

APS Operations Division Update September APS/User Meeting

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AOD Division Director
September 11, 2003

Argonne National Laboratory



*A U.S. Department of Energy
Office of Science Laboratory
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APS Operations Division

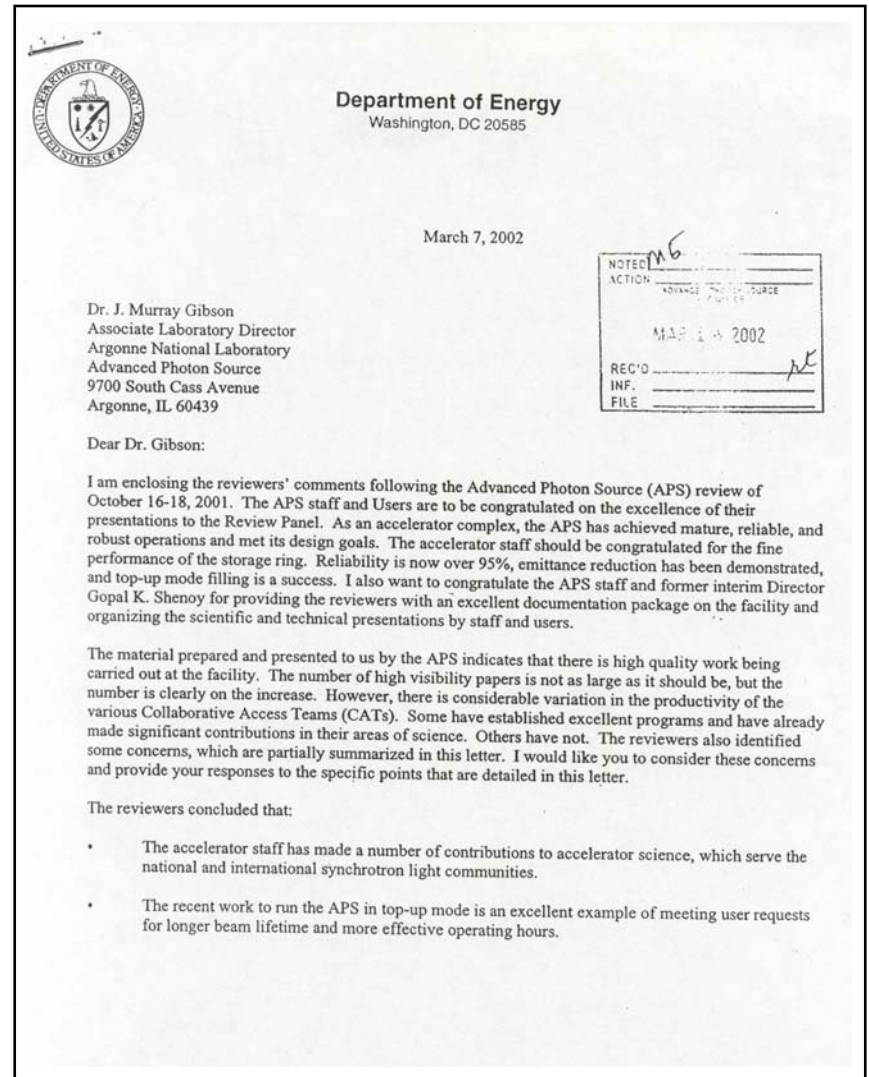
Mission of the APS Operations Division

- **Serve the APS user community by establishing and maintaining an integrated, facility-wide operations organization which provides a reliable and successful operation and high-quality user technical support, thereby ensuring that the Advanced Photon Source maintains its status as a preeminent user facility**
- **Encourage and nurture its staff to provide an ever-growing operational experience base for the future**
- **Provide operational direction, guidance, coordination and assistance to the other APS organizational units, as well as other ANL organizations, which support the operation of the APS**
- **Assure the safety of APS users, visitors and personnel, while protecting the environment**



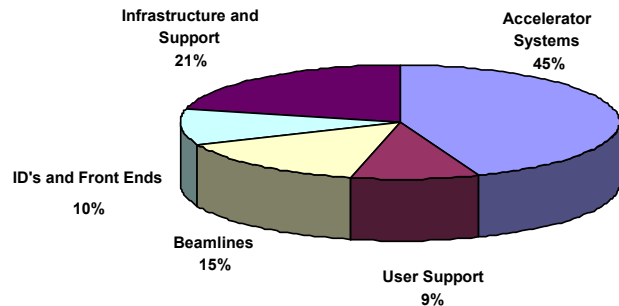
DOE Review in October 2001 Recommendations - March 2002

- “ES&H support for the CATs should be strengthened”
- APS “should identify savings that should be redirected to outreach and increased priority to user support”

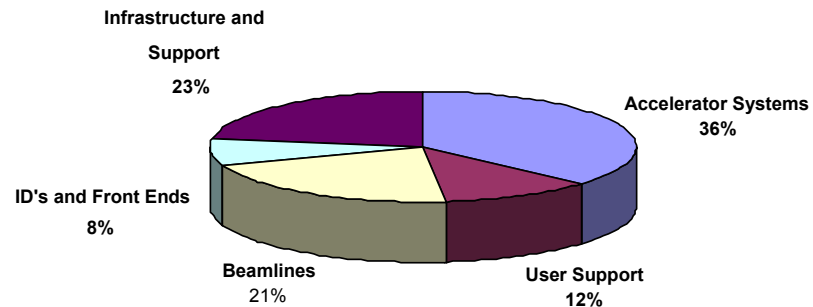


Increased Emphasis on User Support

APS FY 01 Spending by Function



APS FY 03 Spending by Function



In Response to DOE Direction

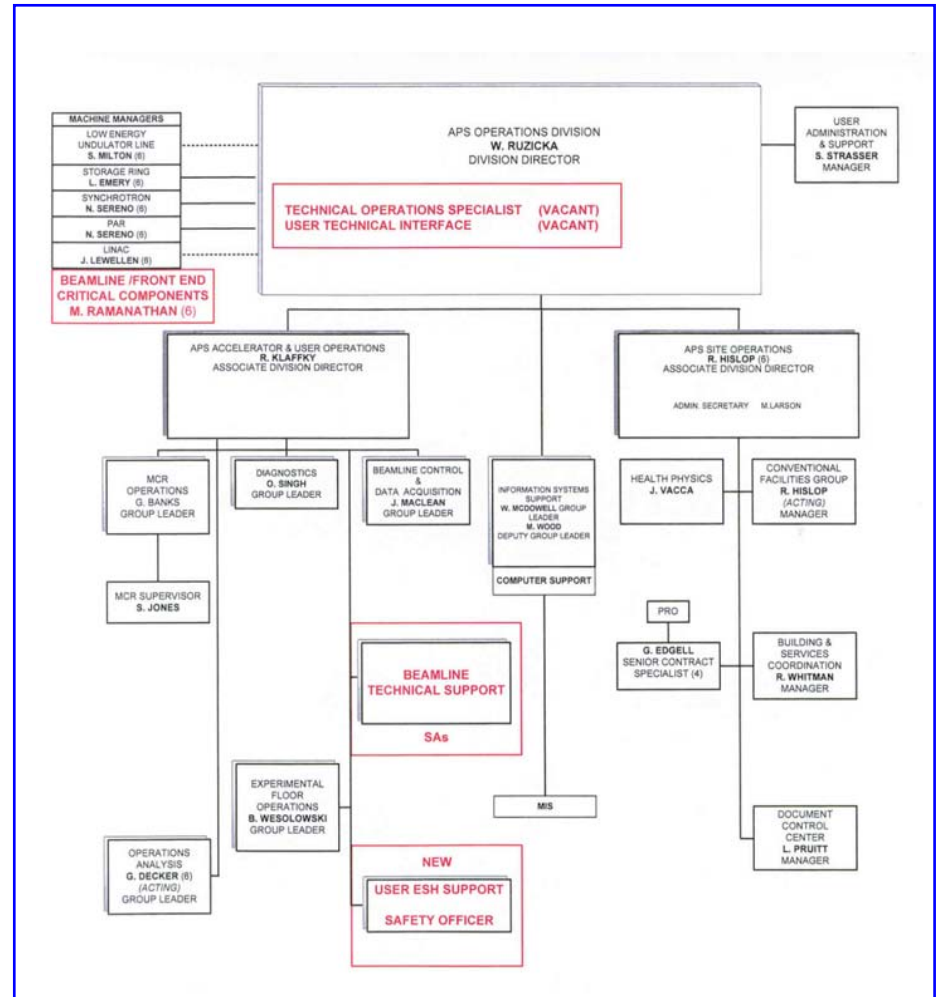
AOD is adding personnel to increase standard user support and Sector ES&H Support

- **AOD creating new group: User ESH support**
 - Hire new User Safety Officer
 - Health Physics Group transferred here
 - Experiment safety reviews

- **AOD will fill three open slots**
 - Technical Operations Specialist (policy and planning)
 - User Technical Interface (Technical information, resolve issues)
 - Beamline Technical Support Group Leader

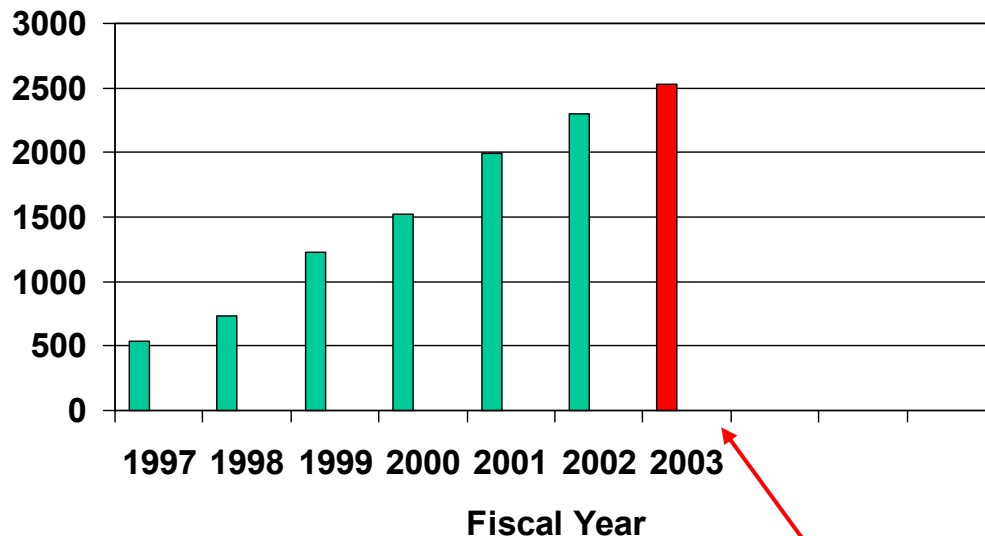
- **Repopulate Technical Support Group**
 - Scientific associates

- **Added box to Machine Manager category**
 - Emphasize importance of APS ownership of beamline and front end critical components



Growth of APS User Community

Total Number of Unique On-Site Users



As of August 27 2003
Shutdown - (2,530)

- Total badged users visiting the APS at least once in FY 2002 = 2,299
- Total badged user visits in FY 2002 = 6,135
- Total badged users in FY 2002 = 5,101
- During 2002, the Argonne-East site had 2,767 facility users. 83% of this total were APS users.

History of APS Operation

	Scheduled User Hours	X-ray Availability (hours)	X-ray Availability (%)	Faults	Mean Time Between Faults (hours)
FY2000	5047.2	4723.8	93.59%	160	29.5
FY2001	5000.3	4788.8	95.77%	188	25.5
FY2002	4999.0	4855.6	97.13%	147	33.0
FY2003	4912.0	4772.6	97.16%	107	44.6

Goal – Never Go Back Down – Beat Last Year



Outreach to New Users



Exhibit prepared for July American Crystallographic Conference – focus on research opportunities in crystallography

Approximately a third of attendees visited APS booth (more than 300 visitors)!

Booth staffed by APS resident users and User Office staff

Several proposals prepared and submitted at meeting!

- **AOD plans on more outreach**
 - Material Research Society, American Chemical Society, American Physical Society, Geophysical Union, etc.

Upgraded APS Web

New Position Webmaster



The screenshot shows the homepage of the Advanced Photon Source (APS) website. At the top, the title "Advanced Photon Source" is displayed in a blue font. Below the title is a navigation menu with links for Home, Beam Time, User Info, Science, About Us, Operations, Search, and APS Org. A vertical sidebar on the left contains a list of links including Home, Welcome, APS Introduction, Visiting the APS, Ring Status, Current Schedule, Upcoming Schedule, Getting Beam Time, Publications, Find a Person, Meetings, Etc., Internal Pages, and Suggestion Box. The main content area features a large image of the APS facility with the text "Welcome to the Advanced Photon Source". Below this image is a paragraph of text describing the APS as a national synchrotron-radiation light source research facility. To the right of the main content is a sidebar with sections for "APS News", "Other News", "Research Highlights", "Announcements", and "Shining Light on a New Gene Therapy". Each section includes a brief headline and a "More Info" link. At the bottom of the page, there is a footer with links for Home, Beamtime, User Info, Science, About Us, Operations, Search, Webpages Feedback, and Security & Privacy Notice.

Christopher Klaus, Webmaster



- **Web page being totally revamped**
 - Easier to navigate
 - More links



Users Express Opinions

APS User Survey 2002

Demographic Information:
(If you would like a response, please include your name and e-mail address.)

Name (optional):

E-mail address (optional):

APS affiliation:

- APS staff member
- Resident user/resident beamline staff
- General User
- Collaborative Access Team member

Field of research (mark the closest response):

- Biological/life sciences
- Condensed matter/material sci./chemical sc.
- Geo/soil/environmental sciences
- Instrumentation and techniques

The first set of questions deals with operating modes at the APS and General User support.

Recently, the APS began running storage ring in top-up mode for experiments. I am _____ with the effect that this has had on my experimental results.

- very satisfied
- satisfied
- not satisfied
- no comment/have not run using top-up

I would like to see the percentage of user time that is run in top-up mode _____ (currently 75%).

- increase
- remain the same
- decrease
- NA/no comment

The APS delivered 5000 hours of user beam time during the past year with a reliability of over 96% and approximately 1 fault per 33 hours (for the last run of CY 2002, the availability was 99.06% and a mean time between faults of 71.8 hours). In order to achieve this record, the APS performs many routine and unanticipated inspections and maintenance jobs during the maintenance period that contribute to the excellent machine performance (availability and reliability) during user beam time. In view of the conflicting implications of upgrades, maintenance for new high-performance beamlines, and delivering more user beam time hours, which of the following would be most important to your research?

- Increased user beam hours (> 5000 hours)
- Increased availability (> 96%)
- Increased reliability (< 1 faults/33 hours)

Results from 2002 User Survey:

- 80% very satisfied/satisfied with user support by the beamline staff
- 72% very satisfied/satisfied with user support by the facility staff

AOD Goal is to get second bullet higher than first

***National School on Neutron and X-ray Scattering
August 10-24, 2003
at Argonne National Laboratory***

- **Purpose – To educate U.S. university graduate students on the use of x-ray and neutron facilities**
- **The only school in the Western Hemisphere teaching both x-ray and neutron scattering techniques – including experiments**



National School on Neutron and X-ray Scattering

August 10-24, 2003

ARGONNE NATIONAL LABORATORY
Operated by The University of Chicago for the U.S. Department of Energy

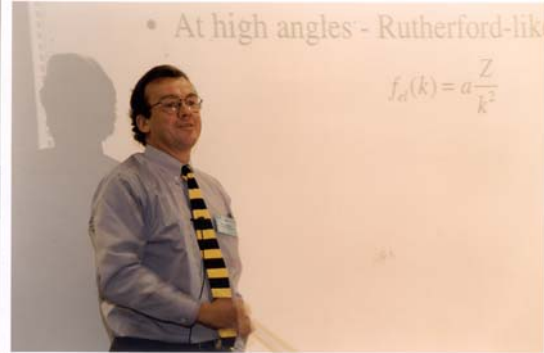


**Two weeks
60 students**

**A thank you to all
the sectors that
helped with hands-
on experiments**



Neutron X-Ray School



The following people from the APS community were involved:

Dean Haeffner, co-Scientific Director

Jonathan Lang, APS Experiments Coordinator

Dennis Mills, Organizing Committee

Users Office (esp. Darlene O'Malley), safety orientation

Lecturers:

J. Murray Gibson, APS/ALD

Steve Heald – PNC-CAT

Dennis Mills – Deputy, ALD

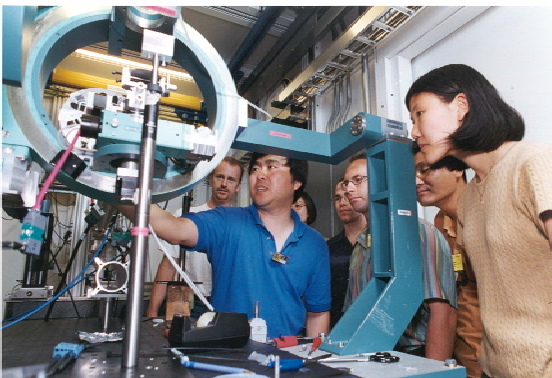
Larry Lurio – IMM-CAT

Gabriel Long – UNI-CAT

Gene Ice – UNI-CAT

Wolfgang Sturhahn - HRXS

Eric Isaacs - Nanocenter



Beamlines Utilized:

1-ID XOR-1

9-ID CMC-CAT

2-ID-B XOR-2

12-BM XOR-12/BESSRC

3-ID XOR-3

13-BM GSECARS-CAT

4-ID-C,D XOR-4

15-ID ChemMatCARS-CAT

5-ID DND-CAT

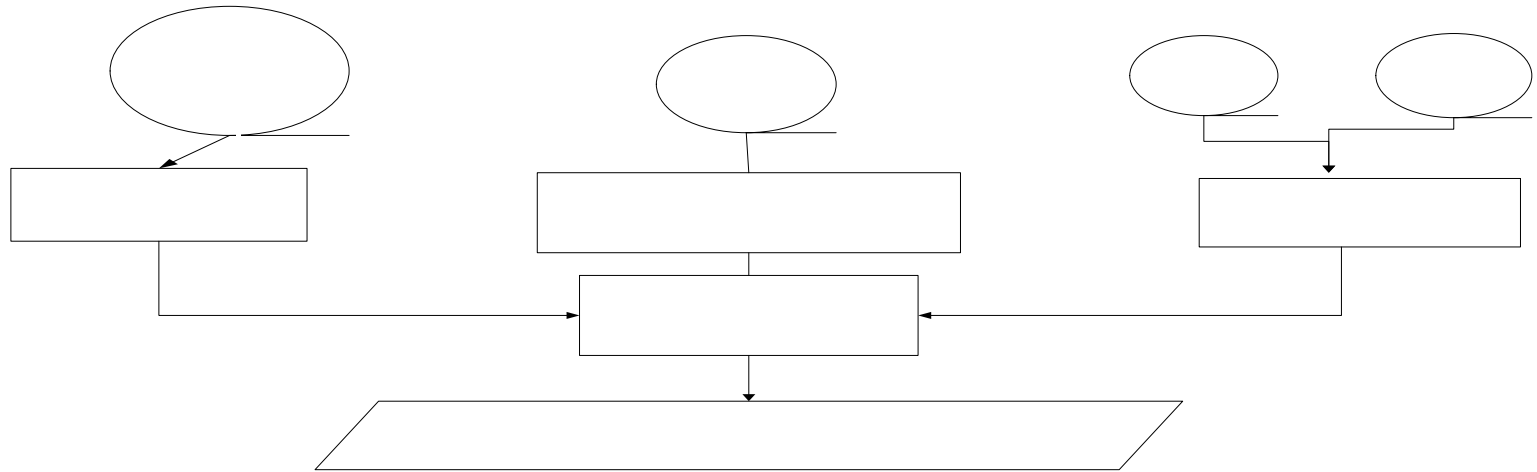
20-ID PNC-CAT

8-ID XOR-8/IMM

33-ID UNI-CAT



Response to DOE Requirement Centralized Schedule and Beam Time Usage



Beamline Usage Data for X-ID-C

2003-1 Rur

	Feb 03 (552 hrs)			Mar 03 (624 hrs)			Apr 03 (408 hrs)		
	00-08	08-16	16-24	00-08	08-16	16-24	00-08	08-16	16-24
1	0 1 X	- 0 X	0 0 X	1 0 0 X	1 0 X	0 0 X	1 0 0 X	- 1	0 1 X
2	0 0 X	0 0 X	0 0 X	2 0 0 X	0 0 X	0 0 X	2 1 1 X	- 0 X	0 0 X
3	0 1 X	- 0 X	- 1	3 0 0 X	- 0 X	0 1	3 0 0 X	- 0 X	0 0 X
4	- 1	0 0 X	0 0 X	4 - 1	0 0 X	- 0 X	4 1 0 X	0 0 X	0 0 X
5	0 1 X	0 0 X	0 0 X	5 0 0 X	0 0 X	0 0 X	5 - 0 X	- 0 X	0 0 X
6	0 0 X	0 0 X	0 0 X	6 - 0 X	0 0 X	0 0 X	6 0 1 X	0 0 X	0 0 X
7	0 1 X	0 0 X	0 0 X	7 0 0 X	0 0 X	0 0 X	7 - 0 X	- 1	- 1
8	0 0 X	0 0 X	0 0 X	8 0 0 X	0 0 X	0 0 X	8 - 1	- 1	- 1
9	0 1 X	0 0 X	0 0 X	9 0 0 X	0 0 X	0 0 X	9 - 1	- 0 X	0 0 X
10	1 1 X	- 1	- 1	10 0 0 X	- 1	- 1	10 1 0 X	0 0 X	0 0 X
11	- 1	- 1	- 1	11 - 1	- 1	- 1	11 0 0 X	0 0 X	0 0 X
12	- 1	0 0 X	0 0 X	12 - 1	0 0 X	- 0 X	12 1 1 X	0 0 X	0 0 X

A	B	C	D	E	F
	Name of beam line	% of FY beam line was useable	# of hours SCHEDULED on beam line	# of hours DELIVERED to beam line	# of hours that researchers USED the delivered time
1					
2					

Yeldez Amer to review with each sector before sending out

APS – Proactive in Anticipating Sector Needs

Survey Form for Sample Preparation and Characterization Lab

A suggestion has come forth regarding the possible need for an APS provided and operated sample preparation lab and a sample characterization lab.

Please complete the following survey so that an assessment can be made.

Name of responder: _____

Sector #: _____

- I and users at my sector have no interest in using a sample preparation and characterization lab.
(If checked, continue to *Comments* section.)
- I or users at my sector would be interested in using a sample preparation and characterization lab.
(If checked, please complete the remainder of this survey form.)

Types of equipment desired *(be as specific as possible)*:

Types of sample preparation/characterization desired:

Only four responses – probably will not install

Emergency Power to be Delivered to Each Sector



Diesels have extra capacity



Sectors to determine individually which of their loads should be put onto emergency power

~ 60 amps. @ 120 volts to be available

APS Document Management to be Improved

- Written 2003 APS goal
- “Update Document Management”
- Task force assembled and proposed new electronic system
- Manager appointed to lead new effort (Marcia Wood)
- Scope will include drawings, office documents, and web content

ALD Office and each APS Division has given full support to this upgrade

ARGONNE
NATIONAL
LABORATORY

INTRA-LABORATORY MEMO

August 6, 2003

To: APS Employees

From: J. Murray Gibson *JMG* Associate Laboratory Director, APS

Subject: APS Electronic Document Management System

As stated in my memo dated June 26, 2002, the APS must carefully manage all of its documents, such as engineering drawings, logbooks, procedures, and administrative files. This requirement, together with our desire to migrate to a "paperless" workplace, led me to create the APS Electronic Document Management Task Force.

This group, under the leadership of Geoff Pile (ASD), has made preliminary recommendations and is preparing a final report. The task force, which examined in detail our current approach to document management and our needs for the future, has issued a Request for Information and evaluated the responses. The task force's recommendation, that we pursue as soon as possible the implementation of an electronic document management system at the APS, is accepted and strongly endorsed by APS Senior Management. We wish to express our sincere gratitude to Geoff and all of the task force members, listed below, for their excellent work.

Electronic document management at APS is now entering phase two: implementing a management solution to address the challenge. AOD will lead this document management upgrade. Bill Ruzicka, AOD DD, and I are delighted to announce that Marcia Wood has agreed to take overall responsibility. Bill and I have confidence in Marcia's ability to oversee the selection, implementation, and maintenance of an electronic document management system. Marcia is well-known to APS for her ability to provide solutions that customers want – no small compliment! In recognition of the importance of this addition to Marcia's existing MIS responsibilities, effective September 1, 2003, a new group will be created in AOD with the title "Information Management," which Marcia will lead. As well as the existing MIS staff, the group will also contain the Document Control Center and any future staff directly associated with document management. Marcia will recuse herself from the Electronic Document Management Task Force as they complete their report and will work with them to ensure a smooth transition into the next phase.

With the help of advice from the Electronic Document Management Task Force, Marcia will prepare a plan for implementation of an EDM system. Components of this plan will include issuing a Request for Proposal and implementing the system in a phased approach. You will learn more soon from the task force's final report and from Marcia.

All APS senior managers have signed this letter to demonstrate their commitment to making our EDM system work. Please join us in supporting Marcia as we move forward. Even though there will be some inevitable pain of introduction, the new system is designed to make our lives easier, safer and more productive.

EDMS Committee Membership

Yeldez Amer
Lahsen Assoufid
Bran Brajuskovic
Paul Choi
Francesco De Carlo
Bob Fischetti
Geoff Pile
Lovely Pruitt
Rose Torres
Marcia Wood

Dennis McFall
Deputy Associate Laboratory Director

W. G. Ruzicka
AOD Division Director

Rodney Geig
ASD Division Director

F. Hustler
XFD Division Director



Project Management Initiative at the APS

APS Goal: Employ a graded approach to project management

- Objectives:**
- Provide APS with a uniform process for project assessment and management
 - Enhance awareness and communication
 - Optimum distribution of resources

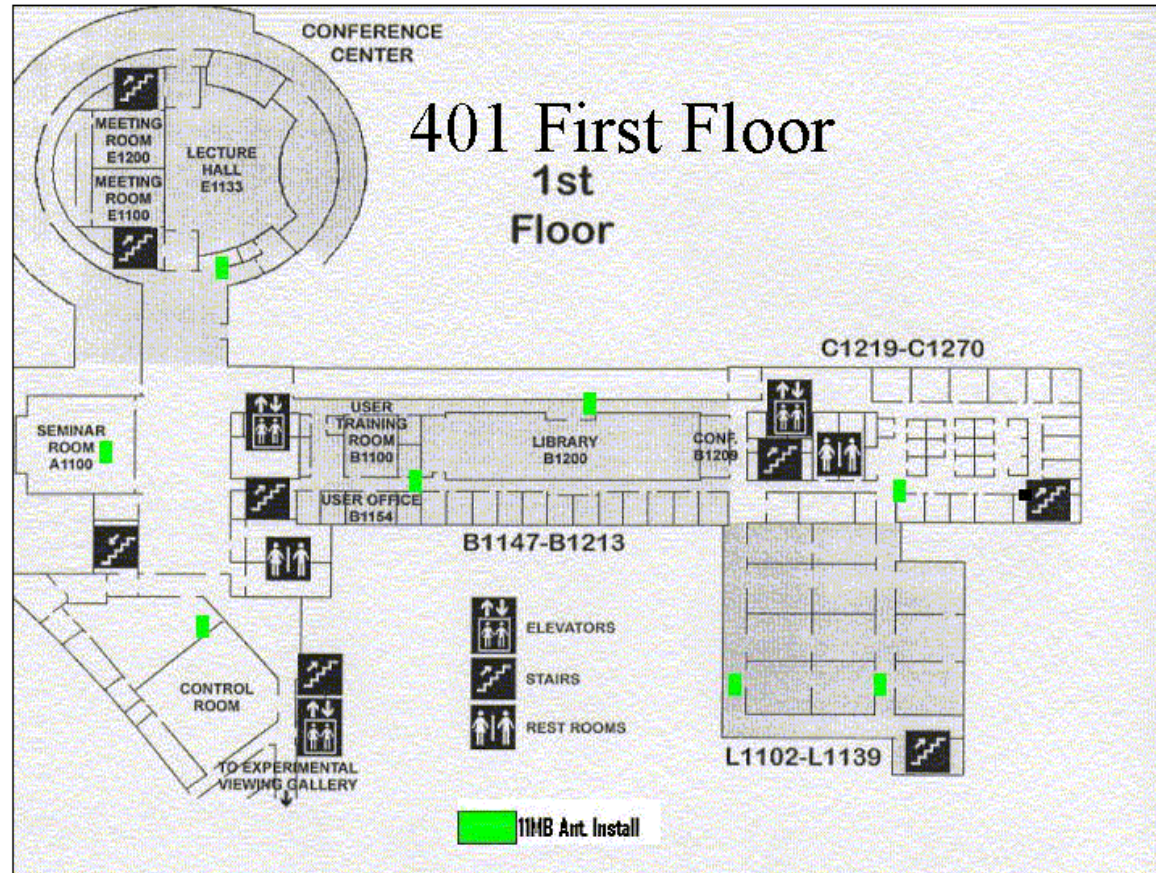
The Process: Phase I: Proposal assessment, approval and prioritization

- Standard proposal form
- Help management set project priorities
- Grading & priority matrix

Phase II: Project Management and Tracking

WBS	Activity Name	Start Date	Finish Date	Total Budget K\$	Responsible Person	% Complete	Actual Cost to date	2003					2004						
								M	J	J	A	S	O	N	D	J	F	M	
IXS-7.7	Monochromatic Mirrors	4/7/03	8/31/07	575.0	W. Sturhahn	0.0%													
IXS-7.7.1	MERIX Mirror	4/7/03	6/3/05	275.0		0.0%													
IXS-7.7.1.1	Design	4/7/03	10/3/03	0.0		0.0%													
IXS-7.7.1.2	Procurement	10/6/03	3/5/04	275.0		0.0%													
IXS-7.7.1.3	Installation	3/7/05	6/3/05	0.0		0.0%													

APS Going Wireless



- Experimental Floor to be wireless in a few months

NEW USER-FRIENDLY WEB ESAF FORM

ESAF = Experiment Safety Assessment Form

- In use
- Good reviews
 - Thanks to Bruce Glagola, Steve Davey, Marcia Wood and team

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General	Experimenters	Description	Materials	Equipment	Lab Use	Requirements	Beamline Admin	APS Admin	
Status : Pending (Rosenfeld)		PEN : 05-BMD-2003-			Role : Floor Coordinator				
NOTE : No experiment will be allowed to run until a properly completed and approved experiment safety analysis form has been posted by an APS Floor Coordinator									
Sector	05 - DND-CAT	Date Submitted	07/09/2003	U.S. government classified work will be performed					No
Does this research involve macromolecular crystallography ? Yes <input type="radio"/> No <input checked="" type="radio"/>									
Experiment Title	In-situ Rubidium/Iron EXAFS Tantalum Electrochemistry								
Subject Area(s)	<input checked="" type="checkbox"/> Materials sciences <input type="checkbox"/> Physics <input type="checkbox"/> Chemistry <input type="checkbox"/> Polymers <input type="checkbox"/> Medical applications <input type="checkbox"/> Biological and life sciences <input type="checkbox"/> Earth sciences <input type="checkbox"/> Environmental sciences <input type="checkbox"/> Optics (excluding x-ray optics) <input type="checkbox"/> Engineering <input type="checkbox"/> Instrumentation related to user facilities <input type="checkbox"/> Purchase of specialty service or materials <input type="checkbox"/> Other (specify) Specify Other								
Funding Source(s)	<input type="checkbox"/> DOE, Office of Basic Energy Science <input type="checkbox"/> DOE, Office of Biological and Environmental Research <input type="checkbox"/> DOE, Other (specify) <input type="checkbox"/> DOD, (specify) <input type="checkbox"/> NSF <input type="checkbox"/> NIH <input type="checkbox"/> NASA <input type="checkbox"/> USDA <input type="checkbox"/> Other U.S. Government <input checked="" type="checkbox"/> Industry <input type="checkbox"/> Foreign (specify) <input type="checkbox"/> Other (specify) <input type="checkbox"/> H-HIH <input type="checkbox"/> Howard Hughes Medical Institute (HHMI) Specify Other								
Generate Report								Next	

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