

**MEMORANDUM OF AGREEMENT BETWEEN
THE UNITED STATES COAST GUARD
AND
THE NATIONAL SCIENCE FOUNDATION
REGARDING POLAR ICEBREAKER SUPPORT AND REIMBURSEMENT**

1. PARTIES.

The parties to this Agreement are the United States Coast Guard (USCG) and the National Science Foundation (NSF).

2. AUTHORITY.

Whereas National Security Presidential Directive #66/Homeland Security Presidential Directive #25 establishes the policy of the United States with respect to the Arctic region;

Whereas the Arctic Research and Policy Act of 1984, as amended, provides for a comprehensive national policy dealing with national research needs and objectives in the Arctic; and

Whereas Presidential Memorandum No. 6646 and Presidential Decision Directive/NSC-26 establish the policy of the United States with respect to Antarctica;

A. The Coast Guard enters into this Agreement under the authority of 31 U.S.C. §§ 1535-1536, 14 U.S.C. § 2, 14 U.S.C. § 93(a)(1) and (20), 14 U.S.C. § 94, 14 U.S.C. § 141(a), 15 U.S.C. § 4109(b)(2), and 16 U.S.C. § 2441(c).

B. The National Science Foundation enters into this Agreement per the authority of the National Science Foundation Act of 1950, 42 U.S.C. §1861 *et seq.*

3. PURPOSE.

This MOA establishes guidelines by which USCG polar icebreakers (USCG Cutters HEALY, POLAR STAR, and POLAR SEA; hereinafter “CG polar icebreakers”) will carry out existing and emerging USCG missions and continue to support NSF science and research as requested by NSF. This MOA does not address research icebreakers and ice-strengthened vessels owned and/or operated by or for NSF.

This MOA also establishes guidelines for obtaining appropriate NSF input into decisions on deployment of the CG polar icebreakers for scientific purposes.

This MOA supersedes the USCG/NSF MOA dated August 9, 2005, when signed and when budget authority is included in the USCG Appropriation.

This MOA provides for an incremental cost day-rate which the USCG will charge NSF for use of the CG polar icebreakers, and explains how the day rate will be calculated. It also assigns

responsibilities to the Parties and the dates during the year by which certain actions must be completed in order to ensure an efficient and well-coordinated program.

4. BACKGROUND.

The USCG is authorized to establish, maintain, and operate icebreaking facilities and to conduct oceanographic research. The CG polar icebreakers are managed by the USCG in order to provide a single point manager for the Nation's polar icebreaker fleet.

NSF is authorized as the single point manager of the U.S. Antarctic Program on behalf of the U.S. Government and has overall management responsibility for planning, funding, and implementing the U.S. national program in Antarctica. The fundamental objective of the program is to maintain an active and influential U.S. presence in Antarctica together with the ability to support a substantial program of scientific research balanced among the scientific disciplines in cooperation with programs of other Treaty nations and reflecting the needs of other U.S. agencies. When requested by NSF, the USCG has provided CG polar icebreaker support to conduct the annual break-in necessary to support the U.S. Antarctic Program and to conduct research in the Antarctic on a cost-reimbursable basis.

NSF is the designated lead agency responsible for implementing Arctic research policy, and chairs the Interagency Arctic Research Policy Committee created for this purpose. The goal of the NSF's Arctic research program is to gain a better understanding of the Earth's biological, geophysical, chemical and socio-cultural processes, and the interactions of ocean, land, atmosphere, biological and human systems, and to support fundamental research in all areas of science. When requested by NSF, the USCG has provided CG polar icebreaker support to conduct research in the Arctic on a cost-reimbursable basis.

5. PRIORITIZATION PROCESS.

The increased global interest in accessing the Arctic for a variety of purposes, combined with a national focus on Maritime Domain Awareness in the Arctic Region, may place new demands on the CG polar icebreakers.

The USCG will continue to support the NSF's Antarctic and Arctic programs as requested by NSF. The HEALY is primarily a research icebreaker. NSF's need for the HEALY is primarily for science and research in the Arctic but also on occasion in the Southern Ocean. NSF's need for the POLAR SEA and POLAR STAR, once operational, is primarily for possible Deep Freeze deployment and, on occasion, for Arctic science and research. NSF and UNOLS (University-National Oceanographic Laboratory System) requests for science and/or research deployments will be considered prior to scheduling USCG-specific deployments as long as the timelines outlined in this Agreement are satisfied. The USCG is free to schedule other missions if NSF does not notify the USCG of its CG polar icebreaker mission needs as required by this Agreement.

In the event that emergent USCG missions or tasking (e.g., search and rescue, national or homeland security, enforcement of laws and treaties, marine environmental protection or humanitarian relief efforts) or any unforeseen incident require CG polar icebreaker resources or

prevent the use of CG polar icebreaker resources during an already-underway NSF-funded science/research or Deep Freeze deployment, scheduling and/or funding impacts will be coordinated between the USCG and NSF.

The Parties recognize the USCG's commitment to DoD support in Thule, Greenland, as currently carried out by mutual agreement with Canada. The Parties acknowledge that, if necessary to meet Canadian or DoD needs, the CG polar icebreakers may need to be reprioritized.

6. RESPONSIBILITIES.

A. The USCG agrees to:

- 1) For Arctic scheduling, convene an annual interagency scheduling meeting to consider all CG polar icebreaker-related national priorities and maintenance requirements, and schedule accordingly as resources allow. Scheduling will comply with USCG cutter employment standards and be coordinated through the use of the UNOLS Ship Time Request and Scheduling System (STRS). The scheduling meeting will occur after the September 1 deadline of 6(B)(2), and will be effective for the following calendar year.
- 2) For Antarctic scheduling, receive anticipated NSF requirements for CG polar icebreaker support for Deep Freeze missions through an annual request made by NSF to the Department of Defense, Joint Task Force/Support Forces Antarctica by September 1 of each year. Final requirements and plans will be coordinated by the Points of Contact outlined in this Agreement by December 1.
- 3) Provide the support staff and services necessary to operate and maintain the CG polar icebreaker fleet. Provide crews properly trained and qualified for polar icebreaker operations in accordance with current USCG instructions. The USCG shall establish and maintain proper crewing for the CG polar icebreakers.
- 4) Provide two scientific liaisons, one each for the POLAR STAR/SEA and the HEALY.
- 5) Transfer polar icebreaker Tactical Control (TACON) to DoD when sailing south of 60 degrees south latitude in accordance with the NSF/DoD MOA.
- 6) Manage the CG polar icebreaker fleet in an economical manner. The CG polar icebreaker fleet shall be maintained in accordance with USCG and DoD directives and instructions.
- 7) Provide an operational summary report of CG polar icebreaker activities in support of NSF missions to NSF annually by October 1 of each year.
- 8) Submit a day rate for the following fiscal year to NSF for planning purposes by July 1 of each year.

9) Invite NSF recommendations for CG polar icebreaker operational and science equipment upgrades/additions or recapitalization survey or design efforts (comprehensive service life extension projects or new acquisitions) to improve USCG support for scientific research missions.

10) Fund one-half the costs of the UNOLS Arctic Icebreaking Coordinating Committee (AICC) support.

B. The NSF agrees to:

1) Participate in the annual interagency scheduling meeting and coordinate operational planning for NSF missions with USCG staff, other agencies, research project personnel and DoD as necessary.

2) For the Arctic, transmit NSF requirements for CG polar icebreakers for the succeeding calendar year to the USCG by September 1 of each year. Failure to identify science and research needs by September 1 will be presumed to indicate no such needs exist for the subsequent calendar year.

3) For the Antarctic, transmit NSF requirements for CG polar icebreaker support for Deep Freeze missions to USCG through an annual request made by NSF to the Department of Defense, Joint Task Force/Support Forces Antarctica by September 1 of each year. Final requirements and plans will be coordinated by the Points of Contact outlined in this agreement by December 1.

4) Fund one-half the costs of the UNOLS Arctic Icebreaking Coordinating Committee (AICC) support.

5) In the Antarctic, provide in-theater points of contact, meteorology and ice condition reconnaissance information as available.

6) Provide or support transportation of NSF-funded personnel and equipment necessary to meet planned operational requirements as mutually agreed upon.

7) Provide contract support of science equipment on CG polar icebreakers in accordance with the Science Equipment Matrix included as Appendix I.

8) Provide or support aviation services as needed to meet NSF's requirements. When USCG aviation assets are deployed in support of NSF's requirements, reimburse USCG per standard rates.

9) Pay the day rate.

7. CG POLAR ICEBREAKER DAY RATE.

A. The USCG will charge a day rate based on the incremental costs of deployment that will be calculated as follows. NSF will be charged the full day rate for requests for primary mission support. Primary mission support is that which requires dedicated use and direction of the ship. Science of Opportunity will be at no cost to NSF.

1) **Fuel.** The Fuel component of the day rate consists of the prior fiscal year’s average daily consumption in gallons multiplied by the average cost of fuel per gallon at Seattle. End-of-year adjustments, based on actual costs, will be calculated. NSF will obligate additional funds prior to the end of the fiscal year if actual costs were greater than estimated. If actual costs were less than estimated, USCG will credit NSF’s account for the following fiscal year.

2) **Operations.** The Operations component of the day rate will include a pro-rated amount of annual operations (AFC-30 not including fuel) budgets beginning in the year this MOA goes into effect. Costs in future years will escalate according to the Congressionally-appropriated COLA adjustment for the USCG budget. The use of the Congressionally-appropriated COLA as an adjustment mechanism will be revisited in three years to ensure an equitable division of costs.

For example, the FY11 day rate for use of HEALY would be calculated as follows:

Fuel:	9,548	gallons (FY10 average daily consumption)
	<u>X \$3.98</u>	per gallon (FY11 average cost per gallon at Seattle)
	= \$38,001	per day
Operations:	\$1.60M	(annual AFC-30 operations budget)
	/ <u>365</u>	(pro-rated)
	= \$ 4,384	per day
Total:	\$38,001	(daily fuel rate)
	<u>+ \$ 4,384</u>	(daily operations rate)
	= \$42,385	per day

B. Transit days exclusively in support of science will be charged the day rate. Transit days for science phases that include more than one funding agency will be pro-rated according to the number of science operating days per agency. In port days for mobilization/demobilization will be calculated in the same manner as transit days. Port call days that do not involve mobilization/demobilization will not be charged (for example, days needed for fueling, liberty, maintenance).

C. Standby for Operation Deep Freeze: Day rate will include a pro-rated amount of the annual operating budget only, which will be applied for the number of days that the vessel is in B-48 status. The USCG reserves the right to conduct other missions while in standby status as long as the cutter can deploy within the agreed standby requirement. If the USCG

does utilize the vessel during the B-48 status period, NSF will not be charged the standby day rate applicable to those days.

D. The day rate for the subsequent fiscal year will be set by the USCG prior to the annual polar icebreaker scheduling meeting. On approval of NSF's request for CG polar icebreaker services, but not prior to 1 October, NSF will obligate sufficient funding to cover the expected mission costs. The final bill will take into account any changes to days used during the mission.

8. OTHER COSTS.

Scientific Equipment: NSF and USCG have agreed on which organization is responsible for capitalizing and maintaining scientific equipment on board the CG polar icebreakers, and have included the agreement as Appendix I to this MOA. Note that HEALY is primarily a research icebreaker and thus requires a significant amount of capital and technical support for scientific systems.

9. PROPERTY RIGHTS AND LIABILITY.

A. The USCG maintains sole responsibility for investigation, adjudication, and settlement and payment of all claims in accordance with the USCG's regulations and policies for incidents occurring on or involving the USCG polar icebreaking fleet.

B. The USCG's responsibility includes but is not limited to claims arising out of service contract administration.

C. The USCG's responsibility excludes claims arising out of actions caused by NSF or NSF-sponsored individuals.

D. NSF remains responsible for scientific equipment not transferred to the USCG but used on CG polar icebreakers that is damaged or lost during operations unless the damage is caused by USCG personnel.

E. If NSF participates in Administrative Investigations and Mishap Reports, the NSF shall be bound by restrictions prescribed by existing USCG directives on the use and dissemination of USCG administrative investigation and mishap reports.

10. POINTS OF CONTACT.

A. USCG: The Chief of the Office of Marine Transportation System (CG-552) shall be the USCG primary point of contact.

Commandant (CG-552)
United States Coast Guard
2100 Second St. S.W.
Washington, D.C. 20593
202-372-1505

B. NSF: The Deputy Office Head of OPP shall be the NSF primary point of contact.

Office of Polar Programs
National Science Foundation
4201 Wilson Boulevard
Arlington, VA 22230
703-292-8030

11. CONFLICTS.

Nothing in this Agreement is intended to conflict with current law or regulation or the directives of the Department of Homeland Security (USCG) or NSF. If a term of this Agreement is inconsistent with such authority, then that term shall be invalid, but the remaining terms and conditions of this agreement shall remain in full force and effect.

12. EFFECTIVE DATE.

The terms of this Agreement will become effective upon the last signature to the Agreement and when budget authority is included in the USCG Appropriation.

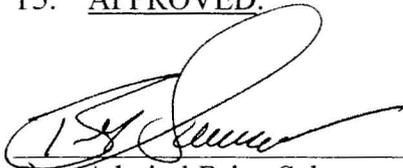
13. MODIFICATION.

This agreement may be modified upon the mutual *written* consent of the USCG and NSF.

14. TERMINATION.

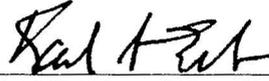
This agreement, as modified, will remain in effect until terminated by mutual consent. It may also be unilaterally terminated by 12 months written notice by either party to the other.

15. APPROVED.



Rear Admiral Brian Salerno
Deputy Commandant for Operations
United States Coast Guard

Date: 3 AUGUST 2010



Dr. Karl Erb
Director, Office of Polar Programs
National Science Foundation

Date: June 4, 2010