

JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION (JOFOC)
(In accordance with Federal Acquisition Regulation (FAR) 6.3 – Other than Full and Open Competition)

1. This document is a justification for other than full and open competition prepared by NASA's Goddard Space Flight Center (NASA's GSFC):

NASA's GSFC proposes to enter into a contract with the University of Kansas, Center for Remote Sensing of Ice Sheets (CReSIS), to provide NASA with a unique, custom designed and built cryospheric radar suite, which includes three radars necessary for mapping the bed topography of ice sheets, determining snow thickness on sea ice and monitoring the near surface firm layers on ice sheets. These radars are necessary to meet Operation Ice Bridge's science objectives. These instruments were used in previous campaigns making the Greenland campaign a follow-on to the Antarctic campaign of 2009. The CReSIS instruments are the only radar suite of instruments that are adapted to fly on the NASA's P-3 (a propeller airplane) and DC-8 (a jet airplane). This radar suite is the only one available that can image the ice sheet bed, snow on sea ice and near surface firm structure all in one package. This document justifies the determination for using other than full and open competition.

2. The nature and/or description of the action being approved:

This procurement action will require CReSIS to deploy, operate and maintain their custom built suite of 3 radars for the Operation Ice Bridge Greenland 2010 aircraft campaign which will begin in March 2010. The Greenland campaign is a series of flights designed to monitor the dynamic areas of the arctic sea ice and Greenland ice sheet during the data gap between ICESat-1 and ICESat-2, [REDACTED]. The Cryosphere, including land ice and sea ice, is an essential area to monitor in a warming climate. This requirement also includes the processing of the radar data by CReSIS with their custom processing algorithms and the release of Level 1-B data (geolocated radar echograms) to the Ice Bridge Science Team 3 months after the completion of the campaign.

3. Description of the supplies or services required, including an estimated value:

This procurement action will require CReSIS to modify their custom built and designed antenna for the NASA P-3 aircraft for an improved version of the advanced depth sounder radar that will map glacier beds. CReSIS will be required to deploy, operate, and maintain their suite of 3 radars on both the NASA P-3 aircraft and DC-8 aircraft during the Greenland 2010 Campaign for approximately 175 hours of flight time in each aircraft, process all data collected and distribute the data to the Ice Bridge science team 3 months after the end of the Greenland 2010 campaign. [REDACTED]

4. Statutory authority permitting other than full and open competition:

The statutory authority for this action is 10 U.S.C. 2304 (c) (1), only one responsible source.

5. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires use of the authority cited:

CRISIS has already gathered data for Operation Ice Bridge in the Antarctic 2009 Campaign and, therefore, these instruments are the only instruments that currently exist to meet the requirements of the Greenland Campaign. No other offeror has the unique custom built three radar suite of instruments developed by CRISIS which includes the capabilities of imaging fast flowing, rapidly changing glaciers, snow thickness on sea ice, and near surface firn over the ice sheets. CRISIS has unique UHF (Ultra high-frequency) and VHF (Very high-frequency) airborne radars for imaging the near surface firn and snow depth on sea ice at a very high vertical resolution (5 cm) which has not been duplicated. Because CRISIS has designed, developed and built these one of a kind instruments for cryospheric applications and adapted them to the NASA planes, they are the only qualified personnel to operate the instruments in the field and are the only qualified personnel to repair the instruments. [REDACTED]

[REDACTED]. Building new radars of this type and integrating them with the NASA aircraft would take longer than the entire Operation Ice Bridge project and would not be within the Operation Ice Bridge budget. [REDACTED]

[REDACTED]

Additionally, in order to maintain the temporal frequency set by the ICESat satellite, the Operation Ice Bridge Greenland Campaign must operate in the March through April 2010 timeframe. The short time frame requires that we use instruments that have already flown on the NASA's P-3 and DC-8 airplane, as the CRISIS instruments have done. Not using the CRISIS radar could result in the loss of a full year's worth of data monitoring in Greenland, which is unacceptable for Operation Ice Bridge, especially at this critical time where in a warming climate the ice sheets are experiencing rapid changes that must be monitored and understood to predict the rise in the global sea level in the coming century.

6. Description of the efforts made to ensure that offers are solicited from as many potential sources as practicable, including whether a notice was or will be publicized as required by Federal Acquisition Regulation (FAR) 5.202:

A notice of NASA GSFC's intent to enter into this new sole source agreement with CRISIS was publicized on the NASA Acquisition Internet Service (NAIS) and in the Government-wide Point of Entry in accordance with FAR Part 5.201, on December 18,

2009. The posting period of 15 days expired on January 2, 2010, and no interested parties inquired or provided capability statements in response to the notice.

7. A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable:

A thorough analysis of the proposal will be conducted to ensure the resultant estimated cost is fair and reasonable. The analysis will include a thorough cost evaluation of all direct and indirect rates, materials, travel and other direct costs. A technical evaluation will be performed to validate their technical approach, skill mix and schedule.

8. Description of the market research conducted, and the results, or a statement of the reasons market research was not conducted:

No formal market research was conducted because instruments of the type developed by CReSIS are highly customized for the cryospheric environments. The instruments, airplane mounting devices and processing algorithms have all been custom built and designed by CReSIS and are not duplicated. These items cannot be purchased commercially.

As previously stated in Item 6 above, a Notice of Intent Synopsis was posted soliciting information about NASA GSFC's intent to negotiate with CReSIS for this requirement with an opportunity for potential sources to respond.

9. Other facts supporting the use of other than full and open competition:

Not Applicable

10. Sources, if any, that expressed an interest, in writing, in the acquisition:

A Notice of Intent to award a contract to CReSIS was posted to the NAIS and Point of Entry on December 18, 2009. The posting period of 15 days expired on January 2, 2010 and no interested parties inquired or provided capability statements in response to the notice.

11. The actions the Agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required:

The existing barrier to competition, which reflects unique knowledge and prior experience that is vital to the proposed effort, cannot be removed at this time. CReSIS has years of experience in this area and utilizing another source would be a duplication of effort that would result in excessive schedule impacts [REDACTED]. This sole source is crucial to bridging the gap for ice data between ICESat I and ICESat II. [REDACTED]