

BROAD AGENCY ANNOUNCEMENT
USAFA-BAA-2021
Research Interests of the United States Air Force Academy (USAFA)

TWO-STEP CALL ANNOUNCEMENT (CALL) 0002 AMENDMENT 01

FEDERAL AGENCY NAME: United States Air Force Academy, Department of Physics

BROAD AGENCY ANNOUNCEMENT TITLE: Research Interests of the United States Air Force Academy

BROAD AGENCY ANNOUNCEMENT NUMBER: USAFA-BAA-2021

BROAD AGENCY ANNOUNCEMENT TYPE: This is an initial announcement.

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NUMBER: 12.800

CALL ANNOUNCEMENT TITLE:

Space Domain Awareness Grand Challenge – Ground-Based Spectral Signatures of Satellites

CALL ANNOUNCEMENT (CALL) NUMBER: 0002

TECHNICAL POINT OF CONTACT: The technical point of contact for this CALL as outlined in the baseline BAA, Section I - Opportunity Description (a)(15), (Center for Space Situational Awareness Research) is:

Dr. Francis Chun, Director, Center for Space Situational Awareness Research
USAF Academy Department of Physics
United States Air Force Academy, CO
Phone: 719-333-2601
Email: francis.chun@usafa.edu

CONTRACTING POINTS OF CONTACT: The contracting points of contact for this CALL are:

Grants/Agreements Specialist:

Christina Aguirre, 10 CONS/PKC
United States Air Force Academy, CO
Email: christina.aguirre@us.af.mil

Grants/Agreements Officer:

Erica Wilson, 10 CONS/PKC
United States Air Force Academy, CO
Email: erica.wilson.7@us.af.mil

BACKGROUND: The Center for Space Situational Awareness Research (CSSAR) in the Department of Physics (DFP) conducts research in satellite optical signatures using ground-based telescopes on the campus of USAFA and across the world with the Falcon Telescope Network (FTN). One research area of emphasis is manmade satellite characterization via non-resolvable imaging using various optical remote sensing modalities (e.g., photometry, spectroscopy, and polarimetry). For this call, we are specifically looking for research in support of:

1. Calibration of the USAFA telescopes for slitless spectroscopy.
2. The application of slitless spectroscopy on manmade satellite characterization.
3. The extraction of satellite features and characteristics from spectral signatures alone and in concert with satellite photometric and polarimetric signatures using machine learning or other data analysis/fusion algorithms.

The researcher is expected to complete the research on-site at the United States Air Force Academy and to incorporate cadet participation in the projects, typically one to two cadets per semester.

REQUIREMENT DESCRIPTION: The United States Air Force Academy is soliciting white papers for research under **Section I - Opportunity Description (a)(15), Center for Space Situational Awareness Research (Department of Physics) in the Broad Agency Announcement USAFA-BAA-2021 posted on 2 December 2020** specifically for Space Domain Awareness Grand Challenge – Ground-Based Spectral Signatures of Satellites.

THIS WILL BE A TWO-STEP CALL ANNOUNCEMENT:

FIRST STEP: WHITE PAPERS

WHITE PAPER FORMAT: White papers submitted in response to this call should conform to the requirements found in USAFA-BAA-2021, section IV.c. and also include a brief resume of the principle investigator and a rough order of magnitude of cost.

WHITE PAPER DUE DATE AND TIME: The due date for white papers submitted in response to this CALL is no later than 1630 MST on 22 April 2021. *White papers received after the due date and time shall be governed by the provisions of FAR 52.215-1(c)(3).*

WHITE PAPERS ARE TO BE E-MAILED TO:

10 CONS/PKC

Attn: Christina Aguirre

Subject Line Should Indicate: USAFA-BAA-2021-CALL 0002

Email: 10MSG.LGCC@us.af.mil

WHITE PAPERS EVALUATED AND SELECTED: White papers will be evaluated and full proposals requested in accordance with USAFA-BAA-2021. Offerors whose white papers are determined to be of interest to the Government will be asked to submit full cost and technical proposals in response to this CALL. Offerors whose white papers are not of interest to the

Government will be notified via letter that the effort proposed is not of interest to the Government.

SECOND STEP: PROPOSALS

INTENT TO PROPOSE: Potential offerors are requested to advise the Grants/Agreements point of contact (by e-mail) if they intend to submit a proposal after receiving a formal request for proposal. Such notification is merely a courtesy and is not a commitment by the offeror to submit a proposal.

PROPOSAL INSTRUCTIONS: Offerors are requested to follow the instructions within the baseline BAA, USAFA-BAA-2021 for instructions on how to submit a proposal. All proposals must be submitted through Grants.Gov, <https://www.grants.gov> and include all the required forms specified within the baseline BAA.

REGISTRATION REQUIREMENTS: Prospective Awardees shall be registered in the System for Award Management database prior to award, during performance, and through final payment of any award resulting from this announcement. Offerors may obtain information on registration and annual confirmation requirements via the Internet at beta.sam.gov or by calling 1-866-606-8220.

ANTICIPATED FUNDING: Anticipated funding for this CALL is \$300,000 over three years (\$100,000 per year). All funding is subject to change due to Government discretion and availability as well as technical needs.

ANTICIPATED TYPE OF CONTRACTS/INSTRUMENTS: The Government anticipates awarding a Cooperative Agreement as a result of this CALL but reserves the right to award the instrument best suited to the nature of research proposed including a Grant, Procurement Contract, or other type of agreement. Potential offerors are reminded that in accordance with 32 CFR 22.205 and 2 CFR 200.400, a fee or profit may not be paid to the recipient of a cooperative agreement or grant.

ANTICIPATED PARTICIPATION: Foreign participation is not permitted at the prime/recipient/grantee or the subaward/subgrant level.

Department of Physics further encourages young scholars and professionals to submit white papers, often at a lower cost, to support individual/team study efforts or partnership with more experienced researchers to help expand the pool of experts within the field.

PERIOD OF PERFORMANCE: The anticipated period of performance for the award resulting from this CALL is approximately 36 months, depending on the proposed effort.

PROPOSAL DUE DATE AND TIME: The due date for proposals will be 30 days after formal request for proposal has been sent to the submitter of the selected white paper(s). Proposals for any other technology area identified in the baseline BAA will not be accepted under this call.

Proposals received after the due date and time shall be governed by the provisions of FAR 52.215-1(c)(3).

ANTICIPATED NUMBER OF AWARDS: The Government anticipates awarding one Cooperative Agreement as a result of this CALL. However, the Government reserves the right to make multiple awards, single awards, or no awards pursuant to this CALL.

ANTICIPATED AWARD DATE: 1 August 2021

CALL AMENDMENTS: Offerors should monitor **GRANTS.GOV** <http://www.grants.gov> for any additional notices to this CALL that may permit extensions to the white paper submission date or otherwise modify this announcement.

APPLICABILITY OF BASELINE BAA: All requirements of USAFA-BAA-2021 apply unless specifically amended and addressed in this CALL. For complete information regarding USAFA-BAA-2021, refer to the initial opened-ended BAA as amended. It contains information applicable to all CALLS issued under the BAA and provides information on the overall program, proposal preparation and submission requirements, proposal review and evaluation criteria, award administration, agency contacts, etc. Direct questions to the points of contact identified above.