

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING N/A	PAGE OF 1	PAGES 121
2. CONTRACT NUMBER	3. SOLICITATION NUMBER 49100419R1001	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)		5. DATE ISSUED	6. REQUISITION/PURCHASE NUMBER TBD	
7. ISSUED BY National Science Foundation Div. of Acq. & Cooperative Support 2415 Eisenhower Avenue 7th Floor, E 7345 Alexandria VA 22314		CODE	8. ADDRESS OFFER TO (If other than Item 7)			

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and See Section L.11 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if hand carried, in the depository located in See Section L.12 until 2:00PM local time April 4, 2019
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All Offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME Joe Cloft	B. TELEPHONE (NO COLLECT CALLS) AREA CODE NUMBER EXTENSION 703-292-8094		C. E-MAIL ADDRESS joscloft@nsf.gov
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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52-232-8)	10 CALENDAR DAYS (%)	20 CALENDAR DAYS (%)	30 CALENDAR DAYS (%)	CALENDAR DAYS (%)
14. ACKNOWLEDGEMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	DUNS:	DUNS+4:	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
15B. TELEPHONE NUMBER AREA CODE NUMBER EXTENSION		<input type="checkbox"/> 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.			17. SIGNATURE
					18. OFFER DATE

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 3304(a) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM
24. ADMINISTERED BY (If other than Item 7) National Science Foundation Div. of Acq. & Cooperative Support 2415 Eisenhower Avenue 7th Floor, E 7345 Alexandria VA 22314		25. PAYMENT WILL BE MADE BY National Science Foundation DFM, Phone: (703) 292-8280 Commercial Cash Management 2415 Eisenhower Avenue Alexandria VA 22314 PHONE: FAX:	
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA (Signature of Contracting Officer)	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

SECTION B - SUPPLIES OR SERVICES AND PRICE/COSTS

B.1 SCHEDULE

Pursuant to Section C below, the Contractor (independently and not as an agent of the Government) shall furnish all necessary labor, supplies, materials and equipment (except as otherwise authorized by the Contracting Officer) as required to support the NSF's Office of Polar Programs, Division of Arctic Sciences. The Contractor shall provide all deliverables as described under Section F. Performance shall be in accordance with all terms, conditions and specifications as stipulated herein. With the exception of the Phase-In, Phase-Out and option to extend services (see FAR 52.217-8) periods, the actual services provided shall be determined yearly in accordance with the Annual Program Plan (APP) as approved by the Contracting Officer Representative (refer to Section F).

B.2 CONSIDERATION (ESTIMATED COST PLUS FIXED FEE)

CLIN	PERIOD	OBLIGATED AMOUNT	ESTIMATED COST	FIXED FEE*	TOTAL CPFF
0010	Phase-In Performance Period: 10/1/19 – 1/31/20				
0100	APP Year 1, Base Period Performance Period: 2/1/20 – 1/31/21				
0200	APP Year 2, Base Period Performance Period: 2/1/21 – 1/31/22				
0300	APP Year 3, Base Period Performance Period: 2/1/22 – 1/31/23				
0400	APP Year 4, Base Period Performance Period: 2/1/23 – 1/31/24				
0500	APP Year 5, Option Period 1 Performance Period: 2/1/24 – 1/31/25				
0600	APP Year 6, Option Period 1 Performance Period: 2/1/25 – 1/31/26				
0700	APP Year 7, Option Period 2 Performance Period: 2/1/26 – 1/31/27				
0800	APP Year 8, Option Period 2 Performance Period: 2/1/27 – 1/31/28				
0900	APP Year 9, Option Period 3 Performance Period: 2/1/28 – 1/31/29				
1000	APP Year 10, Option Period 3 Performance Period: 2/1/29 – 1/31/30				
1010	Phase-Out, Option Period Performance Period: Four months**				
TOTAL ESTIMATED CONTRACT					

APP = Annual Program Plan Year

CLIN = Contract Line Item

CPFF = Cost Plus Fixed Fee

* Any fee payable to the prime Contractor under this cost-reimbursement contract shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i)(C). See FAR clause 52.244-2 regarding subcontractor fee.

**If the Government exercises the Phase-Out Option, the respective Phase-Out performance period will consecutively follow the current performance period in which the Government provided the notice of intent to exercise the respective option. Costs as provided for under each APP Year, Phase-In Period and Phase-Out Period, pursuant to the contract clause 52.216-7, entitled "Allowable Cost and Payment," shall not exceed the respective amount set forth as "Estimated Cost" in the table above.

The National Science Foundation may have a need for increased services during performance of this contract. The level of services is based, in part, on the amount of appropriations available each year for

Arctic Sciences research and support. As a result, the Contractor may be required to provide a substantial amount of increased effort pursuant to the terms and conditions of the contract.

B.3 COMPENSATION

The costs of performance of this contract are defined as the necessary direct costs incurred during the period of performance of this contract and amounts for appropriate indirect expenses applied in accordance with the organization's approved accounting system. Allowability, allocability and reasonableness of costs under this contract shall be determined in accordance with FAR Part 31 and the terms of this contract.

B.4 CONTRACT FUNDING

For purposes of payment of cost and pursuant to Federal Acquisition Regulation (FAR) Clause 52.232-22 "Limitation of Funds," incorporated by reference in Section I, the total amount allotted by the Government to this contract is \$ _____. This allotment covers the following estimated period of performance: _____.

Of the amount obligated above, \$ _____ is allotted to cover cost and \$ _____ is allotted to cover fixed fee, for a total incremental funding obligation of \$ _____.

[To be inserted at contract award.]

B.5 FIXED FEE PAYMENT

Pursuant to FAR 16.306(d)(2), FAR 52.216-8 entitled "Fixed Fee" and subsection B.6 entitled "Level-of-Effort," payment of the fixed fee shall be made at the expiration of each period, if the performance is considered satisfactory by the Government. For the purpose of Section B.5 and B.6, each APP, the Phase-In Period and Phase-Out Period are all separate periods. Fixed fee shall not be made for any period under an unexercised option. Upon expiration of each period, the Contractor shall provide the CO a statement certifying the level-of-effort expended under the respective period. For each period, a maximum of 15% of the fee or \$100,000, whichever is less, will be set aside as a reserve for each performance period. The reserve for each period may be retained until the Government's audit of incurred costs, including indirect costs, is completed and all costs are settled in accordance with FAR 52.216-7 entitled "Allowable Cost and Payment".

B.6 LEVEL-OF-EFFORT (Cost-plus-fixed-fee, Term Contract)

(a) In performance of the effort directed in this contract, the contractor shall provide the total Direct Labor Hours (DLH) as stated under Attachment H-3, and the DLH provided shall be expended during each period's term as specified under Section B.1. DLH is defined as actual work hours exclusive of vacation, holidays, sick leave, uncompensated overtime and other absences.

(b) Only the DLH categories indicated under Attachment H-3 shall be charged directly to the contract. It is estimated that the DLH will be expended approximately as stated under Attachment H-3.

(c) The DLH specified under Attachment H-3 are provided as estimates only. If the actual amount of DLH incurred falls within 90% to 110% of this estimate, the fee shall not be adjusted.

(d) In the event that the contractor shall be required to provide less than 90% of the estimated DLH, under a period the fixed fee of the contract shall be equitably adjusted by a bilateral modification to the contract, prior to the end of the respective period. The downward adjustment will reduce the fixed fee by the percentage by which the total expended level of effort is less than 100% of that specified in paragraph (a). (For instance, if a hypothetical base-period LOE of 100,000 hours is being reduced to 70,000, the fixed fee shall also be reduced by the same 30%. Using a corresponding hypothetical base-period fixed fee pool of \$300,000, the reduced fixed-fee amount is calculated as: $\$300,000 \times (70,000 \text{ hours} / 100,000 \text{ hours}) = \$210,000$.)

If a bilateral agreement to adjust the fee is not reached, as described under this section above, prior to the end of the respective period, the fixed fee for the respective period may be unilaterally adjusted by the CO.

(e) The Government may require the Contractor to provide additional effort up to 110 percent of the level of effort for any period until the estimated cost for that period has been reached. However, this additional effort shall not result in any increase in the fixed fee, if any.

(f) These terms and conditions do not supersede the requirements of either FAR clause 52.232-20 "Limitation of Cost" or FAR clause 52.232-22 "Limitation of Funds."

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SECTION C - DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK

C.1 BACKGROUND

For more than half a century, the [National Science Foundation](#) (NSF) has sponsored research in the Arctic because of the region's influence on weather and climate in the northern hemisphere, as a natural laboratory, and to understand how the Arctic functions as a system. The U.S. is an Arctic nation and has responsibilities to understand and manage the U.S. Arctic based on scientific research. Understanding the changes occurring in the Arctic, the downstream effects of those changes on the rest of the planet, and the planet's influence on the Arctic all represent complex questions for researchers. Developing answers to these types of questions often requires measurements across vast areas that are difficult to access and taken over many years and working with other nations to accomplish research goals.

NSF supports research throughout the Arctic region, including Alaska, Greenland, Canada, Russia, Iceland, Norway, Sweden, Finland, the Arctic Ocean and adjacent seas from the sea floor geology to the sea ice, land and cryosphere, the lower and upper atmosphere, near space and deep space. The Arctic region is among the most sensitive to environmental change, has exceptionally long natural climate records, has thousands of years of human settlement, and has other characteristics that make the Arctic a natural laboratory for studying natural, physical, and social sciences. The Arctic thus provides a unique basis for integrated research on global systems and human adaptation. Arctic research activities at NSF are primarily funded through the Office of Polar Programs (OPP), [Arctic Sciences Section](#) (ARC) with research support and logistics managed through the [Arctic Research Support and Logistics](#) (RSL) program.

The goal of ARC-supported research is to gain a better understanding of the Arctic's physical, biological, geological, chemical, social and cultural processes; the interactions of oceanic, terrestrial, atmospheric, biological, social, cultural, and economic systems; and their interconnection. Arctic research includes field and modeling studies, data analysis, and synthesis about the arctic region. The ARC program and other NSF programs support projects that contribute to the development of the next generation of researchers and scientific literacy for all ages through education, outreach, and broadening participation in science, technology, engineering, and mathematics. Program areas are divided into Arctic Natural Sciences, Arctic Social Sciences, Arctic System Science, the Arctic Observing Network, Cyber Infrastructure and Sensors, and Arctic Research Support and Logistics. The [Arctic Research Mapping Application](#) (ARMAP) is a searchable visualization tool to learn more about the research locations and project types.

There is tremendous interest in the Arctic from other NSF programs, other federal agencies, non-governmental organizations, and foreign governments and research institutions. Program representatives from OPP coordinate with research programs across NSF, including joint review and funding of arctic proposals and coordinated support of special projects with unique logistical requirements. NSF may support logistical requirements of projects funded by other agencies on a reimbursable basis. Arctic research across the federal government is coordinated by the Interagency Arctic Research Policy Committee (IARPC) and described in a 5-year Arctic Research Plan described in more detail on the [IARPC Collaborations](#) web portal. ARC program managers work with representatives from other nations to coordinate field research for joint programs and to utilize logistical assets available from other nations.

The RSL program was added to the ARC in 1999 to support research projects in the Arctic, in part in response to a 1997 report from the Arctic Research Commission entitled, "[Logistics Recommendations for an Improved U.S. Arctic Research Capability](#)" (ARCUS 1997). Two follow-up workshops in 2003 and 2013 brought together the research community, field logistics professionals, and others to gather input on the future directions of the program. Reports from those workshops, "[Arctic Research Support and Logistics: Strategies and Recommendations for System Scale Studies in a Changing Environment](#)" and

[“Increasing Arctic Accessibility Over the Next 20 Years”](#) are available from the [Arctic Research Consortium of the U.S.](#) along with more background on the RSL program. With funding made available in NSF’s appropriation, NSF awarded the Arctic Research Support and Logistics Services (ARSLs) contract in 2000, 2005 and 2011 to procure, among other things, safe, efficient, effective research support in the Arctic.

This work statement describes the necessary services and supplies required to successfully support the ARSLs program. NSF encourages the ARSLs Contractor to continuously improve upon existing approaches and to seek efficiencies and better, more creative ways to accomplish the program goals.

C.2 STATEMENT OF WORK

The scope of work for this contract is to provide logistics, operations, and other support for Arctic research projects and facilities sponsored by NSF or other agencies, as directed by NSF. Oversight of the ARSLs contract is performed by the RSL program managers, including an appointed Contracting Officer Representative (COR). As the prime Contractor for research support in the Arctic, the ARSLs Contractor – hereafter referred to as the Contractor – shall be tasked to provide support for financial assistance proposals submitted to ARC and financial assistance field projects funded by ARC and its collaborators. The level of support will vary as described in Section C.3 below.

Research principal investigators (PIs) from U.S. academic research institutions receive grant funding for proposed projects through NSF’s merit review process. In any fiscal year, ARC may be managing more than 450-500 active awards, approximately 160-200 of which may have fieldwork. Because the Arctic is accessible to anyone, researchers may perform their own logistics using grant funds or may elect to use the services of the Contractor. Approximately 50-60 projects self-perform their logistics per year with the remainder requesting support through the Contractor. Each year 10-15 projects are funded by sources outside of ARC. Outside sources include but are not limited to other NSF program offices and other federal agencies. Support for outside sources is usually on a cost reimbursable basis. The quantities of proposals, awards and projects listed above will vary annually based on the merit review process, budgets and other factors. The Contractor shall continuously adjust to the number and scope of projects and shall work with researchers, NSF, and other sponsoring agencies to remain informed about funded projects. The Contractor shall track and report the status of all proposals for ARC. Additionally, the Contractor shall track and report the status of other proposals for other NSF program offices and other agencies requesting Contractor support. The Contractor shall also work with NSF to develop budgets for reimbursable projects and track reimbursements to the respective program(s).

The Contractor shall work with NSF, PIs, other federal agencies, state agencies, tribal organizations, international organizations, and organizations that own or manage logistics resources and facilities in the Arctic, to develop and execute operational plans to support research projects. As directed by NSF, the Contractor shall operate and maintain facilities that are owned or leased in support of Arctic research. Operational plans shall support the scientific goals in a safe, efficient and cost-effective manner. The Contractor shall be responsible for construction, maintenance, and field camp operation for multiple projects and locations throughout the Arctic. The Contractor shall provide engineering and design of new facilities and changes to existing facilities. The Contractor shall lease or procure facilities such as lab or berthing space, vehicles, vessels, and air support to meet the requirements of research projects. The Contractor shall provide an annual leased space report. Field operations may require outreach to coordinate with local communities on the scope and timing of operations and where possible the Contractor shall consider local people in the planning and conduct of the research support. NSF funds some logistics providers directly, outside of the ARSLs Contract. For example, NSF pays separately for airlift in Greenland for passengers and cargo that is provided by the New York Air National Guard (ANG), 109th Airlift Wing. The Contractor shall track ANG and other third-party provided support utilized by science and operations projects to meet NSF’s requirements.

The Contractor shall provide NSF with an annual program plan (APP) recommending the approach and resources needed for meeting all operational and logistics functions. The scope, estimated cost and schedule presented in the APP shall be based on the scope of the funded NSF proposals, discussions with PIs, input from NSF and other service providers to NSF, and the expertise and experience of the Contractor's staff. The APP data shall be output from an Integrated Master Schedule (IMS) for the life of the contract that is interoperable with NSF's IMS. For support to research grants, in most cases the Contractor shall work with the PI during the proposal stage to scope out the work and provide a cost estimate. The Contractor shall work with NSF and its other service providers to develop recommendations for the scope, cost and schedule for aspects of the APP not directly tied to specific grantee requirements such as the operation and maintenance of facilities, the provision of information technology and communications, and risk management. The Contractor shall assist NSF to be compliant with applicable federal environmental laws, as set forth in C.2.8, below. The Contractor shall be responsible for all waste management issues, operational health and safety practices and information security associated with its operation and maintenance of the facilities.

The Contractor shall seek to minimize the environmental impact of its work and shall have the necessary expertise to carry out the work in compliance with applicable environmental laws, including waste management laws and export and import requirements. Permits for installation and use of the sites used by the Contractor shall be the responsibility of the Contractor. For example, the Contractor shall acquire permits required from the Government of Greenland for operations at two Contractor-operated camps on the Greenland Ice Sheet known as Summit Station and Raven. The Contractor shall provide monthly and annual reporting to NSF on its activities as identified under the Award/Contract Section F, Deliveries or Performance.

C.2.1 RSL PROGRAM PORTFOLIOS

The RSL program uses a work breakdown structure with eight (8) major performing areas called portfolios. Each portfolio is made up of projects; each project is made up of activities. The portfolios are: Direct Science Support (SC), Sustaining Facilities & Operations (FS), Facility Upgrades (FU), Air Operations (AO), Vessel Operations (VO), IT and Communications (IC), Health, Safety and Environment (HE), and Program Management (PM) as shown in Figure 1 (below).

The Contractor shall define and manage projects within each portfolio that meet the goals of the RSL program. Projects shall be coded to the portfolio, geographic region where they are located, and the science program in ARC, or another funding organization where applicable. The activities within each project shall be coded similarly and shall indicate the estimated cost, quantity, unit cost, unit type and schedule information for each activity. The project's schedule and budget shall be the total of each activity's schedule and budget.

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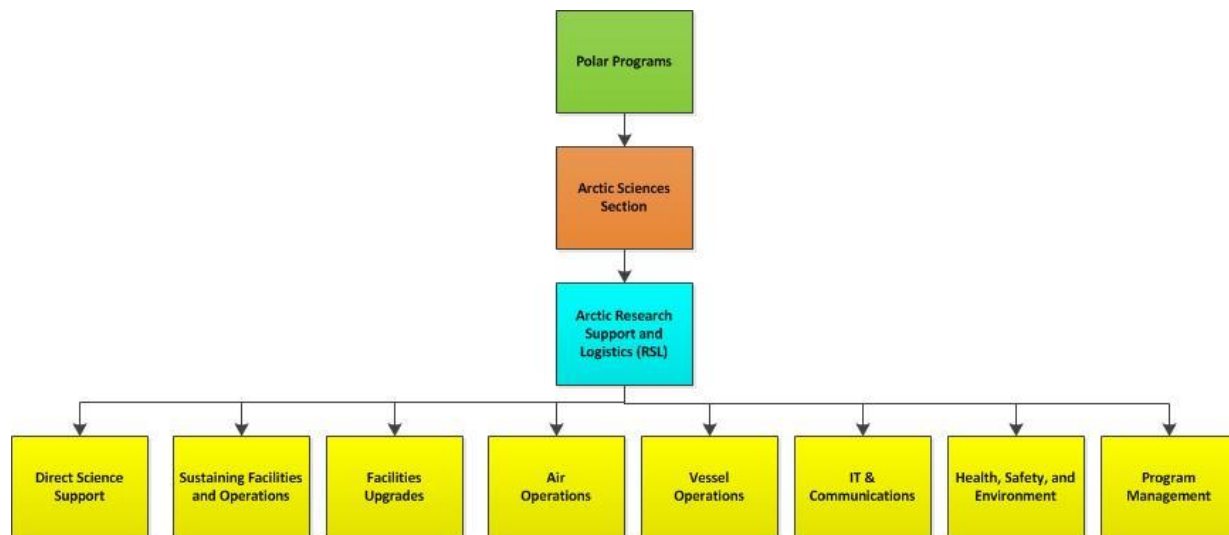


Figure 1. Schematic of portfolios in the NSF’s Arctic RSL program.

C.2.1.1 Direct Science Support (SC): The labor, materials, equipment, logistics, fuel, communications, and other services required to support specific science projects, attributable to a specific NSF grant number or specific project sponsored by other federal agencies or organizations. The RSL program may fund proposals for technology development and other research support efforts. Based on detailed project plans and cost-loaded schedules for each project by location and funding source.

C.2.1.2 Sustaining Facilities & Operations (FS): The labor, materials, equipment, logistics, leases, energy costs, and other procurements or services required to operate and maintain existing Arctic infrastructure assets. Based on detailed project plans, long-range facilities plans, and information from the computerized maintenance management system by location and funding source.

C.2.1.3 Facility Upgrades (FU): The labor, materials, equipment, logistics, energy costs, and other services required to upgrade, redevelop or build new Arctic infrastructure assets. Based on detailed project plans and long-range facilities plans by location and funding source.

C.2.1.4 Air Operations (AO): The labor, fuel, aircraft rate, airport fees, and other associated costs of air support for both science and operations. This includes the Air National Guard, required to support science and facilities projects, and small vendors supporting specific science projects. Based on project requirements by portfolio, project, location, and funding source.

C.2.1.5 Vessel Operations (VO): The labor, fuel, vessel rate, and other associated costs for vessel charters based on project requirements by portfolio, project, location and funding source.

C.2.1.6 IT & Communications (IC): The labor, materials, equipment, logistics, data costs, and other services required to provide the Information Technology (IC) required for communications, including research station network infrastructure, satellite phones, and mechanisms that support data transmission from field locations by portfolio, project, location and funding source.

C.2.1.7 Health, Safety and Environment (HE): The labor, materials, equipment, logistics, and other services required to ensure a robust HSE program in support of science and operations. Based on project plans or program service needs by portfolio, project, location, and funding source.

C.2.1.8 Program Management (PM): The labor, materials, equipment, logistics, and other services required to operate the program. Based on program needs and not attributable to another portfolio by project, location, and funding source.

C.2.2 REGIONS OF OPERATION IN THE ARCTIC

NSF research focuses on understanding the Arctic as a region, which requires system level studies, process-focused studies, experimental manipulations, long-term observations, community participatory research, and a variety of other techniques, spatial scales, and study lengths. See Appendix A: Total Number of Contractor Supported Science Projects and Appendix B: Geographic Distribution of Contractor Supported Science Projects. This distribution will vary by year, but it is important for the Contractor to recognize the different operating environments across the Arctic.

The Arctic can be defined in many ways. Geopolitical, geologic, ecosystem, geographic and other boundaries vary. The Arctic Circle delineates those areas above which experience at least one day of total darkness in winter. The Congressional definition and [map of the arctic](#) is available from the U.S. Arctic Research Commission. To NSF, Arctic research may occur anywhere the proposed research will help inform an understanding of the Arctic or its relationship with the rest of the planet. See Appendix C: Projects & Locations, 2016 and 2017; Appendix C1: Contractor Supported Science Projects, 2016; and Appendix C2: Contractor Supported Science Projects, 2017.

C.2.2.1 ALASKA

The Contractor shall support NSF-funded researchers working throughout the state of Alaska and the surrounding seas. Research cruises to the high Arctic may also mobilize or demobilize in Alaska. The Contractor should be familiar with the variety of land owners and research permit requirements and other regulations across Alaska in addition to understanding how best to support projects across the state. Several locations in Alaska have supported scientific research for many decades and are expected to remain important for research in years to come.

Utqiagvik, the village formerly known as Barrow, has hosted research for more than 100 years and is an access point for the Arctic Ocean, sea ice, tundra, and lagoons. The land and facilities are owned by Ukpeagvik Inupiat Corporation (UIC). A UIC subsidiary, [UIC-Science](#), is subcontracted by the current ARSLs Contractor to access research support in the Utqiagvik area. UIC-S is gradually replacing aging research infrastructure and acquiring new capabilities. ARC supported 17 projects in the Utqiagvik region in the 2016/17 season and leased laboratory, lodging, and warehouse space. The Contractor shall support projects working out of Utqiagvik, on near-shore ice, and working at Atqasuk, approximately 60 miles south of Utqiagvik. Support in Utqiagvik shall include but not be limited to accommodations, local transportation, translators, bear guards, communications, and permitting. The Contractor shall provide air logistics throughout the North Slope, including Utqiagvik, because these services often can be consolidated throughout the North Slope region. Utqiagvik is sometimes a transfer point for research cruises on U.S. Coast Guard icebreakers and other research vessels. When required, the Contractor shall support crew exchanges with the icebreakers or research vessels and subcontract with local Contractors to comply with environmental regulations and to provide local support for personnel. When required, the Contractor shall arrange outreach meetings and interviews on local radio and other media as part of the effort to communicate with and involve the communities on the North Slope in research projects.

Since the 1970s, ecologists and other researchers have performed focused studies near [Toolik Field Station](#) (TFS), in the northern foothills of the Brooks Range just off the Dalton Highway. NSF supports the basic operation of TFS through a cooperative agreement between NSF and the Institute of Arctic Biology (IAB) at the University of Alaska Fairbanks (UAF). TFS supports research year-round, with a concentration of support from April through October and the heaviest concentration from May through August. TFS operations are funded through a cooperative agreement, between NSF and UAF, and user day fees. A user day fee is charged to each TFS user for daily use of TFS. User day fees are paid through the Contractor rather than the grantee which enables NSF to manage the user day fees more closely. At TFS, the Contractor shall maintain boardwalks that protect the tundra and enable researchers to access their project sites and shall subcontract for helicopter support to ferry researchers to sites farther afield from TFS. The Contractor shall provide support for TFS projects including but not limited to user days, vehicle needs, helicopter time, and boardwalk or other science-specific construction needs. The

Contractor shall budget for user days in support of NSF-funded research projects, construction and maintenance projects, and the helicopter coordinator, mechanic, and pilot for the helicopter subcontract. The number of user days can vary widely from year to year based on approved project plans. Research is conducted on the Seward Peninsula and Yukon-Kuskokwim Delta, throughout interior and Southeast Alaska, in the Aleutians, and elsewhere in Alaska.

C.2.2.2 GREENLAND

One of the most prominent features of the Arctic is the Greenland Ice Sheet. Research in Greenland includes studies of the ice sheet, use of deep ice cores to understand past climate, studies of atmospheric chemistry and physics, astronomy and astrophysics, research about past settlements in Greenland, and a variety of projects in the fjords and surrounding seas. NSF owns and operates a research station near the Summit of the Greenland Ice Sheet to enable many of these studies. Researchers make use of villages, research stations and camps, and the U.S. Air Force installation at Thule Air Base (TAB), all with the permission of the Government of Greenland, which is responsible for permitting all research activities. The Contractor will have a significant role in supporting researchers working throughout Greenland, operating and maintaining NSF's facilities, and stewarding and growing partnerships that enable research in Greenland. The Contractor shall provide an informational website and guides about the NSF-owned and operated facilities in Greenland.

NSF contracts with the Air National Guard (ANG) to provide cargo airlift to Greenland. From Stratton Air Base in Scotia, NY, the 109th Airlift Wing flies ski-equipped (LC) and wheeled C-130 cargo planes to Kangerlussuaq, Greenland, one of two large runways in the country. The 105th Airlift Wing also flies C17s to Kangerlussuaq and TAB. Military airlift for personnel and cargo, through Air Mobility Command, is available between Baltimore and TAB. Access to TAB is controlled by U.S. Air Force (USAF) Space Command. The Contractor shall coordinate closely with NYANG and USAF Space Command to obtain approval for access and activities. Seasonal ports at Sondestromfjord near Kangerlussuaq, and TAB provide additional means of supporting cargo transport via commercial and government-contracted vessels.

Nearly all supported projects in Greenland are managed from a logistics base at Kangerlussuaq (Kanger) with a few working out of TAB. For operations in Kanger the Contractor shall lease office, berthing, garage and warehouse space, maintain a field equipment inventory, coordinate air operations with the Greenland Airport Authority (Mittarfeqarfiit), procure air support contracts for helicopter and fixed-wing activities, contract for lodging and food services and provide other support as needed. Most warehouse space in Kanger is owned/managed by Mittarfeqarfiit. The Kangerlussuaq International Science Support (KISS) center in Kanger offers lodging, laboratory, and office space. For projects working out of TAB, NSF leases facilities from the USAF for housing, office, field project staging, lab space, and storage and operations. The Contractor shall operate, maintain and manage NSF-owned vehicles in Kanger and TAB.

Summit Station (Summit) is a research station owned by NSF. The Contractor shall operate and maintain Summit. Summit is a high-altitude station at approximately 10,600 feet elevation, near the highest point of the Greenland Ice Sheet, and is the site of the Greenland Ice Sheet Project Two (GISP2) borehole. Scientific activities began at Summit Station in 1989, with year-round operations commencing in the early 2000's. The NSF vision for Research Support & Logistics at Summit Station is provided under Appendix D. The site has the desirable characteristics of typically having dry snow unaffected by seasonal melt, a long record of atmospheric measurements and ice cores, and access to the lower free troposphere as well as air that is well mixed and representative of a hemispheric signal undisturbed by local conditions. Summit is the site of a clean air sector supporting sensitive measurements of the atmosphere and snow. In addition, the astrophysics and astronomy research communities have initiated projects at Summit and the user community is discussing establishing a dark sector at Summit. Summit receives, on average, 70cm of snow accumulation each year and experiences significant drifting, which impacts operations and infrastructure. The Contractor shall work closely with the research community and PIs at Summit to support research, including providing technician support, maintaining instrumentation, and meeting research requirements.

The Contractor shall support additional projects located elsewhere on the Greenland ice sheet, on the coastal tundra and surrounding seas. Projects may be supported from villages in Greenland, including Ilulissat on the west coast and Tasiilaq on the east coast. The Contractor shall provide remote travel, snowmobile traverses, fuel caching, subcontracts for air support and other support as needed.

C.2.2.3 CANADA

NSF does not have a research presence in Canada. Rather, researchers make use of facilities and services available through the Canadian government or other service providers. The Canadian government's Polar Continental Shelf Program (PCSP) provides considerable logistics services in the far north, including air charter support. The Contractor shall work directly with PIs and PCSP or other operators as necessary to develop support plans. In most cases, PIs purchase support directly from PCSP and other providers in Canada using their grant funds. As required, the Contractor shall provide logistics support services in Canada, such as providing boats and other logistics services.

C.2.2.4 RUSSIA

Roughly half of the Arctic is in Russia and there are many science drivers for projects in Russia. While NSF does not maintain any facilities in Russia, NSF contributed to the construction of research facilities in Tiksi, Belyi Island and Heiss Island, now operated in collaboration with the National Oceanic and Atmospheric Administration (NOAA). NSF provided shared-use laboratory equipment for projects based at the Northeast Science Station (NSS) in Cherskiy and has worked with [Chukotka Science Support Group](#) (CSSG) as examples of organizations in Russia positioned to support Arctic fieldwork. NSF maintains an agreement with the Civilian Research Defense Fund (CRDF) for assistance with visas and other documentation for researchers. When required, the Contractor shall subcontract with support providers that have worked with NSF-funded researchers for many years in Chukotka and Yakutia (Sakha) regions of Russia and future projects may require the Contractor to identify support providers in specific towns or regions. When necessary, the Contractor shall subcontract and/or coordinate with local entities to perform the work, including collecting and transporting samples back to the U.S., shipping scientific equipment, and gaining visas and other permissions for people and cargo. Often, researchers develop links to academic counterparts in Russia and these links often provide access to critical logistics services and local experience.

C.2.2.5 ARCTIC OCEAN

Understanding the sea ice, the atmosphere over the sea ice, and the ocean and seafloor below the sea ice is critical to understanding the Arctic. When required, the Contractor shall support projects on the sea ice, requiring air charters based out of northern Canada, Greenland, or Svalbard and requiring sea ice camp support. Operations on the sea ice are challenging and limited by daylight and the presence of acceptable ice conditions. Projects can be supported from Alert, a Canadian Forces Station (CFS) facility on the north coast of Ellesmere Island with permission from CFS for limited access. The Contractor shall coordinate with CFS to replace aviation fuel used by the NSF projects using C-130 support. Projects can be supported from commercially-operated camps constructed on the sea ice such as [Camp Barneo](#) near the North Pole. NSF may have opportunities to make use of ice camps such as one constructed in the Beaufort Sea in alternating years by the Navy or the German-led effort to freeze an icebreaker into the ice to act as a floating platform 2019-2020 for the [MOSAIC Observatory](#). When required, the Contractor shall provide support for projects using icebreaker assets in the Arctic Ocean, from chartering to handling mobilization, demobilization, or resupply.

C.2.2.6 NORWAY, SWEDEN, FINLAND – FENNOSCANDIA

Logistics support to projects in Fennoscandia varies considerably and may only consist of providing satellite communications equipment. NSF does not have a research facility on Svalbard. Instead, the Contractor shall assist U.S. researchers wishing to work on Svalbard in arranging to use the research station at Kings Bay or other nationally sponsored research stations or available facilities. Research support throughout Norway, Sweden and Finland is often at established research stations or near communities where logistics support is available.

C.2.2.7 SITE VISITS

Each year NSF will support site visits to various locations for NSF staff, Contractors, collaborators from other agencies, distinguished visitors, and media or outreach personnel. The Contractor shall prepare materials for site visits including developing and maintaining a deployment guide for NSF staff and developing briefing book materials for distinguished visitors. Briefing books shall include an itinerary, relevant maps, biosketches of involved personnel, facility descriptions, and information on science projects in the area.

C.2.3 DIRECT SCIENCE SUPPORT

C.2.3.1 SCIENCE PROJECT SUPPORT – PLANNING, EXECUTION, CLOSEOUT

The core activity of this contract is to assist researchers with developing, implementing, and adapting research project support plans. NSF provides research support services to researchers through the ARSLS contract for efficiency, cost effectiveness, and to leverage the expertise in field support that is concentrated at the ARSLS Contractor. NSF is interested in attracting new researchers to Arctic fieldwork in addition to many researchers who may be experts at fieldwork, but who will benefit from access to facilities, pooled equipment, environmental compliance, risk assessment, and other services. PIs choose whether to arrange for their own logistics support using grant funds, or use the Contractor or another third-party support organization, or a combination. Increasingly, PIs have chosen to use NSF's ARSLS Contractor to reduce the time scientists spend on logistics planning and execution of ever more complex projects and to make use of the expertise and established practices of the Contractor.

Approximately 350 research proposals are submitted to programs in ARC each year to study the Arctic. Of these, approximately 50 to 100 each year require a logistics estimate from the Contractor and many have fieldwork in more than one location. Proposals are for 3-5 years of funding with no more than 5 years of fieldwork associated with a single proposal. Approximately 15-20% of the proposals to the Arctic Sciences Section are awarded, thus only a small subset of the prepared support estimates will be implemented each year. Each year the Contractor shall support approximately 130-150 projects requiring field support and logistical services. This includes new awards and those already awarded. The Contractor shall also perform environmental compliance reviews on all new ARC awards, approximately 100 per year, including those without fieldwork. Most of the fieldwork takes place in Alaska and Greenland. In 2016, 46% of the projects were in Alaska and 41% were in Greenland, with the remaining 13% of projects spread among the other Arctic nations and the Arctic Ocean and surrounding seas. This includes work performed for other NSF programs, other federal agencies, and organizations reimbursing NSF for logistics support. See Appendix E: Contractor Supported Science Project Funding Sources 2016.

The Contractor shall maintain an external website describing Arctic Research Support (currently <http://cpspolar.com>) that is informative to researchers and other interested parties planning fieldwork in the Arctic. On the website, the Contractor shall provide information about Arctic facilities and Arctic support services available, current policies and procedures, a calendar of field safety training available, other publicly available schedules, links to other third-party service providers, information about health and safety, and details on who needs to physically qualify for fieldwork and how that process works. The site shall include information on good practices for field work and field safety risk management and shall be the location to post information on incidents and near misses in the program to improve field safety risk management. The Contractor shall update this website regularly, no less than monthly, to ensure current information is available. As with all information technology resources in this program, commercial off the shelf (COTS) products shall always be used unless a written waiver is obtained by the CO. Executable code, source code, software documentation and current data shall be delivered to the government when required and prior to the end of the contract.

Most proposals are received in response to the [Arctic Research Opportunities](#) (ARO) solicitation (NSF 16-595), which has no proposal submission deadline. Proposals are received on a rolling basis with panel

reviews held periodically. Occasionally there is a special solicitation or other deadline drivers for proposals. Researchers may request estimates and logistics support for proposals submitted to other NSF programs and other agencies to make use of the resources and expertise available to the ARSLS contract. In some cases, these proposals are co-reviewed with programs in ARC for potential co-funding and in other cases the support from the ARSLS Contractor will be on a cost reimbursable basis. Researchers are expected to prepare a proposal for NSF that is a complete description of the work to be undertaken and the cost to complete it.

The Contractor will be provided with a database of previous research project support. The Contractor shall operate, maintain and continuously update proposal information in the database. The Arctic research project support database shall capture and track information about all proposals funded by ARC – including those without fieldwork – those with support from the ARSLS Contractor, projects that have fieldwork supported by the grantee or other third-party logistics providers, and interagency or other direct bill support provided by NSF. The database shall capture all relevant information in the life-cycle of science projects including but not limited to institution and primary investigator, project objectives and proposals, numbers in field team and estimated days in field, support plans with cost estimates, milestones and timelines, schedule of deployments, in-progress status, support from third-party providers, vessel usage, and the cognizant NSF program manager. The database shall contain information required by NSF, such as numbers of projects by geographic region, project locations, funding agency or NSF directorate, division and section, project descriptions, and numbers of personnel supported in the field. This database shall also provide information feeds to external sites and tools, Annual Program Plans and Reports, other periodic reports, and discussion points. The Contractor shall track available logistics resources and costs each year in a database.

The Contractor shall work with PIs throughout the lifecycle of their project, starting at the proposal stage where the Contractor shall develop rough order of magnitude estimates of the scope, cost, and schedule for the life of the project for PIs to include in their proposal. The proposal estimate is an essential tool for NSF to evaluate the fieldwork necessary to accomplish the science goals of each research proposal and plan for future years' fieldwork. The Contractor shall review and document field safety risk associated with the proposed work. During the proposal review phase, the Contractor shall provide NSF with summary information about the estimated logistics scope, cost, schedule, use of vessels or other third-party support, and field safety or other perceived risks for each field project. The Contractor shall track the fate of each proposal to ARC or requesting ARSLS support in the database of research project support. For awarded projects, the Contractor shall resume communications with the PI to update, refine field plans, and prepare project plans for the Annual Program Plan and the life of project budget. The Contractor shall support the implementation of the project for all years of work. If the PI requests a change to the project plan, the Contractor shall work with the PI to communicate the rationale and justification to NSF for review. The Contractor shall work with NSF and the PI to implement approved changes to the project plan during the life of the project. The Contractor shall close-out all projects at the end of the grant funding. Each year the Contractor shall conduct an outbrief to collect information for continuous improvement of the process and to document days of fieldwork lost due to the Contractor, a reportable metric for the Government Performance Reporting Act (GPRA).

NSF recognizes that at the time of proposal preparation this is a concept estimate of the costs for the life of the project and is subject to change. Should the proposal be funded, the proposal and proposal estimate shall form the basis of the project plan (operational plan). The project plan will be iterated with the research team and NSF to define the support and describe it in more detail. The Contractor shall develop a process for collecting input from the PI and NSF and communicating the final, NSF-approved level of support for the project plan. The project plan shall include all relevant information for successful execution of the project such as a brief description of the research and research goals, outline of the requirements, operational plans, roles and responsibilities, risk assessment, critical success factors, reference to applicable NSF policies, and summarize the environmental compliance and community consultation performed.

The Contractor shall be responsible for managing the execution of the plan working in close coordination with the PI, key members of the science team, and NSF. The Contractor shall manage each project to the approved scope and logistics budget. The Contractor shall monitor execution of the project preparations and field work and take timely action when required to confer with NSF Program Managers for realignment of plans, and funding when necessary, to assist the science team with attainment of their research goals. The contract requires excellent skills in communication, planning, managing to a plan, assessing performance and safety risks as well as logistical expertise working in the Arctic.

NSF will provide select members of the Contractor's staff with access to its electronic systems to view proposals in their entirety and track their status during review. The Contractor shall provide staff who shall adhere to NSF policies regarding proposal information safeguarding, non-disclosure, and who can comply with NSF requirements for training and maintenance of an NSF account. NSF will work with the Contractor as proposal recommendations are made and confirm when the Contractor shall contact the PI to begin refining the field project plan and budget for projects that will be awarded. This notification may occur at any time of year, with a majority of notifications in early summer. Proposals submitted to NSF divisions other than the ARC or to other agencies will be on a different planning cycle. Fieldwork for proposals is intended to start no sooner than one year after the proposal is received to allow time for the review process and for the RSL program to plan and budget for the activity. In some cases, fieldwork may need to start sooner and this is accommodated when possible.

The Contractor shall maintain strong liaisons with the U.S. scientific community, the U.S. and international Arctic logistics community, Indigenous leaders and scholars, and other experts in Arctic fieldwork. Contractor roles shall include, but are not limited to:

- Responding to PIs' inquiries about logistics and research support capabilities;
- Attending appropriate scientific workshops and conferences to be a resource to stakeholders and to interact with current and proposing PIs;
- Recommending improvements to services resulting from advances in technology or changes in scientific requirements identified by PIs or by the other researchers on their project teams;
- Coordinating with appropriate national and international organizations;
- Conducting studies and preparing documentation or assisting with permit applications or authorizations in support of NSF's compliance with federal environmental laws including, but not limited to, the National Environmental Policy Act, the National Historic Preservation Act, the Marine Mammal Protection Act, and the Endangered Species Act, and submitting such studies and documentation to NSF for review and approval; and
- Outreach coordination with local organizations and communities to ensure their understanding of operations to be conducted in their area while maintaining due respect for local issues.

The Contractor shall focus on providing support at research hubs and remote field locations. In general, researchers shall plan to use commercially scheduled air service to transport personnel and field supplies as close to the research site as possible and to provide food and other miscellaneous expenses in the field. Generally, the Contractor shall expect to transport researcher personnel and supplies from that point to and from the field location and support the PIs at the site. Typical components tasked to the Contractor in support of research projects are:

- Movement of people and cargo to, from, and within the Arctic;
- Installation and operation of field camps (e.g., food, shelter, power systems, communications, health and safety measures);
- Sample shipping to storage facilities or academic institutions (e.g., ice cores, snow samples, and sediment cores);

- Design, construction, installation and demobilization of infrastructure or facilities for research (e.g., hybrid power systems, mobile sampling structures, instrument towers, fences, floating instrumentation, and boardwalk or other footing to protect the tundra); and
- Arranging permits and cooperation with local organizations and residents for operations under the ARSLS contract.

The Contractor shall thoroughly research options for implementing projects to provide a safe, efficient and cost-effective approach to supporting the science program. The Contractor will be provided data and information about available and potential logistics support resources, such as local and international vendors, rates, and previous work support to the RSL program. The Contractor shall maintain the respective data, ensure the data is readily available for NSF use and deliver the data in an electronic COTS format prior to the end of the contract. This information shall also be used to develop and update the Resource Dictionary for the IMS.

The Contractor shall maintain a document sharing portal to provide NSF with access to all information about science projects and related operations. This secure science project portal shall contain complete information about each project, including budgets, season plans, environmental documentation, as well as reports and presentations from the Contractor, and other documentation relevant to managing the science support portfolio.

Information about funded research projects shall be made publicly available on a website operated by the Contractor and available to the public in a format that is both searchable and displayed geographically as in the visualization Arctic Research Mapping Application. The visualization tool illustrates where projects have been, are, or are planned to be, including cruise tracks. This tool shall link to the projects database. The visualization tool is useful to NSF for operational purposes and reporting, it is used by media and other groups seeking information about Arctic research and can be used by researchers looking for collaborators or data sets based on research subject or location. The Contractor shall provide NSF with a schedule of project deployments in the first quarter of the APP and shall provide bi-weekly updates of which projects are in the field and which projects will go into the field, including a brief science summary and photographs of those in the field. This information will be used to keep NSF apprised of fieldwork and for outreach materials on social media and other outlets.

Arctic site observing data shall be collected and made publicly available through the Arctic Observing Viewer (AOV) AOV is an online resource that provides access to repeat data sampling collections from over 19,000 sites funded by the National Science Foundation and many other agencies and organizations. This resource helps with visualization, strategic assessment, and decision support for initiatives tied to Arctic Observing. The Contractor shall support development and maintenance of the application through provision of project management and technical assistance in data flow and collection, requirements gathering and planning, project reviews, issue identification and resolution, and site improvement planning.

The Contractor will be provided a database of cost reimbursable projects, entitled Database of Reimbursable Project Accounting. The Contractor shall operate and maintain the Reimbursable Project Accounting Database, which includes tracking reimbursable work performed for projects funded outside of ARC, by other federal agencies, and for other organizations. The Contractor shall initiate the information based on reimbursable work in the APP and performed by third-party providers. NSF will provide information about projects not using the ARSLS Contractor and will update information to track projects through the collection of reimbursable funds. NSF will collect the reimbursable funds.

C.2.3.2 ALASKA

Of the 181 Contractor-supported research projects conducted throughout the Arctic in the 2016/17 season, 70 were in Alaska. The Contractor shall support operations in Alaska to maintain and distribute an inventory of field support equipment and to provide personnel to support the projects in Alaska.

Currently, Fairbanks is the hub for supporting research projects in Alaska. Research is concentrated at Utqiagvik, Toolik Field Station, and along the Dalton Highway between Fairbanks and Prudhoe Bay/Deadhorse, with many projects in Western Alaska and around the State.

PIs are expected to provide for their own travel and cargo costs to commercial hubs in Alaska while the Contractor shall provide remote or charter travel. Because of the commercial operators and infrastructure available throughout Alaska, the Contractor shall often find local providers to meet requirements such as lodging, aviation, vessel/boat charters, trucks, 4-wheelers, and snowmobiles. It is the Contractor's responsibility to ensure suitability and performance of these resources according to government standards. Generally, Government standards includes but is not limited to: all governing laws and regulations; safety standards; and manufacturer recommendations. Where local providers are not available, the Contractor shall work with the PI to provide the required support for field camps for individual projects anywhere in Alaska, which range from small, short-term camping to large-scale camps for several months including power generation, communications, and camp management.

C.2.3.3 GREENLAND

In 2016/17, NSF supported 62 projects in Greenland. A portion of the research takes place at Summit Station and other locations on the Greenland Ice Sheet while other projects work near the coast. Researchers will transport themselves to Stratton Air Base, from which their logistics will be planned by the Contractor, or they will take commercial flights to Greenland. Food, lodging and incidentals may be paid for with grant funds. The Contractor shall arrange transportation and aircraft charters as well as provide field gear and communications. The Contractor is the point of contact for daily radio check-ins and is an initial point of contact for emergencies.

The Government of Greenland requires visitors traveling to certain parts of Greenland to carry insurance for Search and Rescue in the amount of 1,000,000DKK. As a Federal Agency, NSF is self-insured. For that reason and because of the logistical presence and risk management practices performed under the ARSLs contract, NSF has elected to self-insure for all manifested visitors traveling to Greenland under NSF auspices. The Contractor shall provide NSF with a list of those people traveling to Greenland and relevant information for identifying those covered under NSF's self-insurance prior to their departure for Greenland.

C.2.4 FACILITIES OPERATIONS, MAINTENANCE AND UPGRADES

NSF's investment in facilities is driven by requirements of funded research. The principal facilities requiring management under this contract are described in detail below. The Contractor shall develop and maintain long-range facility plans that guide each APP and provide NSF with a cost effective, efficient, and safe way to support funded research. Long-range facility plans include input from researchers and other stakeholders and guide facility upgrades which are made as funds are available.

As required, the Contractor shall provide operation and maintenance, construction, upgrades, decommissioning, demolition, remediation and other facility services for NSF-owned and NSF-sponsored facilities in the Arctic region.

Similar to document sharing for science projects, the Contractor shall provide NSF with secure access to information about facilities engineering, maintenance, construction and operational projects. Information on the facilities projects for each APP including scope, budget and schedule, site plans for facilities, building drawings, photos, presentations, and other relevant documents shall be posted. At transition the Contractor will receive relevant documentation and a system for document sharing.

The Contractor shall be provided a computerized maintenance management system (CMMS). The Contractor shall operate and maintain the CMMS. The Contractor shall use the CMMS to plan, prioritize and track labor, manage inventory, plan purchases, and efficiently manage facilities. Information from the

CMMS shall be included in weekly and other reports to NSF. The Contractor shall make the CMMS readily available to NSF and deliver the respective electronic COTS CMMS with current information, prior to the end of the contract. The Contractor shall be provided a cargo tracking system to track all research, facilities, and operations cargo. The Contractor shall operate and maintain the cargo tracking system. The Contractor shall deliver an electronic COTS compatible version of the cargo tracking system prior to the end of the contract.

The Contractor shall be provided an Energy Management Plan. The Contractor shall implement and maintain the Energy Management Plan and energy conservation activities. The Contractor shall monitor and report on energy usage annually and recommend improvements for review and approval by NSF. Energy usage metered data shall be captured and displayed through the online remote monitoring system. The online remote monitoring system (currently InSite <https://insite.datatransport.org>) shall include information on power production and usage, bandwidth usage, weather and other conditions at key locations, and other relevant data. The integration of renewable energy and new technologies for efficiency and alternative energy production are encouraged. Over the years, the program has implemented new technologies and continues to seek energy solutions in several locations where fuel is expensive and pollution reduction is desired, such as Summit and TFS.

The Contractor shall provide a Weekly Facility Report that summarizes activities in facilities, engineering, maintenance, and construction for the program. The report should include informative pictures, activity highlights, actions needed from NSF or others, and include output from the CMMS or related systems. The report shall summarize IT and Communications activities related to facilities and operations such as the installation of equipment and networking activities. The report shall include information on the Greenland Inland Traverse (GrIT) during periods of activity including maintenance.

C.2.4.1 UTQIAGVIK, ALASKA

The Contractor shall lease space in Utqiagvik to meet the science and operations needs of the program. The Contractor shall propose the appropriate footprint of leased space and leased or owned vehicles to meet operating needs, based on the history of the program and projected future needs. The Contractor shall work with UIC-S and the user community to refine the NSF footprint in Utqiagvik and Atqasuk. The Contractor shall develop and update Utqiagvik Operating Procedures.

C.2.4.2 TOOLIK FIELD STATION, ALASKA

The Contractor shall provide construction and maintenance support for NSF at TFS. TFS, NSF and the ARSLs contractor worked together to develop a long-range facilities plan at TFS. The Contractor shall have the lead role in implementing the design and construction of new facilities in collaboration with NSF and TFS. In the past, contractor support has included provision of new laboratories, dormitories, bathing, and toilet facilities, the power plant, a combination dining facility and administrative center, a garage, and expanded waste heat recovery infrastructure. Activities shall include design, delivery, construction and maintenance of additional facilities at TFS. The Contractor shall establish a preventive maintenance program and include forecasted requirements in the APP for review and approval by NSF.

Operation of the station is the responsibility of TFS staff, but maintenance and upgrades to the facility have increasingly been tasked to the Contractor due to the advancing level of sophistication of the infrastructure. Power system upgrades, large construction, specific building operations and maintenance, and air support subcontracts are the responsibility of the Contractor while other operations and maintenance roles are shared with TFS staff. When required, the Contractor shall develop or update existing site, facility, infrastructure drawings, and operation and maintenance manuals. Primary systems, including structures, power, and water, shall be documented and an inspection and maintenance plan developed for each. Operating procedures for both summer and winter shall be developed, updated, and made available for review by NSF as required. The Contractor shall be required to work closely with the TFS management team to develop a task management system to track large and small maintenance tasks at TFS. See Appendix F: Construction and Maintenance Projects, 2016 and 2017.

C.2.4.3 SUMMIT STATION, RAVEN, KANGERLUSSUAQ, TAB & GrIT TRAVERSE, GREENLAND

Summit Station in Greenland is a NSF-owned facility. The Contractor shall operate Summit Station to support NSF-funded research. As required, the Contractor shall support research or measurements funded by other U.S. agencies and other U.S. or international organizations. Summit is a remote station where the Contractor shall provide for all operating and research support needs, including transportation, housing, food services, safety, science technicians, power and water production, construction, maintenance, winterization of facilities, and remote and local communications. The Contractor shall provide Basic Life Support health care during summer operating months and a minimum of Wilderness First Responder health care during winter operating months. The Contractor shall mark and maintain a skiway at Summit for use by the NYANG LC-130s. The skiway requires an informed and deliberate approach to ensure optimal airlift and there is a Standard Operating Procedure for skiway maintenance. The Contractor shall work with CRREL, representatives from NYANG, and others for skiway activities. The Contractor shall conduct weather observations and provide landing strip services at Summit.

The Contractor shall provide a weekly Summit Site and Science Report, including but not limited to Summit population, wind speed/direction, fuel use, equipment hours and use, power production, water production, O&M activities, skiway conditions, and other science activity data. Snow accumulation and drifting around Summit Station requires strategic snow management. The Contractor shall work with NSF, CRREL, and others to develop a snow management plan to include in the APP and related SOPs. The Contractor shall track labor hours and vehicle use for snow movement and in the annual report shall relate snow management efforts and results back to the snow management plan. Information provided shall be maintained in a Summit Operations Management Database or captured and reported through the CMMS or other database.

NSF has developed an overland tractor traverse capability as a means to transport items too large or heavy to be transported by aircraft to Summit Station and other locations on the Greenland ice sheet. Traverse operations in 2007 through 2010 demonstrated the capability and full traverses were conducted in 2011, 2012, 2014, and 2016. The traverse in 2016 successfully delivered large, heavy items for construction of the mobile garage facility and the fully constructed microturbine energy module while also supporting a science project along the traverse route. The Contractor shall be responsible for operating this activity (limited to an as-needed basis) in close collaboration with NSF and the U.S. Army Cold Regions Research & Engineering Lab, to ensure the safety and reliability of this option and its continued development. The Contractor shall maintain the capability to support the traverse out of TAB through arrangements with USAF Space Command or the TAB Base Management Contractor (BMC), [Vectrus Services A/S](#). The Contractor shall provide a GrIT Daily Update report during traverse operations and provide weekly updates, when GrIT activities are conducted, to be included in the Weekly Facility Report throughout the year.

The Contractor shall operate the Raven training facility used by the NYANG as a training area and alternate landing site to Kangerlussuaq. Raven has two landing areas: a groomed skiway and an unprepared strip. The Contractor shall maintain and mark the skiway. Raven is also used by the NYANG to conduct its survival training courses. The Contractor shall provide aircraft ground support and logistics services to visitors as tasked by NSF.

In developing facilities and research support in Greenland, the Contractor shall work with individual project researchers, a [Science Coordination Office](#) (SCO) funded by the RSL Program that coordinates scientific activities on the Greenland Ice Sheet, additional facilities and engineering Contractor consultants, the U.S. Army Cold Regions Research and Engineering Laboratory, representatives from the Government of Greenland, and other stakeholders. The Contractor, in conjunction with RSL's SCO, shall organize the bi-annual GEOSummit planning meeting – these can be virtual meetings, and are sometimes conducted in conjunction with other Arctic science conferences.

Facilities at Summit are challenging to build and maintain due to the logistics and environmental requirements. NSF and the Contractor shall engage the stakeholder community in a long-range facility planning process to redevelop the site with an emphasis on elevated structures, scalable, flexible facilities that will support the primary science goals at Summit and have the capability for autonomous data collection during unmanned periods. Efficient operations and lower emissions to minimize the negative impact on the core science goals is a requirement. The Contractor shall monitor emissions at the station against a baseline Summit Station Emissions Report and provide subsequent annual reports (as part of the Annual Report) to document emissions generated using fossil fuels in camp utilities, local equipment, and by aircraft and vehicles visiting the station. An example emissions report is shown in Appendix K: Summit Emissions Report, 2017.

A [site plan](#) and a [virtual tour](#) are available on the Contractor and SCO provided websites. The Contractor shall develop or update existing site, facility, infrastructure drawings, and operation and maintenance manuals for the operations at Summit, Kangerlussuaq, Raven and TAB. Primary systems, including structures, power, and water, shall be documented and an inspection and maintenance plan developed for each. Operating procedures for summer and winter, as well as shut-down and turn-on to support unmanned periods, shall be developed, updated annually, and made available for review by NSF as required. The Contractor shall maintain and update a website about the facility with information for researchers and about the facility.

C.2.4.4 OTHER ARCTIC RESEARCH SITES

As required, the Contractor shall establish facilities at remote sites or enhance facilities at existing sites anywhere in the Arctic. The Contractor must have the capability to implement construction projects for improvements as well as new facilities for logistics or science laboratories at remote or permanent sites in a variety of Arctic locations.

Proposals submitted to ARC or in response to other announcements of opportunity at NSF, may also require installation of remote and/or autonomous instrumentation in a wide variety of Arctic locations. When required, the Contractor shall present a plan for providing the expertise to design, install, operate, and maintain scientific instrumentation in a variety of Arctic environments as directed by the COR. The Contractor shall annually provide operating procedures for all sites covered under this section.

C.2.4.5 ALTERNATIVE ENERGY AND SUSTAINABILITY

Throughout the RSL program, NSF seeks to reduce use of fossil fuels to reduce emissions, local pollution, and cost to the program. Alternative energy solutions at field sites should be implemented where feasible. The Contractor shall make every effort to comply with the following purchase requirements as applicable; refer to [Executive Order 13693](#) or the NSF electronic reading-room at <https://www.nsf.gov/geo/opp/arctic/arsl/program.jsp> for additional information.

- NSF Affirmative Procurement Program for Environmental Protection Agency (EPA) Designated Recycled Content Products;
- ENERGY STAR® and Federal Energy Management Program-compliant equipment/products;
- Renewable Energy products;
- Bio-based and USDA-designated Bio-preferred products;
- Environmentally Preferable products and services;
- Electronic Product Environmental Assessment Tool-Registered products
- WaterSense and other Water-Efficient products;
- Non-Ozone Depleting Substances and/or those covered by EPA's Significant New Alternatives Policy program (chemicals and/or equipment); and
- [Alternative fuel](#) vehicles and alternative fuels

C.2.5 AIR OPERATIONS

Throughout the Arctic, research and operations require aviation services including helicopter and fixed wing support. The Contractor shall acquire, task, and provide oversight to cost-effective air providers that offer safe and efficient operations. The Contractor's acquisition process shall evaluate factors, such as safety record, cost, pilot experience, maintenance records, customer service, and reliability to determine the best services to meet mission requirements.

The Contractor shall work with researchers and vendors to provide the most cost-effective and efficient aircraft schedule possible, making use of airframes for multiple projects where possible. The Contractor shall work with the Department of Interior Aviation Management Directorate to compare the cost of subcontracting with vendors versus using assisted contracting through DOI/AMD. The APP shall include a description of cost savings enabled through shared use of airframes and scheduling efficiencies, as well as cost savings due to contract vehicle. The Annual Report shall include a summary of air support provided by region and airframe with project supported. In locations with more than one provider, the Contractor shall acquire support based on both safety and cost efficiency. An example of the types of aviation services provided by the Contractor to support research in the 2016 field season is provided in Appendix G: Aviation Support 2016.

Delivery of personnel and cargo to Kangerlussuaq and Thule Air Base in Greenland is accomplished using LC-130s and C-17s operated by the 109th and 105th Airborne divisions of the ANG (respectively) out of Scotia, NY; and by scheduled military Contractor and commercial flights. The Contractor shall maintain an effective liaison with the ANG and attend its Greenland Planning Conference annually. The Contractor shall provide staff with adequate security clearance to request Special Assigned Airlift Mission (SAAM) flights using DOD systems. Flight periods for the 2016 field season is shown in Appendix H: Greenland Operations Air Support, 2016.

The Contractor shall work directly with the ANG to plan and implement use of the LC-130s and C17s for delivery of personnel and cargo to, from and within Greenland, Canadian Forces Station Alert and parts of the Arctic Ocean, and provide tasking of ANG through the USAF's Special Assignment Air Mission process. Access to ANG aircraft has been arranged through the USAF Air Mobility Command (AMC). The Contractor shall also access military and military Contractor flights to TAB through AMC. During the Greenland operating season, the Contractor shall provide a full-time cargo coordinator at the NYANG facility in Schenectady, NY, and coordinators as schedules and requirements dictate at Kangerlussuaq and Thule.

For some tasks in Greenland, the Contractor shall charter small ski-equipped, fixed-wing aircraft used to service Summit and other remote locations on the Greenland Ice Sheet. The national carrier in Greenland for wheeled fixed-wing and helicopter support is Air Greenland and for ski-equipped fixed-wing support is Norland Air. Greenland requires use of these carriers prior to contracting with another operator, which is only permitted if they are unable to meet the NSF requirements.

Research requirements near TFS may be met with one or two helicopters per season, which may also be used to service projects elsewhere in northern Alaska. The Contractor shall provide a helicopter coordinator at TFS to manage day-to-day flight operations when warranted by the science airlift workload. Projects on the Arctic Ocean have utilized aircraft from Russia, Canada and Fennoscandia to meet cargo and personnel transport needs. The Contractor shall provide air support subcontracts as needed throughout the Arctic to support project requirements.

C.2.6 VESSEL OPERATIONS

The Contractor shall procure vessel support for research or operations as required. NSF primarily arranges use of icebreakers and academic research vessels through other mechanisms, however, the

Contractor may be tasked to subcontract for vessel support in waters around Alaska and elsewhere in the Arctic to support funded research projects.

For Greenland, NSF makes use of existing cargo transport between Norfolk, VA and TAB, where cargo can then be transported to Summit or other locations on the ice sheet via aircraft or the GrIT. New commercial vessel shipping options are also opening around Greenland and are to be evaluated for use. The Contractor shall acquire, task, and provide suitable oversight to vessel providers that offer safe, cost-effective, reliable service. The Contractor's acquisition process shall evaluate suitable factors, such as safety, cost, reliability, schedule, capability to support research, and other factors to determine the best services to meet mission requirements. The Contractor shall also evaluate and use vessel cargo services, as opposed to air cargo services, whenever practical for cost and schedule. The APP shall summarize proposed vessel operations and cost savings associated with the recommended approach.

C.2.7 INFORMATION TECHNOLOGY & COMMUNICATIONS

Communication between research sites and between home institutions and research sites is an increasingly important component of Arctic research. Transfer of data from remote/autonomous field instruments to operators who can manage the data collection/transfer remotely or respond in a timely fashion to maintenance requirements is essential. The Contractor shall provide reliable communications for researchers while they are in the field with sufficient redundancy to ensure safety of field teams.

In Greenland, IT services are purchased by the Contractor from TeleGreenland at most locations. When such commercial services are not available, such as at Summit Station, the Contractor shall provide IT services using a cost-effective approach that meets requirements for bandwidth, security, and other factors.

In Alaska, the Contractor shall provide IT services at facilities in Utqiagvik in collaboration with UIC-S and UAF. UAF provides IT services to TFS and Utqiagvik as remote campuses of the UA system. An undersea cable around Alaska has begun providing commercially available broadband service at locations like Utqiagvik.

The Contractor shall maintain and improve [online remote monitoring](#) of systems at research facilities to detect and diagnose issues and collect data on power and network usage and other metrics that will inform improvements to the system and allow periodic reporting of monitored systems. Vehicles in the fleet, including snowmobiles and 4-wheelers, shall be equipped with trackers that are viewable via a website for the safety of field teams.

The Contractor shall be tasked to develop or improve internet connectivity of remote field stations, small camps, environmental observatories, and autonomous instruments for data transmission in real time or near-real time. The Contractor shall work with PIs to gather data requirements and recommend the most cost-effective solution for meeting the requirements. The Contractor shall remain informed about available and emerging opportunities for communication, including cell phone coverage, radios, Iridium satellite networks, satellite base stations, personal locator beacons, and other approaches. The Contractor shall determine researcher requirements for IT to provide research teams with IT and communications necessary for safety and science operations, managing an inventory of radios, satellite phones, and other communications devices. The Contractor shall track Iridium SIM cards issued through NSF by the Department of Defense for research project use. The Contractor shall work with NSF to maintain a shared database of active DoD Iridium SIM cards in use. This shall be a secure, online database with limited access. Each summer the Contractor shall develop requirements for the following year to enable NSF to communicate requirements to DoD and negotiate payment for the start of each fiscal year. The Contractor shall also provide an online shared database of Personal Locator Beacons and where they are in use in the program for efficient emergency response. The Contractor shall provide an IT and Communications Plan within the APP.

The Contractor shall provide IT systems that comply with the Federal Information Systems Management Act of 2014 (FISMA). NSF has an agreement with the U.S. Navy Space & Warfare Systems Command (SPAWAR) to provide information technology compliance consultation and testing in accordance with FISMA. The Contractor shall cooperate with SPAWAR regarding implementation of safeguards for information technology systems under this contract. The Contractor shall review existing IT systems and provide an annual IT Life Cycle Replacement Plan as part of the APP.

C.2.8 HEALTH, SAFETY & ENVIRONMENT

Managing risk is of paramount importance to NSF. The Contractor shall comply with OPP policies on health and safety and implement an environmental compliance program compatible with NSF's statutory requirements and approved procedures. The Contractor will implement an effective risk management program to assess risks to projects, personnel, facilities, and the RSL program and propose mitigation measures. Project risk assessment shall include factors that may cause a project to fail as well as evaluation of risks to safety and the environment. The Contractor shall provide useful and well-organized information on health, safety, and environmental compliance and best practices for the research community on their website. The Contractor shall participate in workshops to follow up on two previous workshops, the [Arctic Field Safety Risk Management Workshop](#) held in 2014 and a follow-on workshop convened by NSF's Polar Environment Safety and Health Section with participation from both the ARSLS and ARC contractors in 2016. The Contractor shall provide HSE documentation via secure online document sharing. The Contractor will provide an All-Hazards Plan for the program and Emergency Action Plans for key sites in the program: Summit, Raven, Kangerlussuaq, and Thule in Greenland and Fairbanks and Utqiagvik in Alaska.

The Contractor shall develop a Safety Management Action Plan (SMAP) that describes the Contractor's approach to safety based on the work requirements and will promote a culture of risk management that supports the identification, reporting, and mitigation of risk at all junctures. The SMAP will focus on major projects in the program. The Contractor shall ensure that its staff receive required training in occupational health and safety and other applicable training for safe and effective field operations in areas such as hazardous waste management, tower climbing, wilderness first responder, and other training to meet the requirements of the contract. The Contractor shall provide NSF with immediate reporting of incidents in the field that cause injury or damage to property or that are near misses. Incidents and near misses will be tracked and reported, including a report that is available as a lessons-learned document for the public. The Contractor shall also investigate incidents and as needed, will cooperate with NSF to conduct its own mishap review. Incident reports should be made available to NSF on a shared document portal.

The Contractor shall provide an initial assessment of risk in each proposal during the proposal review stage and will flag for NSF projects or elements of projects that pose risk and suggest mitigation strategies. For funded projects, the Contractor, in consultation with the PI and NSF, shall update the initial risk assessment and develop a more comprehensive risk management plan to be included in the project plan. The Contractor has an important role in providing information and training to the NSF-funded research community, however the Contractor is not responsible for grantees and their field teams. The NSF grant terms and conditions are explicit that the grantee institution is responsible for the conduct of the work under the grant. The role of the Contractor in working with the research community to assist them in managing field safety risks is an important aspect of providing science support.

The Contractor shall propose field safety training opportunities for the NSF research community to address specific training needs for fieldwork. This is anticipated to be no fewer than three sessions per year at locations in the U.S. convenient to research personnel or training providers. Sessions may be general in nature, providing a basic background, or if appropriate, may address specific skills needed such

as small boat use, helicopter safety, or glacier travel. The field safety training curriculum shall be approved by NSF and be responsive to researcher requests and demonstrated needs for training.

In some locations, the Contractor may be required to provide specific mitigation measures in response to the potential presence of brown bears or polar bears. The Contractor will work with NSF, the site operators, the research community and other stakeholders to develop bear mitigation plans. Contractor responsibilities may include providing bear fences, bear detection technology such as Doppler radar or infrared sensors, firearms and requisite training, hiring bear guards, and other mitigation measures appropriate for the specific situation. The Contractor must have the capability to store firearms appropriately and to provide training and staff with appropriate certifications to operate firearms for bear protection.

In some locations, researchers and contractor staff will be required to undergo NSF's [physical qualification](#) (PQ) process. The Contractor shall inform prospective PIs, contractor employees, and personnel from other organizations if they are required to PQ and will maintain an informative website of the process. A PQ assessment is required to work in remote field areas in Greenland for more than 30 days or at Summit Station when there are neither chartered skied aircraft nor NYANG ski-equipped aircraft on the island. The NYANG are usually on island for periods of 7-14 days at a time. NSF may require projects working in other locations to PQ based on a risk analysis of the project and location. The University of Texas Medical Branch (UTMB), on behalf of Leidos Antarctic Support Contractor (ASC) is responsible for making PQ determinations for Arctic and Antarctic participants. The Contractor shall follow the procedures in the Physical Qualification (PQ) process (Appendix I: Physical Qualification Standard Operating Procedure) and confirm that medical approvals are in place prior to allowing personnel to deploy. The Contractor shall advise the COR if issues arise. Information about when PQ is required, and when it is not, shall be available on the Contractor's Arctic Research Support website and be kept up to date with links to organizations, contacts and forms. The Contractor will track information on PQs, medevacs, and other information for program management and reporting to the Polar Medical Care Review Panel.

The Contractor shall develop written safety and emergency management procedures for all working locations in the Arctic Region in coordination with NSF, the Government of Greenland, and other local authorities as required. Emergency Action Plans for support hubs in Greenland and Alaska are required: Current logistics hubs are Summit, Raven, Kangerlussuaq, and Thule in Greenland and Fairbanks and Utqiagvik in Alaska. The Contractor will produce and revise annually an All Hazards Plan for the program. The Contractor shall become familiar with and work within state and local emergency procedures in Alaska, Greenland, and other areas of operation. The Contractor shall coordinate with NSF to ensure emergency response protocols are up to date and tested periodically.

Working effectively with local communities in the Arctic is a core value of the RSL program. The Contractor will follow the Principles for Conducting Research in the Arctic in its own interactions with communities in the Arctic. The Contractor will also support interactions between researchers and local communities. The Contractor shall work with NSF to develop Memoranda of Understanding with tribes and other partners for projects that take place on tribal lands. For some projects, the Contractor shall hire local community observers, protected resource observers, or other observers as requested by communities or required by tribes or management agencies.

Stewardship of the Arctic environment is a key principle, underpinning all of NSF's activities in the Arctic. The Contractor shall assist NSF with: assessing environmental impacts; developing mitigation measures; documenting, tracking and reporting environmental compliance activities; and managing any environmental issues that arise, including those related to waste management. NSF has an established process for the initial assessment of potential environmental impacts of research proposals using an environmental impacts checklist. For each project, the Contractor shall complete the checklist and document other processes necessary for compliance with the National Environmental Policy Act (NEPA). In addition, the Contractor shall work with resource management agencies in Alaska, including the U.S.

Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service of NOAA (NMFS) to assess the potential impact of proposed projects that occur where endangered species or marine mammals may be encountered. When consultation with the USFWS and NOAA is appropriate, it will be coordinated with NSF and the PIs. In some cases, the Contractor shall develop, for NSF's review and adoption, environmental assessments or environmental impact assessments pursuant to NEPA, incidental harassment authorizations under the Marine Mammal Protection Act, and/or other documentation required by federal environmental laws to enable research projects to proceed with fieldwork. The Contractor shall also support NSF's compliance with Section 106 of the National Historic Preservation Act, which could include the preparation of an assessment of historic properties in the area where the proposed research is to take place, meetings with interested ("consulting") parties, and the preparation of Memoranda of Agreement to address ways to avoid, minimize, and/or mitigate impacts from the proposed research on National Register listed or eligible historic properties. The Contractor shall, in addition, maintain all environmental compliance documentation on a shared information portal and shall summarize environmental consultations annually.

C.2.9 PROGRAM MANAGEMENT

The Contractor shall perform the work using best practices in program management and shall seek to excel at all aspects of program management. The Contractor shall keep open lines of communication with NSF to discuss opportunities to improve operation of the program and to solve issues as they arise. Several key elements of program management expected in this contract are described below. NSF prefers the use of commercially-available products and services and established designs for the Arctic environment in most cases, including the use of COTS software and prefabricated materials and equipment wherever possible in the program, recognizing that opportunities for innovation or the presence of challenging conditions will drive the inclusion of new designs.

C.2.9.1 ANNUAL PROGRAM PLAN (APP)

The APP is essential to the communication between the Contractor and NSF. The APP developed by the Contractor establishes the proposed work, cost, resource loaded schedule and related information for each contract year. The Contractor shall work directly with researchers, NSF program managers, vendors, and other support providers to develop the APP. The APP serves as the baseline for each year with the expectation that changes will be necessary to adapt to changes in tasking, the operating environment, and other factors. The Contractor shall present APP information by region and by the Work Breakdown Structure used by the RSL program to manage work within eight portfolios.

The Contractor shall submit an annual program plan (APP) describing planned tasks and expected costs. The APP shall include activities necessary in support of science projects, as laid out in project plans, as well as project plans for additional portfolio level tasks or activities in support of science, such as facilities operations, maintenance and upgrades, support for IT and communications, special projects to improve program capabilities, and a summary of aircraft contracts and planned flight hours in support of projects. Modifications to the APP are expected in response to changing plans and circumstances. The Contractor shall be in frequent contact with the NSF Contracting Officer's Representative (COR) and any additionally identified technical points of contact (POC) in order to make adjustments pursuant to the terms and conditions of the contract. The ARC typically funds projects for one to five years, with the average being three years. The overall portfolio of projects will evolve during the term of this contract. As projects end and new projects begin, the geographic balance may change, and changing science themes and foci will tend to bring with them new requirements and challenges. The Contractor shall accommodate the evolving science program.

C.2.9.2 INTEGRATED MASTER SCHEDULE

The RSL program managers use an IMS in Oracle's Primavera Planner version P6 for all program activities. The Contractor will maintain systems that provide operations data output that can be uploaded

to the RSL IMS. The Contractor must have an accurate and responsive project cost accounting capability to provide actual costs to the IMS and updates to the schedule in a timely manner.

C.2.9.3 SHARED DOCUMENTATION

Transparent communication is essential to the efficient operation of this contract. RSL program managers and select other staff will need access to information in real time. The Contractor shall provide NSF with secure, online access to current information on Standard Operating Procedures, the schedule of field deployments, schedule of Greenland flight operations, drawings and plans of current and planned infrastructure, environmental compliance documentation, distribution of communications equipment including personal locator beacons, safety management standards and hazard plans, incident reports, site-specific accident prevention and response plans, emergency call lists, and other documents for management collaboration. NSF recognizes that different tools may be appropriate for document sharing in the science portfolio (C.2.3.1) versus the facilities and operations portfolio (C.2.4). The Contractor's online document sharing approach shall also support sharing very large documents and groupings of related files.

C.2.9.4 EXTERNAL COORDINATION

The conduct of research in the Arctic often requires permission from at least one federal or international governmental institution to provide access to land or facilities. The Contractor shall be responsible for obtaining all permits for activities of the Contractor in support of research programs. PIs are responsible for obtaining permits to conduct their research projects. The Contractor shall provide information to researchers that will facilitate their application for required permits. The Contractor shall compile information about the permitting process and requirements with relevant points of contact for each region where projects work in the Arctic. This permitting information shall be available on the Contractor's RSL program-specific website and be kept up to date with links to organizations, contacts and forms.

The Contractor shall coordinate with other Federal agencies, other NSF Contractors, other national programs, and university or private operators, to implement the most effective operations planning of NSF-supported projects. The [Forum of Arctic Research Operators](#) (FARO) organizes the many international operators with facilities or assets in the Arctic. [INTERACT](#) is a consortium of terrestrial research stations in the Arctic. [Isaaffik.org](#) is an interactive collaboration portal for research within Greenland and the Kingdom of Denmark. The Contractor should stay informed and build partnerships through these and other organizations to offer NSF safe, efficient, and cost-effective research support.

The Contractor is required to conduct activities in a manner consistent with the "[Principles for Conducting Research in the Arctic](#)." The Contractor may be tasked by NSF to support outreach efforts by PIs to inform and involve Arctic residents of research plans and results, which may include travel by PIs to villages or inclusion of Arctic residents in field expeditions. The Contractor may be tasked to assist with gathering data and images for presentations, developing outreach materials about the program such as posters and handouts, and assisting with communications to researchers

C.2.9.5 PERFORMANCE MANAGEMENT

The Contractor shall provide an administrative structure, staff and office environment to meet the administrative requirements of this contract. The administrative and technical staff shall have the expertise to implement or supervise each element of the Statement of Work. The science support required under this contract is very specific in nature and it is imperative that the Contractor provide and retain personnel with an understanding of science projects and remote fieldwork as well as a strong approach to project management.

Projects shall be managed using best practices in project management including a written scope of work, budget, detailed schedule, risk assessment, a management plan, an assigned project manager, and a POC at NSF. Project management shall include engaging with stakeholders and managing to the scope, schedule and budget for each project.

The Contractor shall provide a monthly progress report on the APP including the Estimate at Complete, Percent Complete, Variance, and Earned Value. As requested by the CO or COR, project controls information, monthly reporting, such as labor histograms for construction projects and other project management metrics shall be provided to NSF. Because of the dynamic nature of the work and the operating environment, changes are often needed to modify the scope, cost or schedule of the project. The Contractor shall include a summary of changes and budget information in the annual report, including EAC analyses and cost variance reports.

The Contractor shall provide a change management system to document project information necessary for the CO or COR to evaluate proposed changes to a project using COTS tools such as UNIFIER or other software with similar change management functionality. The Contractor shall manage changes to projects and shall work with the COR to ensure that changes to projects have prior approval pursuant to the terms and conditions of the contract.

C.2.9.6 PROCUREMENT & PROPERTY MANAGEMENT

The Contractor shall manage all property under the contract; real and personal. This responsibility shall include compliance with property reporting, transfer of property and records from the incumbent Contractor under NSFDACS11C1675, and transfer at contract expiration according to NSF instructions.

A field equipment storage, maintenance, and distribution tracking system is required that maintains efficiency, flexibility, and cost-effective support of field programs at widely dispersed sites for projects throughout the Arctic. The Contractor shall develop strategies and systems to position equipment in the most cost-efficient location(s) while maintaining flexibility to place NSF equipment where it shall be available for use in the field without delaying science work. The Contractor is tasked with all aspects of inventory management including procurement, tracking, shipping, receiving, maintenance, repair, control, and analysis of needs. The Contractor shall develop and maintain asset life-cycle replacement (LCR) plans to be included each year within the Annual Program Plan and shall include planned replacements for accountable and capitalized real property buildings and installed equipment; heavy equipment, vehicles, and portable equipment, Information Technologies and Communications equipment; and science support equipment. The LCR plans shall provide all information required to justify planned replacement costs for the program year. The current equipment inventory is provided in Appendix J: Property Inventory Report, 2018.

C.2.9.7 EVALUATION AND REPORTING

Work under this contract is dynamic. The Contractor shall utilize effective project planning and controls methodologies to manage both science and facilities projects. This includes providing valid estimates, forecasting and tracking multi-year efforts, enabling informed capacity planning, and maintaining awareness of progress and trends. The Contractor shall implement these methodologies in ways that improve communication with NSF about the Contractor's plans and performance and that are compatible with NSF's project management systems. The Contractor shall develop a Quality Assurance/Quality Control plan for each portfolio area and shall work with NSF to establish performance metrics.

The Contractor shall conduct post-field evaluations ("outbriefs") for all supported science projects to evaluate the quality of support and initiate planning for future research projects. The outbriefs must be documented and provided to NSF in the annual report as described under the Award/Contract Section F, Deliveries or Performance with a summary of the outbrief scores by project. The outbrief shall include an assessment of days of research lost due to the Contractor. If this process determines areas of weakness, the Contractor shall make written recommendations on process improvements. The COR may also recommend corrective actions. The Contractor shall provide personnel who understand the basic scientific issues that drive logistics needs and who have the knowledge and experience to meet requirements identified by the PIs and NSF.

The Contractor shall develop and maintain a contract management database capturing all proposed and approved facility, infrastructure, and maintenance upgrade projects in a manner that can be sorted by portfolio, geographic region, project location, and activity and related to planned and actual budgets for the activities. This database shall be the base for reporting project performance and tracking progress. The Contractor shall track personnel days in the field by person type (e.g., researcher, Contractor, media, DV, etc.), location, duration in the field and other useful measures. The Contractor shall track performance on cost control, scheduling accuracy, estimating accuracy, and other measures to add to the qualitative assessment of research and infrastructure project performance. The Contractor shall provide the status of construction activities under the Weekly Facility Report.

Reports from the performance program may be used in meeting NSF's reporting requirements, including the Government Performance and Results Act (GPRA) and the Contractor Performance Assessment Reports System (CPARS). One GPRA-required metric measures days of research lost due to Contractor performance. This and other metrics regarding program trends and forecasts for future logistics and facility needs shall be kept by the Contractor and provided to NSF in the annual report. The Contractor shall provide information in each annual report on their performance under each category of CPARS to contribute to NSF's assessment.

C.2.10 PHASE-IN

The Contractor shall perform all services necessary to prepare for APP1 including but not limited to preparation of the program plan & cost estimate, negotiation of the APP1 estimated cost plus fixed fee (as described above under Section C and below under Section F) and working with all stakeholders to begin APP1 in a timely manner.

C.2.11 PHASE-OUT (OPTION)

The Contractor shall perform all services necessary to transition the program to the follow-on ARSLS awardee or if there is not a follow-on contract to the Government. Services under the Phase-Out Period shall include but not be limited to the transition of all ARSLS databases, transfer of Government Furnished Property & Contractor Acquired Property, and other ARSLS program transition services as needed. The Contractor shall work in good-faith with the awardee of the ARSLS follow-on effort.

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STATEMENT OF WORK APPENDICES (See also Section J)

Appendix A: Total Number of Contractor Supported Science Projects	(Section C.2.2)
Appendix B: Geographic Distribution of Contractor Supported Science Projects	(Section C.2.2)
Appendix C: Projects & Locations, 2016 and 2017	(Section C.2.2)
Appendix C1: Contractor Supported Projects, 2016	(Section C.2.2)
Appendix C2: Contractor Supported Projects, 2017	(Section C.2.2)
Appendix D: NSF vision for Research Support & Logistics at Summit Station	(Section C.2.2.2)
Appendix E: Contractor Support Science Project Funding Sources 2016	(Section C.2.3.1)
Appendix F: Construction and Maintenance Projects, 2016 and 2017	(Section C.2.4.2)
Appendix G: Aviation Support 2016	(Section C.2.5)
Appendix H: Greenland Operations Air Support, 2016	(Section C.2.5)
Appendix I: Physical Qualification Standard Operating Procedure	(Section C.2.8)
Appendix J: Property Inventory Report, 2018	(Section C.2.9.6)
Appendix K: Summit Emissions Report, 2017	(Section C.2.4.3)

Hyperlinks:

National Science Foundation	(Section C.1)
Arctic Sciences Section	(Section C.1)
Arctic Research Support and Logistics	(Section C.1)
Arctic Research Mapping Application	(Section C.1)
IARPC Collaborations	(Section C.1)
Arctic Logistics Report 1997	(Section C.1)
Arctic Logistics Report 2003	(Section C.1)
Arctic Logistics Report 2013	(Section C.1)
Arctic Research Consortium of the U.S.	(Section C.1)
Map of the Arctic	(Section C.2.2)
UIC-Science	(Section C.2.2.1)
Toolik Field Station	(Section C.2.2.1)
Chukotka Science Support Group (Russia)	(Section C.2.2.4)
Camp Barneo	(Section C.2.2.5)
MOSAiC Observatory	(Section C.2.2.5)
CPS Polar	(Section C.2.3.1)
Arctic Research Opportunities	(Section C.2.3.1)
Arctic Observing Viewer	(Section C.2.3.1)
Online Remote Monitoring System	(Section C.2.4)
Vectrus Services A/S	(Section C.2.4.3)
Science Coordination Office	(Section C.2.4.3)
Summit Site Plan	(Section C.2.4.3)
Summit Virtual Tour	(Section C.2.4.3)
Executive Order 13693	(Section C.2.4.5)
NSF Electronic Reading-room	(Section C.2.4.5)
Alternative fuel and vehicle information	(Section C.2.4.5)
Online System Performance Monitoring	(Section C.2.7)
Arctic Field Risk Management Workshop	(Section C.2.8)
Physical Qualification Process	(Section C.2.8)
Forum of Arctic Research Operators	(Section C.2.9.4)
INTERACT	(Section C.2.9.4)
Isaaffik	(Section C.2.9.4)
Principles for Conducting Research in the Arctic	(Section C.2.9.4)

SECTION D - PACKAGING AND MARKING

D.1 GENERAL

Unless otherwise specified, all items shall be packaged and marked in accordance with accepted commercial industry standards and practices. If magnetic media is involved, packaging shall be clearly marked identifying the contents as such and include a warning for protection against exposure to magnetic fields or temperature extremes.

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SECTION E - INSPECTION AND ACCEPTANCE

E.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)		
<u>FAR</u> <u>Number</u>	<u>Title</u>	<u>Date</u>
52.246-3	INSPECTION OF SUPPLIES—COST-REIMBURSEMENT	MAY 2001
52.246-5	INSPECTION OF SERVICES—COST-REIMBURSEMENT	APR 1984

E.2 INSPECTION AND ACCEPTANCE

Inspection and acceptance of reports and/or other deliverables under this contract shall be accomplished by the Contracting Officer's Representative (COR) designated in Section G.5 of this contract or other such person as may be designated in writing by the Contracting Officer (CO).

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SECTION F - DELIVERIES OR PERFORMANCE

F.1 NOTICE LISTING CONTRACT CLAUSES INCORPORATED BY REFERENCE

The following contract clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-2 for an internet address (if specified) for electronic access to the full text of a clause.

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)		
<u>FAR</u> <u>Number</u>	<u>Title</u>	<u>Date</u>
52.242-15	STOP-WORK ORDER ALTERNATE I (APR 1984)	AUG 1989
52.247-34	F.O.B. DESTINATION	NOV 1991

F.2 PERIOD OF PERFORMANCE

F.2.1 Phase-In. The Contractor shall provide the services and supplies as described under Section C, entitled "Phase-In" from October 1, 2019 through January 31, 2020.

F.2.2 Base Period. The Contractor shall provide the services and supplies as described under Section C, from February 1, 2020 through January 31, 2024.

F.2.3.4 Option Period 1. If awarded, the Contractor shall provide the services and supplies as described under Section C, from February 1, 2024 through January 31, 2026.

F.2.3.6 Option Period 2. If awarded, the Contractor shall provide the services and supplies as described under Section C, from February 1, 2026 through January 31, 2028.

F.2.3.8 Option Period 3. If awarded, the Contractor shall provide the services and supplies as described under Section C, from February 1, 2028 through January 31, 2029.

F.2.4 Phase-Out Option Period. The Contractor shall provide the services and supplies as described under Section C for four consecutive months following the last APP year.

F.2.5 Option to Extend Services up to Six (6) Months. The Government may exercise the Option to Extend Services pursuant to FAR Clause 52.217-8, for a period not to exceed six (6) months.

F.3 ANNUAL PROGRAM PLAN

F.3.1 The Contractor shall submit an Annual Program Plan (APP) recommending the approach and resources needed for meeting all operations and logistics functions, describing planned tasks and estimated costs. The APP shall include activities necessary in support of science projects, as laid out in project plans, as well as project plans for additional tasks in support of science, such as facilities operations, maintenance and upgrades, support for IT and communications, special projects to improve program capabilities, program management and administration, health, environment and safety, and a summary of aircraft and vessel contracts in support of projects. Modifications to the APP are expected in response to changing plans and circumstances. The Contractor shall be in frequent contact with the Contracting Officer's Representative (COR) and any additionally-identified technical points of contact (POC) to make these adjustments.

F.3.2 The ARC typically funds research grants for one to five years, with the average being three years. The overall portfolio of scientific research projects will evolve during the term of this contract. As projects end and new projects begin, the geographic balance may vary, and changing science themes and foci will tend to bring with them new requirements and challenges. The Contractor's support shall accommodate the evolving science program. Examples of the types and kinds of support are provided in Section C, SOW, Appendices C.1 and C.2.

F.3.3 The APP shall cover the upcoming operation contract year and shall address, but not be limited to, the following:

- a) Programmatic Goals
- b) Summary information about the scope of work
- c) Highlights of major projects in any portfolio
- d) Field Activities – detailed information organized by project and by region
- e) Detailed budget estimates by project and by location
- f) Detailed APP cost and resource-loaded schedule and IMS upload file
- g) Detailed science project plans and estimates by project, portfolio and location
- h) Detailed operations project plans and estimates by project, portfolio and location
- i) Detailed plan and budget for the Arctic Research Mapping Application and Arctic Observing Viewer activities
- j) An Energy Management Plan that describes fossil fuel, renewable, and other energy sources used throughout the program and efforts to reduce energy consumption and the use of fossil fuels
- k) Summary budget estimates by portfolio and cost account; by portfolio, project, cost account, and resource; by project, portfolio, cost account and resource; cost performance charts and schedules by portfolio
- l) Staffing and organization plans to include Program Participants by participant type and location
- m) Summit Station snow management plan to include equipment and runtime hours for skiway construction, skiway maintenance, site snow clearing, and berm construction and maintenance
- n) Aviation Plan to include a description of cost savings enabled through shared use of airframes and scheduling efficiencies, as well as cost savings due to contract vehicle. Include illustrations on Annual Plan for Shared Use Aircraft Services by region and airframe and Planned Flight Hours per Project by aircraft type and airframe
- o) Vessel Plan to include planned use of vessel services by region and vessel with summarized proposed vessel operations and cost savings associated with the recommended approach
- p) IT & Communications plan to include tasking summary and cost detail per project and per location with planned tasking hours, system maintenance and computer help desk support plans, site staffing plans, and information security support plans
- q) Risk assessment of science or operations projects with elevated safety, cost or schedule risk including risk to individuals, assets, the environment, or project execution plans
- r) Life Cycle Asset Replacement Plans for accountable and capitalized assets
 - 1) Buildings and Installed Equipment or Systems and Portable Equipment
 - 2) Vehicles, Heavy Equipment, ATVs, and Snow Machines
 - 3) Information Technologies and Communications Assets including computers, laptops, satellite phones, and other critical equipment
 - 4) Science Support Assets including boats, motors, trailers, drones, and other higher cost critical equipment

F.3.4 The draft and final APP and all supporting files shall be provided in Adobe Acrobat format. All native files containing spreadsheets, graphs, presentation slides, schedules and other supporting appendices, attachments, and exhibits shall also be provided. The target date for the Draft APP is December 15 each year and the Final version is due January 15. The Annual Program Plan runs from February 1 thru January 31 of the following year.

F.3.5 New scope and proposed changes in objectives or activities that alter the approved APP will be provided in writing to the COR and Contracting Officer (CO) for approval through the Change Management System prior to implementation according to the below schedule. Change Requests must include a narrative justification, market research, document reviews by outside experts, and describe the cost impact in sufficient detail for adequate review and decision-making. For proposed new contractor acquired property, the Contractor shall explicitly demonstrate the following under the respective change request: 1) the proposed contractor acquired property is in the Government's best interest; 2) the overall benefit to the acquisition significantly outweighs the increased cost of administration, including ultimate property disposal; 3) providing the property does not substantially increase the Government's assumption of risk; and 4) the Government's requirement cannot otherwise be met. The Contractor shall certify the cost or pricing data if the proposed cost change meets or exceeds the certified cost or pricing threshold and the cognizant NSF Contracting Officer does not determine that an exception to certified cost or pricing data applies. The Contractor shall promote subcontractor competition and provide competitive quotes and other supporting cost data for each proposed change request. The Contractor shall provide a description of reasonable price determination for each proposed change request. All changes shall be reported in the next required period status report, in updates to the IMS, and in the next APP modification, as appropriate.

Single Action Description	NSF Approval Required
Any action that results in new scope * or a net Plan total that goes above the approved amount	CO written approval (after COR concurrence)
Actions between <\$40,000> and \$40,000	COR concurrence on Change Requests
Increases at or above \$40,000	CO written approval (after COR concurrence)
Reductions at or below <\$40,000>	COR written approval** to include application of available funding***

* New scope is defined as activities which were not included in the approved Program Plan.

** The CO will make a determination on a case-by-case basis as to the treatment of the reduction in fixed fee and the payment schedule. Generally, the payment schedule will be revised immediately via email and/or through the next contract modification, whichever the CO deems appropriate.

*** Generally, the funding will be applied to the approved Program Plan costs as incremental funding.

F.4 REPORTING REQUIREMENTS

During the performance of this contract the Contractor shall submit the following reports and maintain the specified data resources. The due date of first submission, frequency, and distribution are described in tables in Section F.5.

F.4.1 MONTHLY PROGRESS REPORT

The Contractor shall prepare and furnish a Monthly Progress report. The report shall show the status of all major events and activities identified in the Contractor's approved program plan and shall report the expenditure of funds for both the period of the report and cumulatively for the entire contract period. The report format shall follow the agreed upon WBS structure. Deviation from the expenditure level estimated for each WBS element or sub-element in the approved program plan shall be shown. It shall also present in narrative form a summary of all work performed during the period, including technical status, accomplishments, problems encountered, plans for the upcoming period, and any action required on the part of the Foundation or another Government agency. The reports shall include the following elements:

- a) Report of labor FTEs by location and portfolio with deviation from proposal and explanatory notes.

- b) Progress slides with EAC analysis by portfolio that include actual cost variance from APP baseline and variance from current target that includes approved changes; listing of pending and approved change requests; potential risks; schedule development methodology and assumptions;
- c) Variance report by portfolio, location, project with budgeted total cost, actual total cost to date, At Completion total cost, dollar variance, and percent variance
- d) Progress schedule with rollup values by Portfolio, Location, Project, Activity showing % Complete, Start and Finish dates, Earned Value, Baseline Budgeted Cost, Budget at Complete, Actual Cost, Estimate at Complete, Baseline Variance at Complete, and progress Gantt chart
- e) Master schedule update import file

The report shall be submitted electronically two business days before the monthly ARSLS program review meeting. A copy shall be forwarded to the CO and the COR.

F.4.2 ANNUAL REPORT

F.4.2.1 The Contractor shall prepare and submit an Annual Report (AR) that summarizes the Contractor's performance of the work defined in the APP including subsequent modifications. It shall be used to inform NSF and guide the Contractor in the preparation of subsequent APPs, and be prepared in a format following the agreed upon WBS. The report shall also include a summary of key quantitative factors that are used to measure performance in the Contractor's quality assurance program, the Contractor Performance Assessment Reports System (CPARS), and the Government Performance and Results Act (GPRA), including GPRA days lost and describing accomplishments in the following areas: Quality, Schedule, Cost, Program Management, Small Business Utilization and Reporting.

F.4.2.2 All projects undertaken in support of research or facilities shall be based on a project plan. The AR will include reporting on the progress or outcomes of project plans. These reports shall include, but not be limited to, project scope, costs, sketch maps, engineering plans, planning schedules, and diaries of events, resource allocations and use statistics. For multi-year projects, reports shall be provided annually, and on completion of the project.

The AR shall cover the operational contract year and shall address, but not be limited to, the following:

- a) A summary of the work performed
- b) Summary statistics of the scope of work
- c) Include a footprint report of the projects with numbers of personnel supported and for number of days with other statistics such as average field days per region, numbers of personnel by participant types, average field days by participant type, numbers of science project awards, numbers of awards by region, contractor supported science projects by funding source, Agency-funded science projects by program,
- d) Include staffing reports by project and by location
- e) A summary of projects support by region, portfolio, and funding program
- f) A summary of project support provided to reimbursable projects
- g) A summary of contractor supported field projects and environmental compliance only projects
- h) Detailed reports on science and operations projects by project, portfolio, and activity
- i) Provide a cost variance report showing actual costs vs. APP baseline target and final estimate at completion including approved changes
- j) Provide a Baseline and Budgeted Total Cost vs EAC Analysis with:
 - 1) Year-end Funding Analysis Summary
 - 2) Year-end Baseline Analysis Summary (Baseline vs. EAC)
 - 3) Year-end Change Summary by Portfolio
 - 4) Change Request Summary Table
 - 5) Year-End Cost Analysis by Portfolio
 - 6) Year-End Cost Analysis for Reimbursable Projects
- k) Include science project outbrief reports with comments and a summary of the outbrief scores

- l) A report on the Annual Safety Management Plan including a summary of ARSLS Program incidents by region, location, and project to include incidents involving injuries, damage or loss to personnel, assets, the environment, and project execution
- m) A summary of ARMAP and AOV usage and relevant metrics, such as students or fellows working on ARMAP and AOV development
- n) A report on telecommunications allocation, usage, downtime and incidents by location and system
- o) A report on the Energy Management Plan
- p) A Summit Station Emissions Report that addresses emissions at the site including power generation, aircraft, vehicles and other sources and captures efforts to reduce site emissions
- q) A Summit Station Snow Management Report including equipment used and actual runtime hours for skiway construction, skiway maintenance, site snow clearing, and berm construction and maintenance
- r) Summary reports on air support to include fixed-wing and helicopter support by project showing airframe used and support costs, air support costs by vendor, air support flight hours by vendor, air support cost and flight hours by region and airframe, airframe usage percent based on flight hours
- s) Identify the strengths and weaknesses in the APP development and implementation

F.4.2.3 One copy each of the reports shall be forwarded by March 15 following the APP year to the CO and COR.

F.4.3 PROJECT AND OPERATIONS PLANS AND REPORTS

F.4.3.1 The Contractor shall provide a weekly facilities report summarizing facilities upgrades, operations and maintenance, IT&C, renewable energy, and science construction projects in progress highlighting accomplishments, current activities and near-term plans including schedule updates (to include actual start and finish dates, resources, and actual hours expended) with two-week look-ahead, progress photos, and significant weather information, risks, challenges and resolutions. The report shall include work order data summarizing Computerized Maintenance Management System (CMMS) key performance indicators (KPIs), a listing of assets out of service by region and location, and highlight significant CMMS administration activities. The report shall also include weekly progress of the Greenland Inland Traverse (GrIT) activities including off-season planning and logistics and on-site activities. Weekly reports shall be arranged by region, location and project, and be provided no more than one week past the reporting period.

F.4.3.2 The Contractor shall provide a schedule of science project deployments in the APP and shall provide biweekly reports throughout active periods on science projects in the field as an information and outreach tool. The reports shall be arranged by region, location, and project for both Arctic and supported non-Arctic projects and shall provide summary information about the projects with progress status, current and planned activities, significant support considerations and representative photos. Include a summary worksheet providing information such as award number, principle investigator, cognizant NSF program manager, organization, field location, project manager, estimated or actual dates on site, notes on status, and links to project information on ARMAP, management support season plans, and Life Of Project (LOP) budget estimates.

F.4.3.3 The Contractor shall provide a list of people traveling to Greenland under NSF auspices for transmittal to the Government of Greenland to cover the obligation to provide Search and Rescue insurance.

F.4.3.4 The Contractor shall provide GrIT daily status updates during active operations to include site conditions, significant plans, current activities and progress, and risks, challenges, and resolutions when GrIT is active.

F.4.3.5 The Contractor shall provide weekly Summit site and science reports. The Site Report shall include but not be limited to data on period population and staffing, daily temperatures, wind speed

and direction, communications usage, water production and usage, equipment operations runtime and usage, fuel and gasses inventory and consumption by equipment, power generation hour meters and period output, skiway conditions and status, and aircraft support. The Science Report shall inform on activities performed by or on behalf of the science technicians in support of science projects to include but not be limited to weather data, all scientific sampling, specifying data streams that are active, any gaps in data, and sampling activities completed as well as current and planned progress on repairs and maintenance of project instruments and related equipment. The report should include significant operations and science support task information and representative photos. Reports shall be provided no later than one week past the performance period.

F.4.3.6 The Contractor shall develop or update existing site, facility, infrastructure drawings, and operation and maintenance manuals. Primary systems including structures, power and water, shall be documented and an inspection and maintenance plan developed for each. Long-Range Facilities Plans shall be developed or existing plans updated for Summit Station, Thule Air Base, Kangerlussuaq, Raven Camp, and Toolik Field Station. Upon annual delivery of updated site plan drawings, the drawings for Summit Station shall be posted on the [Summit Station website](#). The updated drawings for Toolik Field Station shall be provided to TFS for their posting on the [TFS website](#).

F.4.3.7 The Contractor shall provide Standard Operating Procedures (SOPs) for summer and winter, as well as shut-down and turn-on to support unmanned periods with annual review and updates for all primary systems and equipment and major operations functions and activities. Reports shall include but not be limited to Utqiagvik, Toolik Field Station, Summit Station, Kangerlussuaq, Raven Camp, and all other (including international) sites. Include all operations or equipment that require specific skills and knowledge to perform at an appropriate level in the specific field environment and to prevent damage to assets or operations, prevent personal injuries or incidents concerning health or the environment, or to prevent excessive cost or schedule delays to science projects and field operations.

F.4.3.8 The contractor will provide a robust risk management program. Each year the Contractor will deliver an All Hazards Plan, a Safety Management Action Plan, and Emergency Action Plans for key locations in Alaska and Greenland described in C.2.8.

F.4.3.9 The Contractor shall propose field safety training opportunities for the NSF research community to address specific training needs for fieldwork. This is anticipated to be no fewer than three sessions per year at locations in the U.S. convenient to research personnel or training providers. The number of multiple sessions is “anticipated” as identified in Section C.2.8. These are solely to ensure that all applicable recipients of the training are afforded the opportunity to attend. Sessions may be general in nature, providing a basic background, or if appropriate, may address specific skills needed such as small boat use, helicopter safety, glacier travel, or safety specific to the location and conditions that the participants will potentially encounter in the field. The field safety training curriculum shall be approved by NSF and be responsive to researcher requests and demonstrated needs for training.

F.4.3.10 The Contractor shall provide an annual leased space report. The leased space report shall list all leased space reimbursed under this contract. For each leased space, the Contractor shall provide the following:

- a. Description of purpose/need of leased space.
- b. Address of leased space.
- c. Lessor.
- d. Lessee.
- e. Basic terms of lease including length of lease, options, rates, units of measure, quantities, etc.
- f. Square footage of office space leased.

- g. Square footage of warehouse space leased.
- h. Square footage of other space leased (change unit of measure if appropriate).

F.4.4 PROPERTY REPORTING

F.4.4.1 The Contractor shall prepare and submit an Annual Report (AR) that summarizes

- a. Definitions – As used in this Subsection F.4.4 only:
 1. Accountable property means any item of property acquired by capital lease, or with an acquisition cost of \$5,000 or greater with a useful life of two years or more.
 2. Acquisition cost has the same meaning as defined at FAR Subpart 45.101.
 3. Acquisition date means the Federal Government Fiscal Year that an item of property was accepted for use by the original contracting activity (either government or commercial).
 4. Assignable lease means leases of property that are not otherwise considered capital leases that reserve the rights of NSF, the Contractor, or subcontractor at any tier to unilaterally assign the lease to NSF or another organization selected by NSF.
 5. Capital lease means leases of property with minimum lease payments of \$5,000 or greater, the leased property has a useful life of two years or greater, the minimum lease payment is being reimbursed to the Contractor as a direct cost, and the lease substantially transfers all the benefits and risks of ownership to NSF. Leases that meet one or more of the following criteria shall be considered to substantially transfer all the benefits and risks of ownership to NSF.
 - a) The lease transfers ownership of the property to the Contractor at the end of the lease term.
 - b) The lease contains an option for the Contractor to purchase or otherwise acquire the property at a bargain price.
 6. Capitalized property means any item of property acquired by capital lease with a minimum lease payment of \$25,000 or greater or with an acquisition cost of \$25,000 or greater, and a useful life of two years or more.
 7. Construction-in-Progress means real property that is being constructed, but has not been accepted by NSF or is not otherwise ready for use.
 8. Deferred maintenance means maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.
 9. Minimum lease payment means the sum of all payments required for the right to use property for a stated period. This includes but is not limited to:
 - a) The minimum rent required during the lease term.
 - b) Any payment(s) or guarantee(s) required at the end of the lease term, including:
 - i. any amount stated to purchase the leased property;
 - ii. any amount stated to make up any deficiency from a specified minimum; and
 - iii. any amount payable for failure to renew or extend the lease at the expiration of the lease term.
 10. Equipment has the same meaning as defined at FAR Subpart 45.101.
 11. Government property has the same meaning as defined at FAR Subpart 45.101.
 12. Half-year convention means a method of calculation that recognizes a half-year of depreciation for the year a property item is available for use as determined by its acquisition date, and the year following the end of its useful life.
 13. In-service date means the month and year that NSF received title to an item of property.
 14. Maintenance means the act of keeping property in acceptable condition. It includes normal repairs, replacement of parts and structural components needed to preserve the property so that it continues to provide acceptable services and achieves its expected life. Maintenance excludes activities aimed at expanding the capability of property or otherwise upgrading it to serve needs different from, or significantly greater than, those originally intended.
 15. Material has the same meaning as defined at FAR Subpart 45.101.
 16. Property has the same meaning as defined at FAR Subpart 45.101.
 17. Real property has the same meaning as defined at FAR Subpart 45.101.

18. Net Gain or Loss means the difference between the net book value and the amount realized on disposal, retirement, sale, exchange or donation of any particular item of property.
19. Software means the application and operating system programs, procedures, rules, and any associated documentation pertaining to the operation of a computer system or program.
20. Commercial Off-the-Shelf Software (COTS) means software that is purchased (including licensed software) from a vendor and is ready for use with little or no change, for which the purchase price is being reimbursed to the Contractor as a direct cost.
21. Contractor-Developed Software means software that the cost for development, including but not limited to cost for design, programming, installation, documentation, and/or training, is being reimbursed to the Contractor as a direct cost.

b. Equipment

1. On or before July 15 and October 15 each year, the Contractor shall submit to the Foundation the following reports for all equipment identified as Government property in the custody of the Contractor (including equipment assigned to subcontractors and grantees), and classified as either accountable property or capitalized property.
 - a) A complete inventory of equipment as of June 30 and September 30 respectively.
 - b) A complete inventory of equipment for which the Contractor assumed custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
 - c) A complete inventory of equipment for which the Contractor was relieved of custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
2. These reports shall, at a minimum, include the following data:
 - a) NSF Property Tag Number
 - b) Equipment Description
 - c) Make and/or Model
 - d) Manufacturer
 - e) Manufacturer's Serial Number
 - f) Purchase Order/Subcontract No., Government Transfer Order No. or added by physical inventory
 - g) Indicate if added by physical inventory or through Government Transfer Order
 - h) Acquisition Date
 - i) In-Service Date
 - j) Acquisition Cost or Minimum Lease Payment
 - k) Lease Term (if applicable)
 - l) Periodic Lease Payment (if applicable)
 - m) Lease Payment Period (if applicable)
 - n) Location (Geographic, or Vessel, Aircraft or Spacecraft Location)
 - o) Indicate if on Loan
 - p) Federal Supply Classification (FSC)
 - q) Annual Depreciation Expense (excluding assignable leases)
 - r) Accumulated Depreciation (excluding assignable leases)
 - s) Net Book Value (excluding assignable leases)
 - t) Amount Realized on Disposal, Retirement, Sale, Exchange, or Donation (excluding assignable leases)
 - u) Net Gain or Loss (excluding assignable leases)
3. Equipment that is considered sensitive or hazardous and valued at less than \$5,000 may be included in this inventory as a means of control.
4. The straight-line method of depreciation shall be used to calculate depreciation expenses. Useful life shall be established in accordance with Internal Revenue Service Depreciation Guidelines. A half-year convention for recognizing depreciation shall be employed. Changes in useful life or salvage value shall be treated prospectively, and accounted for in future periods. No changes shall be made to previously recorded depreciation.

5. These reports shall be segregated into four parts.
 - a) Equipment identified as accountable property.
 - b) Equipment identified as capitalized property except property acquired by capital or assignable lease.
 - c) Equipment acquired by capital lease.
 - d) Equipment acquired by assignable lease.
 6. The Contractor shall submit the Federal Automotive Statistical Tool (FAST) Report online annually in accordance with FMR 102-34 Motor Vehicle Management as requested by the NSF Property Administrator; this electronic report is submitted on or before December 15.
- c. Real Property
1. On or before July 15 and October 15 each year, the Contractor shall submit to the Foundation the following reports for all real property identified as Government property in the custody of the Contractor (including real property assigned to subcontractors and grantees) and classified as either accountable property or capitalized property.
 - a) A complete inventory of real property as of June 30 and September 30 respectively.
 - b) A complete inventory of real property for which the Contractor assumed custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
 - c) A complete inventory of real property for which the Contractor was relieved of custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
 - d) The Contractor shall submit the Federal Real Property Profile (FRPP) on-line annually in accordance with guidelines issued by the Federal Real Property Council (FRPC), pursuant to Executive Order (EO) 13327 as requested by the NSF Property Administrator; this electronic report is submitted on or before December 15.
 2. These reports shall, at a minimum, include the following data:
 - a) NSF Property Number
 - b) Item Description
 - c) Quantity
 - d) Purchase Order/Subcontract No. or Government Transfer Order No.
 - e) Indicate if acquired through Government Transfer Order
 - f) Acquisition Date
 - g) In-Service Date
 - h) Gross Square Footage or Acreage
 - i) Acquisition Cost or Minimum Lease Payment
 - j) Lease Term (if applicable)
 - k) Periodic Lease Payment (if applicable)
 - l) Lease Payment Period (if applicable)
 - m) Function
 - n) Location
 - o) Annual Depreciation Expense (capitalized property excluding land and assignable leases only)
 - p) Accumulated Depreciation (capitalized property excluding land and assignable leases only)
 - q) Net Book Value (capitalized property excluding land and assignable leases only)
 - r) Amount Realized on Disposal, Retirement, Sale, Exchange, or Donation (capitalized property excluding land and assignable leases only)
 - s) Net Gain or Loss (capitalized property excluding land and assignable leases only)
 3. The straight-line method of depreciation shall be used to calculate depreciation expenses. Useful life shall be established in accordance with Internal Revenue Service Depreciation Guidelines. A half-year convention for recognizing depreciation shall be employed. Changes in useful life or salvage value shall be treated prospectively and accounted for in future periods. No changes shall be made to previously recorded depreciation.
 4. These reports shall be segregated into four parts.

- a) Real property identified as accountable property.
 - b) Real property identified as capitalized property except property acquired by capital or assignable lease.
 - c) Real property acquired by capital lease.
 - d) Real property acquired by assignable lease.
- d. Construction-in-Progress
1. On or before July 15 and October 15 the Contractor shall submit to the Foundation a report of all Construction-in-Progress as of June 30 and September 30 respectively.
 2. This report shall, at a minimum, include the following data:
 - a) Identifying Project Number
 - b) Project Description
 - c) Project Location
 - d) Acquisition Cost to Date (material cost to be calculated at the time materials are acquired and/or identified for use in the project)
- e. Deferred Maintenance
1. On or before July 15 and October 15 the Contractor shall submit to the Foundation a report of all deferred maintenance for all property classified as either accountable property or capitalized property as of June 30 and September 30 respectively.
 2. Property, whether classified as accountable property or capitalized property, shall be segregated and reported in the following categories:
 - a) Land
 - b) Buildings
 - c) Other structures and facilities
 - d) Aircraft
 3. Deferred maintenance shall be measured employing either the condition assessment survey method or the total life-cycle cost method as described in Federal Accounting Standards Advisory Board Statement of Federal Financial Accounting Standards No. 6, titled "Accounting for Property, Plant, and Equipment." The reporting method shall be at the Contractor's discretion. The Contractor shall notify NSF of any changes in reporting method.
 4. These reports shall, at a minimum, identify the following data:
 - a) The method of measuring deferred maintenance for each category of property identified in paragraph e.2 of this clause.
 - b) If the condition assessment survey method is selected, the following additional information shall be reported:
 - i. A narrative describing the requirements or standards for acceptable operating condition.
 - ii. A narrative describing any changes in the aforementioned requirement or standards implemented during the reporting period.
 - iii. A rating describing the overall condition of the property employing the following scale: 1 – Excellent; 2 – Good; 3 – Fair; 4 – Poor; and 5 – Very Poor. A rating of 3 – Fair is considered as the minimum acceptable condition.
 - iv. An estimate of the dollar amount of maintenance deferred.
 - c) If the total life-cycle cost method is selected, the following additional information shall be reported:
 - i. A narrative describing the original date of the maintenance forecast and an explanation for any changes to the forecast.
 - ii. The prior year balance of the cumulative deferred maintenance amount.
 - iii. The dollar amount of maintenance that was required for the reporting period.
 - iv. The dollar amount of maintenance that was actually performed during the reporting period.
 - v. The dollar amount of any adjustment to the scheduled amounts of maintenance deemed necessary.

- vi. The ending cumulative balance of deferred maintenance for the reporting period.
- f. Software
1. On or before July 15 and October 15 each year, the Contractor shall submit to the Foundation the following reports for all COTS and approved Contractor-developed software identified as Government property that, in the aggregate, cost \$500,000 or more.
 - a) A complete inventory of software as of June 30 and September 30 respectively.
 - b) A complete inventory of software for which the Contractor assumed custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
 - c) A complete inventory of software for which the Contractor was relieved of custody during the period from October 1 of the previous year through June 30 and September 30, respectively, of the current year.
 2. These reports shall, at a minimum, include the following data:
 - a) NSF Property Number
 - b) Item Description
 - c) Quantity
 - d) Make and/or Model
 - e) Manufacturer
 - f) Manufacturer's Serial Number
 - g) Purchase Order/Subcontract No. or Government Transfer Order No.
 - h) Indicate if acquired through Government Transfer Order
 - i) Acquisition Date
 - j) In-Service Date
 - k) Acquisition Cost
 - l) Useful Life
 - m) Annual Depreciation Expense
 - n) Accumulated Depreciation
 - o) Net Book Value
 - p) Any restrictions on use or convertibility
 3. The straight-line method of depreciation shall be used to calculate depreciation expenses. Useful life shall be established in accordance with Internal Revenue Service Depreciation Guidelines. A half-year convention for recognizing depreciation shall be employed. Changes in useful life or salvage value shall be treated prospectively, and accounted for in future periods. No changes shall be made to previously recorded depreciation.
 4. Acquisition cost shall be determined using the "National Science Foundation Software Property Asset Cost Worksheet." Software acquisition costs do not include the following:
 - a) Any cost associated with preliminary design, evaluation, or testing of alternative software.
 - b) Marketing surveys used in the final selection criteria for software.
 - c) Any costs incurred to convert data, including costs to develop or obtain software to access or convert existing data, and costs to purge, correct or cleanse existing data before it is converted.
 - d) Costs incurred after implementation is completed (e.g., repair of a design flaw or minor upgrades that extend the software's useful life).
 5. Computer software that is integrated into and necessary to operate equipment, rather than perform an application, is considered an integral part of that equipment, and shall not be reported as software.
 6. COTS software acquired as a "bundle" of products requires reasonable valuation of each component. Do not report software components unless the component itself is valued at \$500,000 or greater.
 7. Software in development, but not complete as of the reporting date, for which acquisition costs are anticipated to exceed \$500,000 shall be identified and reported as work-in progress. The software will be valued at the total cost incurred to develop the software as of the reporting date.
 8. Software acquired prior to October 1, 2000 shall not be included in these reports.

- g. The Contractor shall disclose the total book value of individual NSF-owned property equal to or exceeding \$25,000. The disclosure should be included as a separate line item in the balance sheet or as a footnote in the audited financial statements. The inventory listing and a copy of the Contractor's most recent audited financial statements should be submitted electronically to fsrpts@nsf.gov and must be received by DAS no later than August 15 each year. If financial statements are not available electronically, a paper copy should be submitted to:

National Science Foundation
 Division of Administrative Services
 Attention: NSF Property Administration
 2415 Eisenhower Avenue
 Alexandria VA 22314

h. Submission

All reports and inventories identified in this subsection shall be submitted as follows:

1. Original to: National Science Foundation
 Division of Administrative Services
 ATTN: Property Administrator
 2415 Eisenhower Avenue, E 5344
 Alexandria VA 22314
2. One copy to: National Science Foundation
 Division of Acquisition and Cooperative Support
 ATTN: Joseph Cloft
 2415 Eisenhower Avenue, E7345
 Alexandria VA 22314
3. One copy to: National Science Foundation
 Office of Polar Programs, Arctic Sciences Section
 ATTN: Renee Crain
 2415 Eisenhower Avenue
 Alexandria VA 22314

F.4.5 DATA REQUIREMENTS

The following data products will be transferred to the Contractor at contract transition. The Contractor should expect to provide NSF with the executable code, source code, software documentation, and related background information for any data products upon request. The Contractor may change software platforms and approaches and make improvements with feedback from NSF. Many of these data products require secure online access and shared access with NSF or its support contractors. Wherever possible, NSF requires the use of COTS software.

F.4.5.1 The Contractor shall develop and maintain a publicly available Arctic Research Support Website (currently cpspolar.com) that is informative on research locations, contractor capabilities, links to the cargo tracking system, links to available third-party providers, provides field safety training schedules and information, supports field safety risk management, and provides other important information for researchers planning fieldwork. The website shall also provide useful and well-organized information on health, safety, and environmental compliance and best practices for the research community.

F.4.5.2 The Contractor shall receive and maintain a database of research project support information as described in C.2.3.1. This database is a record of arctic research projects going back to 1987. It is the basis of the information presented in the Arctic Research Mapping Application and used in reporting by NSF and the Contractor.

F.4.5.3 The Contractor will receive and maintain a database of available logistics resources as described in C.2.3.1. This information will be useful in developing composite rates and developing project cost estimates.

F.4.5.4 The Contractor shall receive and update a document sharing system for sharing information with NSF about research projects as described in C.2.3.1. Complete project information including the project description, risk assessment, environmental compliance, photos and other related information will be made available to NSF and its supporting organizations. The current system is the Arctic Science Planning Site (ASPS).

F.4.5.5 The Contractor shall support a publicly available online Arctic Research Mapping Application visualization tool that is searchable and that provides project locations of all NSF Arctic science projects and facilities. The current version is ARMAP at <http://armap.org>.

F.4.5.6 The Contractor shall support a publicly available online Arctic Observing Viewer resource that is searchable and provides data collections from Arctic observing and monitoring sites. The current version is AOV at <http://ArcticObservingViewer.org>.

F.4.5.7 The Contractor shall track and report on cost reimbursable projects in a secure online shared document format. This includes tracking reimbursable work performed for projects funded by NSF outside of ARC, by other federal agencies, and for other organizations. The Contractor will initiate the information based on reimbursable work in the APP and performed by third-party providers. NSF will provide information to complete and update the database for each fiscal year. NSF is responsible for collecting the funds.

F.4.5.8 The Contractor shall develop and maintain a secure online shared documentation portal that will provide a means for delivery and collaboration on data, reports, plans, SOPs, schedule of field deployments, schedule of Greenland flight operations, environmental compliance documents, facilities and project drawings and document updates, operations manuals, safety management standards and hazard plans, emergency call lists, shared photos, large document delivery, performance dashboards and other documents as appropriate.

F.4.5.9 The Contractor shall inherit and maintain an online, secure, limited access Computerized Maintenance Management System (CMMS) and use the CMMS to plan, prioritize and track labor, manage and maintain asset and parts inventory, plan purchases, and efficiently manage facilities. The CMMS should use COTS software. The database shall fully capture all data required to properly manage the inventory and maintenance of assets that are owned by or in the care of the NSF. The database shall be accessible at all asset locations either online or other shared access means. The CMMS shall also be used to inform Functional Managers and Program Managers of status and trends for making informed decisions and to support various periodic reports such as the Weekly Facility Report and Annual Report. The database shall support but not be limited to the following functions:

- a) Asset inventory and management of government owned property reporting as defined in F.4.4 and including asset data to support other system functions such as critical parts lists, attachments of critical drawings or manuals and asset status.
- b) Asset Life-Cycle Replacement planning and reporting with condition assessment information
- c) Preventive and Corrective Maintenance planning and reporting including tasks with labor estimates and actuals, parts requirements through parts inventory relationships with estimated and actual costs, schedules, failure analyses and historical records
- d) Management of procedures and tasks with estimated labor and schedules
- e) Management of labor, crafts, and shifts
- f) Management of tools, tool rooms, repair centers, shops, and stock rooms
- g) Spare parts inventory and control with usage history, re-order thresholds, asset relationships
- h) Input and management of service requests and work order control
- i) Display of key performance indicators and dashboards

- j) Capture and reporting of significant operations activities showing actual hours reported by each on-site individual
- k) Capture and reporting of projects for labor hours spent
- l) Ad-hoc reporting on any one or a combination of related functions with ability to store reports in common-use or restricted use libraries

F.4.5.10 The Contractor shall inherit and maintain an online secure limited access Cargo Tracking System (CTS) that captures and tracks data related to research and operations cargo transiting to and from field sites. The site shall enable researchers and staff to generate shipping labels and packing lists and view progress of each piece of cargo.

F.4.5.11 The Contractor shall inherit and maintain a secure, online Remote Monitoring System for display of power meters, generators, BTU meters, waste heat recovery meters, networks and servers, satellite usage, weather data, and real-time site cameras. Displays will include usage reports, power plots and readings for current readings and historic readings ranging from one hour to multiple years with graphics depicting the timeframe and range of the current display. All system data will be maintained for analysis and future program use. The current remote site is [CPS INSITE](#).

F.4.5.12 The Contractor shall maintain a Summit Operations Management Database for capture, tracking, and reporting of Summit critical operations data in support of weekly summit site and science reports to include, but not be limited to, weekly values for water production, fuel inventory and usage, vehicle runtime per major activity, population, and other data useful operations management reports.

F.4.5.13 The Contractor shall inherit and maintain a secure online database of DoD Iridium SIM Cards and Personal Locator Beacons used in the program with access for NSF. The database should be updated continuously with any changes to usage, especially use of PLBs to ensure emergency response has up-to-date information on the deployment of PLBs with projects in the event they are activated. The Iridium SIM Card usage will be tracked and updated throughout the year. Each summer NSF will work with CPS to determine SIM card requirements for the following year for negotiation with DoD at the start of each fiscal year.

F.4.5.14 The Contractor shall implement and manage a secure online Change Management Database for tracking and archival of new scope and proposed changes in objectives or activities that alter the approved APP as described in F.3.5. The database shall contain all information required for Program Management and Contracting Officer decisions including APP line items affected, cost impacts, full descriptions and project information, and supporting document attachments and tracking of status and workflow progress, review notes, contract modification status and final decision. The data shall include all active and approved requests, NSF proposed changes, and potential changes in the development stages. The database shall also display cost sheet information for the current values per line item of the APP plus all approved changes with drill-down and rollup displays of subtotals throughout the WBS code for Original Baseline Budget, Pending Changes, Approved Changes, Target Budget, APP plus Modifications, Current Budget, Current Budget minus Original Baseline Variance, EAC minus Original Baseline Variance, and EAC minus Current Budget Variance. The Change Management system should include a system for logging concurrence and approvals by NSF.

F.4.5.15 The Contractor shall provide Certificates of Insurance or otherwise comply with the provisions for insurance in Section H of this contract. The Contractor shall provide and maintain workers' compensation, employer's liability, comprehensive general liability (bodily injury), comprehensive automobile liability (bodily injury and property damage) insurance, and such other insurance as the Contracting Officer may require under this contract.

F.4.6 LEVEL-OF-EFFORT CERTIFICATION

The Contractor shall provide the cognizant NSF Contracting Officer with a report certifying the level-of-effort expended under this contract. The level-of-effort report (LOE Report) shall be certified by the Contractor's cognizant Contract Manager for this contract. The LOE Report required under this paragraph shall be delivered no later than the 28th day of each month, beginning the second month of each APP (or Phase-In or Phase-Out Period, as applicable). If the due date falls on a weekend or federal holiday, the LOE Report shall be delivered the next federal work day. The LOE Report shall be delivered electronically via email. The LOE Report shall be in .pdf, MS Word or MS Excel format. The LOE Report shall include the following:

- 1) the amount of direct labor hours expended under this contract during the previous month;
- 2) the variance between total expended direct labor hours during the previous month and the estimated direct labor hours listed under Attachment H-3;
- 3) the cumulative direct labor hours expended during the current APP (or Phase-In or Phase-Out period, as applicable);
- 4) the variance between cumulative total direct labor hours during the current APP (or Phase-In or Phase-Out Period, as applicable) and the estimated direct labors for the same period as listed under Attachment H-3;
- 5) the variance between projected total direct labor hours for the entire current APP (or Phase-In or Phase-Out Period, as applicable) and the estimated total direct labor hours for the respective period;
- 6) the final LOE report for the APP (or Phase-In or Phase-Out Period, as applicable) shall provide the information listed above and also the same information by labor category as listed under Attachment H-3.

F.5 SCHEDULE OF CONTRACT DELIVERABLES

F.5.1 ANNUAL PROGRAM PLAN

Deliverable	Frequency	Reference	Due Date
Draft APP	Annually	C.1, C.2, C.2.9.1, F.3	NLT December 15
Final APP	Annually	C.1, C.2, C.2.9.1, F.3	NLT January 15
Project Plans for Science by Location and by Project	Annually	C.2.3.1, F.3.3 (d, e)	With APP and updates with approved changes
Detailed Cost and Resource Loaded Schedule with IMS Upload File	Annually	C.2, C.2.9.1, F.3.3 (f)	With APP and updates with Monthly Progress Reports
Project Operations Plans	Continuous	C.2.3.1, F.3.3 (h)	With APP and updates with approved changes
ARMAP Plan and Budget	Annually	C.2.3.1 F.3.3 (i)	With APP
Energy Management Plan	Annually	C.2.4, F.3.3 (j)	With APP
Staffing and Organization Plans	Annually	C.2, C.2.9.7, F.3.3 (l)	With APP
Summit Snow Management Plan	Annually	C.2.4.3, F.3.3 (m)	With APP

Aviation Plan with Annual Plan for Shared Use of Aircraft Services	Annually	C.2.5, F.3.3 (n)	With APP
Vessel Plan	Annually	C.2.6, F.3.3 (o)	With APP
IT & Communications Plan	Annually	C.2.7, F.3.3 (p)	With APP
Risk Assessment of Science and Operations Projects	Annually	C.2.8, F.3.3 (q)	With APP
Life Cycle Asset Replacement Plans	Annually	C.2.7, C.2.9.6, F.3.3 (r)	With APP

F.5.2 MONTHLY PROGRESS REPORT

Data Requirement	Frequency	Reference	Due Date
Monthly Progress Review	Monthly	C.2.9.5, F.4.1	Two business days before the scheduled program review meeting

F.5.3 ANNUAL REPORT

Reports/Deliverables	Frequency	Reference	Due Date
APP Performance Report (“Annual Report”)	Annually	C.2, C.2.9.5, C.2.9.7, F.4.2	March 15
Project Reports	Annually	C.2.3.1, C.2.9.5, C.2.9.7, F.4.2.2 (a, b, e, f, g, h)	March 15
Footprint and Staffing Reports	Annually	C.2.3.1, C.2.9.7, F.4.2.2 (c, d)	March 15
APP Budget to EAC Analyses and Cost Variance Reports	Annually	C.2.9.5, F.4.2.2 (i, j)	March 15
Science Project Outbrief Reports	Annually	C.2.3.1, C.2.9.7, F.4.2.2 (k)	March 15
Summary of ARSLS Program Incidents and Near-misses	Annually	C.2.8, F.4.2.2 (l)	March 15
Summary of ARMAP and AOV use and relevant metrics	Annually	C.2.3.1 F.4.2.2 (m)	March 15
Telecommunications Allocation and Usage	Annually	C.2.7, F.4.2.2 (n)	March 15
Energy Usage Report	Annually	C.2.4, F.4.2.2 (o)	March 15
Summit Station Emissions Report	Annually	C.2.4.3, F.4.2.2 (p)	March 15

Summit Snow Management Report	Annually	C.2.4.3, F.4.2.2 (q)	March 15
Summary of Air Support	Annually	C.2.5, F.4.2.2 (r)	March 15
Description of Strengths and Weaknesses of the APP Development and Implementation	Annually	F.4.2.2 (s)	March 15

F.5.4 PROJECT AND OPERATIONS PLANS AND REPORTS

Reports/Deliverables	Frequency	Reference	Due Date
Weekly Facility Report	Weekly	C.2.4, C.2.9.7, F.4.3.1	Friday following the Reporting Week
Bi-Weekly Science Report	Bi-Weekly During Fieldwork	C.2.3.1, F.4.3.2	Every other Wednesday
List of Travelers to Greenland for SAR Insurance Report to the Government of Greenland	Each Flight Period	C.2.3.3 F.4.3.3	Prior to Departure for Greenland
GrIT Daily Update Report	Daily	C.2.4.3, F.4.3.4	Daily during Traverse Operations
Weekly Summit Site and Science Report	Weekly	C.2.4.3, F.4.3.5	Every Monday
Toolik Site Plans, O&M Plans, Long-Range Facilities Plan	Annually	C.2.4.2, F.4.3.6	October 15
Summit Site Plans, O&M Plans, Long-Range Facilities Plan	Annually	C.2.4.3, F.4.3.6	October 15
Kangerlussuaq Site Plan, O&M Plans, Long-Range Facilities Plan	Annually	C.2.4.3, F.4.3.6	October 15
Thule Air Base Site Plan and O&M Plan	Annually	C.2.4.3, F.4.3.6	October 15
Raven Site Plans, O&M Plans, Long-Range Facilities Plan	Annually	C.2.4.3, F.4.3.6	October 15
Utqiagvik Operating Procedures	Annually	C.2.4.1, F.4.3.7	March 15
Toolik Maintenance Operating Procedures	Annually	C.2.4.2, F.4.3.7	March 15
Summit Operating Procedures	Annually	C.2.4.3, F.4.3.7	March 15
Kangerlussuaq, TAB & Raven Operating Procedures	Annually	C.2.4.3, F.4.3.7	March 15

All Other (including International) Operating Procedures	Annually	C.2.4.4, F.4.3.7	March 15 after requirement established
All-Hazards Plan	Annually	C.2.8, F.4.3.8	April 15
Emergency Action Plans	Annually	C.2.8, F.4.3.8	April 15
Safety Management Action Plan	Annually	C.2.8, F.4.3.8	March 15
Arctic Field Safety Training Sessions	≥3* per year	C.2.8, F.4.3.9	Spring and Summer
Certificates of Insurance	Annually	H.3, H.5	December
Leased Space Report	Annually	C.2., F.4.3.10	March 15

*The number of multiple sessions is “anticipated” as identified in Section C.2.8. These are solely to ensure that all applicable recipients of the training are afforded the opportunity to attend.

F.5.5 PROPERTY REPORTS

Deliverable	Frequency	Reference	Due Date
Property Report: Equipment	2 per year	C.2.9.6, F.4.4.b	July 15 and October 15
Property Report: Real Property	2 per year	C.2.9.6, F.4.4.c	July 15 and October 15
Construction-in-Progress Report	2 per year	C.2.9.6, F.4.4.d	July 15 and October 15
Deferred Maintenance Report	2 per year	C.2.9.6, F.4.4.e	July 15 and October 15
Software Inventory Reports	2 per year	C.2.9.6, F.4.4.f	July 15 and October 15
Audited Financial Statements	Annually	F.4.4.g	August 15
Motor Vehicle Federal Automotive Statistical Tool (FAST) Report	Annually	F.4.4.b.6	December 15
Federal Real Property Profile Report	Annually	F.4.4.c.1.d	December 15

F.5.6 DATA AND WEBSITE REQUIREMENTS

Deliverable	Frequency	Reference	Due Date
Arctic Research Support Website	Continuous	C.2.3.1, F.4.5.1	February 15

Database of Research Project Support	Continuous	C.2.3.1, F.4.5.2	March 15
Database of Available Logistics Resources	Continuous	C.2.3.1, F.4.5.3	March 15
Science Project Information Sharing System/Portal	Continuous	C.2.3.1 C.2.9.3 F.4.5.4	March 15
Arctic Research Mapping Application Visualization Tool	Continuous	C.2.3.1, F.4.5.5	March 15
Arctic Observing Viewer Application Visualization Tool	Continuous	C.2.3.1, F.4.5.6	March 15
Database of Reimbursable Project Accounting	Continuous	C.2.3.1, F.4.5.7	March 15
Shared Documentation Portal for Facilities Engineering, Maintenance, Construction and Operations	Continuous	C.2.4, C.2.9.3 F.4.5.8	March 15
Computerized Maintenance Management System (CMMS)	Continuous	C.2.4, F.4.5.9	March 15
Cargo Tracking System (CTS)	Continuous	C.2.4, F.4.5.10	March 15
Online Remote Monitoring for Power and other Systems	Continuous	C.2.4, C.2.7, F.4.5.11	March 15
Summit Operations Management Database	Continuous	C.2.4.3, F.4.5.12	March 15
Database of Iridium SIM Card Usage	Continuous	C.2.7, F.4.5.13	March 15
Change Management System	Continuous	C.2.9.5, F.4.5.14	March 15

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SECTION G - CONTRACT ADMINISTRATION DATA

G.1 NSF 020 AUTHORITY OF GOVERNMENT PERSONNEL (APR 2013)

Contracting Officer

The Contracting Officer (CO) is the only person authorized to approve changes in any of the requirements under this contract. Notwithstanding any clause contained elsewhere in this contract, the said authority remains solely with the CO.

In the event the Contractor effects any change at the direction of any person other than the CO, including any change beyond the scope of authority given to the duly authorized Contracting Officer's Representative identified in the contract, the change will be considered to have been made without authority and no adjustment will be made in the contract price to cover any increase in charges incurred as a result thereof. The CO has the authority to perform any and all post-award functions in administering and enforcing this contract in accordance with its terms and conditions.

Contracting Officer's Representative

The Contracting Officer's Representative (COR) is responsible for administering the performance of work under this contract. IN NO EVENT, however, will any understanding, agreement, modification, change order, or other matter deviating from the terms of this contract be effective or binding upon the Government unless formalized by proper contractual documents executed by the CO prior to completion of the contract.

The COR may give technical direction to the Contractor that fills in details, requires pursuit of certain lines of inquiry, or otherwise serves to facilitate the Contractor's compliance with the contract. To be valid, technical direction by the COR must be consistent with the general scope of work set forth in this contract; may not constitute new assignment of work nor change be expressed terms, conditions or specifications of this contract; and shall not constitute a basis for any increase in the contract estimated cost, or extension to the contract delivery schedule.

(End of Clause)

G.2 NSF 230 PERFORMANCE EVALUATION SYSTEM (SEP 2014)

NSF utilizes the Department of Defense's (DOD) web-based Contract Performance Assessment Reporting System (CPARS) to provide Contractor performance evaluations. Within 15 days of contract award, the Contractor shall notify the Contracting Officer (CO) of the name(s) and e-mail address(es) of the Contractor Representative(s) that need to be assigned in CPARS by the NSF CPARS Focal Point. The contractor is responsible for (1) updating the Contractor Representative information to the CO if and when it changes during the term of the contract and (2) reviewing and commenting on proposed ratings and remarks within the required 60 calendar days from receipt of notification of the availability of a rating for review from the CPARS system for all evaluations forwarded in the system by the Government Assessing Official, who is the CO. If the Contractor Representative sends comments within the first 14 days following the Assessing Official's signature date and the Assessing Official or Reviewing Official closes the evaluation, the evaluation will become available in CPARS within one day. On day 15 following the Assessing Official's evaluation signature date, the evaluation will become available in CPARS with or without Contractor Representative comments and whether or not it has been closed by the Assessing Official or Reviewing Official. If no Contractor Representative comments have been sent and the evaluation has not been closed, it will be marked as "Pending" in CPARS. If the Contractor Representative sends comments at any time prior to 61 days following the Assessing Official's evaluation signature date, those comments will be reflected in CPARS within one day. On day 61 following the Assessing Official's evaluation signature date, the Contractor Rep will be "locked out" of the evaluation

and may no longer send comments. Reference material concerning CPARS, including the CPARS User Manual and Guidance for CPARS, is available at the CPARS website which is at <http://www.cpars.gov/main/refmatl.htm>.

(End of Clause)

G.3 NOTIFICATION OF CHANGES (ORAL OR WRITTEN)

G.3.1 In the event any Government direction is interpreted by the Contractor to fall within FAR 52.243-2, Alternate II in Section I of the Contract entitled "Changes – Cost Reimbursement" ("Changes"), the Contractor shall not implement such direction, but shall notify the CO in writing of such interpretation within ten (10) working days after the Contractor's receipt of such direction. Such notice shall include the reasons upon which the Contractor bases its belief that the technical direction falls within the purview of the "Changes" clause; and include the Contractor's best estimate as to the revision of the current cost, fee, performance time, delivery schedules or any other contractual provision that would result from implementing the Government's direction.

G.3.1.1 If, after reviewing the information presented by the Contractor, the CO is of the opinion that such direction is within the purview of the "Changes" clause and considers such change desirable, a unilateral direction will be issued to the Contractor to proceed pursuant to the authority granted under that clause. If a determination is made that such direction is technical direction authorized by this schedule clause, the Contractor will be directed to proceed with the implementation of such technical direction.

G.3.1.2 In the event a determination is made that it is necessary to avoid a delay in performance of the Contract, the CO may direct the Contractor to proceed with the implementation of the technical direction pending receipt of the information to be submitted by the Contractor. Should the CO later determine that Change direction is appropriate; the written direction issued hereunder shall constitute the required Change direction.

G.3.1.3 Failure of the Contractor and the CO to agree on whether Government direction is technical direction or a Change within the purview of the "Changes" clause shall be a dispute (FAR 52.233-1) within the meaning of the FAR Clause 52.243-2, Alternate II, found in Section I.

G.4 FINAL PAYMENT

Upon completion of the required work, the Contractor shall submit a final voucher or invoice (as applicable) in compliance with the clause FAR 52.216-7, entitled, "Allowable Cost and Payment" incorporated by reference under Section I of this contract. This final voucher (or invoice) must be clearly marked as such and be submitted promptly upon completion of the work, but no later than one year from the completion date of this contract. The Contractor shall notify the CO via email after submission of the final voucher (or invoice).

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G.5 GOVERNMENT PERSONNEL

The following Government personnel are the points of contact for this contract:

CO:	Joseph Cloft (703) 292-8094 joscloft@nsf.gov
COR:	Renee Crain Wagner (703) 292-4482 rcrain@nsf.gov
Alternate COR*:	Frank Rack (703) 292-2684 frack@nsf.gov

** The Alternate COR will only assume primary COR duties when the primary COR is unavailable for long periods of time (e.g. extended absence of the COR due to training, leave, illness, etc.). The Contractor shall request and must receive approval from the CO prior to seeking technical direction from the ACOR.*

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 NSF 030 SECURITY REQUIREMENTS AND ACCESS TO NATIONAL SCIENCE FOUNDATION FACILITIES AND UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES (DEC 2017)

Authorities

1. Federal Information Security Management Act (FISMA), Public Law 107-347
2. Office of Management and Budget (OMB) Circular A-130, Appendix III, "Security of Federal Automated Information Systems"
3. Homeland Security Presidential Directive 12 (HSPD-12), "Policy for a Common Identification Standard for Federal Employees and Contractors"
4. National Institute of Standards and Technology (NIST), Federal Information Processing Standard (FIPS) 201-1, "Personal Identity Verification (PIV) of Federal Employees and Contractors"
5. National Institute of Standards and Technology (NIST), Special Publication 800-37, "Guide for the Security Certification and Accreditation of Federal Information Systems"
6. National Institute of Standards and Technology (NIST), Special Publication 800-53 Rev 4, "Security and Privacy Controls for Federal Information Systems and Organizations"
7. NIST Special Publication 800-18, "Guide for Developing Security Plans for Federal Information Systems"
8. NSF Personnel Manual (Manual 14)
9. NSF Policy Regarding the Privacy of Sensitive Information
10. NSF Information Technology Privacy Policy
11. NSF Bulletin 13-09 Onboarding and Separation Policy for Contractors
12. NSF Contractor Onboarding and Separation Guide

1. General

- a. Policy Compliance - All Contractor personnel performing under this contract and requiring access to NSF information systems, networks, or data must comply with all Federal Information Security Management Act (FISMA), Office of Management and Budget (OMB), Homeland Security Presidential Directive 12 (HSPD-12), National Institute of Standards and Technology (NIST) and NSF IT security policies, procedures and guidance.
- b. Compliance with Onboarding and Separation Procedures - The Contractor is responsible for its employees' conduct and establishing in- and out-processing procedures that ensure accomplishment of the actions identified in this clause.
- c. Contractor Self-Identification - In accordance with requirements set forth in the Federal Acquisition Regulation (FAR) and guidance issued by OMB, all contractor personnel attending meetings, interacting with NSF staff to complete work assignments, and working in other situations where their contractor status is not obvious to third parties or internal agency staff, are required to identify themselves as contractor employees, including email signature blocks and voicemail. Similarly, documents or reports produced by contractors must be suitably marked as contractor products, or ensure that contractor participation is appropriately disclosed. Contractors interacting with Government staff or the public for purely administrative functions, such as for the purpose of forwarding telephone calls, may be exempted from this self-identification requirement.
- d. Expiration of Contract - Contractor personnel access to NSF facilities for work performance will be revoked upon expiration of this contract or task orders issued hereunder.

- e. Incorporation in Subcontracts - The Contractor shall incorporate the substance of this clause in all subcontracts.

2. Personnel Onboarding

- a. Federal Identity Card - Contractor personnel assigned to work at NSF facilities may be issued a Federal identity card and/or NSF building access card that permits their entrance to NSF facilities without going through visitor access processes. Contractor personnel may also be granted certain other privileges such as NSF e-mail accounts and/or access to NSF information systems. This access shall be provided solely at the discretion of the NSF, and may be revoked or withdrawn at any time, without notice or cause, by the Contracting Officer.
- b. Background Investigation - Contractor personnel requiring routine physical access to NSF facilities for more than six months require a Federal identity card and NSF building access card and shall be investigated (i.e., a National Agency Check with Inquiries or higher level investigation). Contractor personnel requiring privileged access or limited privileged access to systems operated by a Contractor for the NSF or interconnected to a NSF network shall be investigated at an appropriate level. The FBI National Criminal History Check must be completed, and the investigation must be scheduled by OPM, before the cards are issued. NSF shall submit the National Agency Check with Inquiries (NACI) (or higher level) investigation to OPM using the standard personnel investigation forms listed in this clause. Contractors are required to report to the NSF Human Resource Management (HRM) Security Office during business hours to be electronically fingerprinted, inputted into the online Electronic Questionnaire for Investigations Processing (eQIP) system and provide other required documents to begin the investigations process. The Contractor shall submit the required forms to the NSF HRM Security Office within five (5) days after award or assignment of an individual to a position requiring investigation.
- c. Level of Investigation - Guidance for selecting the appropriate level of investigation is based on the risk of adverse impact to the NSF. The levels of risk for which investigation is required is as follows (IT-1 has the highest level of risk):
 - i. IT-1: Individuals having privileged access or limited privileged access to systems whose misuse can cause very serious adverse impact to NSF programs.
 - ii. IT-2: Individuals having privileged access or limited privileged access to systems whose misuse can cause significant adverse impact to NSF programs. These systems include, for example, those that interconnect with a NSF network in a way that exceeds access by the general public, such as bypassing firewalls; and systems operated by a Contractor for the NSF whose function or data has substantial cost to replace, even if these systems are not interconnected with a NSF network.
- d. Required Forms - Investigation for individuals shall employ forms appropriate for the level of risk as follows:
 - i. IT-1: Electronic fingerprints, online Standard Form (SF) 85 Questionnaire for Non-Sensitive Positions, Official Form (OF) 306 Declaration for Federal Employment, Credit Report Notice Form and resume.
 - ii. IT-2: Electronic fingerprints, Electronic and Standard Form (SF) 85P Questionnaire for Public Trust Positions, Official Form (OF) 306 Declaration for Federal Employment, Credit Report Notice Form and resume.
- e. Proof of Investigation - Investigation of Contractor personnel may be waived by the HRM Security Office for individuals in cases where proof of prior investigation at the NACI or higher level within the last two years can be obtained.

- f. IT Security and Privacy Awareness Training - The Contractor shall ensure that its employees, in performance of the contract, receive initial IT Security Awareness Training before being granted access to NSF systems and networks, and receive refresher IT Security Awareness Training annually. The Contractor may use web-based training available from the NSF to meet this requirement.
 - g. Rules of Behavior - The Contractor shall ensure that its employees, in performance of the contract, sign and submit the “National Science Foundation (NSF) Information System Access Rules of Behavior” before being granted access to NSF systems and networks.
 - h. Employee and Contractor Separation - At any time during the term of this contract or task orders issued hereunder, Contractor personnel issued a Federal identity card and NSF building access card, or granted access to NSF e-mail or any other NSF information system, that do not require any further access, and/or at completion, expiration or termination of any such contract or task order where access has been granted, SHALL;
 - i. Complete and submit the online Contractor/Guest Exit Form, which will result in termination of all access to any NSF e-mail accounts and information systems.
 - ii. Report to the lobby floor visitor center to identify themselves to the personnel present, and surrender their Federal identity card and NSF building access card.
 - iii. Notify the Contracting Officer Representative (COR) and appropriate Property Custodian of any NSF equipment to be surrendered to NSF.
3. Access Controls for NSF Systems and Information - The Contractor shall be responsible for Information Technology security for all systems used in performance of this contract, or those which are connected to a NSF network. This clause is applicable to all or any part of the contract that includes information technology resources or services in which the Contractor must have physical or electronic access to NSF’s information, including sensitive information and personally identifiable information, contained in unclassified systems that directly support the mission of the Agency. This includes information technology, hardware, software, and the management, operation, maintenance, programming, and system administration of computer systems, networks, and telecommunications systems.
4. **Protection of Sensitive and Personally Identifiable Information (PII)**
- a. Access to Information - In the course of performing official duties, Contractors may have the need to access sensitive or personally identifiable information (PII). Sensitive information includes personally identifiable information and sensitive NSF information such as proposal reviews, reviewer identity tied to reviews, unfunded proposals, proprietary parts of funded proposals; and other similar information. The majority of sensitive information maintained by NSF is in systems of records protected under the Privacy Act sensitive data. Sensitive information may also exist in other types of records, such as databases, log files, e-mail, and correspondence files. All Contractor personnel are responsible for recognizing sensitive information and avoiding inappropriate or accidental access, use, or disclosure in accordance with NSF IT policies.
 - b. Personally Identifiable Information - Personally identifiable information (PII) refers to information which can be used to distinguish or trace an individual’s identity, such as their name, social security number, biometric records, etc., alone or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother’s maiden name, etc. All Contractor personnel are responsible for recognizing personally identifiable information and avoiding inappropriate or accidental access, use, or disclosure in accordance with NSF IT policies.

- c. Information Use - The Contractor must not use or redistribute any NSF information processed, stored, or transmitted by the Contractor except as specified in the Contract.

5. Systems and Information Integrity

- a. Vulnerability Management - If access, including remote access, is through a Contractor-managed system, the Contractor is responsible for IT security patching and maintenance of the system. NSF is responsible for security and patching of NSF managed devices, including contractor devices if they have a NSF image, when the contractor device is connected to the NSF network.
- b. US Government Configuration Baseline (USGCB) - The contractor shall certify applications are fully functional and operate correctly as intended on systems using the US Government Configuration Baseline (USGCB). The standard installation, operation, maintenance, updates, and/or patching of software, including software purchased under this Agreement, shall not alter the configuration settings from the approved USGCB configuration. Offerings that require installation should follow OMB memorandum 07-18. Applications designed for normal end users shall run in the standard user context without elevated system administration privileges. The contractor shall use Security Content Automation Protocol (SCAP) validated tools with USGCB Scanner capability to certify their products operate correctly with USGCB configurations and do not alter USGCB settings.

6. Security Assessment and Authorization (A&A)

- a. Major Applications - For Information Systems NSF has identified as Major Applications or General Support Systems (GSS) that are not connected to a NSF network, but for which the Contractor has operational responsibility on behalf of NSF, the Contractor must conform to all NSF policy guidance and reporting requirements regarding Assessment and Authorization (A&A) of IT systems. NSF shall perform all the assessment activities as outlined in NIST SP 800-37, while the contractor will provide full support and documentation to NSF for this effort. Unless otherwise specified by NSF, NSF shall fulfill the roles of “Chief Information Security Officer” and “Authorizing Official” as outlined in NIST SP 800-37 Appendix D. For all Contractor Operated systems, NSF shall establish accreditation boundaries and assessment schedules.
- b. Timeline - The A&A activities will be done prior to service commencement (go-live into Production) and periodically thereafter as required by Federal or NSF policies. This is currently every three years, unless there is a major change.
- c. Security Assessment - On the years where a full A&A is not performed, there will still be a security assessment performed in accordance with the guidance in NIST SP 800-37.

7. Cooperation with Audits

- a. Contractor Cooperation - The Contractor (and subcontractors) shall fully cooperate with all audits, inspections, investigations, or other reviews conducted by or on behalf of the Contracting Officer or the Chief Information Security Officer or designated representative including the IT Security Officer. Full cooperation includes, but is not limited to, prompt disclosure to authorized requestors of information sufficient to identify the nature and extent of any computer security incident, including a breach of sensitive information or personally identifiable information and the individuals responsible for such activity. The Contractor’s (and any subcontractors’) cooperation with audits, inspections, investigations, and reviews conducted under this clause will be provided at no additional cost to the Government.
- b. Government Data and Records - The Contractor (or subcontractor) shall timely produce to the Contracting Officer, a Contracting Officer’s Representative (COR), or the Chief Information Security Officer, Government data, information, or records under the control of or in the

possession of the Contractor pursuant to this contract, which the Agency, may request in furtherance of other audits, inspections, investigations, reviews or litigation in which the Chief Information Security Officer is involved. Requests for production under this paragraph shall specify a reasonable deadline for compliance which will presumptively determine whether response to the request has been made in a timely manner. Unless expressly provided otherwise elsewhere in this contract, the production of data, information, or records under this paragraph will be at no additional cost to the Government.

8. Incident Response

- a. Incident Data Preservation - In the event of any suspected violation of Federal laws and regulations such as illegal activity, computer security incidents, violations of Agency policy, malicious or otherwise prohibited use, (as defined in NIST Special Publication 800-61, Computer Security Incident Handling Guide), including but not limited to those constituting an actual or potential threat or hazard to the integrity, availability, or confidentiality of agency information in the possession or under the control of the Contractor (or subcontractor), or to the function of information systems operated by the Contractor (or subcontractor) in the performance of this contract, the Contractor (or subcontractor) shall preserve such data, records, logs and other evidence which are reasonably necessary to conduct a thorough investigation of the computer security incident.
- b. Notification - In the event of any violation or computer security incident as described in paragraph (a), above, the Contractor shall promptly notify the Chief Information Security Officer or the agency IT Security Officer. The IT Security Officer must report violations or computer security incidents to the Chief Information Security Officer. The Chief Information Security Officer will determine whether to notify a representative of the agency's Office of Inspector General about the incident. This notification requirement is in addition to any other notification requirements which may be required by law or this contract. Established Federal agency timeframes for reporting security incidents to the United States Computer Emergency Readiness Team (US-CERT), although not exhaustive, serve as a useful guideline for determining whether reports under this paragraph are made promptly. (See US CERT Federal Incident Reporting Guidelines, <https://www.us-cert.gov/incident-notification-guidelines>.)
- c. Notification to Inspector General - If an incident is determined to be actual or suspected criminal activity, the Chief Information Security Officer will make the determination to notify the agency's Office of the Inspector General (OIG).

(End of Clause)

H.2 NSF 040 AIRCRAFT PUBLIC AND PASSENGER LIABILITY INSURANCE (AUG 2013)

The Contractor agrees to maintain, during the continuance of this contract, aircraft public and passenger liability insurance with limits of liability for:

- (1) bodily injury to or death of aircraft passengers of not less than US\$200,000 multiplied by the number of aircraft passengers or seats, whichever is greater;
- (2) bodily injury to or death of persons (excluding passengers) of not less than US\$200,000 for any one person in any one occurrence and US\$500,000 for each occurrence; and
- (3) property damage of not less than US\$200,000 for each occurrence; or

(4) a single limit of liability for each occurrence equal to or greater than the combined required minimums set forth in (1) through (3) above.

The Contractor warrants that such insurance coverage for all subcontractors who provide flight services does or will exist before subcontractors begin performance.

The Contractor shall file with the Contracting Officer prior to beginning performance under this contract, a certificate of insurance evidencing the above coverage. The Contractor shall provide to the Contracting Officer within five (5) days after occurrence, notice of cancellation of or reductions below the amounts cited above of any insurance coverage related to this requirement.

(End of Clause)

H.3 NSF 070 REPLACEMENT OF PERSONNEL – CONTRACTOR PERSONNEL CONDUCT (AUG 2010)

The Contractor shall be responsible for the furnishing of personnel fully qualified to perform the services as provided for in this contract. As a designated representative of the Contractor, Contractor personnel are expected to perform and act in a professional manner at all times. The Contractor shall be fully responsible for the actions of Contractor employees during the performance term of this contract.

Performance of contract services may involve work and/or residence on Federal and other program facilities as required by the contract. Contractor employees are expected to follow the rules of conduct established by the manager of such facilities that apply to all (both Government or non-Government) personnel working or residing on such facilities. A copy of such rules will be available from the facility manager.

Personnel who perform ineffectively, refuse to cooperate in the fulfillment of the project objectives, are unable or unwilling to adapt to field living conditions, or whose general performance is unsatisfactory or otherwise disruptive, shall be replaced by the Contractor.

The Contracting Officer shall notify the Contractor of all unsatisfactory conduct or performance, stating the conditions of unsatisfactory or unsafe performance by contractor personnel. An opportunity for corrective action may be afforded, when the conditions warrant. When directed by the Contracting Officer, the Contractor agrees to replace unacceptable personnel in a time period as mutually agreed upon.

(End of clause)

H.4 NSF 100 INSURANCE REQUIREMENTS (AUG 2013)

(a)

(1) Except as provided in subparagraph (2) immediately following, or in paragraph (h) of this clause (if the clause has a paragraph (h), the Contractor shall provide and maintain workers' compensation, employer's liability, comprehensive general liability (bodily injury), comprehensive automobile liability (bodily injury and property damage) insurance, and such other insurance as the Contracting Officer may require under this contract.

(2) The Contractor may, with the approval of the Contracting Officer, maintain a self-insurance program; provided that, with respect to workers' compensation, the Contractor is qualified pursuant to statutory authority.

(3) All insurance required by this paragraph shall be set forth in the provisions of this contract and be in a form and amount and for those periods as the Contracting Officer may require or approve and with insurers approved by the Contracting Officer.

(b) The Contractor agrees to submit for the Contracting Officer's approval, to the extent and in the manner required by the Contracting Officer, any other insurance that is maintained by the Contractor in connection with the performance of this contract and for which the Contractor seeks reimbursement.

(c) Except as provided in paragraph (h) of this clause (if the clause has a paragraph (h)), the Contractor shall be reimbursed

(1) For that portion (i) of the reasonable cost of insurance allocable to this contract and (ii) required or approved under this clause; and

(2) For certain liabilities (and expenses incidental to such liabilities) to third persons not compensated by insurance or otherwise. These liabilities must arise out of the performance of this contract, whether or not caused by the negligence of the Contractor or of the Contractor's agents, servants, or employees, and must be represented by final judgments or settlements approved in writing by the Government. These liabilities are for

(i) Loss of or damage to property (other than property owned, occupied, or used by the Contractor, rented to the Contractor, or in the care, custody, or control of the Contractor; or

(ii) Death or bodily injury.

(d) The Government's liability under paragraph (c) of this clause is subject to the "Limitation of Cost" or the "Limitation of Funds" clause of this contract.

(e) The Contractor shall not be reimbursed for liabilities (and expenses incidental to such liabilities)

(1) For which the Contractor is otherwise responsible under the express terms of any clause specified in the Schedule or elsewhere in the contract;

(2) For which the Contractor has failed to insure or to maintain insurance as required by the Contracting Officer; or

(3) That result from willful misconduct or lack of good faith on the part of any of the Contractor's directors, officers, managers, superintendents, or other representatives who have supervision or direction of

(i) All or substantially all of the Contractor's business;

(ii) All or substantially all of the Contractor's operations at any one plant or separate location in which this contract is being performed; or

(iii) A separate or complete major industrial operation in connection with performance of this contract.

(f) The provisions of paragraph (e) of this clause shall not restrict the right of the Contractor to be reimbursed for the cost of insurance maintained by the Contractor in connection with the performance of this contract, other than insurance required in accordance with this clause; provided, that such cost is allowable under the Allowable Cost and Payment clause of this contract.

(g) If any suit or action is filed or any claim is made against the Contractor, the cost and expense of which may be reimbursable to the Contractor under this contract, and the risk of which is then uninsured or is insured for less than the amount claimed, the Contractor shall

(1) Immediately notify the Contracting Officer and promptly furnish copies of all pertinent papers received.

(2) Authorize Government representatives to collaborate with counsel for the insurance carrier in settling or defending the claim when the amount of the liability claimed exceeds the amount of coverage; and

(3) Authorize Government representatives to settle or defend the claim and to represent the Contractor in or to take charge of any litigation, if required by the Government, when the liability is not insured or covered by bond. The Contractor may, at its own expense, be associated with the Government representatives in any such claim or litigation.

(h) The Contractor warrants that insurance coverage (currently in force) exists in the following areas and in amounts not less than those specified below:

Type <u>Insurance</u>	<u>Per Person</u>	<u>Coverage Property</u>	<u>Per Accident</u>
1. Comprehensive General Liability	\$500,000	\$500,000	\$1,500,000
2. Automobile	\$500,000	\$500,000	\$1,000,000
3. A supplemental umbrella policy for \$5,000,000.			
4. Workman's Compensation - As required by law at the job site.			

The Comprehensive general and automobile liability policies shall contain a provision worded as follows: "The insurance company waives any right of subrogation against the United States of America which may arise by reason of any payment under the policy."

The contractor shall file with the Contracting Officer prior to beginning performance under this contract, a certificate of insurance evidencing the above coverage.

The Contractor shall provide to the Contracting Officer within five (5) days after occurrence, notice of cancellation of or reductions below the above cited amounts of any insurance coverage related to this requirement.

The Contractor warrants that such insurance coverage for all subcontractors who will work at any of the sites of performance does or will exist before subcontractors begin performance.

(End of Clause)

H.5 NSF 110 ELECTRONIC INVOICING AND PAYMENT REQUIREMENTS – INVOICE PROCESSING PLATFORM (IPP) (FEB 2019)

Payment requests by the Contractor shall be submitted for reimbursement in the manner and format described herein.

"Payment request" means any request for contract financing payment or invoice payment by the Contractor. To constitute a proper invoice, the payment request must comply with the requirements identified in FAR 32.905(b), "Content of Invoices", and all applicable payment clauses and provisions included in this contract.

Invoices must be submitted electronically through the U.S. Department of the Treasury's Invoice Processing Platform System (IPP). The IPP website address is: <https://www.ipp.gov>. If you have multiple contracts with NSF, you cannot reuse the same invoice number when invoicing under different contracts. Each invoice number from your organization must be different. (When searching for your PO in the system, please use the abbreviated form. For example, instead of "NSFDACS17T1234", please use "17T1234").

If you are not already enrolled, please go to <https://www.ipp.gov> and click on the "Vendors – Enroll Now" button for instructions on how to enroll.

Contractor assistance with enrollment can be obtained by contacting the IPP Customer Support Helpdesk via e-mail: IPPCustomerSupport@fiscal.treasury.gov or by phone: (866) 973-3131.

If any contract deliverables are rejected for failure to conform to the technical requirements of the contract or are otherwise unacceptable, the provisions of this clause will apply only to delivery of the acceptable contract deliverables, unless otherwise determined by the Contracting Officer.

All payments for proper invoices will be made via Electronic Fund Transfer (EFT).

Contractors that are small businesses under the appropriate NAICS code for this contract are permitted to request accelerated payments in accordance with the OMB Memorandum, Accelerating Payments to Small Businesses for Goods and Services, dated September 14, 2011. Requests for accelerated payments shall be made by typing "Small Business Invoice" in the Comments field of your IPP invoice screen. Per the OMB Memorandum, Accelerating Payments to Small Businesses for Goods and Services, dated September 14, 2011, the accomplishment of accelerated payments to small businesses is a goal and not a guarantee.

If the Contractor is unable to comply with the requirement to use IPP for submission of invoices, the Contractor must submit a waiver request in writing to the Contracting Officer with its proposal or quotation. The Contractor may submit payment requests using other than IPP only when the Contracting Officer expressly authorizes alternate procedures in writing.

Payment assistance for small businesses is available from the NSF Office of Small and Disadvantaged Business Utilization (OSDBU) (see <https://www.nsf.gov/about/contracting/osdbu.jsp>).

(End of Clause)

H.6 NSF 120 KEY PERSONNEL (AUG 2010)

Personnel specified below are considered to be essential to the work being performed hereunder. Prior to diverting any of the specified individuals to other activities or programs, the Contractor shall notify the Contracting Officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact of such substitution upon the contract. No diversion shall be made by the Contractor without the written consent of the Contracting Officer. Positions may be added or deleted from this clause during performance of the contract by mutual agreement of both parties.

Name:**Title:**

Program Director
 Operations Manager
 Science Planning Manager
 Greenland Science Support Manager
 Alaska Science Support Manager
 Planning and Controls Manager
 Facility Planning, Construction and Maintenance Manager

H.7 NSF 170 SECTION 508 COMPLIANCE (AUG 2013)

The Contractor must provide a comprehensive list of all offered specific electronic and information technology (EIT) products (supplies and services) that fully comply with Section 508 of the Rehabilitation Act of 1973, per the 1998 Amendments, and the Architectural and Transportation Barriers Compliance Board's Electronic and Information Technology Accessibility Standards at 36 CFR Part 1194. The Contractor must clearly indicate where this list with full details of compliance can be found (e.g., vendor's or other exact web page location). The contractor must ensure that the list is easily accessible by typical users beginning five calendar days after award. The contractor must maintain this detailed listing of compliant products for the full contract term, including all forms of extensions, and must ensure that it is current within three calendar days of changes to his product line.

The offeror must ensure that all EIT products that are less than fully compliant are offered pursuant to extensive market research, which ensures that they are the most compliant products and services available to satisfy this solicitation's requirements.

For every EIT product accepted under this contract by the Government that does not comply with 36 CFR Part 1194, the contractor shall, at the discretion of the Government, make every effort to replace or upgrade it with a compliant equivalent product or service, if commercially available and cost neutral, on either the planned refresh cycle of the product or service, or on the contract renewal date, whichever shall occur first.

(End of Clause)

H.8 NSF 250 RESTRICTIONS AGAINST DISCLOSURE OF INFORMATION (JAN 2014)

(a) The Contractor agrees that it will take such measures as are necessary to restrict access to applicant and panel records, as well as any other information related to work pursuant to this contract (including, but not limited to, any information relating to legal, policy, program, operational or other issues, whether concerning existing, proposed or contemplated legislation, regulations, policy issuances or similar matters or otherwise) to those employees and/or subcontractors of the Contractor needing such information to perform the work required there under, i.e., on a "need-to-know" basis. This Clause does not apply to information which has been released to the public by NSF or which is available to the public other than by the Contractor's breach of this Agreement.

(b) The Contractor agrees to keep the restricted information in the strictest confidence. The Contractor also agrees not to publish, reproduce or otherwise divulge the Information in whole or in part, in any manner or form, nor to authorize or permit others to do so, taking such reasonable measures as are necessary to restrict access to the Information, to those employees and/or subcontractors needing such information to perform the work required under the contract, i.e., on a "need-to-know" basis. The obligation to maintain confidentiality continues after completion,

termination, or expiration of this contract. The Information must be made available only at the discretion of the NSF and subject to the Freedom of Information Act (5 U.S.C. Sec. 552), as amended, The Privacy Act, (5 U.S.C. Sec. 552a), as amended, The Trade Secrets Act, (18 U.S.C. Sec. 1905, as amended), and any other applicable laws or regulations. Further, the Contractor must notify the Contracting Officer of the transfer to subcontractors of any information prior to any such transfer. Upon completion of the Contractor's obligations, the Contractor must return or destroy all copies of restricted information, whether furnished by NSF or created by the Contractor and any subcontractor.

(c) The Contractor agrees to immediately notify the Contracting Officer, in writing, in the event that the Contractor determines or has reason to suspect a breach of any part of this clause.

(d) The Contractor agrees to immediately notify the Contracting Officer in writing, of any request received from any individual who is not a party to this contract, for access to information related to this contract. Those requests will be directed to NSF's FOIA/Disclosure Officer for processing under the provision of the Freedom of Information Act. This paragraph does not apply to a request by an individual for access to information contained in records pertaining to that particular individual. However, if the individual wants copies of the actual records pertaining to him/her, he/she must first contact NSF's FOIA/Disclosure Officer.

(e) The Contractor agrees that it will not knowingly violate any statutory or regulatory restrictions against the disclosure of government records, including 5 U.S.C. Sec. 552a, as amended, 5 U.S.C. Sec. 552, as amended, 18 U.S.C. Sec. 1905, as amended, and implementing regulations. The Contractor also agrees that it will take steps to ensure that any subcontractor will also adhere to these restrictions.

(f) The Contractor is bound by Section (m) of the Privacy Act, 5 U.S.C. Sec. 552a(m) and as such is considered under the act to be an employee of the agency. Accordingly, the Contractor and any of its employees are subject to the criminal penalties of the Privacy Act, 5 U.S.C. Sec.552a(i).

(g) The Contractor will designate and identify an individual who must be responsible for the notifications required under sections (b), (c) and (d) of this agreement and who must receive all appropriate responses from the Contracting Officer (CO) or from NSF's FOIA/Disclosure Officer. The Contractor must take those steps necessary to ensure that the provisions of paragraphs a-g, inclusive, are adhered to by all directors, officers, agents and employees of the Contractor.

(h) The Contractor must place the provisions contained at Paragraphs a-g, above, in all subcontracts entered into pursuant to the contract where the subcontractor will have or may gain access to NSF information and, further, the Contractor agrees to enforce the provisions of this Clause against any and all subcontractors under this contract.

(End of Clause)

H.9 NSF 300 DISCLOSURE OF ORGANIZATIONAL CONFLICT OF INTEREST AFTER CONTRACT AWARD (MAR 2014)

(a) If the Contractor identifies an actual or potential organizational conflict of interest that has not already been adequately disclosed and resolved (or waived in accordance with FAR 9.503), the Contractor shall make a prompt and full disclosure in writing to the Contracting Officer. This disclosure shall include a description of the action the Contractor has taken or proposes to take in order to resolve the conflict. This reporting requirement also includes subcontractors actual or potential organizational conflicts of interest not adequately disclosed and resolved prior to award or that may have arisen post-award.

(b) Mitigation plan. If there is a mitigation plan in the contract, the Contractor shall periodically update the plan, based on changes such as changes to the legal entity, the overall structure of the organization, subcontractor arrangements, contractor management, ownership, ownership relationships, or modification of the work scope.

(End of Clause)

H.10 NON-DISCLOSURE

Due to the nature of this effort and the sensitivity of potentially reviewing confidential and proprietary data and/or procurement sensitive information, the resultant contractor (to include all contractor personnel and subcontractors) for this contract may be required to sign organizational non-disclosure agreements on a case by case basis with select companies and researchers as well as an NSF confidential and non-disclosure agreement prior to beginning work (see Attachment H-1, NSF Confidentiality and Non-Disclosure Agreement).

H.11 SECURITY CLASSIFICATION REQUIREMENTS

Performance under this contract may involve access to classified information and systems, work in a security area, or both, up to the level of Secret. See FAR clause 52.204-2 Security Requirements in Section I of this contract and DD Form 254, Contract Security Classification Specification (Attachment H-2).

H.12 COST ACCOUNTING SYSTEM

In accordance with FAR 16.301-3(a)(1), a Contractor awarded a cost-reimbursement contract will be required to have and maintain an adequate cost accounting system determined adequate by their cognizant auditing agency. The Contractor shall notify the cognizant NSF CO, in writing, if there are any changes in the status of their cost accounting system and provide the reason(s) for the change.

H.13 PURCHASING SYSTEM

In accordance with FAR 44.201-2, Advance Notification Requirements, Contractors with approved purchasing systems shall notify the cognizant NSF CO, in writing, if there are any changes in the status of their approved purchasing systems and provide the reason(s) for the change(s).

H.14 ENGLISH

English is the operational language of the ARSLs program. All Contractor and Subcontractor personnel shall be able to read, write, speak, and understand English fluently. English shall be the only language used with regard to this contract for deliverables, written correspondence, verbal communication and other business transactions. After award, the Contractor may ask the Contracting Officer to waive this requirement for a specified circumstance. The Contracting Officer has sole discretion whether to grant a waiver for this requirement.

H.15 RESERVED

This paragraph is reserved for future RFP amendment or contract modification.

H.16 LIST OF ATTACHMENTS TO SECTION H

Attachment H-1 – NSF Confidentiality and Non-Disclosure Agreement

Attachment H-2 – DD Form 254, Contract Security Classification Specification (*expected at time of award or thereafter*)

Attachment H-3 – Level-of-Effort, Direct Labor Hours

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSES

I.1 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es): <https://www.acquisition.gov/far/>
(End of Clause)

The following clauses pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" contained in this document.

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)		
<u>FAR</u> <u>Number</u>	<u>Title</u>	<u>Date</u>
52.202-1	DEFINITIONS	NOV 2013
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	MAY 2014
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP 2006
52.203-7	ANTI-KICKBACK PROCEDURES	MAY 2014
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	MAY 2014
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	MAY 2014
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	OCT 2010
52.203-13	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT	OCT 2015
52.203-14	DISPLAY OF HOTLINE POSTER(S) Insert Poster Name: "NSF Fraud Hotline! Poster" and Obtained From: https://www.nsf.gov/bfa/dcca/contracts/docs/oigposter.pdf	OCT 2015
52.203-17	CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS	APR 2014
52.203-19	PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS OR STATEMENTS	JAN 2017
52.204-2	SECURITY REQUIREMENTS	AUG 1996
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	MAY 2011
52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS	OCT 2018
52.204-13	SYSTEM FOR AWARD MANAGEMENT MAINTENANCE	OCT 2018
52.204-14	SERVICE CONTRACT REPORTING REQUIREMENTS	OCT 2016
52.204-18	COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE	JUL 2016
52.204-21	BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS	JUN 2016

52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	OCT 2015
52.209-9	UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILTY MATTERS	OCT 2018
52.209-10	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS	NOV 2015
52.210-1	MARKET RESEARCH	APR 2011
52.211-5	MATERIAL REQUIREMENTS	AUG 2000
52.215-2	AUDIT AND RECORDS—NEGOTIATION	OCT 2010
52.215-8	ORDER OF PRECEDENCE—UNIFORM CONTRACT FORMAT PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA	OCT 1997
52.215-10	PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA – MODIFICATIONS	AUG 2011
52.215-11	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA	AUG 2011
52.215-12	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA -	OCT 2010
52.215-13	MODIFICATIONS	OCT 2010
52.215-14	INTEGRITY OF UNIT PRICES	OCT 2010
52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS	OCT 2010
52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	JUL 2005
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997
52.215-21	REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA OTHER THAN CERTIFIED COST OR PRICING DATA – MODIFICATIONS	OCT 2010
52.215-23	LIMITATIONS ON PASS-THROUGH CHARGES	OCT 2009
52.216-7	ALLOWABLE COST AND PAYMENT	AUG 2018
52.216-8	FIXED-FEE	JUN 2011
52.217-2	CANCELLATION UNDER MULTIYEAR CONTRACTS	OCT 1997
52.217-8	OPTION TO EXTEND SERVICES	NOV 1999
52.217-9	<i>Insert the following words at the end of the last sentence of the respective clause: “the current performance period but no less than 14 days prior to the end of the current period of performance”</i> OPTION TO EXTEND THE TERM OF THE CONTRACT <i>Insert the following words in the first blank: “the current term of the contract”; insert the following words in the second blank: “fourteen days”; and insert the words “134 months” in the third blank.</i>	MAR 2000
52.219-4	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS	OCT 2014
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	OCT 2018
52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN ALTERNATE II (NOV 2016)	AUG 2018
52.219-16	LIQUIDATED DAMAGES—SUBCONTRACTING PLAN	JAN 1999
52.219-28	POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION	JUL 2013
52.222-1	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES	FEB 1997
52.222-2	PAYMENT FOR OVERTIME PREMIUMS <i>Insert the word “ZERO” under the blank of paragraph (a)</i>	JUL 1990
52.222-3	CONVICT LABOR	JUN 2003
52.222-4	CONTRACT WORK HOURS AND SAFETY STANDARDS- OVERTIME COMPENSATION	MAY 2018

<i>Clauses 52.222-6 through 52.222-16 apply when construction is performed within the United States</i>		
52.222-6	CONSTRUCTION WAGE RATE REQUIREMENTS	AUG 2018
52.222-7	WITHHOLDING OF FUNDS	MAY 2014
52.222-8	PAYROLLS AND BASIC RECORDS	AUG 2018
52.222-9	APPRENTICES AND TRAINEES	JUL 2005
52.222-10	COMPLIANCE WITH COPELAND ACT REQUIREMENTS	FEB 1988
52.222-11	SUBCONTRACTS (LABOR STANDARDS)	MAY 2014
52.222-12	CONTRACT TERMINATION-DEBARMENT	MAY 2014
52.222-13	COMPLIANCE WITH CONSTRUCTION WAGE RATE REQUIREMENTS AND RELATED REGULATIONS	MAY 2014
52.222-14	DISPUTES CONCERNING LABOR STANDARDS	FEB 1988
52.222-15	CERTIFICATION OF ELIGIBILITY	MAY 2014
52.222-16	APPROVAL OF WAGE RATES	MAY 2014
52.222-17	NONDISPLACEMENT OF QUALIFIED WORKERS	MAY 2014
52.222-19	CHILD LABOR—COOPERATION WITH AUTHORITIES AND REMEDIES	JAN 2018
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	APR 2015
52.222-26	EQUAL OPPORTUNITY	SEP 2016
<i>Clause 52.222-27 applies when construction is performed within the United States</i>		
52.222-27	AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION	APR 2015
52.222-29	NOTIFICATION OF VISA DENIAL	APR 2015
<i>Clause 52.222-30 applies when construction is performed within the United States</i>		
52.222-30	CONSTRUCTION WAGE RATE REQUIREMENTS-PRICE ADJUSTMENT (NONE OR SEPARATELY SPECIFIED METHOD)	AUG 2018
52.222-35	EQUAL OPPORTUNITY FOR VETERANS	OCT 2015
52.222-36	EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES	JUL 2014
52.222-37	EMPLOYMENT REPORTS ON VETERANS	FEB 2016
52.222-40	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT	DEC 2010
52.222-41	SERVICE CONTRACT LABOR STANDARDS	AUG 2018
52.222-49	SERVICE CONTRACT LABOR STANDARDS-PLACE OF PERFORMANCE UNKNOWN	MAY 2014
	<i>Insert “none” under the first blank space and “the end of the current performance period” under the second blank space.</i>	
52.222-50	COMBATING TRAFFICKING IN PERSONS	MAR 2015
52.222-54	EMPLOYMENT ELIGIBILITY VERIFICATION	OCT 2015
52.222-55	MINIMUM WAGES UNDER EXECUTIVE ORDER 13658	DEC 2015
52.222-62	PAID SICK LEAVE UNDER EXECUTIVE ORDER 13706	JAN 2017
52.223-3	HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA – ALTERNATE I (JUL 1995)	JAN 1997
52.223-5	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION	MAY 2011
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-10	WASTE REDUCTION PROGRAM	MAY 2011
52.223-11	OZONE-DEPLETING SUBSTANCES AND HIGH GLOBAL WARMING POTENTIAL HYDROFLUOROCARBOONS	JUN 2016
52.223-12	MAINTENANCE, SERVICE, REPAIR, OR DISPOSAL OF REFRIGERATION EQUIPMENT AND AIR CONDITIONERS	JUN 2016
52.223-13	ACQUISITION OF EPAEAT REGISTERED IMAGING EQUIPMENT	JUN 2014

52.223-14	ACQUISITION OF EPEAT REGISTERED TELEVISIONS	JUN 2014
52.223-15	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS	DEC 2007
52.223-16	ACQUISITION OF EPEAT REGISTERED PERSONAL COMPUTER PRODUCTS	OCT 2015
52.223-17	AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS	AUG 2018
52.223-18	ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING	AUG 2011
52.223-19	COMPLIANCE WITH ENVIRONMENTAL MANagements SYSTEMS	MAY 2011
52.224-1	PRIVACY ACT NOTIFICATION	APR 1984
52.224-2	PRIVACY ACT	APR 1984
52.224-3	PRIVACY TRAINING	JAN 2017
52.225-1	BUY AMERICAN – SUPPLIES	MAY 2014
52.225-5	TRADE AGREEMENTS	AUG 2018
52.225-9	BUY AMERICAN – CONSTRUCTION MATERIALS	MAY 2014
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.226-1	UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES	JUN 2000
52.227-1	AUTHORIZATION AND CONSENT	DEC 2007
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC 2007
52.227-3	PATENT INDEMNITY	APR 1984
52.227-14	RIGHTS IN DATA—GENERAL	MAY 2014
52.227-16	ADDITIONAL DATA REQUIREMENTS	JUN 1987
52.228-3	WORKERS' COMPENSATION INSURANCE (DEFENSE BASE ACT)	JUL 2014
52.228-4	WORKERS' COMPENSATION AND WAR-HAZARD INSURANCE OVERSEAS	APR 1984
52.228-7	INSURANCE—LIABILITY TO THIRD PERSONS	MAR 1996
52.228-8	LIABILITY AND INSURANCE – LEASED MOTOR VEHICLES	MAY 1999
52.229-8	TAXES – FOREIGN COST-REIMBURSEMENT CONTRACTS	MAR 1990
52.230-2	COST ACCOUNTING STANDARDS	OCT 2015
52.230-6	ADMINISTRATION OF COST ACCOUNTING STANDARDS	JUN 2010
52.232-9	LIMITATION ON WITHHOLDING OF PAYMENTS	APR 1984
52.232-17	INTEREST	MAY 2014
52.232-20	LIMITATION OF COST	APR 1984
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	MAY 2014
52.232-25	PROMPT PAYMENT ALTERNATE I (FEB 2002)	JAN 2017
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER-SYSTEM FOR AWARD MANAGEMENT	OCT 2018
52.232-39	UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS	JUN 2013
52.232-40	PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS	DEC 2013
52.233-1	DISPUTES – ALTERNATE I (DEC 1991)	MAY 2014
52.233-3	PROTEST AFTER AWARD ALTERNATE I (JUN 1985)	AUG 1996
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
52.237-3	CONTINUITY OF SERVICES	JAN 1991
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY 2014

52.242-4	CERTIFICATION OF FINAL INDIRECT COSTS	JAN 1997
52.242-5	PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS	JAN 2017
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES—COST REIMBURSEMENT ALTERNATE II (APR 1984)	AUG 1987
52.244-2	SUBCONTRACTS – ALTERNATE I (JUN 2007) <i>Under FAR 52.244-2(d) insert the following words at the end of the paragraph: “Subcontracts awarded and/or modified with a total value equal to or greater than \$350,000; except as listed in paragraph (j) of this clause. Required subcontract modification documentation shall be coordinated with the Contracting Officer.”</i> <i>Under FAR 52.244-2(j).</i>	OCT 2010
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	OCT 2018
52.245-1	GOVERNMENT PROPERTY	JAN 2017
52.245-9	USE AND CHARGES	APR 2012
52.246-23	LIMITATION OF LIABILITY	FEB 1997
52.246-24	LIMITATION OF LIABILITY – HIGH VALUE ITEMS	FEB 1997
52.246-25	LIMITATION OF LIABILITY - SERVICES	FEB 1997
52.247-1	COMMERCIAL BILL OF LADING NOTATIONS	FEB 2006
52.247-63	PREFERENCE FOR U.S. FLAG AIR CARRIERS	JUN 2003
52.247-64	PREFERENCE FOR PRIVATELY OWNED U.S.-FLAG COMMERCIAL VESSELS	FEB 2006
52.247-67	SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT <i>Under 52.247-67(c) insert the following words at the end of the paragraph” the COR and cognizant NSF CO.”</i>	FEB 2006
52.247-68	REPORT OF SHIPMENT (REPSHIP)	FEB 2006
52.248-1	VALUE ENGINEERING	OCT 2010
52.249-6	TERMINATION (COST-REIMBURSEMENT)	MAY 2004
52.249-14	EXCUSABLE DELAYS	APR 1984
52.251-1	GOVERNMENT SUPPLY SOURCES	APR 2012
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

I.2 52.208-8 REQUIRED SOURCES FOR HELIUM AND HELIUM USAGE DATA (AUG 2018)

(a) Definitions.

“Bureau of Land Management,” as used in this clause, means the Department of the Interior, Bureau of Land Management, Amarillo Field Office, Helium Operations, located at 801 South Fillmore Street, Suite 500, Amarillo, TX 79101-3545.

“Federal helium supplier” means a private helium vendor that has an in-kind crude helium sales contract with the Bureau of Land Management (BLM) and that is on the BLM Amarillo Field Office’s Authorized List of Federal Helium Suppliers available via the Internet at http://www.blm.gov/nm/st/en/fo/Amarillo_Field_Office.html.

“Major helium requirement” means an estimated refined helium requirement greater than 200,000 standard cubic feet (scf) (measured at 14.7 pounds per square inch absolute pressure and 70 degrees Fahrenheit temperature) of gaseous helium or 7510 liters of liquid helium delivered to a helium use location per year.

(b) Requirements—

(1) Contractors must purchase major helium requirements from Federal helium suppliers, to the extent that supplies are available.

(2) The Contractor shall provide to the Contracting Officer the following data within 10 days after the Contractor or subcontractor receives a delivery of helium from a Federal helium supplier—

- (i) The name of the supplier;
- (ii) The amount of helium purchased;
- (iii) The delivery date(s); and
- (iv) The location where the helium was used.

(c) *Subcontracts*. The Contractor shall insert this clause, including this paragraph (c), in any subcontract or order that involves a major helium requirement.

(End of clause)

I.3 52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 2014)

In compliance with the Service Contract Labor Standards statute and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of [5 U.S.C. 5341](#) or [5332](#).

This Statement is for Information Only:

It is not a Wage Determination

Employee Class	Monetary Wage—Fringe Benefits
	Fringe benefits are estimated at 21.7% of wages and salaries for all employee classes
Laborer	WG-3 / \$19.95
Warehouseman	WG-5 / \$23.81
Plumber Helper (or Trades Helper)	WG-5 / \$23.81
Carpenter	WG-9 / \$31.54
Plumber	WG-9 / \$31.54
Automotive Mechanic (or Heavy Equipment Mechanic)	WG-10 / \$33.48
Pipefitter (or Pipe Insulator)	WG-10 / \$33.48
Sheetmetal Worker	WG-10 / \$33.48
Electrician	WG-10 / \$33.48
Motor Grader (or Heavy Equipment Operator)	WG-10 / \$33.48
Electronic Equipment Mechanic (or Electronic Equipment Technician)	WG-11 / \$35.40

(End of clause)

I.4 52.222-43 FAIR LABOR STANDARDS ACT AND SERVICE CONTRACT LABOR STANDARDS — PRICE ADJUSTMENT (Multiple Year and Option Contracts) (AUG 2018)

(a) This clause applies to both contracts subject to area prevailing wage determinations and contracts subject to collective bargaining agreements.

(b) The Contractor warrants that the prices in this contract do not include any allowance for any contingency to cover increased costs for which adjustment is provided under this clause.

(c) The wage determination, issued under the Service Contract Labor Standards statute, ([41 U.S.C. chapter 67](#)), by the Administrator, Wage and Hour Division, U.S. Department of Labor, current on the anniversary date of a multiple year contract or the beginning of each renewal option period, shall apply to this contract. If no such determination has been made applicable to this contract, then the Federal minimum wage as established by section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended, ([29 U.S.C. 206](#)) current on the anniversary date of a multiple year contract or the beginning of each renewal option period, shall apply to this contract.

(d) The contract price, contract unit price labor rates, or fixed hourly labor rates will be adjusted to reflect the Contractor's actual increase or decrease in applicable wages and fringe benefits to the extent that the increase is made to comply with or the decrease is voluntarily made by the Contractor as a result of:

(1) The Department of Labor wage determination applicable on the anniversary date of the multiple year contract, or at the beginning of the renewal option period. For example, the prior year wage determination required a minimum wage rate of \$4.00 per hour. The Contractor chose to pay \$4.10. The new wage determination increases the minimum rate to \$4.50 per hour. Even if the Contractor voluntarily increases the rate to \$4.75 per hour, the allowable price adjustment is \$.40 per hour;

(2) An increased or decreased wage determination otherwise applied to the contract by operation of law; or

(3) An amendment to the Fair Labor Standards Act of 1938 that is enacted after award of this contract, affects the minimum wage, and becomes applicable to this contract under law.

(e) Any adjustment will be limited to increases or decreases in wages and fringe benefits as described in paragraph (d) of this clause, and the accompanying increases or decreases in social security and unemployment taxes and workers' compensation insurance, but shall not otherwise include any amount for general and administrative costs, overhead, or profit.

(f) The Contractor shall notify the Contracting Officer of any increase claimed under this clause within 30 days after receiving a new wage determination unless this notification period is extended in writing by the Contracting Officer. The Contractor shall promptly notify the Contracting Officer of any decrease under this clause, but nothing in the clause shall preclude the Government from asserting a claim within the period permitted by law. The notice shall contain a statement of the amount claimed and the change in fixed hourly rates (if this is a time-and-materials or labor-hour contract), and any relevant supporting data, including payroll records, that the Contracting Officer may reasonably require. Upon agreement of the parties, the contract price, contract unit price labor rates, or fixed hourly rates shall be modified in writing. The Contractor shall continue performance pending agreement on or determination of any such adjustment and its effective date.

(g) The Contracting Officer or an authorized representative shall have access to and the right to examine any directly pertinent books, documents, papers and records of the Contractor until the expiration of 3 years after final payment under the contract.

(End of clause)

I.5 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED ITEMS (MAY 2008)

(a) *Definitions.* As used in this clause—

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.”

“Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material content; and

(2) Submit this estimate to the COR.

(End of clause)

I.6 252.251-7000 ORDERING FROM GOVERNMENT SUPPLY SOURCES (AUG 2012)

This clause is added for purchasing supplies from the Defense Logistics Agency

(a) When placing orders under Federal Supply Schedules, Personal Property Rehabilitation Price Schedules, or Enterprise Software Agreements, the Contractor shall follow the terms of the applicable schedule or agreement and authorization. Include in each order:

(1) A copy of the authorization (unless a copy was previously furnished to the Federal Supply Schedule, Personal Property Rehabilitation Price Schedule, or Enterprise Software Agreement contractor).

(2) The following statement:

Any price reductions negotiated as part of an Enterprise Software Agreement issued under a Federal Supply Schedule contract shall control. In the event of any other inconsistencies between an Enterprise Software Agreement, established as a Federal Supply Schedule blanket purchase agreement, and the Federal Supply Schedule contract, the latter shall govern.

(3) The completed address(es) to which the Contractor's mail, freight, and billing documents are to be directed.

(b) When placing orders under nonmandatory schedule contracts and requirements contracts, issued by the General Services Administration (GSA) Office of Information Resources Management, for automated data processing equipment, software and maintenance, communications equipment and supplies, and teleprocessing services, the Contractor shall follow the terms of the applicable contract and the procedures in paragraph (a) of this clause.

(c) When placing orders for Government stock on a reimbursable basis, the Contractor shall—

(1) Comply with the requirements of the Contracting Officer's authorization, using FEDSTRIP or MILSTRIP procedures, as appropriate;

(2) Use only the GSA Form 1948-A, Retail Services Shopping Plate, when ordering from GSA Self-Service Stores;

(3) Order only those items required in the performance of Government contracts; and

(4) Pay invoices from Government supply sources promptly. For purchases made from DoD supply sources, this means within 30 days of the date of a proper invoice. The Contractor shall annotate each invoice with the date of receipt. For purposes of computing interest for late Contractor payments, the Government's invoice is deemed to be a demand for payment in accordance with the Interest clause of this contract. The Contractor's failure to pay may also result in the DoD supply source refusing to honor the requisition (see DFARS 251.102(f)) or in the Contracting Officer terminating the Contractor's authorization to use DoD supply sources. In the event the Contracting Officer decides to terminate the authorization due to the Contractor's failure to pay in a timely manner, the Contracting Officer shall provide the Contractor with prompt written notice of the intent to terminate the authorization and the basis for such action. The Contractor shall have 10 days after receipt of the Government's notice in which to provide additional information as to why the authorization should not be terminated. The termination shall not provide the Contractor with an excusable delay for failure to perform or complete the contract in accordance with the terms of the contract, and the Contractor shall be solely responsible for any increased costs.

(d) When placing orders for Government stock on a non-reimbursable basis, the Contractor shall—

- (1) Comply with the requirements of the Contracting Officer's authorization; and
- (2) When using electronic transactions to submit requisitions on a non-reimbursable basis only, place orders by authorizing contract number using the Defense Logistics Management System (DLMS) Supplement to Federal Implementation Convention 511R, Requisition; and acknowledge receipts by authorizing contract number using the DLMS Supplement 527R, Receipt, Inquiry, Response and Material Receipt Acknowledgement.

(e) Only the Contractor may request authorization for subcontractor use of Government supply sources. The Contracting Officer will not grant authorizations for subcontractor use without approval of the Contractor.

(f) Government invoices shall be submitted to the Contractor's billing address, and Contractor payments shall be sent to the Government remittance address specified below:

Contractor's Billing Address:

Cage Code:

Billing Address:

Point of Contact (POC):

POC Telephone Number:

POC E-mail Address:

Point of Contact (POC):

POC E-mail Address:

Government Remittance Address:

Defense Finance and Accounting Service, Columbus, Ohio (DFAS-CO)

(End of clause)

PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

SECTION J - LIST OF ATTACHMENTS

No./Label	Document	No. Pages	Reference
Appendix A	Total Number of Contractor Supported Science Projects	1	C.2.2
Appendix B	Geographic Distribution of Contractor Supported Science Projects	1	C.2.2
Appendix C	Projects & Locations, 2016 and 2017	1	C.2.2
Appendix C1	Contractor Supported Projects, 2016	10	C.2.2
Appendix C2	NSF vision for Research Support & Logistics at Summit Station	7	C.2.2
Appendix D	NSF vision for Research Support & Logistics at Summit Station	1	C.2.2.2
Appendix E	Contractor Support Science Project Funding Sources 2016	1	C2.3.1
Appendix F	Construction and Maintenance Projects, 2016 and 2017	4	C.2.4.2
Appendix G	Aviation Support 2016	2	C.2.5
Appendix H	Greenland Operations Air Support, 2016	2	C.2.5
Appendix I	Physical Qualification Standard Operating Procedure	3	C.2.8
Appendix J	Property Inventory Report, 2017	44	C.2.9.6
Appendix K	Summit Emissions Report, 2017	40	C.2.4.3
WD 15-5687 (Rev.-7) 12/26/2018	DOL Wage Determination for Alaska Boroughs of Aleutian Island, Bethel, Bristol Bay, Dillingham, Kenai Peninsula, Kodiak Island, Nome, North Slope, Southeast Fairbanks, Valdez-Cordova, Wade Hampton, Yukon-Koyukuk	11	52.222-41
WD 15-5683 (Rev.-7) 12/26/2018	DOL Wage Determination for Alaska Borough of Fairbanks North	11	52.222-41
WD 15-5419 (Rev.-11) 12/26/2018	DOL Wage Determination for Colorado	11	52.222-41
WD 15-4143 (Rev.-10) 12/26/2018	DOL Wage Determination for New York Counties of Albany, Rensselaer, Saratoga, Schenectady, Schoharie	11	52.222-41
Attachment H-1	Confidentiality and Non-Disclosure Agreement	1	H.12
Attachment H-2	DD Form 254, Contract Security Classification Specification (expected at time of award or thereafter)	1	H.13
Attachment H-3	Level-of-Effort, Direct Labor Hours*		B.6
Subcontracting Plan	Small Business Subcontracting Plan**		
AK190001 Date: 01/18/2019	Davis-Bacon Act Wage Decision for Alaska	15	52.222-6 to 52.222-16
Attachment L-1	Past Performance Survey	2	L.11.3.3, L11.3.7 & L.15
Attachment L-2	Prime Offeror Cost/Price Worksheet		L.16.4
Attachment L-3	Proposed Subcontractor Cost/Price Worksheet		L.16.4
Attachment L-4	List of Acronyms	3	L.3.7
Attachment L-5	Hand Delivery Sheet	1	L.12.3

*At time of contract award (when SSF26 is signed by CO), Attachment H-3 will be based upon the sum total of proposed (or negotiated as determined by the CO) DLH under L-2 and L-3.

**Small Business Subcontracting Plan shall be negotiated and attached to a resulting award pursuant to the terms and conditions of this solicitation.

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K - REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS

K.1 NOTICE LISTING SOLICITATION PROVISIONS INCORPORATED BY REFERENCE

The following solicitation provisions pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the FAR provision at FAR "52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-1 for an internet address (if specified) for electronic access to the full text of a provision.

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)

<u>FAR Number</u>	<u>Title</u>	<u>Date</u>
52.203-11	CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	SEP 2007
52.204-5	WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS)	OCT 2014
52.204-17	OWNERSHIP OR CONTROL OF OFFEROR	JUL 2016
52.204-19	INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS	DEC 2014
52.209-2	PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS - REPRESENTATIONS	NOV 2015
52.222-25	AFFIRMATIVE ACTION COMPLIANCE	APR 1984
52.222-38	COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS	FEB 2016
52.222-56	CERTIFICATION REGARDING TRAFFICKING IN PERSONS COMPLIANCE PLAN	MAR 2015
52.223-1	BIOBASED PRODUCT CERTIFICATION	MAY 2012
52.223-4	RECOVERED MATERIAL CERTIFICATION	MAY 2008

K.2 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (OCT 2018)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 561210.

(2) The small business size standard is \$38.5 million.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7 is not included in this solicitation, and the offeror is currently registered in the System for Award Management (SAM), and has completed the Representations and Certifications

section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(i) Paragraph (d) applies.

(ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c)(1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements—Representation. This provision applies to all solicitations.

(iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations—Representation.

(vii) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(viii) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(ix) 52.214-14, Place of Performance—Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(x) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xi) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(xii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xiii) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xiv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xv) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xvi) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xvii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xiii) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.

(xix) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xx) 52.225-4, Buy American—Free Trade Agreements—Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225-3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$77,533, the provision with its Alternate II applies.

(D) If the acquisition value is \$77,533 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxi) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xxii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan—Certification. This provision applies to all solicitations.

(xxiii) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certifications. This provision applies to all solicitations.

(xxiv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

(i) 52.204-17, Ownership or Control of Offeror.

(ii) 52.204-20, Predecessor of Offeror.

(iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment—Certification.

(v) 52.222-52, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services—Certification.

(vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM Web site accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

(End of provision)

K.3 52.204-20 PREDECESSOR OF OFFEROR (JUL 2016)

(a) Definitions. As used in this provision—
“Commercial and Government Entity (CAGE) code” means—

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

“Predecessor” means an entity that is replaced by a successor and includes any predecessors of the predecessor.

“Successor” means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term “successor” does not include new offices/divisions of the same company or a company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

(b) The Offeror represents that it is or is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(c) If the Offeror has indicated “is” in paragraph (b) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: _____ (or mark “Unknown”)

Predecessor legal name: _____

(Do not use a “doing business as” name)

(End of provision)

K.4 52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (OCT 2015)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that—

(i) The Offeror and/or any of its Principals—

(A) Are are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have have not , within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) contract or subcontract; violation of Federal or State antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property (if offeror checks “have”, the offeror shall also see [52.209-7](#), if included in this solicitation);

(C) Are are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision;

(D) Have , have not , within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,500 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) *The tax liability is finally determined.* The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(ii) *The taxpayer is delinquent in making payment.* A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(2) *Examples.*

(i) The taxpayer has received a statutory notice of deficiency, under I.R.C. § 6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. § 6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. § 6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(ii) The Offeror has or has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principal," for the purposes of this certification, means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The

knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

K.5 52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (OCT 2018)

(a) *Definitions.* As used in this provision—

"Administrative proceeding" means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

"Federal contracts and grants with total value greater than \$10,000,000" means—

- (1) The total value of all current, active contracts and grants, including all priced options; and
- (2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

"Principal" means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror [] has [] does not have current active Federal contracts and grants with total value greater than \$10,000,000.

(c) If the offeror checked "has" in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

(1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

- (i) In a criminal proceeding, a conviction.
- (ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more.

(iii) In an administrative proceeding, a finding of fault and liability that results in—

- (A) The payment of a monetary fine or penalty of \$5,000 or more; or

(B) The payment of a reimbursement, restitution, or damages in excess of \$100,000.

(iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.

(2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the System for Award Management which can be accessed via <https://www.sam.gov> (see 52.204-7).

(End of provision)

K.6 52.209-11 REPRESENTATION BY CORPORATIONS REGARDING DELINQUENT TAX LIABILITY OR A FELONY CONVICTION UNDER ANY FEDERAL LAW (FEB 2016)

(a) As required by sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that—

(1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or

(2) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Offeror represents that—

(1) It is is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(2) It is is not a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(End of provision)

K.7 52.209-12 CERTIFICATION REGARDING TAX MATTERS (FEB 2016)

(a) This provision implements section 523 of Division B of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235), and similar provisions, if contained in subsequent appropriations acts.

(b) If the Offeror is proposing a total contract price that will exceed \$5,000,000 (including options), the Offeror shall certify that, to the best of its knowledge and belief, it—

- (1) Has filed all Federal tax returns required during the three years preceding the certification;
- (2) Has not been convicted of a criminal offense under the Internal Revenue Code of 1986; and
- (3) Has not , more than 90 days prior to certification, been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

(End of provision)

K.8 52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (OCT 2014)

(a) *Definitions.* As used in this provision—

“Economically disadvantaged women-owned small business (EDWOSB) concern” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127. It automatically qualifies as a women-owned small business concern eligible under the WOSB Program.

“Service-disabled veteran-owned small business concern”—

(1) Means a small business concern—

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) “Service-disabled veteran” means a veteran, as defined in [38 U.S.C. 101\(2\)](#), with a disability that is service-connected, as defined in [38 U.S.C. 101\(16\)](#).

“Small business concern” means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (b) of this provision.

“Small disadvantaged business concern,” consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that—

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by—

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States, and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

“Veteran-owned small business concern” means a small business concern—

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at [38 U.S.C. 101\(2\)](#)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

“Women-owned small business concern” means a small business concern—

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

“Women-owned small business (WOSB) concern eligible under the WOSB Program” (in accordance with 13 CFR part 127), means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States.

(b)(1) The North American Industry Classification System (NAICS) code for this acquisition is—
_____ [insert NAICS code].

(2) The small business size standard is _____ [insert size standard].

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(c) Representations.

(1) The offeror represents as part of its offer that it is, is not a small business concern.

(2) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it is, is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it is, is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program. [Complete only if the offeror represented itself as a women-owned small business concern in paragraph (c)(3) of this provision.] The offeror represents as part of its offer that—

(i) It is, is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It is, is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(4)(i) of this provision is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [The offeror shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: _____.] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the offeror represented itself as a women-owned small business concern eligible under the WOSB Program in (c)(4) of this provision.] The offeror represents as part of its offer that—

(i) It is, is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It is, is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(5)(i) of this provision is accurate for each EDWOSB concern participating in the joint venture. [The offeror shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: _____.] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it is, is not a veteran-owned small business concern.

(7) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(6) of this provision.] The offeror represents as part of its offer that it is, is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that—

(i) It is, is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR Part 126; and

(ii) It is, is not a HUBZone joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (c)(8)(i) of this provision is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The offeror shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: _____.] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under [15 U.S.C. 645\(d\)](#), any person who misrepresents a firm's status as a business concern that is small, HUBZone small, small disadvantaged, service-disabled veteran-owned small, economically disadvantaged women-owned small, or women-owned small eligible under the WOSB Program in order to obtain a contract to be awarded under the preference programs established pursuant to section 8, 9, 15, 31, and 36 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall—

- (i) Be punished by imposition of fine, imprisonment, or both;
- (ii) Be subject to administrative remedies, including suspension and debarment; and
- (iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

K.9 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that—

It has, has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

It has, has not filed all required compliance reports; and

Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

K.10 52.227-15 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (DEC 2007)

(a) This solicitation sets forth the Government's known delivery requirements for data (as defined in the clause at [52.227-14](#), Rights in Data—General). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at [52.227-16](#), if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data—General clause at [52.227-14](#) included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data instead. The latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the Government the right to inspect such data at the Contractor's facility.

(b) By completing the remainder of this paragraph, the offeror represents that it has reviewed the requirements for the delivery of technical data or computer software and states [*offeror check appropriate block*]—

(1) None of the data proposed for fulfilling the data delivery requirements qualifies as limited rights data or restricted computer software; or

(2) Data proposed for fulfilling the data delivery requirements qualify as limited rights data or restricted computer software and are identified as follows:

(c) Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of the data should a contract be awarded to the offeror.

(End of provision)

K.11 52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (OCT 2015)

NOTE: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT—COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of \$750,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR, Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

(1) *Certificate of Concurrent Submission of Disclosure Statement.* The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

(2) *Certificate of Previously Submitted Disclosure Statement.* The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____

Name and Address of Cognizant ACO or Federal Official Where Filed:

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

(3) *Certificate of Monetary Exemption.* The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling \$50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

(4) *Certificate of Interim Exemption.* The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR

9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraphs (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90 day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS—ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR subpart 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$50 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

YES NO

(End of provision)

K.12 52.230-7 PROPOSAL DISCLOSURE—COST ACCOUNTING PRACTICE CHANGES (APR 2005)

The offeror shall check "yes" below if the contract award will result in a required or unilateral change in cost accounting practice, including unilateral changes requested to be desirable changes.

Yes No

If the offeror checked "Yes" above, the offeror shall—

(1) Prepare the price proposal in response to the solicitation using the changed practice for the period of performance for which the practice will be used; and

(2) Submit a description of the changed cost accounting practice to the Contracting Officer and the Cognizant Federal Agency Official as pricing support for the proposal.

(End of provision)

K.13 52.237-8 RESTRICTION ON SEVERANCE PAYMENTS TO FOREIGN NATIONAL (AUG 2003)

(a) The Federal Acquisition Regulation (FAR), at [31.205-6\(g\)\(6\)](#), limits the cost allowability of severance payments to foreign nationals employed under a service contract performed outside the United States unless the agency grants a waiver pursuant to FAR [37.113-1](#) before contract award.

(b) In making the determination concerning the granting of a waiver, the agency will determine that—

(1) The application of the severance pay limitations to the contract would adversely affect the continuation of a program, project, or activity that provides significant support services for—

(i) Members of the armed forces stationed or deployed outside the United States; or

(ii) Employees of an executive agency posted outside the United States;

(2) The Contractor has taken (or has established plans to take) appropriate actions within its control to minimize the amount and number of incidents of the payment of severance pay to employees under the contract who are foreign nationals; and

(3) The payment of severance pay is necessary in order to comply with a law that is generally applicable to a significant number of businesses in the country in which the foreign national receiving the payment performed services under the contract, or is necessary to comply with a collective bargaining agreement.

(End of provision)

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L.1 NOTICE LISTING SOLICITATION PROVISIONS INCORPORATED BY REFERENCE

The following solicitation provisions pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the FAR provision at FAR "52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-1 for an internet address (if specified) for electronic access to the full text of a provision.

FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)

<u>FAR Number</u>	<u>Title</u>	<u>Date</u>
52.204-7	SYSTEM FOR AWARD MANAGEMENT	OCT 2018
52.204-16	COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING	JUL 2016
52.204-22	ALTERNATIVE LINE ITEM PROPOSAL	JAN 2017
52.214-34	SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE	APR 1991
52.214-35	SUBMISSION OF OFFERS IN U.S. CURRENCY	APR 1991
52.215-1	INSTRUCTIONS TO OFFERORS—COMPETITIVE ACQUISITION (OCT 1997)	JAN 2017
52.215-16	FACILITIES CAPITAL COST OF MONEY	JUN 2003
52.215-20	REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA OTHER THAN CERTIFIED COST OR PRICING DATA	OCT 2010
52.215-22	LIMITATIONS ON PASS-THROUGH CHARGES— IDENTIFICATION OF SUBCONTRACT EFFORTS	OCT 2009
52.215-23	LIMITATIONS ON PASS-THROUGH CHARGES	OCT 2009
52.222-24	PREAWARD ON-SITE EQUAL OPPORTUNITY COMPLIANCE EVALUATION	FEB 1999
52.223-22	PUBLIC DISCLOSURE OF GREENHOUSE GAS EMISSIONS AND REDUCTION GOALS – REPRESENTATION	DEC 2016
52.225-25	PROHIBITION ON CONTRACTING WITH ENTITIES ENGAGING IN CERTAIN ACTIVITIES OR TRANSACTIONS RELATING TO IRAN – REPRESENTATION AND CERTIFICATIONS	AUG 2018
52.237-10	IDENTIFICATION OF UNCOMPENSATED OVERTIME	MAR 2015

L.2 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Cost-Plus-Fixed-Fee Term Level-of-Effort contract type resulting from this solicitation.

(End of provision)

L.3 52.222-5 CONSTRUCTION WAGE RATE REQUIREMENTS – SECONDARY SITE OF THE WORK (MAY 2014)

(a)(1) The offeror shall notify the Government if the offeror intends to perform work at any secondary site of the work, as defined in paragraph (a)(1)(ii) of the FAR clause at [52.222-6](#), Construction Wage Rate Requirements, of this solicitation.

(2) If the offeror is unsure if a planned work site satisfies the criteria for a secondary site of the work, the offeror shall request a determination from the Contracting Officer.

(b)(1) If the wage determination provided by the Government for work at the primary site of the work is not applicable to the secondary site of the work, the offeror shall request a wage determination from the Contracting Officer.

(2) The due date for receipt of offers will not be extended as a result of an offeror's request for a wage determination for a secondary site of the work.

(End of provision)

L.4 52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Hand-Carried Address:

National Science Foundation
BFA/DACS, E 7345 Joe Cloft
2415 Eisenhower Avenue
Alexandria, VA 22314

Mailing Address:

National Science Foundation
BFA/DACS, E 7345 Joe Cloft
2415 Eisenhower Avenue
Alexandria, VA 22314

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

L.5 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es): <https://www.acquisition.gov/browsefar>

(End of provision)

L.6 NSF310 NOTICE OF REGISTERING IN RESEARCH.GOV (MAY 2018)

The prospective awardee shall, upon notification from the Contracting Officer, register in Research.gov prior to award. Instructions on how to register in Research.gov are as follows:

1. Sign in to Research.gov. (If you do not have a NSF account, first go to Research.gov and select Register from the menu to create one.)
2. Select the My Profile link located on the top right hand of the screen.
3. Select the Add a New Role option from the left navigation bar.
4. Select Add Organizational Role.

Note: The organization is required to be registered in the System for Award Management (SAM). Please go to www.sam.gov to register your organization with SAM prior to registering with NSF. Note that completion of the SAM registration process may take up to two weeks. A DUNS number is also required to register your organization with NSF.

For complete instructions on the registration process, please consult https://www.research.gov/common/attachment/Desktop/Single_ID_Help.pdf#page=11

The prospective awardee shall follow the instructions and inform the Contracting Officer when registration has been completed.

(End of provision)

L.7 CONTRACTOR AND SUBCONTRACTOR ANNUAL COMPENSATION

In accordance with 41 U.S. Code subsection 4304 (16), costs of compensation of contractor and subcontractor employees for a fiscal year, regardless of the contract funding source, to the extent that such compensation exceeds \$487,000 per year, adjusted annually to reflect the change in the Employment Cost Index for all workers, as calculated by the Bureau of Labor Statistics, may be determined not allowable. If an Offeror proposes contractor or subcontractor employee(s) compensation exceeding the adjusted annual compensation of \$487,000 as stated above, the Offeror must provide a justification for each of the respective proposed contractor or subcontractor employees. The Government shall make a unilateral determination whether each proposed contractor or subcontractor employee's annual compensation is not allowable pursuant to 41 U.S. Code subsection 4304 (16). Any offer containing proposed employee or subcontractor compensation, that is determined not allowable, may be determined not fair and reasonable, thereby not considered for award.

L.8 RESOURCE LIBRARY

The Government established a website for additional information specifically relevant to the ARSLS acquisition. The website may be accessed via the following link: http://www.nsf.gov/about/contracting/rfqs/support_arc/index.jsp. Offerors are advised to periodically visit the website for any new or updated information.

L.9 COMMUNICATIONS REGARDING THIS SOLICITATION

For this solicitation, all communication with NSF shall be limited to Joseph Cloft, Contracting Officer. Any communications in reference to this solicitation shall cite the solicitation number and appropriate page and/or section number of the solicitation and be submitted electronically to joscloft@nsf.gov. After issuance of this solicitation, the Government expects two rounds of questions and answers regarding this RFP. The first round of questions must be received by the Contracting Officer no later than ten days after the issuance of this solicitation. The second round of questions must be received by the Contracting Officer no later than 21 days after the issuance of this solicitation. Responses to all questions will be provided through amendments to this solicitation.

(End of provision)

L.10 INSTRUCTIONS TO OFFERORS – PREPARATION OF PROPOSALS

L.10.1 PROPOSAL PREPARATION AND SUBMISSION - GENERAL

L.10.1.1 Offerors are advised to carefully read the entire RFP and ensure their proposals contain all necessary information, provide all required documentation, and are complete in all respects since proposal evaluations will be based on the actual material presented and not on the basis of what is implied. Any component of the submission that is incomplete or late may be considered non-compliant and/or non-responsive. All updates to the RFP will be posted via FedBizOps (www.fbo.gov).

L.10.1.2 NSF may reject any proposal that fails to conform with the stated proposal instructions as incomplete and technically unacceptable. In its sole and complete discretion, NSF reserves all rights to deem any such failure a material one that renders the proposal non-responsive and unacceptable. Information required for proposal evaluation which is not found in its designated volume will be assumed to have been omitted from the proposal.

L.10.1.3 Calendar days, unless otherwise specified, will include Saturdays, Sundays, and legal Federal holidays. Unless specified otherwise, if the last day falls on a Saturday, Sunday, or legal Federal holiday, then the period shall include the next working day.

L.10.1.4 The Government intends to evaluate proposals and award a contract without discussions with offerors. However, the Government reserves the right to conduct discussions with all offerors or those in the Competitive Range, if later determined necessary by the Contracting Officer. All Offerors or those in the Competitive Range, if appropriate, will be invited with sufficient notice to arrange participation.

L.10.1.5 The term “Offeror” as used herein refers to the single legal entity, a “U.S. Firm”, submitting an offer to NSF. The entity may be a corporation, a limited liability corporation, or other legal entity and may be pre-existing or newly formed for this contract. The entity must be legally established on or before the proposal due date stated under box 9 of the Standard Form 33 (page 1 of this solicitation). The entity shall be totally responsible for all contract requirements.

L.10.1.6 The resulting contract from this solicitation shall be made only to a U.S. Firm. Any teaming through subcontracting must be between U.S. Firms. “U.S. Firm” is defined as an organization that is incorporated and located within the United States of America. All subcontractors, other than teaming partners, shall be U.S. Firms or firms legally registered to do business in designated countries pursuant to the Trade Agreements Act (TAA) and World Trade Organization Government Procurement Agreement (WTO GPA), as applicable. For acquisitions below the applicable TAA and WTO GPA dollar thresholds, subcontracting must be with U.S. Firms or designated TAA and WTO GPA countries. Exceptions for acquisitions *below the applicable TAA and WTO GPA dollar thresholds* are approved solely for services required in Greenland and Russia, whereas subcontracting below the TAA and WTO GPA thresholds may be with firms legally registered to do business in the respective countries. The Prime Contractor, any teaming partners and any subcontractors shall comply with FAR clause 52.222-54, Employment Eligibility Verification.

L.10.2 PROPOSAL FORMAT AND CONTENT

L.10.2.1 Proposals shall be submitted in four (4) volumes as referenced below:

Volume I Transmittal Letter and Administrative

Volume II	Technical (Science Support Planning and Execution, Concept of Operations and Core Competencies, Facilities Management and Operations, Responses to Hypothetical Scenarios)
Volume III	Past Performance
Volume IV	Cost/Price

L.10.2.2 Offerors shall only include cost/price information in Volumes I and IV. Offerors shall not include cost/price information in any other volume. Each volume shall include the detailed information outlined below so that it can be evaluated in accordance with the evaluation factors set forth in Section M, Evaluation Factors for Award.

L.10.2.3 Each volume of the proposal shall be separately bound in a three-ring loose leaf binder. Each volume shall contain, at a minimum, the information specified below:

- Cover Sheet – Clearly marked as to volume number, title, RFP number, date of submission and Offeror's name;
- Table of Contents;
- List of Tables and Drawings;
- Glossary/Acronym List of all abbreviations with an explanation for each; and
- Requested Volume Information.

L.10.2.4 No classified information whatsoever shall be submitted to the Government throughout the procurement process.

L.10.3 PROPOSAL PAGE LIMITATIONS AND SUBMISSIONS

L.10.3.1 Volume I, Transmittal Letter and Administrative, is not page limited.

L.10.3.2 Volume II, Technical, is limited to two-hundred, twenty-five (225) pages inclusive of appendices and exhibits. Excluded are: Key Personnel resumes limited to three (3) pages each; and hypothetical scenario responses limited to seven (7) pages each.

L.10.3.3 Volume III is limited to fifty (50) pages. Past Performance Surveys shall be excluded from the 50 page limit.

L.10.3.4 Volume IV, Cost/Price

L.10.3.5 In addition to an original paper copy, appropriately marked, the Offeror shall submit the required number of paper and electronic copies on CD ROM for each volume:

Volume	Description	Paper Copies	Electronic Copies – Each on Separate CD ROM
I	Transmittal Letter and Administrative	3	3
II	Technical	7	7
III	Past Performance	5	5
IV	Cost/Price and Extent of Participation of Small Disadvantaged Business Concerns	3	3

L.10.3.6 Electronic copies submitted on CD ROM. Each CD submitted shall include an external label with the Offeror's name, date of proposal, the solicitation number, and the Volume number. The CD shall be scanned for viruses prior to submission. In the event of an inconsistency between the CD and the paper-copy proposal, the paper copy shall be considered the intended version. DO NOT compress any electronic files or password-protect any portion of your electronic submission.

L.10.3.7 Items excluded from page count limits include volumes indicating “not page limited”; title page/cover pages; tables of contents; list of figures/acronyms; list(s) of tables and drawings; indexes; tab/page dividers; Letters of Commitment; client authorization letters; past performance information cover letter; Past Performance Surveys; Subcontractor Consent Forms; and, totally blank pages. Information contained in one volume that can be construed as belonging in another volume of the proposal will be so construed and counted against that volume's applicable page limitation.

L.10.3.7 Pages submitted in excess of page limitations will not be evaluated by NSF.

L.10.3.8 Page Set-Up / Font Size / Lines on Page

All volumes:

- CD ROMs must be readable in Microsoft Office 2016 and Adobe Acrobat Reader.
- Only 8 ½ x 11 inch, portrait format pages are acceptable for text-oriented material (hereafter referred to as “text”). Landscape (8 ½ x 11 inch) pages are permitted for charts or graphs only.
- Text must be Arial 11-point font size (“narrow” font versions are not acceptable) and have proportional spacing. Footnotes, which shall not be excessive, shall also appear in Arial 11-point font size.
- Font size for graphics, figures and tables must be no smaller than 8-point with proportional spacing on embedded text except where data is only being used as a sample and readability is not intended. Text must be wrapped around for figures and tables. Single-spacing may be used for figures and tables.
- All formulas will be provided and/or visible on all calculated values on spreadsheets.
- Margins on edges of each page must be at least 1 inch.
- Text must be single-spaced with separation between paragraphs double spaced.
- Use single-column formatting only.

Volume II:

11 x 17 inch foldouts are allowed. Each foldout is to be single-sided and counted as two pages.

Volume IV:

Single-sided foldouts (11 x 17 inch) are permitted without page restriction.

L.10.3.9 Page Numbering. Each Volume shall be numbered separately and begin with page 1. Pages in each volume shall be single-sided and must be numbered sequentially and consecutively. Partial pages will be counted as one qualifying page.

L.10.3.10 Page Labeling. Include RFP number, volume, and page number in the lower right hand margin of all pages (i.e., within the 1 inch margin). Page labeling must be Arial 11-point font size (“narrow” font versions are not acceptable) and have proportional spacing. Blank pages will contain the marking “Page Intentionally Left Blank”. It is the Offeror’s responsibility to ensure data considered sensitive is marked in accordance with FAR 52.215-1. Company name and proprietary information notices must be placed in top and/or bottom margins.

L.11 INSTRUCTIONS TO OFFERORS – PREPARATION OF PROPOSALS

Proposals, including all volumes (Volumes I - IV) shall be submitted to and received by NSF no later than date and time stated under box 9 of the Standard Form 33 (page 1 of this solicitation), at the designated Government address. Each Offeror is solely responsible for ensuring that their proposal is received by NSF no later than the date and time specified in this paragraph. Proposals must be sealed and packaged as if mailing. Proposals will not be accepted by e-mail or fax. Late proposals, modifications, revisions, and withdrawals will be treated in accordance with FAR 52.215-1. Be aware that heightened and varying security requirements may preclude or delay access to NSF; however, such circumstances will not provide a basis for acceptance of a proposal that arrives at the place specified after the exact time specified.

L.11.1 If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals may be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume, as determined by the Government.

L.11.2 Proposal information and volumes must be submitted in boxes sealed shut with each box labeled as follows:

RFP NUMBER: 49100419R1001
ATTENTION: NSF MAIL Center - DO NOT OPEN
DELIVER DIRECTLY TO ROOM E 7345

National Science Foundation
Division of Acquisition and Cooperative Support
2415 Eisenhower Ave, Suite E 7345
Alexandria, VA 22314
ATTN: Joseph Cloft, Contracting Officer

If hand-carried by Offeror rather than delivered by courier or mail services (i.e. FEDEX, UPS, USPS), proposals must be delivered to the NSF Mail Center for security screening and delivery to the room number identified above. In addition, Attachment L-5, Hand Delivery Sheet shall be completed and provided to the Mail Center upon delivery when hand-carried by the Offeror.

L.11.3 The Offeror shall include a point of contact (name, telephone number, and e-mail address) that can assist the CO with questions/problems associated with the Offeror's proposal submission.

L.12 VOLUME I – TRANSMITTAL LETTER AND ADMINISTRATIVE INFORMATION

L.12.1 Each offeror shall submit a Transmittal Letter and Administrative Information volume. The transmittal letter shall be executed by a corporate executive with authority to bind the Offeror to its proposal. The transmittal letter shall contain the following information at a minimum:

- The solicitation number;
- Statement of offer's validity through September 30, 2019 (see Section L.18 below);
- A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation, and any amendments, and agreement to furnish any or all items, labor and services included in the Offeror's proposal;
- Names, titles, telephone numbers, and e-mail addresses of persons authorized to negotiate on the Offeror's behalf with the Government in connection with this solicitation; and
- Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority.

L.12.2 The offeror shall submit the following administrative information:

- a) Completed and executed Standard Form (SF) 33, Solicitation, Offer and Award with an original signature (not electronic) along with completed Sections B through K. The person executing the SF-33 must have the authority to commit the Offeror to all of the provisions of the resulting contract. In Block 14 of the SF-33, the Offeror must acknowledge receipt of all amendments to the RFP as required by FAR 52.215-01.
- b) By signing and submitting the SF-33, the Offeror commits to accept the resulting contract and accedes to the contract terms and conditions as written in the RFP, Sections A through K.
- c) For RFP Sections B through K, Offerors are cautioned to review these sections carefully and complete any necessary fill-ins and certifications.
- d) The Offeror shall submit fully completed Section K, Representations, Certifications, and Other Statements of Offerors (Representations). All of the Offeror's parent organization(s) must separately complete, sign, and submit the Section K Representations.
- e) The Offeror shall provide copies of letters of intent or other agreements from financial institutions that have extended lines of credit to the individual contractor or team and the credit amount.
- f) The Offeror shall provide Articles of Incorporation, By-Laws, Joint Venture Business Partnership Agreements (if applicable), and Business Reorganization data (applicable where Offeror intends to establish a separate division or organizational function to serve as the contractor). For joint ventures only, the Offeror shall provide a copy of the Joint Venture Business Partnership Agreement and a written narrative detailing the corporate parents' financial and other commitments to the joint venture.

- g) The Offeror shall provide a narrative identifying any administrative systems currently approved by the Government and the Cognizant Federal Agency. NSF reserves the right to verify any and all information with the Cognizant Federal Agency. Cognizant Federal Agency contact information shall be provided, including name of activity, point of contact, telephone number, address, and e-mail address.
- h) Organizational Conflict of Interest (OCI) Mitigation Plan: The potential for organizational conflict of interest exists during the performance of this contract. Accordingly, it is the responsibility of each Offeror to identify known and potential OCIs that may be encountered during the performance of this contract. As appropriate, each Offeror shall be required to submit a mitigation plan that addresses how your organization intends to resolve any organizational conflict of interest issues that may now exist or may be encountered during the performance of the contract. Only contractors submitting acceptable mitigation plans will be eligible for award. Refer to the Section H.10 Organizational Conflict of Interest clause to ensure your plan addresses all requirements.

L.12.3 Meaningful Relationship Commitment Letters (Other than Key Personnel – See Section L.13.2.2), if applicable

For purposes of the evaluation, proposed Meaningful Relationship Commitment Letters submitted is treated on a pass/fail rated basis and as an offer factor that will result in contractual promises that will be incorporated by reference or attached into any resulting Contract. For each meaningful relationship identified by the Offeror, the Offeror must provide a Meaningful Relationship Commitment Letter that includes the following:

1. Clear and legal identification of the meaningful relationship between the Offeror and entity identified.
2. A statement of commitment as to the performance and utilization of the identified entity's resources under a resulting award.
3. Each applicable SOW section with a Meaningful Relationship must be clearly and specifically identified.
4. Signatures of a Corporate Officer/Official for both the Offeror and Meaningful Relationship Entity.

Within a corporate structure, an Offeror may utilize resources from a Parent Company, Affiliate, Division, and/or Subsidiary. If the Offeror proposes to utilize resources within a corporate structure, the Offeror must provide a Meaningful Relationship Commitment Letter for each proposed resource under their corporate structure. However, in the event that a parent organization has complete and full control over all meaningful corporate relationship entities, the parent entity may prepare a single corporate Meaningful Relationship Commitment Letter that identifies all elements required above. In addition, an Offeror may propose to use resources outside a corporate structure, such as a "Subcontractor" under a "Prime" Contractor. "Prime" Contractor means the Contractor has privity-of-contract with the Government for all contractual obligations under a mutually binding legal relationship with the Government. In other words, when the Government awards a Contract to a Contractor, the Contractor is considered the "Prime" Contractor. If the Offeror proposes to utilize Subcontractor labor for performance of the statement of work, the Offeror must provide a Meaningful Relationship Commitment Letter for each proposed Subcontractor.

L.12.4 Contractor Team Arrangements (CTAs) – if applicable

Offerors may form Contractor Team Arrangements (CTAs) as defined under FAR 9.601, but they are not required to do so. If the potential Offeror that forms a CTA wants all members of the CTA to be considered for evaluation under the resulting award, the CTA must be a CTA as defined under FAR

9.601(1). An offeror may also enter into Prime/Subcontractor arrangements as defined under FAR 9.601(2); however, in this type of arrangement, only the prime will be considered in the evaluation for award.

Instructions regarding FAR 9.601(1) CTAs

The Government will evaluate a FAR 9.601(1) CTA provided that the offeror submits a full and complete copy of the document establishing the CTA relationship and containing at least the minimum information required by the solicitation closing date. Although there is no specific form or format that the CTA documents must adhere to, an offeror proposing as a CTA for purposes of evaluation under this solicitation is required to address the following in the CTA document:

a) Purpose of the CTA

The CTA documents should clearly set forth the purpose of the CTA.

b) Identify the Parties

The CTA documents should identify the entities which make up the CTA relationship, including the primary point of contact for each of the members of the team and the managing partner, and a statement addressing the obligation of all parties to the CTA to ensure performance of the contract and resulting task orders despite the withdrawal of any member. The CTA documents should also identify where accounting and other administrative records will be retained during contract performance and upon completion of the contract.

c) Designation of a "Team Lead"

The CTA documents shall identify the "team lead," and clearly explain the specific duties/responsibilities of the "team lead" to the other members of the team and to the Government (Note: The Government requests that the team lead be the primary point of contact with the Government while the proposal is under consideration by the Government. This means that the Government will require permission from each non-"lead" member of the team for the Government to discuss confidential/privileged information about the non-"lead" members of the CTA with the designated team lead). This "release" shall include consent of the proposed CTA members to disclose their past performance information to the CTA lead.

d) Specific Duties/Responsibilities

The CTA documents shall clearly describe the specific duties/responsibilities of each member of the team as they relate to each other, and explain the specific duties/responsibilities that each team member will have for purposes of contract performance under the resulting award (e.g., one team member will be primarily responsible for performing specific task areas listed in Section C, while other team members will be primarily responsible for performing other specific task/sub-task areas listed in Section C; etc.), and any guaranteed percentages of potential work allocated to the team members.

e) Pricing and Cost

The CTA document should explain how the team members have divided responsibilities for purposes of proposing price/costs. For example, if one member of the team is responsible for proposed price/costs for a particular labor category, while another entity in the CTA is proposing price/costs for a different labor category, the CTA documents should identify which of the respective team members is responsible for proposing which specific price/cost information.

f) Invoicing and Payment

The CTA document shall explain how the team members have addressed issues relating to invoicing and distribution of payments. For example, the CTA document shall identify which member of the team is responsible for invoicing the Government and distributing payment. Under such circumstances, the CTA document shall clearly indicate that all team members agree to this method of payment. The CTA document should also acknowledge that any dispute involving the distribution of payment will be resolved by the team members themselves, without any involvement by the Government.

g) Replacement of Team Members

The CTA document should address the circumstances and procedures for replacement of team members, including the team lead.

h) Duration of the CTA

The CTA document should address the duration of the CTA, including when it becomes effective, when it expires, and the basis for termination.

i) Representations and Certifications

All members of the CTA shall submit separate representations and certifications as required under Section K.

j) Additional Requirements for Joint-Ventures

Joint-venture offers must be made in the name of the joint-venture entity. The joint-venture contract must identify the managing Venturer, the joint-venture members and who will have signature authority on behalf of the joint-venture. The party signing the offer for the joint-venture shall be listed as having such authority.

L.13 VOLUME II – TECHNICAL PROPOSAL

The Offeror shall furnish a comprehensive and integrated Technical Proposal that addresses all requirements identified in the SOW. The Technical Proposal volume shall consist of the following sections:

- SECTION 1 – Science Support Planning and Execution
- SECTION 2 – Concept of Operations and Core Competencies
- SECTION 3 – Facilities Management and Operations
- SECTION 4 – Responses to Hypothetical Scenarios

L.13.1 SCIENCE SUPPORT PLANNING AND EXECUTION (Volume II, Section 1)

L.13.1.1 The Offeror shall describe its approach to providing logistics in an academic research environment, each season and in the long term, to satisfy the science support requirement. The approach to science support planning and execution shall address, at minimum: how the Offeror will establish science support needs during the pre-proposal planning phase; how the Offeror intends to provide post-award planning and the safe field execution to a diverse set of individual research projects each season; the Offeror's approach to identifying integrative solutions across projects to gain efficiencies; and also the Offeror's approach to developing long-term logistical options and facilities to facilitate efficient programmatic support in the future. The Offeror will also describe how customer feedback and the application of lessons learned will be achieved. The Offeror's approach shall also demonstrate expertise in the field of autonomous power and instrumentation systems, communications and information technology, and field safety risk management.

L.13.2 CONCEPT OF OPERATIONS AND CORE COMPETENCIES (Volume II, Section 2)

L.13.2.1 The offeror shall furnish a comprehensive and integrated Concept of Operations and a description of their firm's Core Competencies.

L.13.2.2.1 The Concept of Operations shall address the approach to general management and human resources. At a minimum the following must be discussed: the proposed key personnel; staff recruitment and retention, teaming and management integration plans; and understanding of communities and

regional authorities in the Arctic. The Offeror shall include in the teaming and management integration plan, an organizational structure that breaks down the appropriate level of supervision and key personnel to provide for efficient management of work. The Offeror shall provide a narrative description of the proposed lines of authority of the organization, the authority and responsibilities of key personnel, and the Offeror's proposed interfaces with its teaming partners and subcontractors as appropriate. The Offeror will also provide a Phase-in Period Plan, Phase-out Period Plan and draft format for an Annual Program Plan to illustrate their understanding of this requirement.

L.13.2.2.2 The Offeror shall identify the key personnel proposed. In addition, the Offeror shall provide the following for each proposed key personnel labor category: job description duties; minimum qualifications; and responsibility, accountability, and decision-making authority vested within each proposed key position. The Offeror shall provide a resume for each proposed key person detailing the individual's education, experience, and other qualifications for the proposed position along with a Letter of Commitment. Regarding the Letter of Commitment, the following requirements must be met in order to reasonably substantiate and document a key personnel commitment:

- The letter must state that the Letter of Commitment is being furnished in good faith with the consent of the identified personnel;
- The letter must be signed and dated by the individual concerned;
- The letter must include a statement that NSF is authorized to contact any references and previous employers to verify accuracy of the resume.

Any proposal that fails to meet the above Resume and Letter of Commitment requirements may be treated as non-responsive and unacceptable as these are material requirements of the solicitation. Further, offerors must notify the contracting officer in writing of any change in the availability of proposed key personnel when the change in status occurs, at any point in the procurement process, including after the submission of proposals. Based on ARSLS experience and the harsh Arctic environment, the NSF believes the key personnel listed under this solicitation's NSF clause NSF 120 are necessary to ensure efficient and effective performance. If an Offeror proposes to delete key personnel positions listed under this solicitation's NSF clause 120, then the Offeror shall describe how the deleted key personnel functions will be efficiently and effectively executed under the proposed new positions and management plan. All proposed key personnel positions shall align with the Offeror's proposed management plan and best business practices.

L.13.2.3 In describing its Core Competencies, the Offeror shall address, at minimum: safety, quality and risk management planning and training; accounting, procurement, and logistics systems; inventory management; and medical processing services. The Offeror shall demonstrate how their proposed planning and controls systems will be effective in developing and reporting progress of tasking in the Annual Program Plan. The Offeror should also demonstrate application of project management principles for forecasting and monitoring project scope, time, and cost.

L.13.3 FACILITIES MANAGEMENT AND OPERATIONS (Volume II, Section 3)

The Offeror shall furnish a description of their capabilities and approach to facilities management and operations. The approach shall address the Offeror's process for requirements gathering for science related facilities, long-range planning, engineering, construction, operations, and maintenance of facilities. The document shall also describe the Offeror's ability to select the appropriate materials and technology for cold environments.

L.13.4 RESPONSES TO HYPOTHETICAL SCENARIOS (Volume II, Section 4)

The Offeror shall provide a comprehensive narrative response to each of the following hypothetical scenarios for planning, staging and executing various projects. These hypothetical scenarios are representative of planned and unplanned events in the Arctic.

The Offeror is advised to relate each scenario response to the SOW, the three Technical sub-factors (Science Support Planning and Execution, Concept of Operations and Core Competencies, and Facilities Management and Operations) as well as the information they have presented in Volume II for each sub-factor. The Government intentionally did not provide a budget for the hypothetical scenarios. The Government expects a resulting award to be a cost-reimbursement type contract. Therefore, an Offeror shall provide the most efficient and effective responses to the scenarios.

L.13.4.1 Scenario #1.a – Fire at Summit Station, Greenland: Two Injured and Loss of Power.

Description:

Five people are at Summit Station, Greenland during the winter period (February 15-April 15). Staff includes a camp manager, mechanic, one science technician, carpenter, and a second science technician employed by a grantee institution. They are tasked with maintaining station operations, executing data collection protocols for science instruments funded to operate through winter, and preparing station for campaign science beginning in April. One week before the inbound flight bringing crew to open the station, a fire in the generator building damages the primary power generators and injures two staff members; the mechanic and the carpenter. They received burns and suffered smoke inhalation from a brief but successful effort to put out the fire with fire extinguishers. It is unclear if the patients have other injuries but their vital signs are stable. They are in pain and have open wounds from the burns.

The station has an emergency generator that needs to be manually powered on. Everyone on station is trained as a Wilderness First Responder. The contract science technician has worked as a paramedic and has the most medical knowledge on site. The station has access to 24-hour telemedicine, a clinic equipped with supplies to stabilize patients for transport, and video conferencing capabilities to contact the lead physician for the program.

Assumptions:

- The staff perform weekly drills on how to respond to medical emergencies
- The over-winter staff has been briefed on the site's Emergency Action Plan
- Communications via phone and radio are not interrupted
- Backup power is functional if the appropriate procedures are followed
- The 109th Air Craft are at Stratton Air Base
- Two Twin Otters are available for charter

Instructions:

At minimum, the Offeror shall describe the:

- 1) Proposed actions taken by staff on site to respond to the situation;
- 2) Proposed actions that staff off-site will take once they are notified;
- 3) Initial priorities and how these priorities might change as events unfold; and
- 4) The change in timeline management would take during the turn-over of staff and planned opening of station.

Scenario #1.b – Grantee Injury Outside of ARSLS Field Support

Description:

A group of three researchers (lead Principal Investigator from University A, a co-Principal Investigator from University B, and a graduate student from University B) are working at a remote field camp outside of Iqaluit, Canada on Baffin Island. The ARSLS contractor provided a satellite phone, camping gear, a first aid kit, and access to the 24-hour Telemedicine service for this project. All other logistics have been

arranged by the research team with funding through the grant to the institutions of the two co-Principal Investigators. The ARSLS contractor also provided a field safety risk assessment to the co-PIs for their use in developing a risk management plan with their institutions.

Co-PI from University B falls while crossing a stream receiving bruises and a likely broken ankle. The injuries are not life-threatening. The team uses the phone to reach out to their institutions, uses the 24-hour telemedicine line, and calls the ARSLS project manager that issued them the phone and camping gear.

Assumptions:

- The awardee institution is responsible for all work performed under the award
- Institutions in Canada have agreements with the US regarding Search and Rescue

Instructions:

At a minimum, the Offeror shall describe:

- 1) How the ARSLS contractor should respond to situation after notification of the incident.

L.13.4.2 Scenario #2 – State-of-the-Art Research Station, Greenland Ice Sheet

Description:

The US government plans to construct a new state-of-the-art research station at high altitude on the Greenland Ice Sheet. The station will support international and interagency sponsored scientific research and observations on a year-round basis, but with minimal to no human presence during parts of the year. The Offeror is asked to present, at high-level, a concept design/site plan, concept construction plan, and a concept of operations (CONOPS). A variety of scientific activities and capabilities for observations is expected to occur over the lifetime of the station (40 years), even during unstaffed periods. In addition, the station will serve as a hub for campaign- and expedition-style research projects.

Assumptions:

- The station should be able to support a maximum of 25 people in the summer and a minimum of zero people in the winter, with relative ease transitioning from staffed to unstaffed and vice versa.
- The station will be accessible via overland traverse and aircraft, with preference for the most cost-effective means of transporting both personnel and cargo, particularly in the operational phase.
- The research station is located at an elevation of 2,650 meters and has an annual snow accumulation of 1 meter. Winds can reach hurricane levels during storm events.
- Onsite personnel and scientists will have communication requirements including options for high-bandwidth data transmission and video.
- A list of current instruments operated at Summit Station is available at geosummit.org. It should be assumed that at least a subset of these instruments are to be supported. The time which instruments may need to be supported remotely or autonomously (without human presence at the station) could range from 1-4 months.
- Typical storm wind speeds can reach 15-20 m/s, however storm gusts as high as 65 m/s have been recorded.
- Maximum winter population will be dependent on science requirements and needs.
- Data transmission requirements will be dependent upon scientific data requirements and state-of-the-art technology allowances.

Instructions:

At a minimum, the Offeror shall describe the:

- 1) Proposed concept design/site plan, including how the plan is arrived upon (e.g. science requirements gathering approach, facilities requirements gathering approach, application of state-of-the-art technology/materials/design and best practices for polar station design and operation including minimization of maintenance activities);

- 2) Proposed concept construction plan, including approach to design of individual facilities, fabrication, transport of materials, and assembly;
- 3) Proposed concept of operations (CONOPS), including staffing, maintenance, transition from staffed/unstaffed and vice versa, and operation during unstaffed periods.

L.13.4.3 Scenario #3 – Sea Ice Camp in Arctic Ocean

Description:

A group of 16-20 sea ice researchers, atmospheric scientists, and physical oceanographers from various U.S. academic institutions, U.S. federal agencies, and Canadian institutions are funded to establish and occupy a sea ice camp located 200 miles north of Eureka, Nunavut, Canada. The camp will be in operation for 40-60 days, with 25-30 days of coordinated scientific observations requested, including support of a 10-m meteorological tower, a clean snow sector, and multiple holes melted through 2-m-thick ice for the deployment of water samplers, oceanographic instruments, and remotely operated vehicles (ROVs), plus the deployment of ice mass balance buoys (IMBs), seasonal ice mass balance buoys (SIMBs), upTempO buoys, ice, snow and solar beacons, polar area weather stations (PAWS), polar ocean profiling systems (POPS) and other instruments and sensor packages, communications systems and batteries to support autonomous long-term observations beyond the time of the field program.

Assumptions:

- The Contractor has reviewed the science proposal and has provided a ROM estimate, and NSF has approved the project with a start date of March 31, 2020.
- All equipment and supplies required for this expedition will originate in either the US or Canada.
- The ice sea ice camp will require a maintained ski way and facilities for refueling aircraft.
- The scientific cargo for this expedition will be on the order of 150,000 kg (excludes fuel but includes the camp equipment and provisions).
- The scientific team will include a mixture of genders, ages, and experience levels.
- Staff will not rotate during the course of the field season.
- There is at least one aircraft based periodically out the camp.
- Day trips from the camp may be supported by aircraft.

Instructions:

At a minimum, the Offeror shall describe the:

1. Proposed project management approach;
2. Proposed logistical plan, including aircraft logistics of put-in and take-out;
3. Proposed plan for cargo handling and transporting scientific samples of air, water, ice and snow;
4. Necessary components of the mobile camp and the logistics of providing them;
5. Proposed safety plan for this project and how it will be implemented; and,
6. Communications protocols, including ice monitoring and weather prediction.

L.13.4.4 Scenario #4 – International Field Expedition in NW Territories, Canada

Description:

Provide logistical support for two international teams of scientific researchers measuring snow cover (thickness) and other variables during winter along a transect from Hay River to Tuktoyaktuk, NW Territories, Canada, a distance over 1100 miles (1800 km). The two teams consist of four people each (8 total) and will spend up to 60 days in the field in winter along the transect. In addition, three teams of seven people each (21 total) will spend up to 120 days in the field to collect samples and observations along a similar transect using a variety of transportation modalities, as required along the route. The three additional teams will be monitoring wildlife distribution, mapping and sampling vegetation, and monitoring borehole instruments at numerous permafrost sites from spring through fall along the same transect (parallel to the Mackenzie River).

Assumptions:

- The Contractor has reviewed the science proposal and has provided a ROM estimate, and NSF has approved the project with a start date of March 31, 2020.
- The contractor will support all the participants, both U.S. and international.
- The transects will be supported at specified intervals, with independent travel between points.
- The teams will include a mixture of genders, ages, and experience levels of participants.
- Samples will need to be preserved and shipped at various temperatures from frozen (<0°C), to near freezing (4°C), to 20°C, depending on the type of sample.
- Intervals are Fort Simpson, Norman Wells, and Inuvik.
- There will be at least one exchange of personnel during each of the field seasons.
- During winter, samples of snow and ice will be collected at sites spaced approximately 50 km apart. Each site will yield approximately 15 m of 3"-diameter cores of snow and ice of variable lengths individually that must be stored in 1 m-lengths in insulated core boxes and kept frozen (-20C). Each site will also yield five (5) x 2.5 L water samples in individual carboys that must be stored above freezing (+4C).
- No air sampling will take place.
- During spring and summer, ~500 individual samples of combined vegetation and soil will be collected and transported between logistics intervals in large whirl-pak bags, with each sample weighing up to 2.0 lbs. 50% of these samples must be kept refrigerated (+4C) and 50% of these samples must be maintained frozen (-20C) between logistics intervals (see Line 45) where they will be handled as cargo.

Instructions:

At a minimum, the Offeror shall describe the:

1. Proposed project management approach;
2. Proposed cargo, logistics, and communications plans;
3. Modes of transportation and provision of support in winter and summer;
4. Necessary components of mobile camps and the logistics of providing them; and,
5. Proposed field safety plan for this project and how it will be implemented.

L.14 VOLUME III – PAST PERFORMANCE

L.14.1 Each Offeror shall submit a past performance volume which identifies a maximum of three (3) contracts with recent and relevant performance.

L.14.1.1 Recency is defined as performing within the previous three (3) years from the initial date the RFP is posted to fbo.gov.

L.14.1.2 Relevancy is focused on how relevant a recent effort accomplished by the offeror is to the effort to be acquired through the source selection. The criteria used to establish what prior performance is relevant for this acquisition is defined as recent past performance which exhibits: similar program complexity; similar dollar value; similar contract type; similar scope; same division of company doing the work; and same critical subcontractor interaction. Past performance information may include data on efforts performed by other divisions, corporate management, and critical subcontractors or teaming contractors, if such information is relevant to the subject acquisition and may be an indicator of performance under the proposed effort.

L.14.2 The Offeror shall identify a maximum of three (3) contracts which meet the recency definition and demonstrate the work under those contracts is directly relevant to this requirement.

L.14.3 The Government reserves the right to contact the Offeror's references and any other parties in order to verify and obtain performance information.

L.14.4 In the evaluation of Past Performance, the Government may also evaluate past performance information obtained from reliable sources such as an official past performance database and/or other Government and local agency contacts.

L.14.5 For the relevant past performance references, Offerors are strongly cautioned that inability of the Government to contact past performance references directly associated to any survey; or, in the case past performance information is not entered into the Contract Performance Assessment Reporting System (CPARS) database, the Offeror will not be evaluated favorably or unfavorably on past performance, which is otherwise known as a neutral rating.

L.14.6 Only in the event CPARS information is not available will an Offeror be allowed to substitute a Past Performance Survey similar to the CPARS format. If CPARS information is available for any given relevant past performance reference, it must be used for the Past Performance evaluation.

L.14.7 Past Performance ((CPARS) information **exists**)
If the Government has interim or final ratings in CPARS, the Offeror shall provide a copy of this rating with their proposal. The Government will retrieve past performance information from the CPARS database that links to the CPARS in order to validate the Offeror's submission. For the purposes of this solicitation, the final past performance information will be used for relevant past performance reference. If a final rating is not available, the most current past performance information will be used. Offerors are responsible for verifying whether past performance ratings exist in the CPARS database prior to using Past Performance Surveys.

L.14.8 Past Performance ((CPARS) information **does NOT exist**)

If the Government has not finalized past performance ratings in the CPARS database that links to CPARS; or, if the past performance reference(s) are considered Non-U.S. Federal projects; the Offeror shall submit a certified Past Performance Survey using the template in Attachment L-1, "Past Performance Survey". No other format or additional proposal documentation will be considered.

In addition, the Offeror shall provide the following information for each past performance reference provided under this sub-section L.15.8:

- a) Offeror's or subcontractor's Company/Division Name/Business Unit performing the work;
- b) Program Title;
- c) Address of the Government agency (Federal, state or local), contracting activity or company name;
- d) Contract/subcontract number;
- e) Contract type;
- f) Original contract dollar value and current contract dollar value, and a brief description for any difference;
- g) Current status of the contract (i.e., in-progress, completed);
- h) Final amount invoiced (if completed) or amount invoiced to date (if on-going);
- i) Date of contract award and period of performance (including option periods, if applicable);
- j) Name, mailing address, e-mail address, and telephone number of the following contract references:
 - i. CO (or company business manager) or Administrative CO, and
 - ii. COTR (or company principal technical point of contact).
- k) A brief description of contract effort and the services performed;
- l) State performance responsibility as either prime contractor or subcontractor;
- m) Description of contract work and relevancy to the subject RFP requirements;
- n) Description of problems or obstacles encountered on the contract and corrective actions taken to resolve the problems or obstacles;
- o) Descriptions, at a minimum, shall address the following:

- i. Quality of Product or Service - compliance with contract requirements, accuracy of reports, technical excellence; satisfaction of end users with contractor's service or recommended solutions.
- ii. Cost Control - performing within original approved budget without the need for additional funds [except for augmentation of work]; current, accurate and complete billings; relationship of negotiated to actual costs; and cost efficiencies.
- iii. Timeliness of Performance - meeting interim milestones, reliability, responsiveness to technical direction, and on-time completion.
- iv. Business Relations - effective contract administration.

Using the Past Performance Survey in Attachment L-1, the Offeror shall provide the survey directly to each of the references. The Past Performance Survey must be completed and signed by a Warranted Contracting Officer with cognizance over the submitted project. For a commercial project, the Past Performance Rating Form must be completed and signed by a Corporate Officer/ of the customer with cognizance over the submitted project.

The Offeror shall instruct each rater to send a completed form directly back to the Offeror.

The Offeror must follow up with each rater to ensure the Past Performance Rating Forms were received and completed prior to the proposal closing date.

The Offeror must submit all Past Performance Surveys, as applicable, with their proposal submission.

In the event the evaluation team discovers misleading, falsified, and/or fraudulent past performance ratings, the Offeror shall be eliminated from further consideration for award. Falsification of any proposal submission, documents, or statements may subject the Offeror to civil or criminal prosecution under Section 1001 of Title 18 of the United States Code.

L.14.9 Negative Past Performance Narrative (Optional)

The offeror may submit a narrative for any negative (i.e. below satisfactory) past performance reference received. The Offeror may provide clarification on problems encountered on the submitted projects and the offeror's corrective actions. This submission is not required but may be included to address past performance assessments where a rating element(s) is below satisfactory. The Government will consider this information, as well as information obtained from any other sources, when evaluating the offeror's past performance.

It is the Offeror's responsibility to ensure completion and timely submission of the Surveys by their references. The Offeror shall also submit written consent from its proposed subcontractors to allow the Government to discuss the subcontractors' past performance evaluation with the Offeror.

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L.15 VOLUME IV – COST/PRICE

L.15.1 NOTICE

By submitting a proposal, the Offeror grants the CO or an authorized representative the right to examine records that formed the basis of the cost/price proposal. That examination can take place at any time before award. It may include books, records, documents, and other types of factual information (regardless of form or whether the information is specifically referenced or included in the proposal as the basis for pricing) that will permit an adequate evaluation of the proposed cost/price.

L.15.2 GENERAL INFORMATION

L.15.2.1 Volume IV shall consist of the following sections:

- Introduction
- SECTION 1 – Cost/Price Worksheet
- SECTION 2 – Other Costing Information
- SECTION 3 – Professional Employee Compensation Plan
- SECTION 4 – Small Business Subcontracting Plan

L.15.2.2 The Offeror shall provide the following general information as an introduction to Volume IV:

- a) Name, telephone number, and e-mail address of point of contact;
- b) Name of contract administration office (if available);
- c) Proposed total estimated cost;
- d) Offerors shall agree to and include the following statement with the cost/price proposal submission: “This proposal reflects our estimates and/or actual costs as of this date and conforms to the instructions in FAR 15.403-5(b) (1). By submitting this proposal, we grant the CO and authorized representative(s), the right to examine, at any time before award, those records, which include books, documents, accounting procedures and practices, and other data, regardless of type and form, or other supporting information specifically referenced or included in the proposal as the basis for pricing, that will permit an adequate evaluation of the proposed cost/ price”, and
- e) Name, title and signature of authorized representative.

L.15.2.3 Cognizant Federal Agency

Provide the following information, in the introduction, on the cognizant Government audit agency (i.e., DCAA) and, if applicable, Government contract administration agency (i.e., DCMA):

- a) Name of agency
- b) Point of contact at agency
- c) Telephone number
- d) Address
- e) E-mail address

L.15.3 COST/PRICE REASONABLENESS AND REALISM

In accordance with FAR 15.403-1(b) and 15.403-3(a), information other than cost or pricing data may be required to support cost/price reasonableness and realism. Information shall be provided in accordance with FAR 15.403-5. Note that unrealistically low or high proposed costs or prices, initially or subsequently, may be grounds for eliminating a proposal from competition either on the basis that the Offeror does not understand the requirement or has made an unrealistic proposal. Offers should be sufficiently detailed to demonstrate their reasonableness and realism. The burden of proof for credibility

of proposed costs/prices rests with the Offeror. Compliance with these instructions is mandatory and failure to comply may result in rejection of a proposal.

L.15.4 SECTION 1 - COST/PRICE WORKSHEET

L.15.4.1 Completed Cost/Price Worksheet

The Prime Offeror shall complete the Cost/Price Workbook provided in Attachment L-2. In addition, the Offeror shall complete a separate Attachment L-3 for each proposed subcontractor. Subcontractor(s) may submit Cost/Price Workbook(s) directly to NSF in accordance with Section L.12 above. The proposed subcontractor(s) Attachment L-3 total(s) shall match the subcontractor total(s) under the Prime Offeror's Attachment L-2. The Offeror shall provide an unlocked/unprotected MS Excel version of the completed Attachment L-2 and Attachment L-3(s). All formulas shall remain in the Attachment L-2 spreadsheet and Attachment L-3 worksheet(s), so as to allow for the Government's evaluation of cost. The Offeror shall enter a labor rate for each labor category line item on the Worksheet. All applicable indirect rates and fees shall be entered as separate lines below the labor category line items. Offers submitted without separate fringe benefit costs, labor overhead costs and/or fixed fee included, as applicable, may be considered incomplete and non-responsive, rendering the prime's proposal ineligible for award. The Section B fill-ins must match the amounts proposed in Attachment L-2 or the cost volume may be considered incomplete and non-responsive, rendering the prime's proposal ineligible for award.

L.15.4.2 Supporting Documentation

To aid the Government in understanding, evaluating and validating the total proposed cost/price, the Offeror shall provide an overview and detailed explanation of the total estimated cost calculation. The Offeror shall address the basis of direct labor, labor escalation and each indirect cost consistent with their organization's cost accounting systems and, if applicable, provisional billing rates and forward pricing rate agreements. The narrative shall include the application of indirect bases for each indirect rate. The Offeror shall also include an explanation of any assumptions made regarding the Cost/Price Worksheet. The Offeror shall provide supporting documentation as described under Attachment L-2 and Attachment L-3.

L.15.4.3 Deviation from The Cost/Price Worksheet

Should the Offeror choose to deviate from the Cost/Price Worksheet by modifying any cost line items provided in the Worksheet, the Offeror shall clearly denote those changes on the Worksheet. Additionally, the Offeror shall submit an explanation for those changes, to include the rationale for the change and all assumptions as well as any information necessary to aid the Government in its review, evaluation and validation of the changes and realism of the proposed estimated costs. If an Offeror does not currently have employees to fulfill the duties under a labor category or labor categories as listed in the Cost/Price Workbook and proposes to either shift labor hours to another labor category or propose a new labor category(ies), the Offeror must explain its methodology for establishing labor rates for such categories.

L.15.4.4 Department of Labor (DOL) Position Titles.

The Service Contract Act (FAR 52.222-49) is applicable to contract performance taking place within the United States. Offerors should make every effort to use applicable DOL Position Titles from the DOL Directory of Occupations and the Area Wage Determination (AWD) where appropriate. Every effort should be made to minimize the number of "conformed" employees. Minimizing conformed positions minimizes the time delay and administrative uncertainty associated with the DOL review and approval process. A "conformed" position is one in which the class of service employee (non-exempt) is not listed in the AWD and is classified (subject to DOL approval) by the contractor so as to provide a reasonable relationship between the unlisted position and the classifications listed in the AWD (Ref. CFR Title 29,

Part 4.6). Persons that are employed in a bona fide executive, administrative or professional capacity and satisfy the conditions described in CFR Title 29, Part 541, are "exempt" from the wage requirements related to "service employees". The above definitions are a summary of portions of the CFR Title 29 and should be used for information only. Refer to CFR Title 29 and FAR 52.222-41 for more details.

L.15.4.5 Proposed Fixed-Fee

The Offeror shall not propose fixed-fee higher than 10% of Total Probable Cost, excluding fee.

L.15.5 SECTION 2 - OTHER COSTING INFORMATION

This section shall include other information necessary to verify and evaluate the cost proposal and assumptions identified above. This section shall include but not be limited to:

- a) Information on the Offeror and subcontractors' financial condition. Copies of annual financial statements in the form of balance sheets, profit and loss statements, and annual reports for the Offeror and subcontractors for the last three (3) consecutive years of operation, and other documentation to clearly explain its current financial strength, resource capability and current credit rating.
- b) The name, address and point of contact (POC) for the Offeror's cognizant federal contract management agency and federal contract audit agency. POC information shall include name, address, phone number and email.
- c) The name, address and point of contact (POC) for each subcontractor's cognizant federal contract management agency and federal contract audit agency. POC information shall include name, address, phone number and email.
- d) Identify, whether the Offeror is subject to cost accounting standards (CAS). The Offeror shall complete the fill-ins under FAR 52.230-1 and FAR 52.230-7.
- e) Any business unit (as defined in CAS 410-30(a)(2)) that may receive a resulting CAS-covered contract or subcontract of \$50 million or more, including option amounts, shall submit their most recent CAS Disclosure Statement. The Offeror shall provide the most recent CAS Disclosure Statement correspondence from the cognizant federal agency that shows their most recent CAS Disclosure Statement submission has been determined adequate by the respective agency. If the Offeror's most recent CAS Disclosure Statement submission has not been determined adequate by the cognizant federal agency, the Offeror shall provide correspondence with the cognizant federal agency explaining CAS Disclosure Statement issues, inadequacies and corrective actions. The Offeror shall provide answers to the following questions: 1) Is your business concern subject to cost accounting standards?; 2) Has your organization submitted a CASB Disclosure Statement? If yes, has it been determined adequate?; 3) Has your organization been notified that it is in (or may be in) noncompliance with its Disclosure Statement or CAS (other than a noncompliance that the cognizant Federal agency official has determined to have an immaterial cost impact)? If yes, provide an explanation. 4) Is any aspect of this proposal inconsistent with your organization's disclosed practices or applicable CAS? If yes, provide an explanation. 5) Is this proposal consistent with your established estimating and accounting principles and procedures and FAR Part 31, Cost Principles? If not, provide an explanation.
- f) If the Offeror is not subject to CAS, the Offeror shall provide a Cost Policy Statement explaining treatment of classifications of indirect cost, direct cost, and under what circumstances costs are charged as both direct and indirect.

- g) Explain fringe benefits provided and fringe benefit rates. Include the calculations for each class of employee if different fringe benefit rates are used.
- h) Explain all other indirect rates. Provide how proposed indirect costs were calculated including the base(s) composition and rate(s) in explanation.
- i) Provide copies of most current negotiated or approved indirect cost rate agreements (or Overhead and G&A rates), all current negotiated or approved forward pricing rate agreements and all approved billing rates for the Offeror and proposed Subcontractors. If any rates or indirect rates have been submitted but not negotiated and/or approved, include the submission and all correspondence with the cognizant federal agency that provides information regarding the current status of the respective rates. If any proposed indirect rates were not approved or negotiated by the cognizant federal agency for the Offeror, provide pro forma financial statements that support the respective proposed indirect rates (for example: DCAA incurred cost electronically (ICE) format).
- j) Indicate whether the Offeror's cognizant federal agency has approved the following systems and if so, provide a copy of most current approval letters: Estimating System, Billing System, Accounting Systems, Purchasing System, Property Management System, and any other relevant business or financial systems.
- k) Pursuant to FAR 16.301-3(a), a cost-reimbursement contract may be used only when the contractor's accounting system is adequate for determining costs applicable to the contract. Therefore, the Offeror shall provide verification, from the Defense Audit Agency (DCAA), the Defense Contract Management Agency (DCMA), the Offeror's cognizant Federal auditing agency or a third-party Certified Public Accounting (CPA) firm, of an adequate accounting system that has been audited and determined adequate for determining costs in accordance with FAR 16.301-3(a)(1). In the event the verification is from a third-party CPA firm, the verification letter shall be on the letterhead of the third-party CPA firm, and certified by a certified public accountant. For those Offerors that submit a proposal in the form of a FAR 9.601(1) CTA, each member of the CTA shall show evidence that it has verification of an adequate accounting system.
- l) The use of uncompensated overtime is not encouraged, see FAR 37.115-2(a). However, if the offeror's proposed labor rates are adjusted for uncompensated overtime and this practice is supported by the offeror's accounting practices, the offeror must provide the supporting data in accordance with FAR 52.237-10. The offeror shall indicate if uncompensated overtime will be used and also include a copy of its policy addressing uncompensated overtime.

L.15.6 SECTION 3 - PROFESSIONAL EMPLOYEE COMPENSATION PLAN

In accordance with FAR 52.222-46, the Offeror shall submit a total compensation plan setting forth proposed salaries and fringe benefits for all prime and first tier subcontractor professional employees working on the contract. Supporting information will include data, such as recognized national and regional compensation surveys and studies of professional, public and private organizations, used in establishing the total compensation structure.

L.15.7 SECTION 4 – SMALL BUSINESS SUBCONTRACTING PLAN

If the Offeror is other than a small business, the Offeror shall submit an acceptable small business subcontracting plan under Volume IV. Pursuant to FAR Subpart 19.7 and FAR 52.219-9, if the apparently successful Offeror is other than a small business, then an acceptable subcontracting plan must be negotiated with the CO prior to award. If the apparently successful Offeror fails to negotiate an acceptable subcontracting plan with the CO within five (5) business days after the CO initiates the small business subcontracting plan negotiations, the Offeror may be considered ineligible for award. The CO solely determines if the proposed small business subcontract plan is acceptable.

The goals, stated below, should be used as guidance for developing a subcontracting plan in response to this RFP. In addition, apparently successful Offeror shall also provide annual and semi-annual reports from the Electronic Subcontracting Reporting System (eSRS) at www.esrs.gov to demonstrate a record of previous performance in carrying out the goals of subcontracting plans. If the Offeror has had no previous contracts requiring a subcontracting plan, include a statement to that effect in the proposal. The goals listed below represent the subcontract dollar percentage of total contract dollars for work performed within the U.S. The apparently successful offeror shall provide details, percentages, performance incentives, and evidence of corporate commitment for each small business category addressed. In addition, the apparently successful Offeror shall provide the anticipated dollar amount for each of the small business categories. The total contract dollar amount proposed will be deemed to represent 53% for work performed within the U.S. and 47% for work performed outside the U.S. Therefore, the contract dollar amount representing work performed within the U.S. will be compared to total subcontract dollars proposed to determine a percentage of total subcontract dollars for each of the categories:

Total Small Business	17.0%
Small Disadvantaged Business	5.0%
Women-Owned Small Business	5.0%
HUBZone Business	3.0%
Service-Disabled Veteran-Owned Small Business	3.0%

NOTE: Contract awards placed by both the prime contractor and all first-tier subcontractors may count towards achieving the goals set forth above.

L.16 CROSS REFERENCING

Each volume shall be written to the greatest extent possible on a stand-alone basis so that its content may be evaluated with a minimum of cross-referencing to other volumes of the proposal.

L.17 OFFER ACCEPTANCE PERIOD

The Phase-In period of performance is expected to start October 1, 2019. Each proposal must be valid through September 30, 2019. Each proposal must include a statement that the offer is valid through September 30, 2019. **Any proposal without the above referenced statement of validity may not be considered for award.**

L.18 SMALL BUSINESS SIZE STANDARDS AND SET-ASIDE INFORMATION (UNRESTRICTED)

This acquisition is unrestricted and contains no set-aside provisions. The applicable North American Industry Classification System (NAICS) code is 561210, Administrative and Support Services / Facilities Support Services, which has a small business size standard of \$38.5 million in annual receipts.

L.19 FALSE STATEMENTS

Offers and proposal information must set forth full, accurate, and complete information. The penalties for making false statements are prescribed in 18 U.S.C. 1001.

L.20 EXPENSES RELATED TO OFFER AND OTHER WRITTEN AND ORAL INFORMATION

This RFP does not commit the Government to pay any costs incurred in the submission of any offer (proposal) and other written and oral information, or in making necessary studies or designs for the preparation thereof or to acquire or contract for any services.

L.21 NON-FEDERAL PERSONNEL SUPPORT

Offerors are advised that NSF support contractor personnel may provide advice and assistance to the Government during the evaluation of proposals. These persons shall be authorized access to those portions of the proposal data and discussions that are necessary to enable them to provide advice. These contractor personnel will be required to protect the confidentiality of any specifically identified trade secrets and/or privileged or confidential commercial or financial information obtained as a result of their participation in this evaluation. The contractor personnel shall be expressly prohibited from scoring, ranking, or recommending the selection of an Offeror for contract award.

L.22 RESPONSIBLE PROSPECTIVE CONTACTORS

NSF may solicit pre-award surveys in accordance with 48 CFR 9.106 and may solicit from available sources, relevant information concerning the Offeror's record of past performance, and use such information in making determinations of prospective offeror responsibility.

L.23 RESTRICTIONS ON OFFEROR CONTACTS WITH EMPLOYEES OF INCUMBENT CONTRACTOR

No on-site contacts of any kind with employees of the current incumbent contractor are permitted related to this RFP. Contacts with employees regarding future employment are permitted; however, such contacts

and interviews must take place outside the normal working hours of such employees and at off-site locations.

L.24 DISCREPANCIES

If an Offeror believes that the requirements in these instructions contain an error, omission, or are otherwise unsound, the Offeror shall immediately notify the CO in writing with supporting rationale.

L.25 LIST OF ATTACHMENTS TO SECTION

If an Offeror believes that the requirements in these instructions contain an error, omission, or are otherwise unsound, the Offeror shall immediately notify the CO in writing with supporting rationale.

Attachment L-1 – Past Performance Survey

Attachment L-2 – Prime Offeror Cost/Price Worksheet

Attachment L-3 – Proposed Subcontractor Cost/Price Worksheet

Attachment L-4 – List of Acronyms

Attachment L-5 – Hand Delivery Sheet

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SECTION M - EVALUATION FACTORS FOR AWARD

M.1 NOTICE LISTING SOLICITATION PROVISIONS INCORPORATED BY REFERENCE

The following solicitation provisions pertinent to this section are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the FAR provision at FAR "52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE" contained in this document. See FAR 52.252-1 for an internet address (if specified) for electronic access to the full text of a provision.

<u>FAR Number</u>	<u>FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1) Title</u>	<u>Date</u>
52.222-46	EVALUATION OF COMPENSATION FOR PROFESSIONAL EMPLOYEES	FEB 1993

M.2 52.217-5 EVALUATION OF OPTIONS, OPTION TO EXTEND SERVICES, PHASE-IN AND PHASE-OUT (JULY 1990)

Except when it is determined in accordance with FAR [17.206\(b\)](#) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total probable cost for the Phase-In period, Phase-Out period, all option periods and the option to extend services to the total probable cost for the basic requirement. Evaluation of options and the option to extend services will not obligate the Government to exercise the option(s) and/or option to extend services.

M.3 EVALUATION OF OPTION TO EXTEND SERVICES

The Government will evaluate pricing for the option under FAR 52.217-8, Option to Extend Services. The Option to Extend Services may be unilaterally exercised at any time, and may be exercised in increments of one to six months. The Government will use the following formula to evaluate the option pricing under FAR 52.217-8:

$$= [(the\ sum\ of\ probable\ costs\ for\ APP5\ through\ APP10)/6] \times .5$$

The evaluated price for the Option to Extend Services will be included in the total evaluated price as stated under 52.217-5 above. The evaluation of the Option to Extend Services does not obligate the Government to exercise the option under FAR 52.217-8, Option to Extend Services.

M.4 BASIS OF CONTRACT AWARD

The Government will select the best overall proposal, based upon an integrated assessment of all of the evaluation criteria. This is a best value source selection conducted in accordance with the policies and procedures FAR Part 15. Award will be made to the responsive and responsible Offeror (see FAR 9.104-1) whose offer provides the best value to the Government.

M.5 EVALUATION FACTORS

M.5.1 In determining best value for source selection purposes, the Government shall use the following evaluation Factors, which are listed in descending order of importance:

Factor 1: Technical

Sub-Factor 1: Science Support Planning and Execution

Sub-Factor 2: Concept of Operations and Core Competencies

Sub-Factor 3: Facilities Management and Operations

Factor 2: Past Performance

Factor 3: Cost/Price

The technical Sub-Factors above are also listed in descending order of importance, as a result of which they will not be treated as equally important for evaluation purposes.

The best-value determination may involve a tradeoff of cost and non-cost factors, if appropriate. The Technical and Past Performance factors combined are significantly more important than the Cost/Price factor. Nevertheless, cost is a substantial evaluation factor. The more equal the Technical and Past Performance ratings are amongst Offerors, the greater importance Cost/Price will be for the evaluation.

M.5.2 Hypothetical scenarios will be used to demonstrate that the Offeror understands the requirements for a range of operations. Scenario responses will be used to assist in the evaluation of the technical factor and sub-factors. The Government will evaluate efficiency, effectiveness and completeness (demonstrates understanding of the requirement and how to perform under conditions of hypothetical scenario) of responses.

M.6 TECHNICAL EVALUATION

The Technical Factor will be evaluated based on the following sub-factors listed in descending order of importance:

M.6.1 SUB-FACTOR 1: SCIENCE SUPPORT PLANNING AND EXECUTION

Science Support Planning and Execution will be evaluated to assess the Offeror's approach to providing project field support in an academic research environment throughout the Arctic region. The assessment will include the Offeror's approach to establishing the science support requirement including: defining an approach for supporting individual research projects each season, the ability to identify integrative solutions across projects, and recommendations for long-term process improvements to facilitate efficient support in the future. This sub-factor includes how the Offeror will assist projects in planning their support requirements during the pre-proposal phase; how the Offeror will support post-award pre-season planning and execution of diverse projects; how the Offeror will evaluate the quality and timeliness of their delivered project support including customer feedback and then apply lessons learned. The Offeror should demonstrate their expertise working with the academic research community. While the responsibility for project design lies with the science team, the Offeror will be assessed on their approach to assisting researchers by recommending innovative technical solutions including the provision of autonomous power and instrumentation systems, communications and information technology, and field safety risk management. The Government will assess proposed deviations from suggested labor categories and/or labor hours and how the deviations align with the SOW and proposed Science Support Planning and Execution.

M.6.2 SUB-FACTOR 2: CONCEPT OF OPERATIONS AND CORE COMPETENCIES

Concept of Operations and Core Competencies will be evaluated to assess the Offeror's overall ability to deliver both individual project support and cultivate an effective and efficient program that supports current and future research needs. The assessment of the Concept of Operations will include the Offeror's approach to general management and human resources including: an evaluation of proposed key personnel, approach to staff recruitment and retention, and (when applicable) approach to teaming and integration of organizational units including subcontractors and the Offeror's capacity for changes of scope, schedule and budget, including but not limited to changes associated with new or increased appropriations. The assessment will also evaluate how local and regional issues and opportunities are incorporated into the Offeror's proposed approach; how they approach communication with key stakeholders including NSF, researchers, other agencies, and local vendors; and working with Indigenous communities in the Arctic while demonstrating the appropriate cultural competence. Core Competencies are areas of expertise and experience that the vendor will bring to bear on the work conducted under the contract. Areas that will be assessed include the approach to quality, safety and risk management planning and training; the accuracy and timeliness of accounting, procurement, and logistics systems; planning for inventory management and lifecycle replacement; and environmental compliance and stewardship. They will be assessed on the application of project management principles to forecasting and monitoring project scope, time, cost, and risk. Offerors will also be assessed on how their proposed planning and controls systems will be effective in developing and reporting progress tasking in the annual and multi-year planning. The Government will assess proposed deviations from suggested labor categories and/or labor hours and how the deviations align with the SOW and proposed concept of operations.

M.6.3 SUB-FACTOR 3: FACILITIES MANAGEMENT AND OPERATIONS

Facilities Management and Operations will be evaluated to assess the Offeror's understanding of requirements for science facilities and their approach to long-range planning, engineering, construction, operations, and maintenance. They will also be assessed on applications of appropriate materials and technology for cold environments. The Government will assess proposed deviations from suggested labor categories and/or labor hours and how the deviations align with the SOW and proposed Facilities Management and Operations.

M.6.4 ADJECTIVAL RATINGS - TECHNICAL

The Technical factor/sub-factors will be rated using the following adjectival ratings and definitions:

RATING	DEFINITION
Excellent	A comprehensive and thorough proposal with exceptional merit with many strengths. No weaknesses of significance exist. No deficiency exists.
Very Good	A proposal which demonstrates over-all competence. One or more strengths have been found, and strengths substantially outweigh any weaknesses that exist. No deficiency exists.
Satisfactory	A proposal which shows a reasonably sound response. There may be strengths or weaknesses, or both. As a whole, any strengths offset any weaknesses and the vendor is essentially capable of performing the requirements. No deficiency exists.
Marginal	A proposal which has one or more weaknesses that may be significant. Any weaknesses outweigh any strengths. No deficiency exists.
Unacceptable	A proposal that has one or more deficiencies or weaknesses that demonstrate a lack of overall competence and would require a major or complete proposal revision.

As used in relation to rating the Technical factor/sub-factors (other than Past Performance), the following terms have the corresponding meaning.

STRENGTH: An attribute in the proposal, which exceeds stated minimum requirements, and can be shown to provide benefit to the program or increase the probability of successful contract performance.

SIGNIFICANT WEAKNESS: A flaw in the proposal that appreciably increases the risk of unsuccessful contract performance.

WEAKNESS: A flaw in the proposal that increases the risk of unsuccessful contract performance.

DEFICIENCY: A deficiency is a material failure of a proposal to meet a requirement or a combination of significant weaknesses in a proposal that increases the risk of unsuccessful contract performance to an unacceptable level.

M.7 PAST PERFORMANCE EVALUATION

M.7.1 The Past Performance evaluation will examine how the Offeror's past and present performance validates anticipated future performance relating to the following areas:

- a) Quality of Product or Service - compliance with contract requirements, accuracy of reports, technical excellence; satisfaction of end users with contractor's service or recommended solutions.
- b) Cost Control - performing within original approved budget without the need for additional funds [except for augmentation of work]; current, accurate and complete billings; relationship of negotiated to actual costs; and cost efficiencies.
- c) Timeliness of Performance - meeting interim milestones, reliability, responsiveness to technical direction, and on time completion.
- d) Business Relations - effective contract administration.

The Government will assess the past performance information gathered from all available sources for recency and relevancy (see Section L of the solicitation for the definitions of recency and relevancy).

Information utilized will be obtained from the references listed in the proposal, the Past Performance Surveys submitted for the Offeror, and may also be obtained from other sources known to the Government.

M.7.2 The Government reserves the right to assess the past performance information submitted for any proposed major subcontractors and to include the results in its evaluation. Subcontractors will be assessed in a similar manner as the prime. However, the relevance of experience will be assessed only when such experience is that of the subcontractor proposed as the predominant performer of such work under this acquisition. In its complete discretion, the Government shall be the arbiter of whether subcontractor experience qualifies as "predominant" for purposes of assessing past performance.

M.7.3 **Adjectival Ratings – Past Performance**

The Past Performance factor will be rated using the following adjectival ratings and definitions:

RATING	DEFINITION
Excellent	The Offeror's record of past performance ratings on relevant projects indicates that excellent performance can be expected.
Very Good	The Offeror's record of past performance ratings on relevant projects indicates that very good performance can be expected.
Satisfactory	The Offeror's record of past performance ratings on relevant projects indicates that satisfactory performance can be expected.
Neutral	Assigned to an Offeror with no relevant past performance or for whom information on past performance is not available.
Marginal	The Offeror's record of past performance ratings on relevant projects indicates that marginal performance can be expected and the risk to successful completion of required tasks is moderate.
Unsatisfactory	The Offeror's record of past performance ratings on relevant projects indicates that unsatisfactory performance can be expected and the risk to successful completion of required tasks is high.

M.8 COST/PRICE EVALUATION

M.8.1 The Offeror's cost proposal will not receive an adjectival rating. It will be evaluated for completeness and reasonableness and realism.

The agency will also perform a cost realism analysis of each offeror's proposed costs to determine a probable cost of performing the contract using the offeror's proposed approach. The purpose of this analysis is to guard against unsupported claims of cost savings by determining whether the costs as proposed represent what the Government realistically expects to pay for the proposed effort. Offerors bear the burden of demonstrating the suitability of their cost proposals and supporting their proposed costs.

As a product of the analysis, this cost realism evaluation will result in a determination of a total probable cost for the offeror's proposed approach, which shall be used for purposes of evaluation to determine the best value. The total probable cost shall be calculated in accordance with FAR 15.404-1(d) and shall include probable costs for the phase-in period, the base period, the option periods, the phase-out option period and the option to extend services. The cost/price factor may be used as an aid in evaluating the Offeror's understanding of the work requirement.

M.8.2 To facilitate the evaluation of cost proposal information submitted under Section L of this solicitation, the Government may obtain other cost or pricing information from other sources including, but not limited to, Defense Contract Management Agency (DCMA), Defense Contract Audit Agency (DCAA), U.S. Department of Labor, Office of Naval Research, U.S. Department of Health and Human Services, available escalation or inflation factors or indices and any other resource available to the Government.

M.8.3 Deviations from suggested labor categories and/or suggested labor hours will be evaluated to determine if the respective deviation(s) matches the respective technical proposal. When evaluating cost realism, the Government may make reasonable adjustments to total proposed estimated cost if proposed deviations from suggested labor categories and/or labor hours are determined inadequate for the SOW and/or proposed technical approach.

M.8.4 If multiple Offers are received, the Government expects to utilize proposed labor rate statistics as part of the cost realism analysis. Specifically, the Government expects to utilize the following

steps: 1) develop an average labor rate for each labor category; 2) calculate the standard deviation of the average rate for each labor category; 3) determine if the proposed labor rate is within one (1) standard deviation of the average labor rate for the respective labor category; 4) the Government expects to consider a proposed labor rate that is within one (1) standard deviation of the respective average labor rate to be a realistic rate, subject to cost analysis techniques in accordance with FAR 15.404; 5) the initial calculations for average labor rate and standard deviation will not be recalculated if a competitive range is set; 6) only acceptable offers may be used for statistical analysis; and 7) the Government reserves the right to utilize only a sample of the labor rates for cost realism analysis. If an Offeror's proposed labor rate is more than one (1) standard deviation below the average for that labor rate, the Government will review the submitted supporting documentation for that rate. If the Government determines that the supporting documentation supports the realism of the proposed rate, no adjustment will be made to the Offeror's proposed rate. If inadequate or no justification is provided by the Offeror for that rate, the Government will adjust that rate to be equal to one (1) standard deviation below the average for purposes of calculating the most probable cost for that Offeror. If, during this evaluation of labor rates, the Government requests additional information to support an Offeror's proposed labor rate, this request will be considered a clarification, not discussions. In such circumstances, an Offeror will not be given an opportunity to revise their proposal at that time.

M.8.5 The Government will evaluate the evidence that the Offeror, and all CTA members (if applicable) have an adequate accounting system in accordance with FAR 16.301-3(a)(1). If the Offeror and all CTA members (if applicable) fail to furnish verification of an adequate cost accounting system, the Offer will not be considered for award.

M.8.6 Proposed Fixed-Fee. If the CO determines that an Offeror proposed fixed-fee higher than 10% of Total Probable Cost, excluding fee, the Offer may not be considered further for award. Pursuant to FAR 15.404-4(c)(4)(i)(C), the CO shall not negotiate a fee that exceeds statutory limitations, imposed by 10 U.S.C. 2306(d) and 41 U.S.C. 3905.

M.9 SMALL BUSINESS SUBCONTRACTING PLAN

The CO will determine if the apparently successful offeror's subcontracting plan is acceptable by assessing the proposed subcontracting goals, the proposed approach to subcontracting and the likelihood of successful accomplishment of the goals. The CO will determine if the proposed subcontracting goals are acceptable by comparing them to the goals listed under Section L.16.7 above. The CO will determine if the proposed approach to subcontracting is acceptable by assessing the degree of small business participation, the degree of providing subcontracting opportunities for, and the extent the Offeror plans to identify and commit to subcontracting with small business, small disadvantaged business, and veteran-owned, service-disabled, HUBZone, and woman-owned small businesses. Finally, the CO will determine if the proposed subcontracting plan is acceptable by evaluating the likelihood of successful accomplishment of the goals.

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