

Memorandum Of Agreement

Between

The Department Of Defense

And

The National Science Foundation

For

The National Science Foundation's Polar Programs

I. PURPOSE

This Memorandum of Agreement outlines the responsibilities for the National Science Foundation (NSF) and the Department of Defense (DoD) and sets forth the policies and procedures by which DoD and NSF assets are to be managed. The implementing party for NSF is the Office of Polar Programs (OPP). The implementing party for DoD is the Secretary of the Air Force, who acts as DoD's Executive Agent for the NSF OPP. It is the goal of both parties to use its best efforts to comply with the terms of this Agreement.

II. AUTHORITY

Antarctic Treaty of 1959
National Security Decision Memorandum 71 of 1970
OMB Circular A-51 (Revised) dated August 4, 1971
National Security Decision Memorandum 318 of 1976
Presidential Memorandum 6646 of February 5, 1982
Arctic Research and Policy Act, as amended November 16, 1990
Deputy SECDEF Letter to NSF Director dated 1 April 1992
Presidential Decision Directive/NSC 26 of June 9, 1994
House Conference Report 104-344 (To accompany H.R. 2126) for FY 96
National Science and Technology Council report of April 1996
Deputy SECDEF Letter to NSF Director dated 3 March 2005

III. GENERAL

A. DEFINITIONS

1. Active Guard and Reserve (AGR). National Guard and Reserve members on voluntary active duty providing full-time support to National Guard, Reserve, and Active Component organizations for the purpose of organizing, administering, recruiting, instructing, or training the Reserve Component.

2. Administrative Control (ADCON). Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations.
3. Air National Guard Liaison to NSF/OPP. Rated field grade officer assigned for duty at NSF to provide continuous liaison to operational units, the Air National Guard, and other major commands/agencies as required for the planning and execution of NSF-requested support.
4. Air National Guard / Logistics (ANG/A7). The Logistics Directorate of the Air National Guard responsible for initiating and executing logistics policy in the areas of aircraft maintenance and engineering. Accomplishes Air Staff/Major Command duties in planning, programming, and allocation of resources
5. Air Force Reserve/Logistics (AFRC/LG). The Logistics Division of the Air Force Reserve is responsible for initiating and executing logistics policy in the areas of aircraft maintenance and engineering. Accomplishes Air Staff/Major Command duties in planning, programming, and allocation of resources
6. Area Director. The senior contractor official responsible for implementing NSF tasking, as assigned, and the supervision of contractor operations with appropriate liaison with the NSF Representative and SFA JTF/CD.
7. Commander, Joint Task Force Support Forces Antarctica (CJTF SFA). PACOM appointed commander of the operation in support of the USAP, in the Antarctic Joint Operating Area. Dual-hatted as the commander, 13th Air Force, which is the execution organization for ODF in the PACOM area of responsibility.
8. Deputy Commander Joint Task Force Support Forces Antarctica (DCJTF SFA). The designated on-scene commander of DoD Support Forces in Antarctica. Can be dual-hatted as the 13th Air Expeditionary Group Commander (13 AEG/CC). He/she is responsible for all military logistical support functions provided to NSF in Antarctica under the provisions of this MOA and must be a rated officer.
9. DoD Liaison to NSF/OPP. The senior ANG rated officer assigned for duty at NSF to provide continuous liaison and DoD policy guidance between DoD and NSF.
10. Joint Task Force-Alaska (JTF-AK). Coordinates Defense Support of Civil Authorities (DSCA) for the Alaska region.
11. McMurdo Station. The complex of facilities at McMurdo Station which constitutes the hub for air and ship operations, the storage point for ship-delivered bulk fuel, the staging base for annual resupply of South Pole Station, and for the support of other inland sites. It is also the support hub for the major portion of U.S. research conducted in Antarctica.

12. National Science Foundation/Office of Polar Programs (NSF/OPP). Office within the NSF that manages or coordinates scientific activities in the Arctic and Antarctic Polar Regions, and that has been designated via Presidential Memorandum to serve as the single point manager for all U.S. activities in Antarctica.

13. NSF Representative in Antarctica. The NSF senior staff member designated by the Director of the Office of Polar Programs of the NSF (OPP) to provide for on-site management of the U.S. Antarctic Program (USAP).

14. Operational Control (OPCON). Pertaining to DoD organizations, the command authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. OPCON includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command.

15. Operation Deep Freeze (ODF). The DoD operation within USAP that provides logistic support.

16. Pacific Air Force (PACAF). The air component of PACOM.

17. Pacific Command (PACOM). The supported unified command for Operation DEEP FREEZE, assigned the Pacific Area of Responsibility, as defined by SECDEF/JCS Unified Command Plan.

18. Secretary of the Air Force for Manpower and Reserve Affairs (SAF/MR). The focal point for Air Force policy oversight of human resources and Reserve component programs. SAF/MR directs the development of policy and advises the Secretary of the Air Force on programs for Manpower and Reserve Affairs that respond to Air Force Secretariat, Office of the Secretary of Defense, Congressional, and Administration guidance.

19. Senior United States Representative in Antarctica. The designated ranking U.S. government official in Antarctica, as authorized by the Director, National Science Foundation.

20. System Program Office (SPO). A general term of reference to those DoD organizations directed by individual managers exercising authority over the planning, direction, and control of tasks and associated functions essential for support of designated weapons or equipment systems. The authority vested in this organization may include such functions as research, development, procurement, production, material distribution, and logistic support, when so assigned.

21. Tactical Control (TACON). Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed direction and control of movements or maneuvers within the operational area necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Tactical control provides sufficient authority for

controlling and directing the application of force or tactical use of combat support assets within the assigned mission or task.

22. United States Antarctic Program (USAP). United States scientific activities in Antarctica as managed and budgeted by NSF/OPP, including the logistic support of those activities in Christchurch, New Zealand; Punta Arenas, Chile; and Antarctica.

23. US Northern Command (USNORTHCOM). The supported command for operations in part of the Arctic Region, assigned the Alaskan and North American continent Area of Responsibility (AOR) as defined by SECDEF/JCS Unified Command Plan.

24. 13th Expeditionary Group Commander (13 AEG/CC). When established by DoD, serves as the designated agent for all airlift issues in the area of responsibility (AOR) or joint operations area (JOA) and for other duties as directed. He/she coordinates authority between the CJTF SFA, 613 AOC/AMD, airlift coordination cell, the air mobility element, the Tanker Airlift Control Center (TACC), the joint movement center, and the air operations center in order to expedite the resolution of airlift problems

25. 109 Airlift Wing (109 AW). New York Air National Guard airlift wing operating and maintaining a fleet of LC-130s and C-130's out of Stratton Air National Guard Base, Scotia, New York.

B. PROGRAM DESCRIPTION

1. ANTARCTICA

a. The Antarctic Treaty of 1959 defines the Antarctic as the area south of 60 degrees south latitude, to include all ice shelves.

b. United States activities in Antarctica are managed in a single integrated program that adheres to the principles of the Antarctic Treaty of 1959. The Treaty provides that Antarctica shall be used for peaceful purposes only, and that there shall be prohibited, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, and the testing of any type of weapons. However, it does not prevent the use of military personnel or equipment for support of scientific research or for any other peaceful purposes.

c. The USAP supports national goals to maintain the Antarctic Treaty, ensure that the continent will continue to be used for peaceful purposes only, foster cooperative research to contribute to the solution of regional and worldwide problems, protect the environment, and ensure equitable and wise use of living and non-living resources. The U.S. scientific research program in Antarctica continues to be the principal expression of national interest and policy in Antarctica. The NSF has been assigned 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.

2. ARCTIC

a. The United States Arctic Research and Policy Act of 1984, as amended, provides for, among other things, a comprehensive national policy dealing with national research needs and objectives in the Arctic. The policy defines the Arctic as all areas north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas including the Arctic Ocean and the Beaufort, Bering, and Chukchi Seas; and the Aleutian chain. Field projects falling outside these boundaries but directly related to arctic science and engineering conditions or issues are appropriate for NSF support, as well as are related laboratory and theoretical studies.

b. The goal of the NSF 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. Arctic research is supported at OPP as well as a number of other disciplinary programs within the NSF that are linked through an Arctic Affiliates working group. This group, consisting of program representatives from other NSF programs that support arctic research, provides for coordination across NSF, including the potential for joint review and funding of arctic proposals, as well as mutual support of costly Arctic logistics.

c. An Arctic logistics component has been established in the NSF/OPP to address field program requirements beyond those commonly included in proposals from an individual or small group of investigators. Examples of the type of research support that may be provided through the separate logistics component include DoD support, the subject of this agreement, Department of Homeland Security (Coast Guard) support, and commercial contractor support.

C. PROGRAM MANAGEMENT POLICY

1. NSF/OPP is responsible for management and funding of the entire USAP and NSF-sponsored programs in the Arctic and Antarctic. The DoD is responsible for providing operational and logistic support for the program as requested by NSF on a cost-reimbursable basis. However, NSF retains the option to use non-DoD sources of support where these are determined by NSF to be cost-effective and will not be detrimental to the national interest. Pursuant to the single agency management concept that has been assigned to NSF, it is the policy of NSF to employ a mix of military and commercial program support managed as a single package with cost structures that ensure effective and responsive program support at minimum cost. A civilian organization exercising funding control over operational military units is a departure from normal military command procedures and requires an exceptional amount of understanding and flexibility by all parties involved. It is recognized that OPCON, TACON and ADCON of assigned military units must remain at all times within DoD.

2. The Secretary of Defense, pursuant to Title 10 U.S.C. 113 and consistent with DoD Directive 5101.1 designated the Secretary of the Air Force as the DoD Executive Agent for the NSF/OPP. Accordingly, the Secretary of the Air Force is responsible for support functions, which include

equipment, personnel, and the air, land, and sea operations necessary for the safe and successful accomplishment of NSF/OPP's program objectives. Additionally, the Secretary of the Air Force delegated its Executive Agent authority to the Assistant Secretary of the Air Force (Manpower, Reserve Affairs, SAF/MR). All NSF/OPP requests for support must be transmitted to the Secretary of Defense (SECDEF) for his/her concurrence and approval.

3. DoD has established military positions primarily tasked to support the NSF/OPP. These positions are included by Congress in DoD military end strength limitations but are exempted from overall manpower reductions. Neither DoD nor NSF will take any unilateral actions to change these manning positions. Exempted position personnel may be required to respond to a condition of national emergency. When such condition occurs, DoD will make every possible effort to ensure personnel replacements avoid gaps or vacancies during the USAP operating season. Every effort will be made not to reassign program personnel until the completion of a forthcoming Antarctica operating season (annually in March).

4. It is recognized that the military standards for safety of aircraft operations must not be weakened or compromised by the effects of civilian funding and management arrangements. Therefore, it is agreed that DoD, on a fully reimbursable basis, will provide specified elements of logistic and operational training support essential to the maintenance of military standards of safety.

5. DoD, like other agencies, may fund and undertake directed short-term programs of scientific activity related to Polar Regions. Such activities in the Polar Regions shall be conducted within the framework of the NSF logistics support program. These research activities will be included in the material compiled by NSF and used by the Department of State to satisfy annual Treaty or international agreement report requirements.

IV. RESPONSIBILITIES

This section lists the responsibilities and support required from both DoD and NSF. The detailed agreements of such support, if necessary, are attached to this MOA as appendices. Appendices are read and fully incorporated into, and are a part of, this MOA. Additionally, the support listed in section IV and/or the appendices may be modified upon request in accordance with existing agreements. NSF will inform SAF/MR of any DoD services with organizations not currently listed to define new services and responsibilities.

A. **NSF.** NSF has been assigned overall responsibility to fund and manage the USAP and is the lead agency for Arctic and Antarctic research policy. NSF responsibilities include:

1. During the operating season, when DoD support personnel are in place, within reasonable limits imposed by the environment, strive to attain and maintain standards of habitability, medical services, welfare and recreation, training, safety, retail sales and religious services that are appropriate for a mixed civilian and military population and are compatible with established DoD standards.
2. Provide support functions and operations not provided by DoD, such as:

- a. Non-DoD air and ship operations,
 - b. Surface vessel and diving operations, and
 - c. Station field camps and surface traverses conducted by NSF sponsored civilian personnel.
3. Provide the following elements and functions related to logistical support.
- a. The following infrastructure to support airlift activity in Antarctica as designated by the DCJTF SFA.
 - (1) Aircraft maintenance facilities, support equipment, unique spares, and component systems in coordination with JTF-SFA/J4.
 - (2) Airfield control tower, air traffic control center and base operations facilities in Antarctica including modifications, field changes and upgrading as necessary.
 - (3) Procurement of electronic aids to air navigation and visual and electronic aids for approach, landing, and ground operations in Antarctica.
 - (4) Operational communications support and procurement of communications equipment in Antarctica required for reliable and safe DoD operations.
 - (5) Runway and skiway configuration, development and maintenance.
 - (6) Configuration, installation and maintenance of airfield markers.
 - (7) Configuration, installation, operation, and maintenance of approach lights and edge lighting.
 - b. The functions and services to support airlift activity in Antarctica.
 - (1) Air Traffic Control (ATC) & Air Space Management - Establish an airspace management system that will provide for air traffic control and separation of participating aircraft, establish instrument approach procedures, development of landing systems and publishing standards for flight operations. Function as a Rescue Coordination Center.
 - (2) Flight Operations Support - Provide services other than airfield maintenance in Antarctica such as:
 - (a) Airfield operational status advisories;
 - (b) Flight planning services including filing and maintaining NOTAMs; and
 - (c) Publish landing minima for selected USAP airfields including annual design, obtaining flight check and approval of all Standard Instrument Approach Procedures.

(3) Meteorology - Provide timely and accurate local and regional weather forecasts, warnings, flight forecasts and Terminal Aerodrome Forecasts for all stations in Antarctica that operate aircraft and support ship operations, including:

- (a) Enroute, area and terminal weather forecasts and synopses for on-continent flights;
- (b) Flight forecasts for aircraft operating to/from New Zealand;
- (c) Ice condition reports for ship operations; and
- (d) Distribute synoptic weather data to the World Meteorological Organization, DoD, science activities and other national and international agency archives and services.

(4) Ground Electronics Maintenance - Provide preventive and corrective maintenance support to specific ATC, Communications and Aviation Meteorology systems in Antarctica including:

- (a) Landing systems,
- (b) Air navigation aids (NAVAIDS),
- (c) ATC Tower electronics systems,
- (d) Runway electronics systems,
- (e) ATC Center electronics systems,
- (f) Aviation weather systems,
- (g) Air to ground communications, and
- (h) DoD Message Center Service.

c. DoD organizations may provide additional functions and elements of support to the NSF/OPP other than those listed under paragraph IV.B. This support will be requested by NSF, and if agreed to by the DoD organizations, will be covered by separate MOAs or other support agreements and appended to this agreement.

d. Cold weather and survival equipment for passengers on DoD operated aircraft and ships.

4. Provide overall logistic support plans for polar program activities including effective coordination with the DCJTF SFA and PACOM for those activities under their control.

5. Contract support and management services for the USAP. Select the prime contractor to support New Zealand, Antarctic, and Arctic operations not supported by DoD.

6. NSF shall provide the following medical services to the USAP:

- a. Operate medical clinics at each year-round station staffed and equipped to provide USAP participants with appropriate ambulatory/emergent medical care, consistent with generally accepted good medical practice, including provision for medical care/assistance to remote field stations or seasonal camps;
 - b. Define medical screening criteria for Antarctic assignment and ensure civilian participants meet those requirements.
 - c. Coordinate the overall medical care delivery system, incorporating DoD and civilian medical care assets into a unified system available to all USAP participants while deployed.
7. NSF shall provide the following emergency response to the USAP:
- a. Coordination of aeromedical evacuation determination, combining the assets from DoD and civilian participants.
 - b. Planning, coordination, and support of mass casualty/emergency preparedness/search and rescue capabilities, incorporating DoD and civilian components.
8. Issue and maintain a comprehensive set of program directives to implement the policies and procedures of the NSF/OPP, including an annual program planning directive. No NSF directive shall require DoD units assigned to NSF/OPP support to institute procedures contrary to applicable DoD instructions and policy.
9. Subject to State Department policy and guidance, the NSF retains sole responsibility and cognizance over all coordination and contacts with foreign countries that may be involved in the conduct of the USAP. DoD, in providing USAP support, may coincidentally provide support to programs of other nations working in concert with NSF. The 13 AEG/CC, 13 AEG/CD, or in their absence the 304 EAS/CC or 139 EAS/CC, are authorized to participate with the NSF in liaisons with representatives of other nations to facilitate support coordination. DoD representatives will request approval from NSF prior to entering into any agreement and prior to renewal of any agreement.
10. Designate an individual as the Senior U.S. Representative in Antarctica. This individual has responsibilities as follows:
- a. Assure implementation of the policy guidance and directives of the Executive Branch of the Government as they pertain to the USAP.
 - b. Represent the United States in the conduct of activities in Antarctica as they interact with those of other nations.
 - c. Assure implementation of the U.S. responsibilities under the Antarctic Treaty and with the associated Agreed Measures.

- d. Monitor and assure on-site coordination among U.S. participants in the conduct of international cooperation involved in the Antarctic program.
- e. Take appropriate necessary action on casualty, jurisdictional, good order and discipline, asylum, and other personnel matters not otherwise subject to military or other authority.
- f. Monitor compliance with the Antarctic Conservation Act of 1978 (P.L. 95-541).

11. Designate an individual as the NSF Representative in Antarctica. This individual has responsibilities to ensure compliance with all of Section IV of this agreement. Additionally, he or she shall:

- a. Coordinate the support and scheduling of science projects in Antarctica and the implementation of the annual science program plan.
- b. Stay abreast of all matters affecting the USAP using all available communications, and through close liaison with the DCJTF SFA, subordinate military units, civilian support units, science projects, visitors, and foreign contacts.
- c. When circumstances require, revise and adjust tasking to the DCJTF SFA and civilian support units to maintain the most effective support to the program's annual plan.
- d. When designated, act as the Senior U.S. Representative in Antarctica.

12. Assign a year-round NSF McMurdo Station Manager. The NSF McMurdo Station Manager reports to the NSF/OPP Director via the Head, Polar Research Support Section, NSF/OPP. The McMurdo Station Manager is responsible for station operations. This individual has responsibilities as follows:

- a. Manage and direct the administrative operation of the station, its property and equipment, and the performance of its life support and service functions.
- b. Exercise local host management authority where the PACOM and/or the civilian contractor are tenants.
- c. Ensure effective execution of environmental practices; industrial, vehicular, and recreational safety; security and internal controls; investigations of casualties; equipment and consumable inventory control; local internal information; and communications infrastructure.
- d. Evaluate plans and progress and establish priorities for facilities operations, construction, and maintenance in the McMurdo area.
- e. When designated, act as the Senior U.S. Representative in Antarctica.

13. In the event of any mishap involving any aircraft/vessel owned or operated by DoD, any DoD personnel, or DoD major asset, NSF shall immediately notify DCJTF SFA. NSF shall make all reasonable efforts to treat all injured personnel and protect and preserve all vital evidence until

arrival of the interim or formal safety investigation board. NSF shall fully cooperate with DoD in any investigation taken pursuant to this paragraph.

14. Manage, conduct and coordinate Antarctic visitor and tourism affairs.

15. Manage and conduct of USAP public affairs.

16. Assist with postal/mail services. The prime contractor to NSF will provide additional personnel after coordinating the number required, based on established work center standards and guidelines, with the PACAF Air Postal Squadron (AIRPS). NSF will provide adequate facilities, furniture and equipment, other than postal unique equipment.

17. The director, NSF/OPP/AIL may provide a performance evaluation of the DoD liaison to NSF/OPP, the ANG liaison to ANG/A3, and DCJTF SFA by letter to the incumbent's rating official, a minimum of 6 weeks prior to the due date for the annual Officer Performance Report.

B. DoD responsibilities include:

1. The Commander, United States Pacific Command (USPACOM), will accept deploying forces and exercise OPCON or TACON (per CJCS DEPORD) upon arrival in CDRUSPACOM AOR and will relinquish control upon mission completion and redeployment from CDRUSPACOM AOR.

2. Commander, United States Northern Command (CDRUSNORTHCOM), will accept deploying forces and exercise TACON upon DSCA mission execution within USNORTHCOM AOR of the Arctic region and will relinquish control upon mission completion. USTRANSCOM will retain OPCON of inter-theater airlift assets and will operate under a supported/supporting command relationship with USNORTHCOM.

3. The logistic support provided by DoD in support of NSF/OPP's polar activities includes: equipment, personnel, and the air, land, and sea operations necessary for the safe and successful accomplishment of NSF/OPP objectives.

4. Develop the DoD logistic support and operations plans and advise the NSF when any shortfall of capability exists from the annual support tasking, or if there is any duplication of tasking to the DoD and any contractor.

5. Issue and maintain a USAP Operation Order (Operation Deep Freeze OPORD) and other internal instructions and notices to implement both the NSF and other DoD directives as applicable. The annual OPORD will be coordinated with NSF and be consistent with USAP policy and direction.

6. Conduct all activities in compliance with the Antarctic Conservation Act of 1978 (as amended, P.L. 95-541) and its implementing regulations. NSF and their contractors will submit all necessary permits for DoD operations under this agreement. In addition, ANG compliance with the National Environmental Policy Act (PL 91-190) for NSF/OPP supported activities is described in the following documents:

- a. "Environmental Assessment for the Proposed Aircraft Robust and Construction Activities at the 109th Airlift Wing," June 1997 (for environmental impacts to CONUS).
 - b. "Final Supplemental Environmental Impact Statement for the USAP," October 1991 (for environmental impacts from ANG flying operations in Antarctica).
7. Use appropriate DoD policies and procedures to record and safeguard all NSF-owned equipment (valued at \$2,500 or more) in the custody of DoD agencies. A records system is required for these assets and will serve as the official property records for NSF subject to internal and external audit. Additionally, the DoD will provide a mid-year and an annual fiscal year closeout report of all inventory items of \$25,000 or more. This report will be forwarded to the NSF property administrator. (Note: The above reporting requirement does not include aviation supplies. These inventory assets are DoD-owned. When utilized for maintenance repair/replacement, these assets are accounted for within the total replacement cost for the aircraft to include engines.
 8. Maintenance of good order and discipline by members of the U.S. military services and by DoD-sponsored contractors, including questions of criminal jurisdiction is a matter of TACC, DCJTF SFA, or PACOM as appropriate.
 9. SAF/MR shall submit a schedule of all DoD Antarctic visitor events to NSF for approval.
 10. Provide support to the NSF public affairs program and for conducting the internal DoD public affairs function.
 11. Upon request from NSF, provide advice, support, and evaluation to medical and medical technology special projects based upon DoD resource availability and NSF funding. DoD flight surgeons may assist in outbreak investigations, epidemiological surveillance, and other public health/occupational medicine programs at McMurdo Station. In addition, DoD will define medical screening criteria for Antarctic and Antarctic DoD assignment and ensure DoD participants meet those requirements.
 12. Provide contract management support services. These services include:
 - a. Negotiate and award contracts written to provide DoD logistic support function after NSF approval.
 - b. Administer and supervise contracts above any other NSF contracts as mutually agreed between DoD and NSF.
 - c. Provide all contractors (DoD administered contracts) with necessary safety, emergency, and operating instructions with which they must comply.
 13. Establish a standard Air Force supply system to support aircraft operations at Christchurch and McMurdo.
 14. DoD will provide the logistic support functions listed below, in accordance with applicable directives, to NSF Polar Programs.

- a. Provide aircraft and vessel operation and logistic support for travel and transportation to and from the Polar Regions. (Appendices A, B, and C)
- b. Provide access to operational and non-operational DoD terrestrial and satellite command, control, communications resource satellites to support DoD airlift operations and DCJTF SFA command and control communications. In addition, provide access to operational and non-operational high inclination/geosynchronous communications satellites that can provide communications at high latitude polar stations. Use of these satellites will be on a case by case basis and mutually agreed to by DoD and NSF. (Appendix D)
- c. As requested by NSF, provide technical expertise in cold regions science, engineering and technology and polar-facilities operations and management in support of OPP Arctic and Antarctic missions. (Appendix E)
- d. Provide Space and Naval Warfare Systems Center support for engineering and aviation technical support in support of the USAP. (Appendix F)
- e. Provide operational and technical support to, and maintain the established Vanda seismic monitoring station (VNDA) and relay station to provide a data link between the seismic station and the communications station on Crater Hill. (Appendix G)
- f. Postal services will be provided at Christchurch, NZ and McMurdo Station, Antarctica, including sale of stamps and money orders, registered/certified mail, parcel post (ordinary and insured), philatelic mail cancellation as necessary, and related support to other Antarctic stations as needed. DoD will provide one full-time supervisor. (Appendix H)
- g. With the assistance and support of NSF, provide veterinary care. (Appendix I).

C. USCG. Icebreaker support is provided to the NSF/OPP by the USCG under the terms of a separate NSF/USCG MOA. USCG ships in the Antarctic will normally operate under the tactical control of the DCJTF SFA upon reaching south of 60 south.

V. PLANNING AND BUDGETING

- A. Program planning is accomplished on a continuous year-round basis.
 - 1. The principal formal planning events scheduled and chaired by NSF are:
 - a. An annual planning conference, to review Antarctic Program activities of the previous season and to establish support requirements and schedules for the upcoming operating season.
 - b. An annual transportation conference to determine passenger and cargo transportation requirements and to develop airlift and ship schedules for the upcoming Antarctic operating season.

2. The principal formal planning event scheduled and chaired by the 109th AW is an annual planning conference to review Arctic program activities of the previous season and to establish support requirements and schedules for the upcoming operating season.

B. NSF funds logistical support for polar programs. Therefore, budget submission requirements must conform to the NSF budget cycle and not to that of DoD. Budget submission requirements are due to NSF two years prior to the start of any given fiscal year. NSF and the individual DoD units required to submit budget data will mutually agree to budget submission schedules. The NSF may request revised budget estimates when unexpected events occur that necessitate budget alterations. The calculation method used to establish costs cannot change without prior coordination with and approval from the NSF.

VI. FUNDING AND REIMBURSEMENT

A. NSF shall be responsible for the programming, budgeting, and funding for all logistic support services requested by NSF and rendered by DoD in accordance with this MOA. DoD will continue to fund 109th AW support and training for its wartime tasking at its primary aircraft assigned (PAA) level. The NSF agrees to fund the personnel and training costs above and beyond the wartime tasking requirements to include funding for NSF dedicated AGR positions for the entire fiscal year and all flying training hours required for these personnel to maintain proficiency. Annual flying training hours are mutually established by NSF and the DoD for each fiscal year. The NSF will be charged the standard rate for the LC-130H as developed through the Air Force Cost Analysis Improvement Group (AFCAIG) process. Due to the unique nature of this agreement and the total funding arrangements between the NSF and the DoD for the LC130H's, Transportation Working Capital Fund (TWCF) rates will not be used if a LC-130H mission is designated as a training mission vice TWCF. A reimbursable rate (the amount billed by ANG/FM) will be utilized. TWCF's DoD rates will be charged if a mission is designated as TWCF. NSF shall reimburse DoD, for all costs incurred in supporting the NSF/OPP. Reimbursement is based on actual cost or estimated actual cost, except where DoD standard rates are available. Standard rates apply, for example, to charter DoD sealift and strategic airlift and to military personnel. However, in the budget process NSF, as the single agency program manager, requires specific cost basis information for such reimbursable costs. The basis for costs will be presented in sufficient detail, showing source of data and the rationale for each item.

B. Changes occurring subsequent to budget approval can be made after consultation and mutual agreement between the NSF and the DoD entity or unit providing support.

C. Logistic support elements and functions requested by NSF to be provided by DoD are identified in Section IV. DoD is precluded from increasing the scope or adding new cost elements of NSF/OPP support services without the prior approval of NSF and only if coordinated IAW paragraph V. B. above.

D. Employment of non-dedicated DoD units is planned and budgeted for in accordance with the procedures in Section VI.A., and actual costs, personnel costs at standard rates, travel and per diem, etc. for the time spent in direct support are reimbursed accordingly. In the case of the 109th AW, advance payment will be provided for those O&M and military personnel costs directly attributable to support of the NSF/OPP if required.

E. When the NSF authorizes obligations or expenditures under this agreement later than the first day of any fiscal year, such NSF authorization constitutes approval of any expenditure made under this agreement beginning the first day of such fiscal year if authorized by law. NSF funds issued to DoD will remain available until expended or withdrawn after notification and coordination with DoD.

F. NSF approval shall be received prior to contracting for services or making inter-service support agreements that use NSF funds. DoD procurements using non-NSF reimbursed funds, but which require direct NSF expenditures for transport to and facility support in Antarctica in excess of \$1000 per year will also require prior NSF approval.

G. No agency or echelon of the DoD shall impose administrative restrictions on the use of the NSF funds made available to DoD operating units without prior coordination with NSF.

H. For bulk fuel supply for McMurdo, NSF reimbursement to DoD is based on quantities of bulk fuel delivered to McMurdo, the number of days the ship is on charter to the USAP, and the current DoD price schedules.

I. Agency responsibility for the processing, adjudication, and payment of claims arising from activities supporting the NSF/OPP will depend on the control exercised by the NSF or DoD support units over the personnel or equipment causing the incident giving rise to the claim.

1. NSF will process, adjudicate and pay meritorious claims resulting from the acts or omissions of NSF personnel acting within the scope of their employment or caused by equipment operated and controlled by NSF, and all personnel claims submitted by employees of NSF. Such processing, adjudication and payment will be in accordance with existing statutes and agency claims implementing regulations.

2. DoD will process, adjudicate, and pay meritorious claims resulting from the acts or omissions of DoD personnel acting within the scope of their employment or caused by equipment operated and controlled by DoD, and all personnel claims submitted by military personnel or civilian employees of DoD. Such processing, adjudication and payment will be in accordance with existing statutes and agency claims implementing regulations.

3. In instances where agency responsibility is unclear or where claims allege or subsequent investigation reveals responsibility on the part of both NSF and DoD, the agencies shall determine which agency shall be designated the single agency that will investigate, decide the merits and if appropriate, pay the claim. The designated agency shall notify the claimant that all future correspondence concerning the claim shall be directed to that agency.

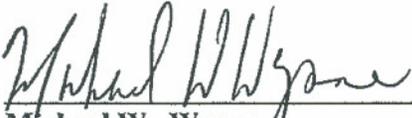
VII. AGREEMENT AND ADMINISTRATION

A. This MOA will be reviewed as necessary, but no later than every two years, for applicability and currency of the provisions stated herein, and will be updated as necessary in accordance with paragraph B. This agreement may be terminated at any time by mutual consent of DoD and NSF or by either upon giving at least three years notice.

B. Any requested change(s) to the MOA or appendices A, B, and C must be submitted in writing to SAF/MRR and NSF. All changes require the mutual consent of both parties. NSF will inform SAF/MRR of additional appendices or of any changes to existing appendices.

C. This agreement is effective MAY 01 2007 It supersedes any and all previous "Memorandum of Agreement Between The DoD and The NSF for Operational And Logistics Support For The U.S. Antarctic Program." The appended agreements remain in force but as updated. Any new agreements not related to logistical support will be appended.

**Department of
Defense**



Michael W. Wynne
Secretary of the Air Force
DoD Executive Agent for NSF/OPP

April 09, 2007

DATE

**National Science
Foundation**



Arden L. Bement, Jr., Ph.D
Director, National Science Foundation

4/27/07

DATE