



# Intensive Operational Period (IOP) Request, Approval, and Implementation Process



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An Intensive Operational Period is a research activity, which is proposed, planned, and implemented at one or more research sites. The fixed and mobile sites are collectively referred to as the ARM Climate Research Facility (ACRF) and include:

- Southern Great Plains
- Tropical Western Pacific
- North Slope of Alaska
- ARM Mobile Facility (AMF)
- ARM Aerial Vehicle Program (AVP).

**Note:** The AVP is an aerial platform that can be used to support experiments at the fixed sites, in conjunction with the mobile site, or in support of other research activities independent of the ACRF.

For more information regarding ACRF, please see <http://www.arm.gov/acrf/>.

Proposals for an IOP can originate with any scientist proposing research directly related to the [ACRF Mission Statement](#).

To learn more about the process, see the [Intensive Operational Period \(IOP\) Request, Approval, and Implementation Process](#) flowchart. The following numbered paragraphs refer to the numbered blocks in the flowchart.

- 1.0) The Scientist submits a “preproposal” to summarize the scope and intent of the research (a 1-2 page description), including the ACRF sites that are, or could be, involved and the collaborating research institutions. Relevancy to the ARM or ACRF missions should be noted.
- 2.0) Preproposals are recorded by the ACRF Administrator and communicated to the Infrastructure Management Board (IMB), the ARM Chief Scientist, and relevant Site Scientists. An assessment of the experiment is made that includes the possible participation between fixed sites, the AMF, and the UAV. Experiment assessments include costs, relevance, and schedule; thereby resulting in a determination of impact. The ACRF Science Liaison, a member of the IMB, will communicate the results of the assessment to the proposing scientist.
- 3.0) When a preproposal is accepted, the scientist is invited to submit a “full proposal” that includes:
  - Proposal abstract, that is no longer than one page
  - Science plan
  - Proposed schedule
  - Description of the support requested from the relevant site
  - Detailed budget.
- 4.0) The full proposal is routed to the ACRF Science Liaison, who initiates the IOP review process. The review process has two primary dimensions—a science review, performed by the ACRF Science Board, and a review of costs, logistics, and schedule, performed by the IMB. The ACRF Science Liaison facilitates these communications, including the involvement of relevant Lead Scientists. This process is tracked and recorded by the ACRF Administrator.

- 5.0) The IMB provides an analysis depending on the level of the request (see Step 6.0 for levels) of the IOP to refine and communicate costs, logistics (local, national, international), schedule, and other impacts associated with the implementation. In performing this step, the IMB communicates with the Science Liaison, Science Board, and relevant Lead Scientists as required.
- 6.0) A scientific review of the field campaign proposals is conducted. A leveling system has been established to provide guidelines on who conducts the review based on the scope and complexity of the field campaign. The levels are as follows:

#### **Level 1**

Proposals that are projected to incur costs of \$25K or less can be approved by the IMB with concurrence of ARM Chief Scientist and the DOE Program Manager.

#### **Level 2**

Proposals that are projected to incur costs of \$25K-\$100K can be approved by the IMB with concurrence of ARM Chief Scientist following a scientific review by members of the larger scientific community, who are selected by the DOE Program Manager to review the proposal. If the proposal is part of the ARM Program, it should carry an endorsement from one of the ARM Working Groups. The DOE Program Manager will have final authority to approve the proposal.

#### **Level 3**

Proposals that are projected to incur costs of between \$101-\$300K will be forwarded to at least three qualified peer-review scientists and/or selected members of the [ACRF Science Board](#)<sup>1</sup> for review after the preproposal has been accepted and the full proposal is received. If the proposal is part of the ARM Program, it should carry an endorsement from one of the ARM Working Groups. At least three Science Board member reviews and the recommendation of the IMB will be obtained, before a decision is made by the DOE Program Manager.

#### **Level 4**

Proposals for use of the AMF or for major field campaigns at an ACRF fixed site projected to incur costs over \$300K will be accepted annually in response to a call for preproposals announced each spring in several scientific journals and on the ARM web site. Full proposals that are received will be reviewed by the ACRF Science Board each fall at the annual meeting of the Board. The DOE Program Manager will have final authority to approve the proposal.

- 7.0) The appropriate DOE Program Manager, ARM and/or AVP, reviews the recommendations from the appropriate reviewers and communicates acceptance or rejection rationale to the Science Liaison. The Science Liaison communicates the disposition of the full proposal to the proposing Scientist and the IMB.
- 8.0) Approved IOPs and experiments are planned, tracked, and implemented by the IMB.

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<sup>1</sup> The ACRF Science Board was established to review proposals for use of the ACRF. The Science Board will coordinate with the IMB to assess the availability and requirements of resources for the proposed Facility usage. An important consideration is how well the proposed IOP ( i.e., experiment) facilitates discovery-based research relevant to the ACRF Mission Statement.. The final deliberations of the Science Board are communicated to the appropriate DOE Program Manager.