

SUPPORTING STATEMENT FOR PAPERWORK REDUCTION SUBMISSION
MEDICAL CLEARANCE FOR DEPLOYMENT TO THE POLAR REGIONS (3145-
0177)

A. JUSTIFICATION

**1. CIRCUMSTANCES MAKING COLLECTION OF INFORMATION
NECESSARY**

The medical screening records for deployment to the Polar Regions are part of the NSF's System of Records that are protected by the Privacy Act of 1974. The Antarctic medical clearance process is further described in 45 CFR 675. The harsh and hostile environments of the polar regions with their extreme temperatures, remote locations and limited medical care capabilities make it difficult and sometimes impossible to evacuate individuals who may be suffering from chronic or severe medical conditions in a timely manner. Therefore, it is essential that we take steps to ensure that the participants in polar programs that are under the auspices of the National Science Foundation are physically fit for deployment. The NSF requires all U.S. Antarctic Program participants and select participants in the Arctic program to take and pass a medical and dental examination and for those who winter over in Antarctica a psychological examination is also required.

**2. HOW, BY WHOM, AND PURPOSE FOR WHICH INFORMATION IS TO BE
USED**

The participant takes an annual medical and dental examination from a physician and dentist of his or her own choosing. The information is used to determine whether or not the individual meets the medical screening criteria for polar deployment. It is also used to

determine whether or not an existing illness or medical condition can be accommodated within the medical care capabilities of the on-station facilities and physicians. In addition, should the individual experience any medical or dental problems while deployed the information is used to assist the treating physician or dentist in making an informed diagnosis and deciding on a treatment regimen. Finally, those individuals who are selected to winter over in Antarctica are given a psychological examination by a USAP-designated psychologist to determine whether or not he or she is psychologically adapted for a long-term assignment to the Polar Regions.

3. USE OF AUTOMATION. Currently, a limited amount of medical information is captured in an independent database used to track the movements of personnel through the system. The Program intends to continue to make the forms available electronically; but has no plans for receiving medical information electronically. Through the use of laboratory kits, a significant number of USAP participants are voluntarily having laboratory results sent electronically to the contractor, with the goal being to expand this to all USAP participants. Over the past three years, the USAP has increased its capabilities to receive electronic transmittal of dental information and more dentists are doing so. At present, there is no plan to routinely receive medical information from the examining physicians electronically until robust safeguards are established. Further review is required to determine the feasibility of requesting respondents to provide medical history information electronically. Certain encrypted medical information is currently transmitted through telemedicine and other electronic media on given patients; however, large-scale transmission of this data also requires thoughtful consideration. Among the issues to be considered is how to ensure

protection of that information as it crosses international lines and resides in databases on computers that physically belong to the U.S. but are located in a foreign country. NSF will update OMB on the status of GPEA as it relates to this information collection when it provides other GPEA-related information.

4. EFFORTS TO IDENTIFY DUPLICATION. This is a unique program within the National Science Foundation's Office of Polar Programs. There are no duplications within the agency. Within the Office of Polar Programs, the medical records are shared between the Arctic and Antarctic programs to reduce the burden on those participants who work in both Polar Regions and to reduce the overall costs to the NSF. Forms 1426, 1456, and 1466 are short form versions of Forms 1422, 1452 and 1462. They were intended to allow those otherwise healthy individuals, under the age of 40, who in the previous season successfully passed a polar physical examination, to update their medical history without having to take a complete examination. In those instances, the individual did not receive Form 1422, 1452 or 1462. While the proper use of the short form reduces the overall burden on the respondents, it sometimes confused them. In addition, the USAP medical community has concluded that the more detailed form is needed for better medical assessments. We have therefore deleted Forms 1426, 1456 and 1466 from our medical collections.

The NSF has decided that since the contents of Antarctic Forms 1422-1428; Official Visitor Forms 1452-1456; and Arctic Forms 1462-1468 are essentially the same, there is no longer any reason to retain 3 separate sets of forms. The differences among the forms are minor and can be incorporated into one set of forms. Therefore, NSF is removing any reference to

deployment location or official status from the title of Forms 1422-1428 and will use this set of forms for all deployments to the Polar Regions. Forms 1452-1456 and 1462-1468 will be discontinued. Forms 1421 and 1461 will be retained because they contain descriptive information that discusses significant differences between the Arctic and Antarctic. 1429 and 1469 will be retained because they discuss potential risk to the individual, his or her employer and the NSF and should be as geographically specific as possible.

5. SMALL BUSINESS CONSIDERATIONS

Not applicable.

6. CONSEQUENCES OF LESS FREQUENT COLLECTION. There are a number of medical illnesses and conditions, including injuries that are worsened by the effects of extreme cold weather. A less frequent collection of medical, dental and psychological information would allow individuals whose medical conditions have changed within the last 12 months to deploy without having their conditions examined or identified so that a determination of qualifications and adaptability could be made. This lack of information could jeopardize not only the individual but also other program participants.

7. SPECIAL CIRCUMSTANCES FOR COLLECTION. The burden is reduced for those individuals who have no known medical conditions and who are under the age of 40. A full medical examination is required every other year. Those individuals who have pre-existing medical conditions or those who have requested administrative waivers of their medical conditions may be required to submit additional information prior to deploying for

the purpose of determining whether their illnesses can be accommodated in accordance with NSF regulations and where applicable, with the Americans with Disabilities Act.

Occasionally, individuals are requested to repeat tests when laboratory results seem inconclusive or results are borderline. This normally will occur within 30 days of the contractor's receipt of the initial paperwork. Individuals are not requested or required to provide any further information once a physical qualification determination has been made. The medical forms are available through the internet to allow individuals to download only those forms specific to them. They are required to provide a signed copy to the NSF's primary support contractor's medical staff by mail or fax and they have the option to retain a copy for themselves or provide copies to their personal physicians. The NSF contractor retains a copy of each individual's medical packet and sends one copy to the polar location where the individual is deploying. Allowing individuals to download the forms has now added the burden of photocopying the forms so they may retain a copy for themselves or their physicians and so our contractor can retain a copy in the U.S. and send one to the medical department at the deploying location. Previously the form was a multi-part carbonized form.

8. FEDERAL REGISTER NOTICE

The notice for this collection was published on May 23, 2007 at 72 FR 29001. No substantial comments were received.

OUTSIDE CONSULTATION. The Polar Environment, Health and Safety Office within the Office of Polar Programs holds an annual conference with a panel of federal physicians and non-federal consulting physicians to the federal panel. The Panel provides advice to the

Office of Polar Programs regarding the medical screening criteria used during the prior field deployment season, quality of on-ice healthcare and proposed changes for the upcoming field deployment season. The Panel also provides advice on pharmaceutical procedures, records documentation, healthcare provider credentialing and a myriad of other healthcare related issues. In addition, individuals who require administrative waivers in order to deploy are encouraged to submit letters from their personal physicians to support their requests. Employers are also asked to endorse all waiver requests prior to consideration by the NSF. Physicians from other federal agencies conduct periodic audits of the USAP medical records and screening process and the Veterans Administration has agreed to lend specialized medical expertise in the event of a catastrophic or other major medical event occurring on the ice over the winter.

9. GIFTS OR REMUNERATION

Not applicable.

10. CONFIDENTIALITY PROVIDED TO RESPONDENTS. The medical screening and treatment records are included in the National Science Foundation's privacy systems of records and are protected by the Privacy Act of 1974. Confidentiality and overall protection of individual's privacy is an integral part of the Act. All individuals whose official duties involve access to any medical information are required to comply with the Privacy Act of 1974 and with additional NSF policies. The contractors must file records management plans which discuss in detail exactly where the records reside, who accesses them by position title, how they are stored and retrieved, and how they are disposed. In

addition, the contractors are required to review these plans annually and notify NSF of any proposed changes and obtain NSF approval. Periodically, NSF staffs conduct site visits to the sites where medical information is stored to ensure that these approved measures are being followed. The current primary support contractor for the Antarctic has provided a statement for all of their medical staff to sign which informs them of their obligations to keep this information confidential and the penalties to expect if there is a willful breach.

11. QUESTIONS OF A SENSITIVE NATURE

Since this is a medical collection, most questions are of a sensitive nature and therefore all questions, responses and other information obtained are treated as sensitive.

However, procedures are in place to ensure confidentiality of respondents (See Number 10 above.).

12. ESTIMATE OF BURDEN

Public reporting burden for this collection of information varies according to the overall health of the individual, the amount of research required to complete the forms, the time it takes to make an appointment, take the examinations and schedule and complete any follow-up medical, dental or psychological requirements and the completeness of the forms submitted. The estimated processing time is up to six weeks from the time an individual submits the forms and the contractor notifies that person of his or her final clearance status. An additional period of up to eight weeks may be required for the individual

who was disqualified to be notified of the disqualification, to request and receive the waiver packet, to obtain employer support, to do any follow-up testing, to complete the waiver request, to have it notarized, to return the waiver request to the contractor plus any follow-up information.

Following is an estimate of the time to complete each form and the aggregate total for each package of forms.

Polar Forms	Name	Burden Hours	Number of Respondents
N/A	Privacy Notice – Ant	.12	3500
N/A	Privacy Notice - Arc	.12	100
1421-A	Medical Risks for NSF-Sponsored Personnel Traveling to Antarctica	.50	2500
1421-B	Medical Risks for NSF- Sponsored Personnel Traveling to the Polar Regions – Arctic	.50	100
1422	Polar Physical Examination – Medical History	1.00	3600
1423-A	Polar Physical Examination	6.00	3470
1423-B	Polar Physical Examination	6.00	100
1423-C	Polar Physical Examination	6.00	30
1424	Medical Screening for Blood-Borne Pathogens/Consent for HIV Antibody Blood Test	.09	3600
1425-A	Polar Dental Examination – Ant	2.00	3500
1425-B	Polar Dental Examination – Arc	2.00	100
*1427	Authorization for Treatment of Field-Team Member/Participant Under the Age of 18 Years	.09	2
1428-A	Request for Waiver of NSF/OPP Medical Requirements - Ant	1.00	30
1428-B	Request for Waiver of NSF/OPP Medical Requirements - Arc	1.00	1
1429-A	Employer Statement of Support	1.00	30
1429-B	Employer Statement of Support	1.00	1
**1429-I	Individual Statement of Support*	.25	1
1457	Important Notice for Participants in the United States Antarctic Program	.25	3500
1458	Personal Information Form	.25	3500
	TOTAL BURDEN HOURS	12.30	

*Note: Very few individuals deploy under the age of 18; therefore, this burden is not included in the total below.

**Very few participants deploy to Antarctica as individuals; therefore, this burden is not included in the total below.

Public reporting burden for this information collection is estimated to be at least 13.1 hours per participant per packet of forms with the exception of Official Visitors, whose burden is approximately 7.6 hours. All individuals, except the uniformed services of the Department of Defense, deploying to the Antarctic to Greenland and to other select areas of the Arctic that are under the auspices of the National Science Foundation’s Office of Polar Programs must complete these forms.

There are approximately 3,600 submissions per year with a small percentage (about 3%) under the age of 40 who are required to provide annual submissions but only take a complete physical examination every two years. The total annual burden in hours is 40,536, broken down by form:

Polar Forms	Name	Annual Burden Hours	Number of Respondents
N/A	Privacy Notice – Ant	420	3500
N/A	Privacy Notice - Arc	12	100
1421-A	Medical Risks for NSF-Sponsored Personnel Traveling to Antarctica	1,750	3500
1421-B	Medical Risks for NSF- Sponsored Personnel Traveling to the Polar Regions	50	100
1422	Polar Physical Examination – Medical History	3,600	3600
1423-A	Polar Physical Examination	20,820	3470
1423-B	Polar Physical Examination	600	100
1423-C	Polar Physical Examination	180	30
1424	Medical Screening for Blood-Borne Pathogens/Consent for HIV Antibody Blood Test	324	3600
1425-A	Polar Dental Examination	7,000	3500
1425-B	Polar Dental Examination	200	100

*1427	Authorization for Treatment of Field-Team Member/Participant Under the Age of 18 Years	.18	2
1428-A	Request for Waiver of NSF/OPP Medical Requirements	30	30
1428-B	Request for Waiver of NSF/OPP Medical Requirements	1	1
1429-A	Employer Statement of Support for Waiver Request	30	30
1429-B	Employer Statement of Support for Waiver Request	<1	1
**1429-I (New)	Individual Statement Regarding Waiver Request	<1	1
1457	Important Notice for Participants in the United States Antarctic Program	875	3500
1458	Personal Information Form	875	3500
	TOTAL BURDEN HOURS	36,769.18	

*Note: Very few individuals deploy under the age of 18; therefore, this burden is not included in the total below.

**Very few participants deploy as individuals; therefore, this burden is not included in the total below.

ANNUALIZED COST TO RESPONDENTS

The total annualized cost to respondents is estimated to be \$1,176,576. This figure is based on an average hourly salary of \$32.00. This figure is derived by averaging the salaries of each category (contractors, research personnel and government) and then obtaining an average of that figure. We estimate 42 percent of those deploying are contractor employees; 24 percent are research personnel and the remaining 35 percent comprise government, international and all other official program visitors. The range of occupations is from student-researchers, janitors and cooks (minimum wage) to construction workers, physicians, scientists, Senior Executive Service and Congressional staff.

13. CAPITAL/STARTUP COSTS

There are no capital or startup costs.

14. ANNUALIZED COST TO THE FEDERAL GOVERNMENT

Annual Recurring Costs	
Staff time in creating, filing and maintaining files	\$178,500
File folders and other office supplies	9,000
Courier service to medical/dental reviewers	4,500
SUBTOTAL	\$192,000
Costs in Gathering Information in Files	
Staff time in working w/candidates and reviewers	\$76,500
Medical and Dental Exams (contract and other)	732,800
Medical and Dental Reviews (contracts)	120,000
Psychological exams and psychological travel	233,000
SUBTOTAL for Antarctic Program	\$1,162,300
SUBTOTAL for Arctic Program (See note below.)	60,000
TOTAL	\$1,414,300

Approximately 3,500 of the 3,600 submissions are processed by one primary contractor; the remaining 100 are processed by separate contract, which involves medical services not related to the Polar Regions. The approximate cost for the polar services is \$60,000 annually.

15. CHANGES IN BURDEN

The number of participants traveling to the Antarctic and Arctic has increased slightly over the past three years, which increases the overall burden of the collection but does not change

the burden on the individual respondent. Three forms (NSF Form 1426, 1456 and 1466) have been completely eliminated. All personnel must now complete the eight-page medical history form regardless of age. This increases the annual burden to those less than 40 years of age by 2,700 hours every two years. Six new questions were added to the eight-page medical history form. These additional questions increase the burden by 900 hours annually. Additionally, the NSF has reduced the annual burden to official visitors by 60 hours by eliminating the requirement for dental exams since these visitors are only in Antarctica for a few days and are encouraged to have check-ups by their personal dentists prior to deploying. The NSF modified Forms 1421 and 1429 to include a Part A and B and modified Forms 1423 and 1425 to include Parts A, B and C. NSF eliminated Forms 1451, 1452, 1453, 1454, 1455, 1461, 1462, 1463, 1464, 1465, and 1467 since these would have been duplicative of the forms that now contain Parts A, B and C. The NSF Form 1429-I was added to accommodate those individuals who are self-employed and for whom the NSF Form 1429-A or 1429-B was not appropriate. The burden is less because the individual writes in his or her own name and does not have to coordinate with anyone else to get the form signed. NSF receives less than one per year. The form does not increase the burden on individuals because they are not required to use this form.

16. PUBLICATION OF COLLECTION

Not applicable.

17. SEEKING APPROVAL TO NOT DISPLAY OMB EXPIRATION DATE

NSF will display the OMB expiration date, in addition to the OMB Approval Number.

18. EXCEPTION(S) TO THE CERTIFICATION STATEMENT (19) ON OMB 83-I

NSF has no exceptions.

19. STATISTICAL METHODS

Not applicable

Attachments:

- 45 CFR 675 and related legislation
- Privacy Act System of Records No. 19, Medical Examination Records for Service in the Polar Regions
- First Federal Register notice – 72 FR 29001
- Second Federal Register notice – 72 FR 54300
- Forms