

## OVERVIEW INFORMATION

1. **Agency Name:** Air Force Office of Scientific Research (AFOSR)  
4015 Wilson Boulevard, Room 712  
Arlington, VA 22203-1954
2. **Program Name:** University Nanosat Program
3. **Funding Opportunity Title:** University Nanosat Program
4. **Funding Opportunity Number:** AFOSR BAA 2005-2
5. **Catalog of Federal Domestic Assistance (CFDA) Number:** 12.800
6. **CFDA Title:** Air Force Defense Research Sciences Program
7. **Dates:** To receive maximum consideration proposals should be received at AFOSR by 3:00 PM, EST, 2 December 2004.
8. **Executive Summary:** AFOSR, in conjunction with the AFRL Space Vehicles Directorate (AFRL/VS), NASA Goddard Space Flight Center (GSFC) and the American Institute of Aeronautics and Astronautics (AIAA), announces a program to promote and sustain university research and education focused on small satellites (nanosats) and related technologies. The primary outcome of individual projects funded under this program is the design, fabrication and functional testing of a nanosat. Secondary objectives are to foster research in enabling technologies for nanosats and the design of experiments that can be performed by nanosats in orbit. In a related activity, AIAA will sponsor a competition to select a small number of nanosats to be prepared for space launch and operation. AFRL/VS and GSFC will work actively with program participants to promote space-worthy design and fabrication and to prepare selected nanosats for launch.

## **FULL TEXT OF ANNOUNCEMENT**

### **I. Funding Opportunity Descriptions**

AFOSR, in conjunction with the AFRL Space Vehicles Directorate (AFRL/VS), NASA Goddard Space Flight Center (GSFC) and the American Institute of Aeronautics and Astronautics (AIAA), announces a program to promote and sustain university research and education focused on small satellites (nanosats) and related technologies. The primary outcome of individual projects funded under this program is the design, fabrication and functional testing of a nanosat. Secondary objectives are to foster research in enabling technologies for nanosats and the design of experiments that can be performed by nanosats in orbit. In a related activity, AIAA will sponsor a competition to select a small number of nanosats for space launch and operation. AFRL/VS and

GSFC will work actively with program participants to promote space-worthy design and fabrication and to prepare selected nanosats for launch.

Teaming by two or more universities is an acceptable option. In this case, if each university plans to produce their own nanosat, each university must apply individually to AFOSR and individual grants will be made. Each such proposal should detail the overall team objectives and the role of each university. One institution should be indicated as the Point of Contact (POC) for team operations.

Proposing universities may elect to design experiments to be performed (should there ultimately be a launch) on the nanosat, including the demonstration of novel space technologies. **To determine which technologies and demonstrations are of interest to the participating agencies, contact Gerald Witt at [Gerald.witt@afosr.af.mil](mailto:Gerald.witt@afosr.af.mil).** The incorporation of such technologies is not mandatory for proposals. However, this may affect one of the evaluation criteria. (See below).

For this program 'nanosat' will be used to indicate satellites having a mass of no more than 30 kg and with linear dimensions of 45 cm or less. These restrictions are chosen to maintain a focus on small satellites, to keep project costs reasonable and to facilitate the potential launch of the nanosat. It is anticipated that several awards will be made. The plan is to hold both the AFOSR solicitation and the AIAA competition on a two year cycle.

## **II. Award Information:**

The anticipated type of awards is to be project grants. Each project will be funded at no more than \$55 K per year for a maximum of two years. Collaborations with government agencies or industry are highly desirable.

## **III. Eligibility Information**

**1. Eligibility:** This competition is limited to institutions of higher education with degree granting programs in science, mathematics and/or engineering. Collaborations with government agencies or industry are highly desirable.

Proposals are encouraged from historically Black colleges and universities and minority institutions (HBCU/MI), as defined by 10 U.S.C. 2323. Accredited U.S. postsecondary institutions that meet the statutory criteria for identification as minority institutions are listed at the following Department of Education web site:

[www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html](http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html). However, no funds are specifically allocated for HBCU/MI participation.

**2. Cost Sharing: Cost sharing is not required.**

**3. Other: None**

## IV. Application and Submission Information

**1. Address to Request Application Package:** Consult the AFOSR web page: [www.afosr.af.mil](http://www.afosr.af.mil). Directly under the AFOSR logo on the home page is "Doing Business with AFOSR". The first listing under this topic is "How to Apply for a Grant or Contract". Full details of proposal content and form are given there. Download and complete the proposal Cover Page. In the block "Title of Proposed Project", add the following: Solicitation Title: University Nanosat Program. If Internet access is not available, paper copies may be requested by contacting [info@afosr.af.mil](mailto:info@afosr.af.mil) or by sending a self-addressed label with your request to: AFOSR/PIC; 4015 Wilson Blvd, Room 713; Arlington, VA 22203-1954.

**2. Content and Form of Application Submission:** Prepare a 24 month budget covering the periods: 01 APR 05 (the anticipated start date of the grants) – 30 NOV 05; 01 DEC 05 – 30 NOV 06; 01 DEC 06 – 31 MAR 07. It is prudent to allocate \$(3-5) K/year for travel to required meetings. Proposals of more than 25 total pages, including cover page and budget, are discouraged.

Ten copies of the proposal should be mailed to:

Dr. Gerald L. Witt  
AFOSR/NE  
4015 Wilson Blvd, Room 713  
Arlington, VA 22203-1954  
Attn: University Nanosat Program

**3. Submission Dates and Time:** To receive maximum consideration proposals should be received at AFOSR by 3:00 PM, EST, 2 December 2004.

**4. Intergovernmental Review:** None

**5. Funding Restrictions:** None

**6. Other Submission Requirements.** Only hard copy submissions will be accepted.

## V. Application Review Information

**1. Criteria:** The proposals will be evaluated by a team of specialists drawn from AFRL and NASA. Selection criteria include the following (the first two are of equal importance):

- a. Scientific and technical excellence of nanosat plans and objectives;
- b. Relevant experience by the Principal Investigator and major associates;

Other evaluation criteria, of lesser importance than a and b, but equal to each other

- c. Educational impact (both undergraduate and graduate) of the project;
- d. Quality, relevance (to AFRL and NASA) of plans for space operations
- e. The reasonableness and realism of cost. (Cost sharing is not a factor in the evaluation.)

## **VI. Award Administration Information:**

**1. Award Notices:** Principal Investigators of successful proposals will receive a notice, by letter or e-mail, on or about 22 December 2004. For those proposals being recommended for an award, the notification should not be regarded as an authorization to commit or expend funds (except at the recipient's own risk, to the extent that the recipient allows charging to awards of 90 days pre-award costs). Negotiations may result in funding levels that are less than proposed. Only an award document signed by a Government Grants Officer will bind the Government.

**2. Administrative Requirements:** Title to equipment purchased under this program will be vested with the university without further obligation to the government. AFOSR's terms and conditions for grants are available at the AFOSR web page: [www.afosr.af.mil](http://www.afosr.af.mil). Directly under the AFOSR logo on the home page is "Doing Business with AFOSR".

**3. Reporting:** A performance report will be due to AFOSR each year on September 01 and a final technical report will be due after completion of the research. For report content see ([www.afosr.af.mil/pdfs/performance-reports/March2000.pdf](http://www.afosr.af.mil/pdfs/performance-reports/March2000.pdf)). In addition, design details may be called for – particularly for those entering the AIAA competition. Two Program reviews will be held each year at which each grantee will deliver a progress report. Financial Report using SF-269 (or SF-272) is required by Part 32 of the DoD Grant and Agreement Regulations (32 CFR part 32).

## **VII. Agency Contract(s):** Address questions to:

Dr. Gerald L. Witt  
AFOSR/NE  
4015 Wilson Blvd, Room 713  
Arlington, VA 22203-1954  
[Gerald.witt@afosr.af.mil](mailto:Gerald.witt@afosr.af.mil)