

APS/User Monthly Meeting

10/27/04

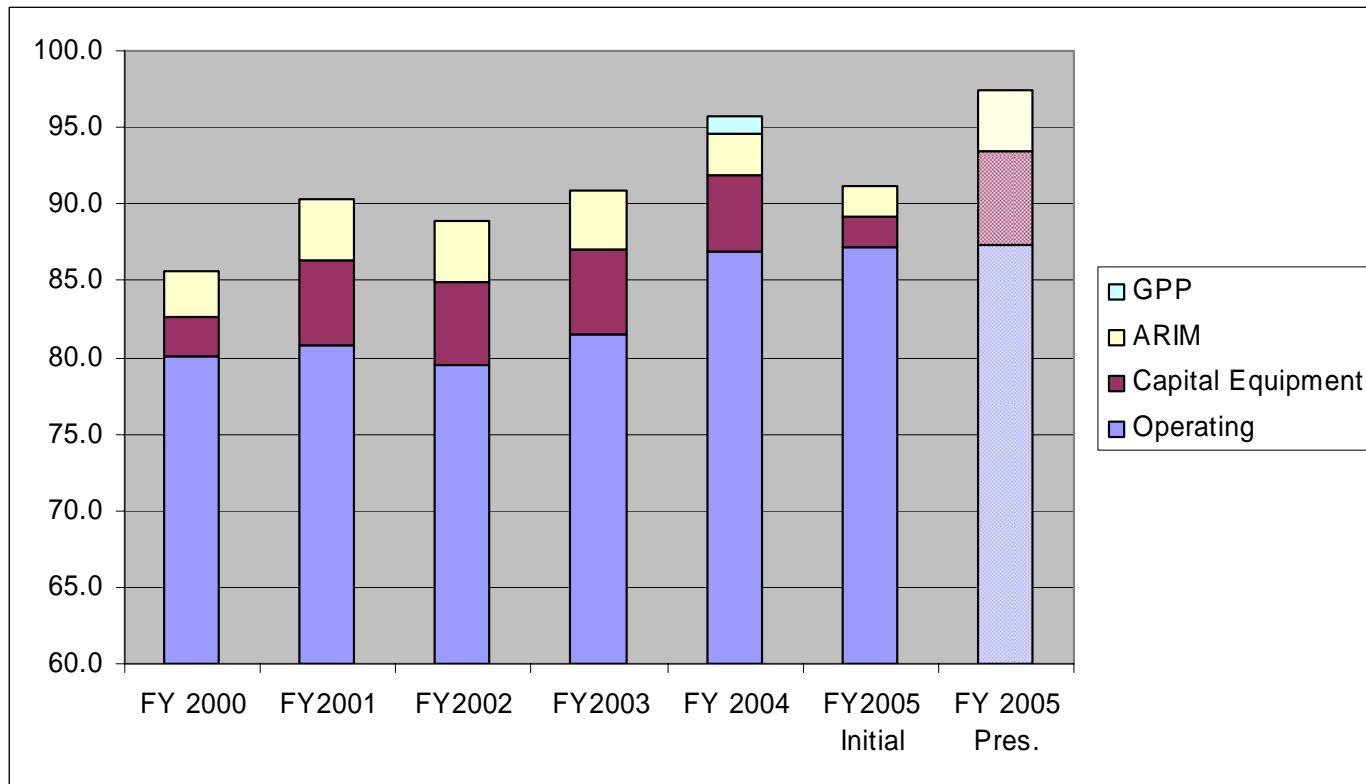
J. Murray Gibson

Agenda

- 2:45 p.m. -- Update on APS Activities – Murray Gibson
- 3:05 p.m. -- General User Program Review - Town Hall Meeting – Keith Brister
- 3:15 p.m. -- Information on the May 2005 APS User Meeting – Julie Cross
- 3:30 p.m. -- News from the CNM and Nanoprobe Beamline – Jorg Maser

APS Budget for FY'05

- We are in a continuing resolution



LCLS+CNM Income in FY'05 ~\$4.2M

House E&W bill has \$13M+ for fac. ops/nano

APS Division Effort and Initial M&S Budgets

<i>Division</i>	<i>All Effort + Overtime</i>	<i>M&S</i>	<i>Discounted Effort Income (LCLS, CNM only)</i>	<i>Divisional Carry-over from FY '04</i>	<i>Initial BES Division Budget</i>	<i>FY2004</i>
AOD	\$22,004	\$2,900	\$714	\$189	\$24,379	\$23,427
ASD	\$23,735	\$4,000	\$1,669	\$437	\$26,503	\$26,939
XFD	\$23,388	\$3,900	\$2,381	\$104	\$24,802	\$22,437
cc172		\$12,623			\$12,623	\$13,394
Total					\$88,307	

Overtime at 80% requested level included in effort budgets
other income e.g. WFO, LDRD goes to division

Trends in M&S

	FY '04 Core	FY '04 Core - MIS and DD	FY '05 M&S	Percent Change
AOD	3819	3026.6	2900	-4.2%
ASD	5648	4887.1	4000	-18.2%
XFD	3903	3607	3900	8.1%

ASD still has largest M&S/effort ratio of all divisions (~19%)
Nonetheless M&S/effort support levels are challenging

Initial Project Decisions

- New Capital Equipment
 - 0 #98 BM FEs for S21,23,24 (XFD) \$121K
 - 0 #126 S11 BM FE (XFD) \$218K
 - 0 #127 IXS, Nano FE/ID (XFD) \$197K
 - 0 MSD/CNM joint funds of Mag. STM (XFD) \$200K
 - 1 #278 Initial Capital for XOR (XFD) \$1150K
 - 1 #197 Initial Capital for Detector Pool (AOD) \$170K
- Total \$2,061K expected balance due \$4,000K

Priorities: 0-preexisting High
1-High; 2- Medium; 3 Low priority

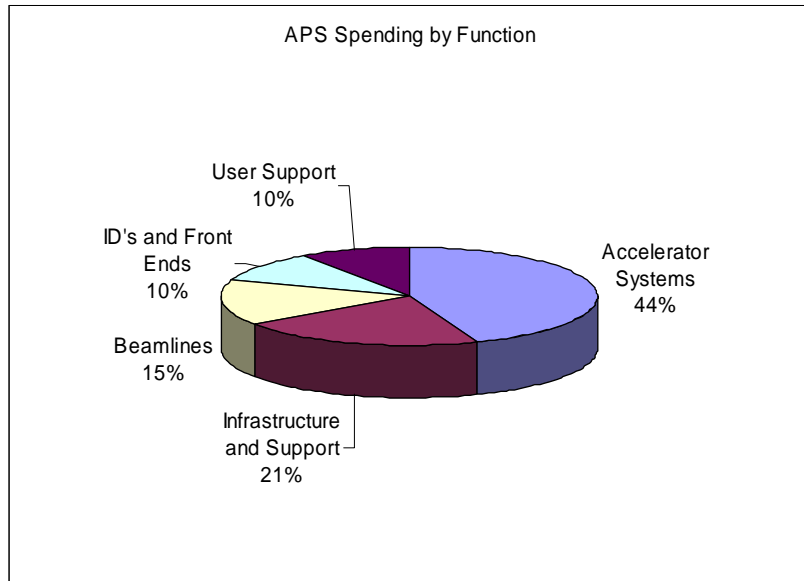
What's Next in Project Planning

- MIS priorities must be established
- Design Drafter priorities must be established
- Project management as appropriate
- Feedback on priorities for additional funds
- Projects accepted anytime of the year

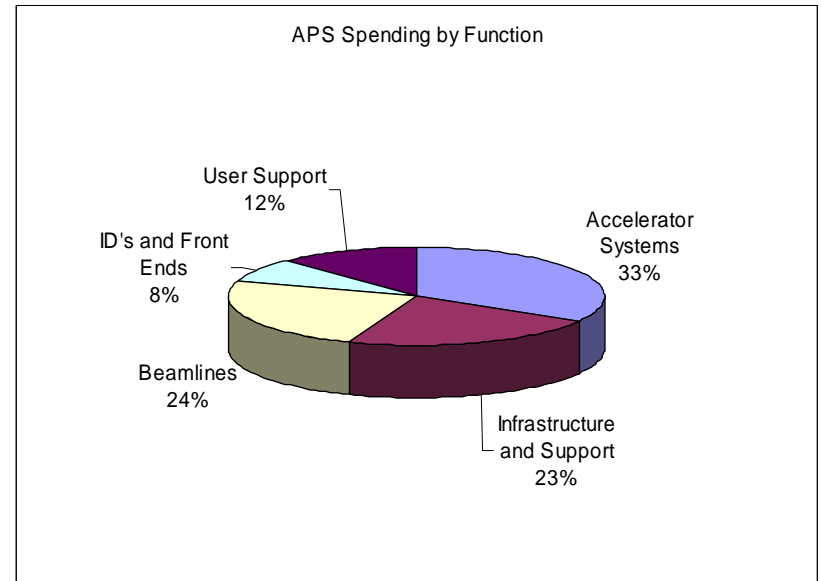
Strategy to Increase Budget

- For XOR staffing, aim for facilities initiative in FY'06 or FY'07 (Interagency Working Group)
- For accelerator side
 - Use IWG and DOE review to stress risks of deferred maintenance and innovation (i.e., relieve pressure from XOR needs)
 - Use community at large and APS² to argue for core Office of Science accelerator physics and engineering (e.g., RF, EPICS, Power Supplies)

Reallocation of Funds to Beamlines and User Support



FY2001



FY2004

Has already gone too far – need large increases (DOE initiative) to support XOR staffing and equipment (our scientific strategic plan) and reallocate to support accelerator

Interagency Working Group on Synchrotron Facilities

- Could have a major impact on FY'07 budget
- Will likely emphasize need for enhanced operations and instrumentation at facilities
- PUC/APSUO developed a letter stressing role of external partners
- Promising metrics for utilization of facilities being adopted by DOE, OMB, and OSTP

Two Factors for “Utilization” Metrics

- (Independent) beamline by beamline
- Use SRP review process to “audit”
- Instrument quality factor
 - 1 = “State of the Art”
 - 0 = Unbuilt or “Clapped Out”
- Staffing quality factor = staff #/optimal staff #
- Sum over all facility beamlines and take ratio to ideal fully utilized case (1 for each beamline)
 - *example for existing/constructing BLs only:*

	<i>Technical Quality Factor</i>	<i>Staffing Quality Factor</i>
APS	0.5	0.6
ALS	0.5	0.6
NSLS	0.7	0.4
SSRL	0.4	0.4

Additional **Input** Requested By IWG

- Instrumentation trends
 - Detectors
 - Automation
- Operational trends
 - More centralized support
 - Budget pressure on accelerator side
- User access modes
 - Partner users
- New source technologies
 - Ultrafast science

Reviews

- DOE BES Review of APS May 2005
- SAC reviews for 2004: MHATT(7), UNI(33,34), 1-4 (XOR), *Bio (18) and SGX (31)*
- SAC reviews for 2005: *BESSRC (11,12), HP (16), GSECARS (13), NE (24), DND (5), CMC (9), MU (6)*

Safety – Electrical Hot Work

Serious incident at SLAC where an Arc Flash critically burned an electrical worker

Recent ANL Electrical Safety Audit identified issues with Laboratory program

- NFPA 70E-2004 Training Compliance
- PPE selection and use
- Labeling breakers

ANL-E Stopped all Electrical Hot Work

- Restart of Hot Work can only be approved by Greg Markovich

Working Hot – performing work on an electrically charged circuit or in close proximity to an exposed electrical circuit where the possibility exists to come in contact with a live circuit of 50 volts or greater

ISSUE – Arc flash and contact with live circuits

Electrical Safety Committees (ANL & APS) are working to assure that ANL is working in compliance with NFPA 70E

According to NFPA 70E

- The employer is responsible for the safety and training of the employees
- Employees must be qualified to do the work and trained to understand the specific hazards and potential injury associated with electrical energy

Flame resistant clothing and PPE must be worn based on the incident energy associated with the specific task as determined by:

1. Flash hazard analysis (determine incident energy potential within the Flash Protection Boundary)
2. Determine PPE required based on incident energy associated with the specific task
3. Select PPE matching the hazard to the Arc Rating of the garments