



NOTICE OF INTENT TO AWARD

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the U.S. Geological Survey's intention to fund the following project activities without full and open competition.

ABSTRACT	
Funding Announcement	USGS-20-FA-0003
Project Title	Post-Launch Radiometric Calibration and Product Validation of Landsat Sensors
Recipient	University of Arizona
Anticipated Federal Amount	\$322,377
Cost Share	\$0
Total Anticipated Award Amount	\$1,701,543
New Award or Continuation?	New
Anticipated Period of Performance	11/01/2019 – 10/31/2024
Award Instrument	Cooperative Agreement
CFDA # and Title	15.808 – Research and Data Collection
USGS Point of Contact	Cody Anderson (chanderson@usgs.gov); Sara Roser (sroser@usgs.gov)

OVERVIEW

The University of Arizona (UA) Remote Sensing Group (RSG) will work collaboratively with the USGS on the calibration of Landsat sensors. Vicarious calibration research along with fieldwork will be conducted for in-flight performance validation of the Landsat 7 Enhanced Thematic Mapper + instrument, Landsat 8 Operational Land Imager (OLI) instrument, and upcoming Landsat 9 OLI instrument and their cross-calibration with other land imaging sensors. Landsat data are used in a wide range of scientific research and applications including climate modeling, weather prediction, land cover and land use change, and terrestrial monitoring, and the long-term Landsat data record must be well characterized and calibrated with traceability to System International (SI) based physical quantities.

RECIPIENT INVOLVEMENT

The recipient will study, develop, and execute a comprehensive plan to validate Landsat Level 2 products, with emphasis on surface reflectance. UA will:

- Collect ground-based data for OLI 1 and 2;
- Intercompare OLI 1 and 2 with other sensors;
- Validate OLI 1 higher level data products (e.g. surface reflectance);
- Present results at Landsat Calibration Working Group meetings; and
- Publish results in peer-reviewed journal and present results at one scientific conference.

USGS INVOLVEMENT

Substantial involvement on the part USGS is anticipated for the successful completion of the objectives to be funded by this award. In particular, USGS, will be responsible for the following:

- Assist with organization and coordination of fieldwork;
- Participate in fieldwork;
- Assist with analysis of data;
- Work with UA to apply results to update the calibration of Landsat instruments; and
- Collaborate with UA on potential of incorporating updated calibration parameters into Landsat product production.

SINGLE-SOURCE JUSTIFICATION

DEPARTMENT OF THE INTERIOR SINGLE SOURCE POLICY REQUIREMENTS
Department of the Interior Policy (505 DM 2) requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.
For an assistance award to be made without competition, the award must satisfy one or more of the following criteria: (1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives; (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of an activity presently being funded, and for which competition would have a significant adverse effect on the continuity or completion of the activity;

- (3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress’ intent to restrict the award to a particular recipient of purpose;
- (4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or other such unique qualifications;
- (5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.
- (6) Cooperative Agreements - USGS Unique Authority cited at 43 U.S.C. 36d (Federal, State, and academic partners) or DOI Authority cited at 43 U.S.C. 1457b (not-for-profit organizations).

USGS did not solicit full and open competition for this award based the following criteria:

(4) UNIQUE QUALIFICATIONS

(6) COOPERATIVE AGREEMENTS – USGS Unique Authority cited at 43 U.S.C. 36d

Single Source Justification Description:

(4) The Remote Sensing Group within the College of Optical Sciences at the University of Arizona is uniquely qualified to continue this work because of its internationally recognized expertise, geographic proximity to the calibration sites, and longstanding calibration support of the Landsat missions. The types and caliber of instrumentation it has deployed at the vicarious calibration sites in the past makes UA uniquely qualified to continue this work as operational sensors on-orbit continually undergo changes and need current measurements for comparison. Landsat 9 is due for launch in December 2020, and UA’s past work makes it uniquely qualified to conduct current measurements for comparison in a timely manner prior to the launch.

STATUTORY AUTHORITY

USGS Unique Authority cited at 43 U.S.C. 36d (Federal, State and academic partners).

§ 36d. Cooperative agreements: Notwithstanding the provisions of the Federal Grant and Cooperative Agreement Act of 1977 (31 U.S.C. 6301–6308), the United States Geological Survey is authorized to continue existing, and on and after November 10, 2003, to enter into new cooperative agreements directed towards a particular cooperator, in support of joint research and data collection activities with Federal, State, and academic partners funded by appropriations herein, including those that provide for space in cooperator facilities.