



**UNITED STATES
DEPARTMENT OF THE INTERIOR**



**BUREAU OF LAND MANAGEMENT
Fire and Aviation Directorate
National Interagency Fire Center
Lead Agency for the Joint Fire Science Program**

Joint Fire Science Program

The Joint Fire Science Program provides funding for scientific studies to address problems associated with managing wildland fuels, fires, and fire-impacted ecosystems.

Department of the Interior and Related Agencies Appropriation Act for FY 1998 and subsequent years
(P.L. 105-83; H.R. Report 105-163)

**PROJECT ANNOUNCEMENT No. FA-RFA011-0002
Integrated measurements (1 task statement)**

CFDA No. 15.232

ISSUE DATE: September 23, 2010

JFSP Request for Applications (RFA) 2011-2

CLOSING DATE & TIME

April 1, 2011 5:00 pm MST

NOTE: JFSP has changed methods for funding proposals. Please read the eligible applicants and contacts sections closely. Further instructions for completing all templates are now instruction documents available on the appropriate tabs once a proposal has been initiated. If you have questions please call the program office.

Contact Information:

John Cissel

Program Manager

Phone: (208) 387- 5349

E-mail: John_Cissel@nifc.blm.gov

Becky Jenison

Administrative Analyst

Phone: (208) 387- 5958

E-mail: Becky_Jenison@nifc.blm.gov

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	2
SECTION I. Funding Opportunity Description	4
A. Legislative Authority	4
B. Project Background Information	4
C. Program/Project Objective	4
D. Statement of Joint Objectives/Project Management Plan	4
E. Period of Project	4
SECTION II. Award Information	4
A. Expected Number of Awards	4
B. Estimated Total Program Funding	4
C. Award Ceiling	4
D. Assistance Instrument	4
SECTION III. Eligibility Information	4
A. Eligible Applicants	4
B. Cost Sharing or Matching	5
SECTION IV. Application and Submission Information	5
A. Proposal Submission and Agency Contact	5
B. Task Statement	5
1. Integrated measurements of fuels, fire behavior and smoke	5
C. Budget and Funding Policy	6
1. Federal Cooperator	6
2. Indirect Cost	7
3. SBIR Costs	7
4. Salary Policy	7
D. Proposal Application Requirements	7
1. Proposal Submission	8
2. Contacts	8
3. Confirmation page	9
4. Attachments	9
5. Budget	9
6. Task Statement	9
7. Format	9
8. Page Limits	9

9. Project Location	10
10. Signatures	10
11. Indirect Costs	10
12. In-kind Contributions	10
13. Support Letters	10
14. Salary Justifications	10
15. Past-due Projects	10
SECTION V. Application Review and Evaluation Information	11
SECTION VI. Definitions	12

SECTION I. FUNDING OPPORTUNITY DESCRIPTION

- A. Legislative Authority:** Department of the Interior and Related Agencies Appropriation Act for FY 1998 and subsequent years (P.L. 105-83; H.R. Report 105-163).
- B. Project Background Information:** The Joint Fire Science Program (JFSP) is a partnership of six federal wildland management and research agencies with a need to address problems associated with managing wildland fuels, fires, and fire-impacted ecosystems. The partnering agencies include the U.S. Department of Agriculture, Forest Service and five bureaus in the U.S. Department of the Interior - Bureau of Indian Affairs, Bureau of Land Management, National Park Service, Fish and Wildlife Service, and the Geological Survey.
- For further background on the JFSP, those considering submitting proposals are encouraged to visit our website at www.firescience.gov.
- C. Program/Project Objective:** The U.S. Congress directed the Department of the Interior and the USDA Forest Service to develop a Joint Fire Science Program and Plan to prioritize and provide sound scientific studies to support land management agencies. Current priorities are identified as task statements in this Request for Applications (RFA).
- D. Statement of Joint Objectives/Project Management Plan:** The JFSP Governing Board and Program Manager will establish an oversight relationship with the Principal Investigator and Federal Cooperator on each funded project. Projects will be required, at a minimum, to provide a written progress report annually.
- E. Period of Project:** The JFSP Governing Board generally anticipates that individual projects can be accomplished within three years or less.

SECTION II. AWARD INFORMATION

- A. Expected Number of Awards:** Approximately 2-5
- B. Estimated Total Program Funding:** Approximately \$1,000,000 - \$3,000,000
- C. Award Ceiling:** None
- D. Assistance Instrument:** To be determined at a later date by the JFSP.

SECTION III. ELIGIBILITY INFORMATION

- A. Eligible Applicants:** The JFSP encourages proposals from all interested parties. However, if a federal agency is requesting funding, or if the work is being completed through a private business, or has international involvement, then you must have a Federal Cooperator and funding will go through the federal cooperating agency. If the Federal Cooperator is from the Forest Service they must be from a Forest Service research station.

Proposals that do not require a Federal Cooperator will be funded directly by an award document (e.g., a cooperative agreement) between JFSP and the PI institution. The PI institution will be required to respond to a second posting on grants.gov to initiate funding.

NOTE: This is a change from business practices in prior years.

Upon receipt of a fully executed award document, the institution receiving funds from JFSP will be responsible for all sub-award transactions to cooperators or contractors related to the

project. The end date for all sub-awards must match the end date in the original funding award document.

B. Cost Sharing or Matching: This program has no matching requirements.

SECTION IV. APPLICATION and SUBMISSION INFORMATION

A. Proposal Submission and Agency Contact

Your proposal must be submitted by 5:00 pm MST April 1, 2011, using the electronic submission process provided on the JFSP website www.firescience.gov. Proposals should not be submitted in Grants.gov. There will be no exceptions to this closing date and time.

All proposals must meet all requirements in Section D (Proposal Application Requirements). Proposals that do not meet all requirements in this section will not be considered for funding.

Proposals must be submitted in the appropriate task statement being addressed. The proposal will be reviewed and its merits judged in the context of this one task statement only.

Questions should be directed to:

John Cissel, Program Manager
Joint Fire Science Program
National Interagency Fire Center
3833 S. Development Ave.
Boise ID 83705
Phone: (208) 387-5349
E-mail: John_Cissel@nifc.blm.gov

Becky Jenison, Administrative Analyst
Joint Fire Science Program
National Interagency Fire Center
3833 S. Development Ave.
Boise ID 83705
Phone: (208) 387-5958
E-mail: Becky_Jenison@nifc.blm.gov

B. Task Statement

Integrated measurements of fuels, fire behavior and smoke

Fire behavior and smoke research and modeling is hampered by a dearth of integrated field datasets that can be used to develop and validate fire behavior and smoke models. The Joint Fire Science Program (JFSP) invites proposals for integrated field measurement of wildland fires primarily to support improved fire behavior and smoke model development and evaluation, and secondarily to support fire effects research funded elsewhere. Note that due to extensive requirements for this task, additional time is allowed to complete proposals.

Proposals submitted in response to this task statement are due on April 1, 2011. Also note that notification to the JFSP Program Manager (jcissel@blm.gov) of intent to submit a proposal is requested by March 4, 2011.

JFSP seeks proposals that intend to measure a full suite of variables that characterize fires, fuels, and smoke from pre-fire through immediate post-fire conditions. Submitted proposals must include data collection plans for fuel characterization, combustion and fire behavior, plume rise and smoke dispersion, and meteorological variables necessary to interpret other measurements. JFSP encourages collaboration among existing and new partnerships to successfully conduct integrated measurement campaigns.

Proposals must include a description of all variables intended for measurement and a clear justification of why each variable was selected. If data types listed above are not collected,

justification must also be provided. JFSP encourages use of the ‘test case’ concept, as used in the Smoke and Emission Model Intercomparison Project (SEMIP, JFSP # 08-1-6-10, <http://semip.org/>), to provide a framework for data collection plans. Data collection plans may also be justified in terms of their value for improvement and testing of scientific models, or to extend laboratory experiments. Specific rationale must be provided.

Data collected via funded proposals must be stored and managed so that the data and metadata are publicly available at the time of project closure. Metadata must be sufficient to make the data understandable. Clear provision of how collected data will be made available for use by other investigators must be included.

Data should be stored in a central, managed repository. As feasible, JFSP encourages the use of SEMIP (see <http://semip.org/>) for this purpose. Provision must be made to store data relevant to smoke and emissions within SEMIP using SEMIP protocols. Investigators responsible for other data may elect to collaborate with SEMIP and use SEMIP for data storage and access, or develop a similar repository. Evidence of collaboration with SEMIP should be included if SEMIP is proposed as a repository. Proposals should include data standards, test cases, metadata and archival standards, and other protocols necessary to ensure sound management and use of a repository. When identifying test cases, proposals should also include provisions to locate and include existing high-quality datasets relevant to the test case.

Measurement campaigns can be of prescribed fires, or of the “rapid response” type to characterize unplanned fires. Proposals may include unique fuel types such as marshlands or tundra ecosystems.

Recommendations for sampling and data quality standards are a desirable outcome, e.g., live fuel moisture or coarse fuels.

Proposals are not required to develop or test models with collected data. However, the applicability of collected data to development and/or testing of models must be clear. Proposals may include analysis of collected data as long as it can be completed within one year of data collection, and does not require more than 20% of the total budget.

C. Budget and Funding Policy

1. Federal Cooperator

Funding will be distributed from the JFSP to either the PI institution or the federal cooperating agency. The receiving institution will be responsible for any sub-awards to transfer funds to cooperating institutions. The JFSP will NOT issue funding to more than one institution on a proposal. If the Federal Cooperator is from the Forest Service they must be from a Forest Service research station.

If the PI for your project is a university or non-profit organization and no funds are being requested by a cooperating federal agency, the proposal will be funded through a cooperative agreement. Proposals selected for funding that do not require a Federal Cooperator will be required to respond to a second posting on grants.gov and will need to submit the necessary paperwork prior to receiving funding.

All selected awardees must be prepared to provide a valid Dun & Bradstreet Number (D&B).

You can reactivate or obtain this at <http://www.dnb.com> or by calling 800-333-0505. There is a Federal Agency link on the Central Contractor Registration System (CCR) at <http://www.ccr.gov>.

2. Indirect costs

The JFSP Governing Board recognizes the need of agencies and organizations participating in the program to recover reasonable indirect costs. However, cost effectiveness of the individual projects is a determining factor in the final selection process. Indirect rates for JFSP proposals are limited to a maximum of twenty (20) percent of the direct costs. The maximum indirect rate that a federal agency may charge for pass-through costs is ten (10) percent. Proposal with indirect rates higher than (20) percent will not be considered. Proposal funded through a Federal Cooperator must reflect either the prevailing indirect rate for the cooperating federal agency or the JFSP maximum limit of (20) percent, whichever is less.

3. SBIR costs

Certain proposals may be required to pay a percentage of the project's costs into the Small Business Innovation Research (SBIR) program. Proposals where the funds are transferred to a Forest Service institution and subsequently award a portion of the total budget to a non-federal entity through a sub-agreement or sub-contract may be required to pay 2.5% of the total funds awarded externally to the SBIR program. Check with your budget contact to determine if this applies to your proposal.

4. Salary policy

Normally, salaries of permanent full-time federal employees are expected to be provided by their agencies. This is also true of university faculty on 12-month tenure-track appointments. These employees are already fully funded by their institutions. However, the Governing Board recognizes there can be unique situations where the Governing Board may agree to fund the salary of permanent employees.

A detailed justification for funding the salary of permanent employees must be included in the proposal to be considered for funding. The justification should indicate all sources of funding, including other pending projects and associated full time equivalent (FTE) for the permanent position for which salary funding is requested. The justification must be by the supervisor of the individual requesting salary.

You must use the format found in Attachment 2 in the database for the certification. In addition, permanent employee salary costs must be explicitly identified in the project budget. The Governing Board requires no special justification (other than a brief description of the need for the position in the budget justification section of the proposal) for funding part-time, temporary, term employees, post-doctoral employees, graduate, or undergraduate students. Stipends are normally funded, but tuition fees are not.

D. Proposal Application Requirements

Proposals must meet all of the following requirements to be considered. Incomplete proposals will not be considered. There will be no exceptions to either the submission deadline or other submission requirements. If you have questions about these requirements, please contact the JFSP Program Office for clarification (Becky Jenison, 208.387.5958; John Cissel, 208.387.5349).

1. Proposal Submission – Proposals must be submitted electronically via the JFSP website (www.firescience.gov). Proposals should not be submitted in Grants.gov. Hard copy or facsimile proposals will not be accepted.

- Proposers must have a login and password to access the JFSP database to submit a proposal. Requests for access will be processed in approximately 24 hours.
- Only the PI can submit the proposal.
- Proposals can be saved in the JFSP system and submitted later if prior to the closing date and time. Submitted proposals can be reverted back to final draft by the PI prior to the closing date. If you revert a proposal back to draft you must resubmit the proposal before the closing date and time.
- The JFSP proposal submittal system will not allow proposals to be submitted after the closing date and time.

2. Contacts – Proposals must have the following contacts (see “Definitions”) assigned to a proposal to be submitted:

- Principal Investigator (only one Principal Investigator can be assigned)
 - PI institution will receive funding from JFSP and will be responsible for processing sub-awards to cooperating institutions, unless a federal cooperating agency is receiving funds.
- Federal Cooperator
 - JFSP proposals no longer require a Federal Cooperator if the PI is from a University or a non-profit organization. However, if a federal agency is requesting funding, or if the work is being completed through a private business, or has international involvement, then you must have a Federal Cooperator and funding will go through the federal cooperating agency. If the Federal Cooperator is from the Forest Service they must be from a Forest Service research station.
 - It is the PI’s responsibility to ensure a Federal Cooperator is listed as a contact on the contacts tab, if necessary.
- Budget contact
 - Budget contact must be from the institution receiving funds from JFSP. If a federal agency is requesting funds the budget contact must be from the federal cooperating agency. This person is responsible for ensuring the budget is correct prior to proposal being submitted and is willing to facilitate the transfer of funds, if necessary.
- Grants and agreements contact
 - Grants and agreements contact must be from the institution receiving funding from JFSP. If a federal agency is requesting funds the grants and agreements contact must be from the federal cooperating agency. This person must be willing to facilitate the receipt of funds and execution of any sub-agreements or contracts necessary if your proposal is funded.
- All contacts must be entered on the contacts tab in the JFSP database by the Principal Investigator. Contacts must be registered and have a profile in the system to be added as a contact. If you have registered in the past you will still be in the system. New profiles may take up to 24 hours to be created.

- It is the responsibility of the individual contacts to ensure that the contact information in the JFSP electronic submission system is correct, including affiliation, e-mail, phone number and address.
- Co-PIs and collaborators are not required on a proposal; however, if they are involved with a proposal they must be entered on the contacts tab.

3. Confirmation Page – When you submit your proposal you will receive a confirmation page. We highly recommend that you save or print this page for your records. You should receive an e-mail from the JFSP Program Office letting you know that your proposal has either been forwarded for review, or rejected for not meeting administrative requirements. If you do not receive this e-mail by December 17, 2010 you should fax or e-mail your confirmation to Becky Jenison at Becky_Jenison@blm.gov or Fax: 208-387-5960 as soon as possible. **If you do not receive this confirmation page you have not submitted your proposal correctly.**

4. Attachments – All required documents must be attached before the proposal is submitted. Attachments over the page limit cannot be submitted. Extra graphs and text are not permitted and will not be reviewed.

Required attachments

- Attachment 1 – Details tab
 - The body of the proposal (must use required template)
- Attachment 2 – Details tab
 - C.V.s of the PI (2 page maximum) and co-PIs (1 page maximum)
 - Letter(s) of support (optional)
 - Salary justification (may be required, see below)
- Attachment 3 – Budget tab
 - Budget format (must use required template)

5. Budget – Budget summary numbers must be input in the JFSP database on the budget tab and the budget detail must be attached the spreadsheet template provided. Proposals cannot be submitted without completing these required fields. **NOTE:** This is a change from prior year business practices.

Budgets must be reviewed by your budget contact to ensure all costs have been included and the budget is correct. JFSP will not provide additional funds to cover errors discovered after the proposal submission deadline.

6. Task Statement – Proposals that do not clearly and directly meet the intent of the task statement selected will not be considered for funding. Please make sure you are submitting your proposal to the correct task statement in the system.

7. Format – Proposals not following the required template will not be considered. Proposals must use an 11 point font or larger. Additional guidance is in the proposal instruction document.

8. Page Limits – Proposals (Attachment 1 on the details tab) exceeding the page limit cannot be submitted. Page limits may vary by task statement; check the page limit in the JFSP database for each specific task statement.

9. Project Location - Project location fields must be completed on the location tab for a proposal to be successfully submitted. Instructions are listed on the project location tab.

10. Signatures – Handwritten signatures are no longer required. When Principal Investigators (PIs) submit proposals they will be prompted to input their password. By typing in the password PIs certify that “All contacts on this proposal have reviewed the proposal and understand what their role requires. As the Principal Investigator I am certifying that the budget contact and grants and agreements contact have reviewed the budget and are prepared to receive funds from JFSP and execute sub-agreements or contracts if the proposal is funded.”

11. Indirect Costs – JFSP will not consider proposals asking for more than 20% indirect costs and/or more than 10% pass-through costs.

12. In-kind Contributions – JFSP does not have a standard ratio or minimum requirement for in-kind contributions. However, in-kind contributions are an evaluation factor.

13. Support Letters – Support letters are encouraged, but not required. Support letters are useful if they show understanding of the proposed work and the author articulates how the work will benefit them. Support letters that appear to be ghost-written by the PI or are form letters are much less useful. If submitted, letters must be attached as part of Attachment 2. Support letters sent by hard copy or email directly to JFSP will not be considered.

14. Salary Justifications - Salary justifications are only required if the proposal is requesting funds for salary of permanent or tenured employees for a portion of the year normally covered by permanent or tenured funding. If required, salary justifications must contain all of the requested information and be signed electronically by the supervisor of the individual requesting salary coverage. Salary justifications must be attached as part of Attachment 2.

15. Past-due Projects – No proposals will be considered if the work will include a PI or Co-PI who is a PI or Co-PI on a JFSP project that is past due as of the closing date of this announcement. See the JFSP website for the complete JFSP past due and extension request policy.

SECTION V. APPLICATION REVIEW and EVALUATION INFORMATION

Overview

Proposals will be reviewed in stages:

1. JFSP Program Office – Administrative requirements and task statement intent
2. Peer Review – Relevancy, technical merit, products, and feasibility
3. Governing Board Review – Funding decisions
4. Statistical Review (optional) – Adequacy of study design and analysis methods

Review Criteria

Technical Merit - Measurements

- Is the rationale for selection of the variables to be measured well described and justified?
- Are the measurement methods well described and appropriate?
- Are measurements planned for an integrated suite of responses that fully characterize fuels, combustion and fire behavior, and smoke?

Technical Merit – Data Management

- Are there clear plans for data archival and management?
- Are there adequate measures to ensure data will be available and documented for use by other investigators?
- Are there plans for establishment and management of a data repository, including protocols necessary for sound management and use of a data repository?

Relevancy

- Does the measured data provide significant new data?
- Will the measured data likely led to significant improvements in fire behavior and/or smoke model development and validation?
- Will a broad array of investigators be encouraged to use the resulting data?

Feasibility

- Administrative adequacy
 - Budget
 - Skills and qualifications
 - Probability of success
 - Barriers
 - NEPA
- Collaboration
 - Manager/scientist and scientist/scientist partnerships
 - Local management commitment
 - Does the proposal have significant in-kind contributions?

SECTION VI. DEFINITIONS

Request for Applications (RFA): Joint Fire Science Program method of requesting project proposals. The RFA includes task statements for which proposals are sought, instructions for proposal submission, and related information.

Principal Investigator (PI): The individual identified in a proposal who is the research lead for the project. This individual is responsible for coordinating all research related activities and will be the primary science contact for the project. In addition the PI is responsible for communicating and coordinating with Co-PIs and others on the research team. The PI is responsible to JFSP for completion of the project.

Federal Cooperator: Federal Cooperator is only required on a proposal if a federal institution is requesting funding in a proposal, or if the work is being completed through a private business, or has international involvement. This individual **must be a federal employee** and is responsible for coordinating with the PI, the grants and agreements contact, and the budget contact on administrative activities for this project. The Federal Cooperator will be one of the primary contacts for the project and should stay informed and involved in project activities. If the Federal Cooperator is from the Forest Service they must be from a Forest Service research station.

Budget Contact: Budget person from the institution receiving funds from JFSP that is responsible for ensuring budget detail is correct and agrees to receive funds if a proposal is selected for funding. If a federal agency is requesting funds the budget contact must be from the federal cooperating agency.

Grants and Agreements Contact: Person from institution receiving funds from JFSP that is responsible for facilitating the receipt of funds and the execution of any agreements or contracts necessary for a proposal if it is selected for funding. If a federal agency is requesting funds the grants and agreements contact must be from the federal cooperating agency.

Co-Principal Investigator (Co-PI): The individual(s) identified in a proposal who will work with the research lead on the project and makes a substantial contribution to the project. The Co-PI is responsible for communicating and coordinating with the PI.

Indirect Costs: Those costs that are a percentage of the total cost used to pay for overhead/administrative costs attributable to a specific research project. Examples include the cost of operations and maintenance such as janitorial, phone, and clerical services. The Joint Fire Science Program recognizes two types of indirect costs: 1) “in-house” costs incurred by the agency, institution, or unit completing the research; and 2) “pass-through” costs associated with sub-awarding project funds to another agency, institution, or entity for the purpose of completing research or science delivery.

Joint Fire Science Program Governing Board: An appointed, 10-person Board representing the JFSP partnering agencies. The Board provides strategic direction and oversight to JFSP, identifies important research questions, selects proposals for funding, supervises the JFSP Program Manager, and conducts related business.

Science Delivery and Application: The transfer of information, materials, models and other research deliverables to end users, along with adequate information and training to apply the

deliverables. Examples of active methods include workshops, training sessions, guided field tours, conferences, meetings, and symposia. Examples of passive methods include published papers and websites. A combination of active and passive methods is preferred.

Task Statement: A specific area of interest, identified in the RFA, for which proposed project applications are sought.