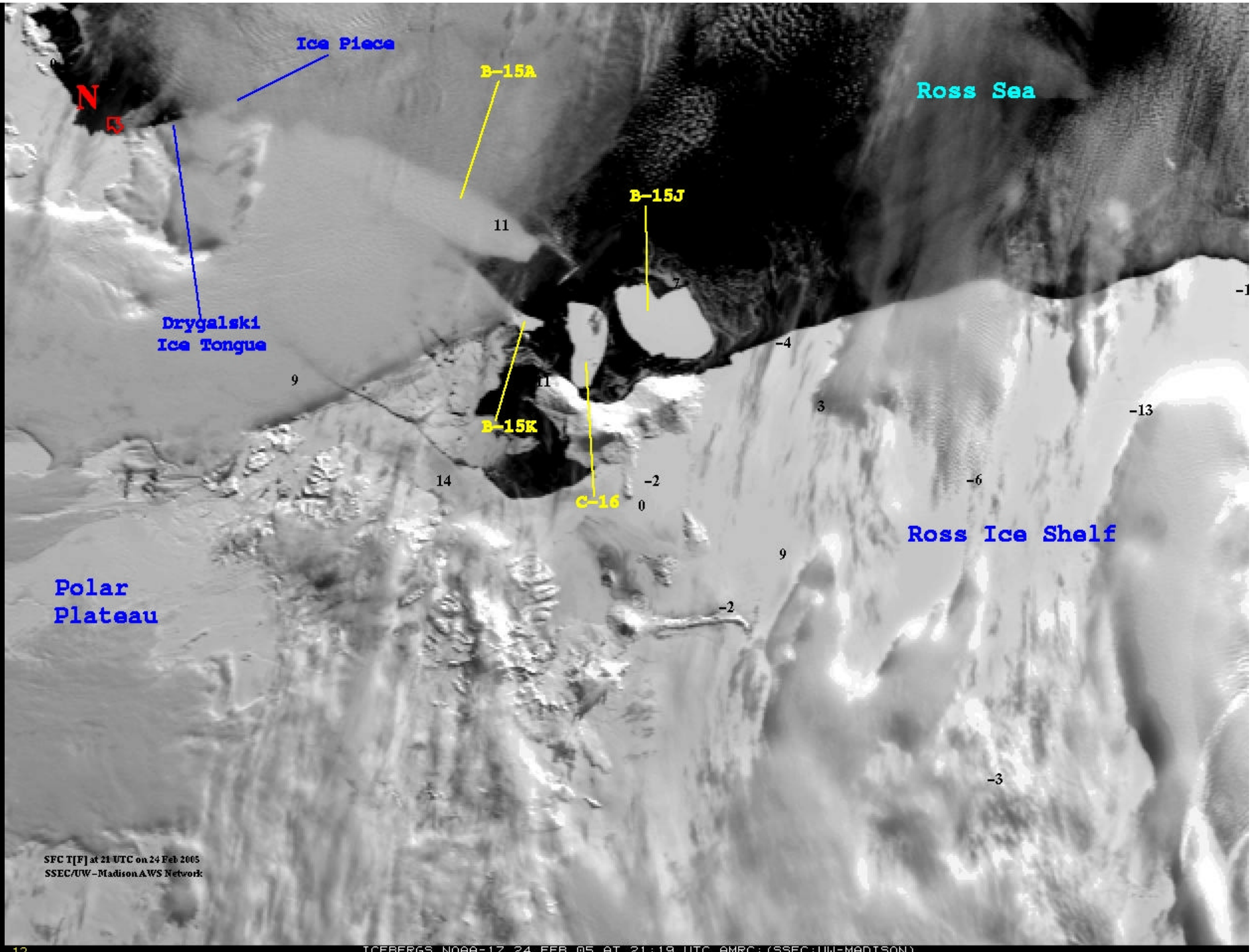
11 Dec 04



National/Naval Ice Center
RADARSAT IMAGE Copyright CSA
19 DEC 2004 / 1100Z
Palmer Support
Analyst: AG1 McAnallen

A= 5-7/24/17°6
B= 1-3/11/17°
C= 1-3/11/17°6
D= 4-6/23/17°6
E= 9-10/36/17°6
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G= 10/19/19°8
H= 10/19/16°8
I= 10/118/17°6/8
J= 10/154/17°6/8

24 Feb 05



SFC T[F] at 21 UTC on 24 Feb 2005
SSEC/UW-Madison AWS Network

Upcoming for AICC

March meeting in D.C.: Tomorrow

New members

Rolf Gradinger