

SCOAR Meeting
May 23-24, 2006

CIRPAS
Monterey, California
Jim Huning, NSF



Deployment Pool

- *NSF Deployment Pool provides funding to deploy NSF national facilities for NSF funded science proposals (aircraft, ground based, sounding facilities).*
- *Working to expand facilities mix*
- *In progress: facilities assessment (universities, national labs, private companies)*
- *DP amounts to slightly less than 5M/year*



New Review Procedures for NSF Sponsored Field Campaigns

- *Description of New Process*
- *Impact on:*
 - Facility Managers
 - OFAP
 - PIs
- *Objectives of Changes*



PROBLEMS

- *Many field programs are becoming too large and complex to execute on short time frames*
- *Facility Managers are finding it difficult to optimally schedule facility upgrades and maintenance*
- *Competition for facilities is growing*
- *Many field campaigns involve critical facilities that are not currently reviewed along with the NSF facilities*



OBJECTIVES

- *Develop a process that will allow:*
 - Increased lead time for planning of field campaigns
 - More rigorous early review process than afforded by the SOD
 - Avoidance of unnecessary expenditure of effort by PIs
 - Better coordination with international and national partners
 - Holistic review of entire experimental design



PROCESS

- *Procedures will be different for "large" and "small" programs.*
 - "Large" Programs:
 - Field Costs >\$1 Mil {Under discussion}
 - Unusually Complex Programs
 - Programs with Int'l Partners
 - "Small" Programs – all the rest
 - NSF in consultation with PIs and FMs will determine category



PROCESS – Large Programs

- *Before submission of individual science proposals, PIs must submit two overarching documents:*
 - Scientific Program Overview (SPO; formal NSF Proposal)
 - Experimental Design Overview (EDO; submitted to FMs, OFAP, FAC)



Timeline – Large Programs

- *NOTE: For Large Programs there will be only one review cycle per fiscal year.*
- *Summer/Fall of FY-3: Initial contacts between PIs, NSF POs and FMs*
- *15 Jan FY-2 SPO and EDO submitted {Date Under discussion}*
- *May FY-2 Review Completed*



Timeline – Large Programs

- *Jun FY-2: Proposals encouraged or discouraged*
- *Jul FY-2 Facility requests submitted*
- *Aug FY-2 Individual science proposals submitted to NSF*
- *Nov FY-1 OFAP/FAC review of Facility requests*
- *Jan FY-1 Final NSF action on proposals*
- *FY (Oct-Sep) Field campaign conducted*



Timeline – Large Programs

- *Formal submission to NSF – copy to OFAP, FMs*
- *Section D, Project Description*
 - Brief description of experimental design (EDO will be made available to reviewers)
 - Relationship to prior similar efforts
 - List of all facilities and PIs (irrespective of source of support)
 - Scientific Rationale - Holistic



EDO

- *OFAP will have copy (or equiv. of SPO)*
- *Holistic*
- *Structure*
 - **Exec Summary**
 - **Scientific Rationale/Objectives**
 - **Exp Design**
 - **Proj Mgt (before and during field campaign)**
 - **Data Mgt**
 - **List of Facilities and PIs**



IMPACT ON FMs

- *Advice/Guidance earlier in planning process than before. Also perhaps a bit more in depth*
- *Early cost estimates must be provided by FMs (not intended to be a major burden)*



IMPACT ON PIs

- *Must have their act together much earlier in the process*
- *Formal proposal to NSF provides a mechanism to support program management*



IMPACT ON OFAP

- *OFAP will review the entire program not just the part associated with NSF facilities.*
- *Review, therefore, will be much more intense and thorough*
- *{Will be discussed later, but review process of "small" programs will be basically the same.}*



SUMMARY

- *New policy and procedures are in effect and will impact programs in FY 2007*
- *SDO and EDO are serious documents and serious decisions will be made based on their review*
- *Evolving process. Comments are welcome.*



SMALL PGMS -- Timeline

- *For Deploy. Oct-Mar of FY*
 - Jul FY-2 Fac Req Submitted
 - Aug FY-2 Prop to NSF
 - Nov FY-1 OFAP Eval Fac Req
 - Jan FY-1 Final NSF action on prop
 - Oct – Mar FY Field Campaign conducted



SMALL PGMS -- Timeline

- *For Deploy. Mar-Sep of FY*
 - 1 Dec FY-1 Fac Req Submitted
 - 15 Jan FY-1 Prop to NSF
 - May FY-1 OFAP Eval Fac Req
 - Jul FY-1 Final NSF action on prop
 - Apr – Sep FY Field Campaign conducted



NSF GV (HIAPER)



HIAPER on First Major Science Campaign:
T-REX





NSF C-130Q



NRL P-3 with ELDORA Attached



University of Wyoming King Air



Planning for the next Generation Storm Penetration Aircraft



FAA Certification

The GV delivered with a Standard Airworthiness Certificate per contract with GAC.

Three STCs (Supplemental Type Certificate) were generated as part of the contract for the structural modifications (LMAC), the interior (Garrett/SAC) and the ICS (Garrett).

The GV was ferried to Jeffco in the Experimental category (March 2005).

The Satcom installation took place in July 2005 by subcontractor Atlas Telecom and this was approved with a FAA 337 Field Approval form.

NCAR/EOL Structures DER (with support from consulting Electrical Systems DERs) obtained 2 STCs for the “Basic Research Systems Installation” and the “Quick Change Cabin Configuration w/ Equipment Racks”.

Final Standard Airworthiness Certificate issued in October 2005.

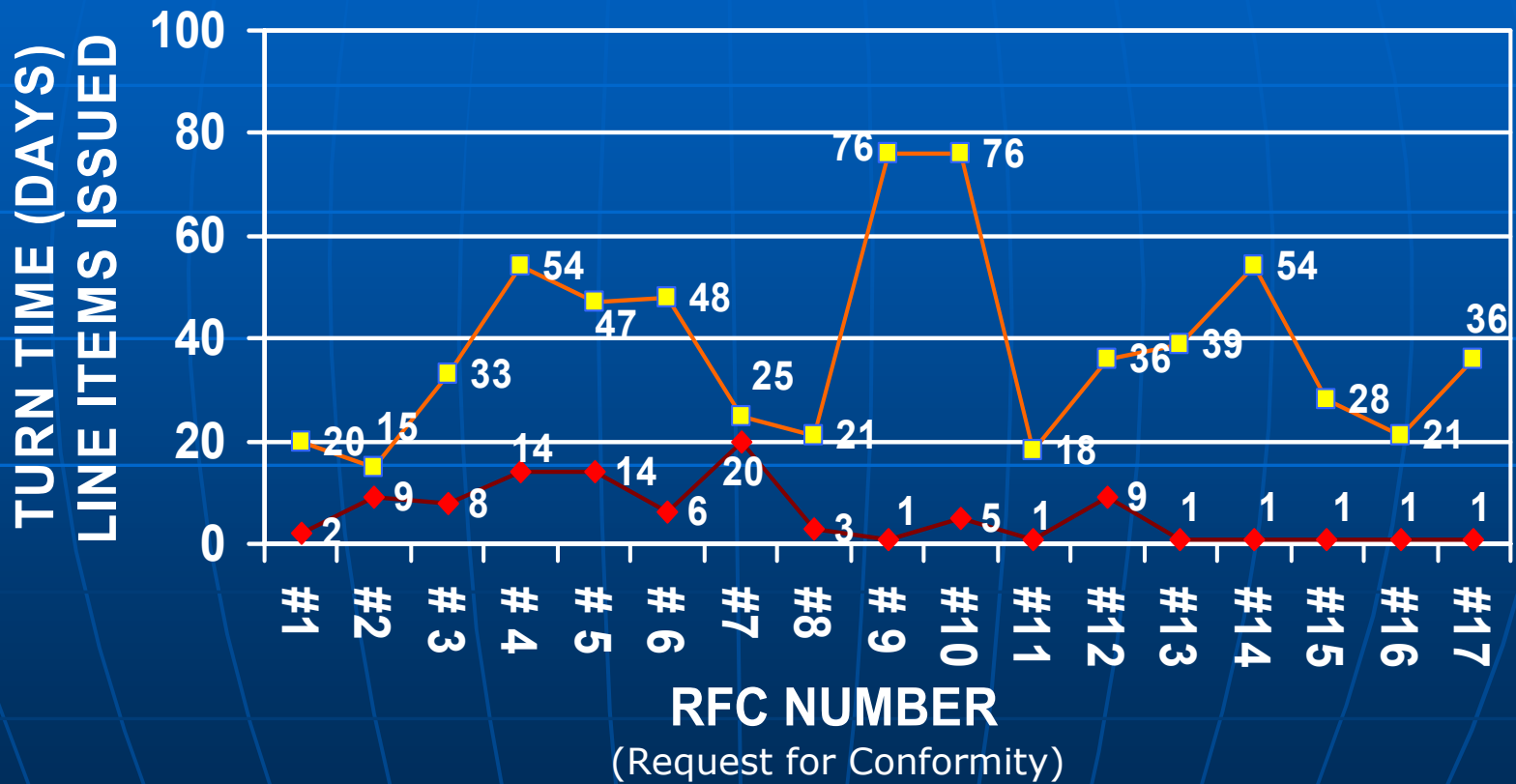


Atlanta ACO

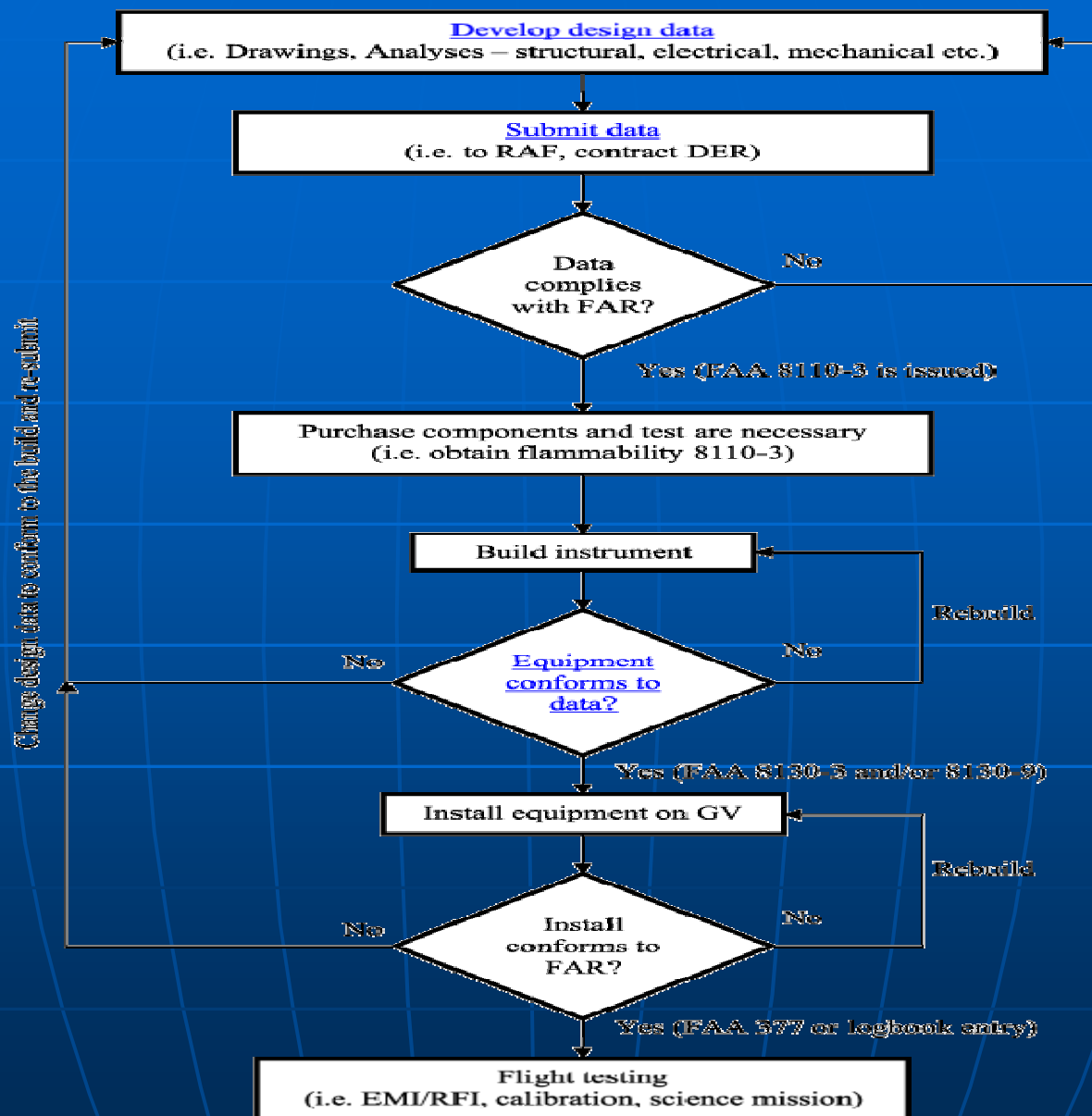
- Over 1,000 separate approvals required for the primary structural and electrical modifications
- Preservation of schedule was paramount (due to NSF Major Research Equipment project requirements (levied by OMB and Congress))
- Time of approval changed dramatically as FAA and GAC/LMAC personnel gained confidence with one another (over 20 days to as short as same day)
- Lesson learned: Communication was key



Turnaround



Certification process for HIAPER instrumentation



Glossary of abbreviations

RAF: NCAR Research Aviation Facility

DER: Designated Engineering Representative





ICAP Update
ICCAGRA Meeting
May 23, 2006
CIRPAS



ICAP Update

- Interagency Committee for Aviation Policy
- 18 Civilian Agencies, DOD invited participant
- GSA makes policies for managing the acquisition, use, and disposal of a/c that federal civilian agencies own or hire. GSA also sponsors ICAP (formed at the direction of OMB)



ICAP Update

- ICAP has a number of responsibilities, including the following:
 - Management overview and FAIRS reporting
 - Safety of Government aircraft, including ARMS and ASO
 - A/C regulations and Guidance Overview, which includes



ICAP Update

- A/C regulations and Guidance Overview, which includes 41 CFR 102-33 and 41 CFR 300-3; 301-10, and 301-70; A-126 (Improving the Management and Use of Government Aircraft)
- Re-write (in progress) of AC 00.1-1 FAA Advisory Circular on Public Aircraft (Government Aircraft Operations)



ICAP Update

- Sponsors workshops on topics such as:
 - OMB A-11, Exhibit 300 Planning for Aviation Assets and Lessons Learned
 - A/C lifecycle and cost benefit analysis
 - FAIRS training
 - Exchange or sales programs
- Sponsors events: FEDFLEET Fed Aviation Workshops June 19-22 in Los Angeles

