



# *Atmospheric Science Program*

## Frequently Asked Questions, Part 4

April 27, 2004

**1. Your feedback on my pre-proposal encouraged a proposal only if its principal activity involved participation in design, conduct, and interpretation of ASP field studies. But you haven't provided any information on upcoming field studies, so how can I plan and propose to participate ?**

A. This is awkward situation. Normally, we would have a Science Team in place and have plans for specific field campaigns that could be considered in writing a proposal. But because ASP is being refocused, the "new" Science Team is not yet formed and we can only guess at what field studies might be embraced by the newly refocused program. We haven't committed yet to any ASP field studies beyond the current fiscal year ( 2004 ). We anticipate that a potential upcoming Mexico City Study is a likely venue for ASP, but we cannot commit to that until our new Science Team is formed and we see what our requirements and priorities shall be.

Once the Science Team is selected and funded, we will have a Science Team Meeting and put together a Science Steering Committee. There will be full discussion of the science requirements for field studies and an evaluation of upcoming multi-agency field study opportunities. We anticipate that we will then commit to participate in one or another of the multi-agency campaigns, or develop our own field study and invite multi-agency participation in that project. Consequently, we suggest you focus on the science to be undertaken in your proposed work, and indicate how you would participate in or support an ASP field study, or utilize data from such a study, in some more generic sense rather than linking your proposal to a specific study that we haven't yet committed to.

**2. How does the ASP proposal review process work ?**

A. Official guidance is provided directly through the ASP "Announcement" and the DOE Office of Science website at <http://www.science.doe.gov/grants/>. Following is "unofficial" guidance. There will likely be two stages to our review of proposals. All proposals that are complete, received on time, and which seem to fall within our scope of interest will be subjected to a formal external peer review for scientific merit. Only those proposals that emerge favorably

from the merit review will be considered in the second stage. The second stage will likely consist of a panel review for relevancy, programmatic balance, and programmatic fitness.

Guidelines for the formal merit review process are determined by the DOE Office of Science and are published at <http://www.science.doe.gov/grants/process.html>. Each accepted proposal will be reviewed by at least three qualified external reviewers, according to the basic evaluation criteria, namely ( 1 ) Scientific and/or technical merit or the educational benefits of the project, ( 2 ) Appropriateness of the proposed method or approach, ( 3 ) Competency of applicant's personnel and adequacy of proposed resources, ( 4 ) Reasonableness and appropriateness of the proposed budget, and ( 5 ) Other appropriate factors, established and set forth in the ASP solicitation. Of course, reviewers will be screened to ensure their qualifications and to ensure there are no apparent conflicts of interest.

The second stage review will be a panel review conducted by the Program Director. The main concern in the second stage is to ensure that the resulting ASP Science Team is suitably focused and balanced, starting with the proposals that emerged from the merit review with the highest scores.

( a ) Relevancy refers to how a proposed effort contributes to our program goals, especially in the sense of actually reducing uncertainties in aerosol radiative forcing of climate. Thus it would be quite helpful if it is clearly demonstrated in a proposal how the results from the proposed work can be utilized.

( b ) Programmatic balance refers to “balance” between the various functional components of the program ( laboratory studies, field studies, modeling, and instrument development ) and “balance” between the various scientific components of interest.

( c ) Programmatic fitness refers to our ability to integrate or coordinate a proposed effort with the bulk of the program. For example, proposed efforts that have a particular geographical focus or which do not relate to ASP field studies may not be as useful to us.

Panel members are expected to include ( 1 ) program managers from DOE and other federal agencies with an interest in aerosol radiative forcing of climate and ( 2 ) a number of non-federal scientists with aerosol-climate expertise. The panel will simply provide a forum for discussion and recommendations. Actual funding decisions will be made by the DOE Program Director, once the merit review results and panel member recommendations are fully considered.

### **3. How should my project interact with other projects in ASP?**

A. Much of the focus of ASP will be centered on the conduct and interpretation of field measurements and the development and evaluation of models using data from the field projects. A strong proposal will indicate what measurement or modeling capabilities the proponent intends to contribute to these field studies or to their interpretation and will indicate what anticipated measurements or models (of others) his or her proposed activities will rely on or will contribute to.

**4. How will the results from the individual projects funded under the DOE program be integrated and how will they be coordinated with satellite measurements, especially the A-Train of satellite instruments measuring radiance and other atmospheric and surface properties pertinent to aerosol forcing?**

A. The expectation for ASP is that the great majority of the projects (exception being mainly lab studies) will include as a major component of the funded activities participation in ASP field studies, by coming with ones own instrument(s) to the ground site(s) and/or aircraft; by participation in design, conduct, and interpretation of the field measurements, and by modeling the time and location of the field study, with pertinent comparisons to or other utilization of observations.

It is anticipated that ASP field studies will be conducted in campaigns of several weeks' duration, during which there will be multiple overpasses of A-Train satellites and others, as well as the domain being in the field of view of geostationary satellites. Certainly ASP investigators and others are encouraged to compare data from in-situ measurements and ground-based (and possibly aircraft-based) remote sensing with pertinent data from satellites. Certainly a plus of a given ASP measurement would be that it could be used to "validate" a satellite measurement so that that measurement could be used with greater confidence elsewhere, but the primary driver of ASP activities will be their ability to meet ASP objectives, with such satellite validation being a secondary consideration.

Additionally it might be expected that some ASP investigators will conduct measurements or model runs at times and/or locations other than those of ASP field campaigns as a part of their project, individually or in some coordination with others. Again comparison with pertinent satellite data would be encouraged.

**5. Who within the DOE program is responsible for this integration and coordination? What allocation of funding and manpower has been made to the tasks of integration and coordination? (It seems that the "four major elements" of the program do not include integration of knowledge nor coordination with satellites.)**

A. Decisions regarding times and locations of field projects will be made by the Program Director, in consultation with the Science Steering Committee and Leadership Team, after discussion by the Science Team and with input from a larger community. It might be expected that some or all ASP field studies will be conducted in conjunction with similar studies conducted by other programs (especially including the DOE ARM Program) or other agencies, perhaps by co-location, or perhaps by, for example, ASP being located closer to source regions and another agency focusing its efforts more downwind.

Likewise any ASP investigator who as part of his/her project wishes to make use of satellite derived data products to enhance characterization of the properties and distribution of aerosol materials and pertinent transformation processes would be encouraged to put forward ASP measurement strategies that would enhance the opportunity to do this.

**6. More specifically, is there a way for the DOE program (or some portion of it) to be explicitly coordinated with satellite overpasses? Again, this will require up-front planning, time, and resources devoted to the tasks of coordination.**

A. ASP would welcome the participation in the science team by scientists knowledgeable of the science benefits that result from such coordination, whether as a funded ASP investigator or as investigator with non-ASP support. ASP would welcome the participation in our planning activities of individuals knowledgeable about overpass schedules and other operational issues. Other things being equal it makes excellent good sense to conduct measurements at the times and locations of overpasses of pertinent satellites. Many satellite instruments have a rather broad swath, so it would seem that coordination would be simply a matter of timing and having the aircraft over a suitably representative area at the time of the satellite overpass, but it is recognized that for some prospective instruments such as satellite lidars, much closer coordination would be necessary. ASP would thus welcome further input on these issues at the field project planning stage. Inclusion of such coordinated activities, as driven by science objectives, might well be a component of a proposal and might well enhance such a proposal.

**Programmatic questions may be addressed to the Program Director, while questions pertaining to scientific scope may be addressed to either the Program Director or the Chief Scientist. We will try to provide answers in future FAQ's so that they are available to all interested parties. For this reason email is probably the best way to submit questions.**

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