2013-2018 Proposal Budget Guidance
Revised March 5, 2012

To: IRIS Coordination Committee
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       David Simpson, Rob Woolley
Date: March 5, 2012

Introduction: This document outlines the philosophy and guidance for budget development for the 2013-2018 proposal. As you know, this is the first time that IRIS Core Programs and USArray are combined in a single proposal. The guidance from NSF specifies that Year 1 (FY14) available funding will be up to $27.62 million, excluding the Polar support, and that a 3% escalation of costs is allowed but not guaranteed in Years 2-5 (FY15-18). The planned title for the proposal is “Seismological Facilities for the Advancement of Geoscience and EarthScope” (hereafter referred to simply as “the proposal”). We are at an exciting and challenging time in the history of both IRIS and EarthScope, and if we plan correctly, we will position IRIS to continue to serve the growing and changing needs of the seismological community through 2018 and beyond.

Philosophy: Budgets are shrinking across many federal programs (see attached OMB memo1) and the recently released President’s request for FY13 includes cuts of up to 10% across NSF GEO and EAR facility budgets. This represents the Administration’s request, and the final budgets are unlikely to see Congressional approval until late this calendar year. NSF has told us that these cuts will not impact our IRIS and USArray budgets through the end of the current Cooperative Agreements in October 2013. Cuts may eventually emerge for our 2013-18 merged management award, but we have been requested by NSF to continue to prepare our proposal assuming the original target of $27.62/year. The FY13 President’s budget request also includes a special $3M/year add-on for continued operation until 2018 of up to 250 USArray TA stations in the central and eastern US. This program is under discussion between OSTP and the federal agencies involved (NSF, USGS and NRC) and the eventual mode of implementation is likely to remain uncertain until after our proposal is submitted at the end of August. In the meantime, we should consider this an independent task and continue to prepare our 2013-18 proposal as best we can, without taking the additional funds into consideration.

In spite of these budget uncertainties, it is essential that we develop carefully a plan and budget that will withstand significant scrutiny by reviewers and the National Science Foundation, without compromising the core strengths of the IRIS programs and their ability to remain flexible and innovative. Our objective is to continue stable operations of the essential core facilities and yet position ourselves for “Innovation and Development Space” that will keep IRIS vibrant and responsive, with a path beyond 2018. Possible new developments could include new deployment strategies to ensure the success of USArray in Alaska, as well as exciting new initiatives (such as those presented by Standing Committees in Fall 2011) that respond to the diverse needs of the community. This is therefore a key point in time to take careful stock of all programs to ensure that IRIS is properly streamlined and can continue to support the facility needs of the consortium in the long-term.

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1 This memo from OMB last year, which provided guidance to federal agencies for development of the FY13 budget, is worth reading carefully. It helps to place our IRIS budget discussion in the larger context of the challenges faced by the entire federal government. Much of the guidance presented in this memo has direct relevance to the deliberations of CoCom and the Board.
A starting point for discussion of the proposal budgets is in the “Target” tab in the attached spreadsheet. The entries in the core program lines show the funding levels that you should use as the basis for development of your detailed WBS-based planning for core program activities. The TA budget lines (Operations and Capitalization) are based on initial Board input and include the costs for completion of the current TA operations in the eastern US; installations and operations in Alaska, and initiation of the removal of Alaskan stations in 2018. The “Innovation and Development” line shows the funds that remain each year between these core program and TA recommendations and the NSF-defined target budgets.

We acknowledge that these starting budget levels represent a significant belt-tightening for all program activities. The significant funds that are allocated to the “Innovation and Development” line are intended to stimulate the new and forward-looking thinking that has historically allowed the IRIS facilities the opportunity to evolve its support to the research community. To the extent that additional resources, above the starting budget levels, are needed to maintain essential current services, these will have to come at the expense of new innovations. As you can see, funds available in the “Innovation and Development” line for the first three years are limited, and some part of these funds will likely be required to sustain core tasks. However, the amounts expand significantly in the remaining two years after the initial TA installation phase in Alaska. It is within this innovation space (more than $18M) that we encourage you to build exciting new opportunities to strengthen and evolve IRIS facilities, particularly those that cross IRIS programs (“pan-IRIS”).

We call your attention to a few key points in the philosophy behind these numbers:

• FY14 targets assume a 10% cut from FY13 “base budgets”, with growth back to FY13 numbers by FY16, resulting in total five year budgets that are close to 5 times FY13. We acknowledge that this is a significant decrease for all programs from the actual spending plans in recent years, but (in the spirit of the OMB memo) you should look for efficiencies and carefully review all program elements and subawards as we embark on the merging of the core and USAArray activities.

• The five-year budget progression acknowledges the need to start with a major push and capitalization of the EarthScope TA effort in Alaska, which decreases in the later years and opens up the space for additional efforts. The TA budgets are based on, but significantly below, the TA draft budget presentation made at the November Board meeting.

• Partial TA recapitalization from some form of “adoption” of eastern US stations (primarily to acquire sensors more suitable for Arctic deployment) is assumed in this plan and additional TA operational savings may be achieved as details of planning for Alaska progress. The current TA targets, however, are based on the information that we have at present.

• Instrumentation Services should place emphasis on coordinated development of a “pan-IRIS” approach to maintaining the current core capabilities (e.g., through TA/PASSCAL/FA coordination on the use of excess TA instruments), and developing proposed initiatives with the additional funds (e.g., acquisition of new generation portable instruments, FlexiRAMP and Array of Arrays). We anticipate that the tight budgets in the first three years will restrict the purchase of any new hardware for PASSCAL/FA and GSN. PASSCAL/FA should plan on maintaining and replenishing the broadband pool with some of the instruments that will not be required as the TA transitions to Alaska. We are optimistic that there will be outside funds available from DOE to replenish the deteriorating GSN sensor pool, and therefore assume that GSN sensor recapitalization will not come from this base budget.
• This budget table does not include the anticipated additional funding from OPP for Polar Services, but coordination of the Polar efforts (both staffing and instrumentation) should be a part of the IS discussions.

A key concern, of course, is how to continue to grow program budgets beyond the targets outlined here. There are three primary ways:

• Identify and more completely develop pan-IRIS initiatives. Many of these can tie directly to goals presented in the EarthScope Science Plan. This should be accomplished with the help of the IRIS Committees, the IRIS Board and the EarthScope Science Steering Committee. Funding for these initiatives will be provided from the “Innovation and Development” funds.

• Continue acquiring funds from diversified outside funding sources. We congratulate you on your collective abilities to do this, particularly over the past several years. We expect this to continue, and want to help promote this activity at increasing levels whenever available.

• Seize “moments of opportunity”. While this may not always be the optimal way to plan for the future, we recognize that IRIS continues to attract funding when new funding sources materialize for reasons we cannot anticipate.

We ask for your help to participate in a team-based approach to developing a proposal budget that spans all parts of IRIS and ensures that this process remains efficient and effective throughout. We therefore encourage you to continue to keep the channels of communication open consortium-wide, as well as with the Board, as the details of budget planning evolve. It is a major challenge, and one that we face together with the collective goal of providing the best possible infrastructure to enable new science to be achieved and communicated to the public.

The next steps in the budget process are:

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Action</th>
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<tbody>
<tr>
<td>Mar 7</td>
<td>CoCom conference call</td>
<td>review this guidance</td>
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<tr>
<td>Mar 13-Apr 4</td>
<td>Standing Committees meet</td>
<td>prepare program plans and budgets</td>
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<tr>
<td>April 10</td>
<td>CoCom meeting</td>
<td>review, prioritize and consolidate plans and budgets</td>
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<tr>
<td>May 1-2</td>
<td>Board meeting</td>
<td>review, adjust &amp; approve consolidated plan and budget</td>
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A week following their SC meeting, each program should provide the following to CoCom:

• five year budget plan for the continuation of core services, with clear substantiation for increases (if any) above the base levels set in the target table.

• statement of what cuts or efficiencies have been incorporated in these base budgets

• prioritized list of new initiatives, with budgets and linked timeline

• demonstrations of participation in new pan-IRIS initiatives

• Project Initiation Forms (PIF's) briefly describing each of the new initiatives

At its meeting in April, CoCom should

• review the annual program base budgets and consolidate in a five year base plan

• review and prioritize new initiatives – with emphasis on pan-IRIS coordination

• develop recommendations and options for the Board of a 5-year plan with
  • integration, where appropriate, of new initiatives within and across programs and services
  • time-phasing of new initiatives to fit within the available budget profile
Service and Program Guidance

All Programs

Program-specific guidance is included below for the development of your proposal budgets. Standing Committee deliberations should seriously explore efficiencies and external opportunities to sustain core services, and opportunities for pan-IRIS initiatives that exploit the new “Services” management structure. You are asked to highlight:

• core tasks that will be streamlined or eliminated assuming the base budget targets
• current or anticipated sources of funding which could retain otherwise eliminated tasks
• prioritized list of program-level new initiatives
• current or anticipated sources of funding for program-level new initiatives
• opportunities for pan-IRIS initiatives and program-level contributions
• current or anticipated sources of funding for pan-IRIS initiatives

To provide background on the style and content of the proposal and the community input to science planning, all committee members should be asked to review the following documents:

• 2011 IRIS proposal and 2007 EarthScope O&M proposal
• 2009 Long Range Science Plan (Grand Challenges)
  (all available on http://www.iris.edu/hq/publications/proposals_and_reviews)
• EarthScope Science Plan (http://www.earthscope.org/es_doc/reports/es_sci_plan.pdf)

All programs should discuss content and responsibilities for contributions to the proposal document. Prior to the Standing Committee meetings, Program Managers should review, update and coordinate existing Project Initiation Forms (PIF’s).

Instrumentation Services

Prior to the Standing Committee meetings, IS managers should coordinate on five-year plans for instrument development and acquisition. Particular attention should be paid to the following:

• common needs and plans for sensor development and communications technology
• common cold region needs for PASSCAL, Polar, FA and TA
• inventory and timing of release of TA instruments not required for Alaska, and proposed use by PASSCAL/FA
• coordinated plan for timing and budgets for of new initiatives, taking into consideration the shape of the available “Innovation and Development” budget profile
• coordinate IS plan for new initiatives

Instrumentation Services, Data Services and International Development Seismology

Prior to the Standing Committee meetings, IS, DS and IDS managers should coordinate on linked five-year activities related to:

• quality assessment and reporting
• data handling and archiving - especially coordinated user data services for PASSCAL/FA experiments
• international opportunities and activities

PASSCAL

Sustain the current inventory for the combined assets of the PASSCAL and FA “traditional” instrument pools (BB, SP, IP, high freq).

Develop new-generation capability (à la FlexiRAMP, with emphasis on capabilities for rapid and higher-density deployments) and acquire initial inventory for a demonstration array.

Establish policies and procedures for common merged services for PASSCAL and FA.

Document budgets for coordinated and integrated PIC support for PASSCAL, FA, Polar and AOF.
GSN
Sustain the current core GSN network with planned efficiencies through optimal network configuration. Complete new generation DAS installation. Implement full quality assessment and reporting. Document cost sharing arrangements and responsibilities between USGS and NSF programs. Include a plan for replacement of primary sensors, funded from external sources.

Polar
Document procedures for allocating resources for field support, technical developments and acquisition of new instrumentation for Antarctic and Arctic programs. Develop strategy for support for GLISN. Document linkages with other IRIS programs and UNAVCO.

USArray
Develop program and budget plans for unique USArray activities (TA, MT). Document linked activities and budgets with other programs (FA, Data Services, EPO). Document post-2018 cost estimates for completing the removal of TA instruments from Alaska.

Data Services

EPO
Refine plans and budgets for activities related to undergraduate education. Review efforts related to collaborations with external programs. Document linked activities and budgets with USArray and other IRIS activities. Explore linkages and coordinated initiatives with IDS.

IDS
Document proposed linkages with other IRIS services and activities, especially in training, education and outreach and data exchange. Refine plan and budget for community support to encourage international development efforts.

Community Activities
Develop plan for workshop schedule and associated budgets for both mandated and special workshops. Develop plan and budget for enhanced pan-IRIS web, publication and member services.

Business Services
Provide description of proposed indirect cost recovery rates. Provide documentation to support budgeted G&A and overhead expenses.