Department Heads Meeting

S. M. Kahn

Issues to Discuss

* Budget planning exercises with DOE-OHEP
* Reorganization of DOE-OHEP
* Reorganization of SCCS
* New proposed cell phone policy
* Appointment of new Administrative Services Manager in PPA.

Budget Planning Exercises

Budget Guidance From DOE

* Planning According to the Following Scenarios:
  - FY2009 at the President's Request = $91.532M
  - FY2009 under year-long CR = $95.491M
  - FY2010 at level of FY09 CR + COL = $98.652M
  - FY2010 flat flat with FY09 = $91.532M
  - FY2010 at level of FY09 + COL = $94.250M
  - FY2010 with significant increase = $107.364

* Note that the CR numbers look silly for SLAC because they are increases.
  - The problem is especially exacerbated if we hold the ILC at CR-controlled levels. We would be forced to dramatically increase other programs.
  - We have carried out the exercise for FY09, but not for FY10. Our request for a more realistic CR scenario for FY09 and FY10 did not yield further guidance.

Role and Strength of SLAC HEP Programs

* Electron Accelerator-Based Physics Research
  - BaBar experiment: Final Run in FY08. Intensive Analysis Phase through FY10. Archival phase in FY11-14.
  - Linear Collider Detector R&D and Physics Planning: Assumed to hold flat for next few years.

* Proton Accelerator-Based Physics
  - ATLAS: Planning for ramp up of activity beginning in FY09. Includes Tier 2 Center.
  - ATLAS Upgrade: Early R&D beginning in FY09.
  - LARP + LHC Upgrade.

* Non-Accelerator Research
  - GLAST: Launch in FY08. Operations and Science Analysis through FY18.
  - EXO: EXO-200 running at WIPP. R&D for full EXO.
  - LSST: SLAC leads the Camera R&D. PDR at end of FY08. Assume MIE start in FY11, paralleling NSF schedule.
  - SNAP: SLAC leads electronics effort and fine guidance system, under LBNL direction. Schedule guidance needed for detailed budget planning.
  - Future particle astro: TeV Gamma-Ray, CMB…

Role and Strength of SLAC HEP Programs

* Theory
  - Particle Theory Group: Expands slightly in FY09, then winds down due to retirements, although timescale uncertain.
  - KIPAC Physics: Two new faculty in FY08, each 0.5 FTE. Two still to be hired, both 0.5 FTE. Includes both theoretical and observational work.
  - Advanced computing for numerical astrophysics and cosmology.

* Accelerator Physics
  - AARD: Experimental and theoretical studies of laser and plasma acceleration. FACET experiments.
  - High gradient R&D: Fundamental limits to high acceleration gradients.
  - Advanced microwave rf power sources.
  - Beam theory, nonlinear dynamics, and collective effects.
  - Advanced computing for accelerator physics.
  - Directed accelerator R&D for next generation X-band linacs. Collaboration with CERN and KEK
  - ILC R&D: Effort focused on rf sources, electron source, and beam delivery system.
  - Facility Operations: NLCTA, End Station B, End Station A, FACET.

FY2008 Budget Assumptions

* Assume $100M (verbal guidance given to Persis Drell by Dennis Kovar) + $1M in FY07 carry forward.

* Enable running of B-factory through end of March for completion of Y(3S) and Y(2S) runs.

* Maintain Klystron Department core capability.

* Early start on PEP-II and BaBar D&D.

* Priority given to maintaining running programs and key personnel crucial to the future programs.

* Total Layoffs at SLAC: 119 Involuntary, 72 Voluntary
  - HEP-Funded: 43 Involuntary, 14 Voluntary
  - PPA Employees: 26 Involuntary, 9 Voluntary.

Particle Physics: FY08 Budget Impacts

* BABAR:
  - 3 positions eliminated due to early curtailment of detector operations, but most expertise needed during D&D was retained.
  - 1 position lost in scientific analysis, with significant loss of productivity for the collaboration in a valuable area of research.
  - M&S and travel cut by 20%.

* ATLAS:
  - No positions eliminated, since we are in the midst of enlarging this effort. M&S and travel cut by 10%.
  - Encouraged more rapid migration of staff effort from SiD and BABAR to ATLAS.

* SiD:
  - Open physicist req cancelled; engineering re-assigned to LCLS.
  - M&S, including travel, decreased by 68%.

* EXO:
  - No positions eliminated.
  - M&S and travel cut by 10%.

Particle Astrophysics: FY08 Budget Impacts

* GLAST:
  - 4 Positions cut or transferred, and several open reds cancelled from the ISOC.
  - Impacts are mainly in operations and software support, requiring a larger commitment to operations among the scientific staff.
  - NASA briefed prior to cuts.
  - Travel cut.

* LSST:
  - 1 Position cut.
  - M&S decreased by 15%. Travel cut.

* KIPAC:
  - No positions eliminated.
  - Travel cut.
  - Computing resource request deferred.

Accelerator Research: FY08

* ILC funding cut impacted Accelerator Research heavily
  - Roughly 30 funded positions cut
    - 20 layoffs from within division including 3 casual employees
    - Canceled 3 funded positions from ARD and 7 more from Klystron, Power Conversion, and Accelerator Systems
  - Main reductions were in ILC program
    - Elimination of most CFS group (keep CFS value engineering in BDS)
    - Elimination of Positron Source effort
    - Elimination of design engineering
    - Reduction of support for ATF2 experimental program
    - Reduction in support for rf sources experimental effort
    - Reduction in electron source experimental effort
  - Reduced M&S, Travel, and Shop Services spending by ~35%
    - Large impact on available budgets

Accelerator Research: FY08

* Division re-organization from ILC Department into Linear Collider Department and Test Facility Department
  - Linear Collider Department is focused on the design of normal conducting and superconducting linear colliders and the development of the required technology. In addition, the program will consider applications of these technologies that may enable other facilities such as Project-X or an SCRF-based ERL as well as other SLAC facilities.
  - Test Facility Department operates and supports the large test facilities at SLAC to develop and test near-term solutions for accelerator systems including rf structures and power sources as well as beam optical, diagnostic and collimation systems. These include the NLC Test Accelerator and L-band rf test facilities at End Station B. It will also support the operation of FACET, the End Station A, and the ATF/ATF2 program at KEK.

Accelerator Research: FY08

* Redirected ILC program with remaining staff:
  - Focused effort on generic LC R&D
    - Slightly increased effort on plasma LC and CLIC subsystems
    - Slightly increased support for FACET
    - Slightly increased effort on LHC commissioning and upgrade studies
  - Reduced effort on 1.3 GHz rf components
    - Slightly increased effort on X-band rf components and CLIC collaboration
* Programs in other ARD departments slowed slightly but not impacted heavily
  - Continued laser, plasma and high gradient studies
  - Continued beam theory and accelerator computation

Accelerator Research: ILC Efforts

* ILC Effort was severely impacted in FY08
  - Reduction in all areas
* Effort planned for FY09 based on narrower vision
  - No site planning or large-scale CFS effort
  - No effort on positron source or damping rings
  - Reduced effort on BDS and electron source
  - Reduced effort on Systems Integration and Optics design
  - Reduced effort on rf sources aiming at 4 to 5 year development rather than 2 to 3 years
* Still plan to contribute to Fermilab rf Unit Demonstration although may require additional Fermilab SCRF funds
  - Fermilab may have to purchase couplers and rf distribution components

Engineering: FY08 Budget Impacts

* PPA Electronics:
  - 3 positions cut or not filled, and fractions of 8 computing and engineering personnel now supporting controls and data acquisition projects for LCLS.
  - Concerns about maintaining minimal analog electronics capability and future access to data acquisition expertise.

* PPA Mechanical:
  - Added one cryogenics engineer from ETS Directorate, remainder of cryogenics support group in ETS let go at end of BABAR operations.
  - 0.5 FTE moved to linac operations budget, with loss of access to expertise in FEA and thermal analysis

Scientific Computing: FY08 Budget Impacts

* SLAC Scientific Computing & Computing Services (SCCS):
  - 16 involuntary & 3 voluntary positions eliminated, 11 reqs or open positions not filled.
  - Protected systems group as a key function for PPA scientific programs
  - Windows infrastructure, database, security, help desk, desktop support, business applications, networking, video conferencing, and physics experimental support all significantly reduced or eliminated.
  - Policy for 24/7 support of computing operations eliminated, with potential concerns for BABAR and GLAST
  - GEANT4 core support sharply curtailed (2 out of 5) and remainder mostly re-directed into simulation support for ATLAS.
  - Completed computing hardware upgrades for BABAR, ATLAS, and GLAST, but reduced capital investment budget by 25%, slowing down overdue upgrade of silos and drives for mass storage system.
  - M&S and travel budgets sharply reduced (20%).

Particle Physics: FY09 and FY10

* BABAR intense analysis period.
  - Maintain FY08 levels of computing hardware, continue upgrade mass storage systems, and retain support from core computing professionals.
  - Gradual decline of electron accelerator-based research effort with migration to ATLAS and ATLAS upgrade efforts.

* BABAR detector D&D planning and start of phase I execution.
  - Develop mature plan, including budgets, safety, inventory, disposal, and salvage options.
  - Assemble and catalog tooling for individual systems.
  - Remove and dispose electronics hut; transfer utilities where needed; remove shield walls, support tube, components in forward and rear end doors.
  - Planning for PEP-II D&D occurs in FY09 and FY10, with MMS maintained through 2015.

Particle Physics: FY09 and FY10

* Major growth in ATLAS and ATLAS upgrade efforts.
  - Enlarged effort in ATLAS operations and physics research.
  - Major effort in upgrades to pixel (phase I and phase II) and/or silicon tracking systems: mechanical, cooling, power, data pathway, and potentially pixel sensor development.
  - Desire for development of a remote control center for LHC and ATLAS.
  - Building-up required infrastructure, e.g., clean test areas, and personnel in key engineering areas.

* EXO-200 and EXO R&D
  - Level of effort held constant + COL; support of operations at WIPP, R&D for barium ion tagging and EXO systems design

* Theory Group.
  - Level of effort held constant + COL, as a major asset in support of LHC data exploitation for the ATLAS west coast community

* No further layoffs planned.

Particle Astrophysics: FY09 and FY10

* GLAST and KIPAC held flat + COL.

* Computational Resources improved, dependent upon scenario.

* Major growth is in LSST and SNAP.
  - LSST ramping up assuming Final Design Review (and CD-1) in FY09, with MIE start in FY11.
  - SNAP schedule uncertain - strongly affects profile. BEPAC assumed FY09 start, but this is incommensurate with President's budget. LBNL has not indicated whether any FY09 explicit JDEM funding is available for SLAC.

* No further layoffs planned.

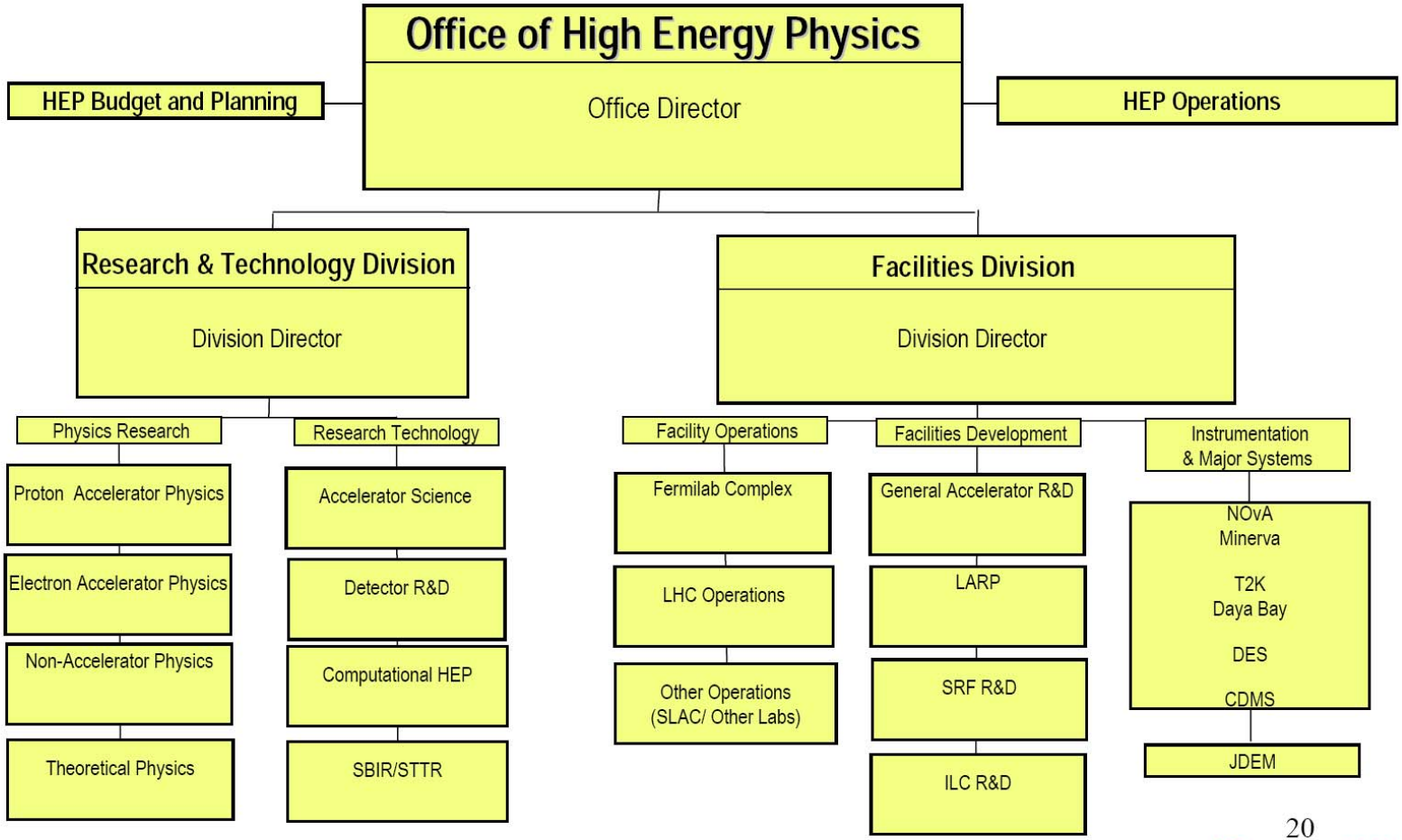
Accelerator Research: FY09 and FY10

* Accelerator Science:
  - Increased effort to support FACET program and increased High Gradient collaboration activities
* Accelerator Development:
  - Increased effort to develop X-band rf sources and normal conducting LC design
* ILC:
  - Reduced effort (compared to FY07) more narrowly focused on rf sources, electron particle source, and BDS (+ smaller efforts on e^- cloud, systems integration, high availability, accelerator physics)
* Test Facilities:
  - Increased effort to support NLCTA operation (previously partially supported by ILC Department) and FACET experimental support

* No further layoffs planned, unless ILC R&D permanently canceled.

Reorganization of DOE-OHEP

From Kovar's Presentation to HEPAP



Implications…

* Not really clear. They don't have answers to most of the questions we raised.

* However, the program managers are definitely being given more authority and responsibility. There will be a budget retreat next week, where they will be asked to present their national program, across all institutions. They are requesting a wealth of budgetary and demographic data.

* In general, this looks like a transition to more of a "soft money" situation. The emphasis is on programs, rather than on institutions. SLAC's PPA budget will be built up in pieces from the various programs, rather than allotted in the "top down" fashion it has been in the past.

* Some reorganization of PPA may be required to accommodate this new paradigm.

Cell Phone Policy

New Cell Phone Policy

* Key features of the proposed policy are:
  - Individuals will acquire their own cell phones and will contract with their chosen carrier -- SLAC will no longer own nor will it administer cell phones (except for a few "Departmental Phones")
  - One of three tiers of a stipend will be paid to individuals (via paycheck) who need cell phones to conduct official SLAC work.
  - Authorization for a cell phone stipend involves the Supervisor and the responsible ALD. No other review/approval is mandated.

Wording of Policy

* Justification for a cell phone allowance is based on the fact that the employee's job function requires considerable time away from the normal work area and that it is important to SLAC that the employee is accessible during those times away, and/or, the job function of the employee requires that he/she be accessible outside of scheduled or normal working hours. *(N.B. We will adopt a fairly strict interpretation of the word "important".)*

* The cell phone, and the service contract for the phone, is owned by the employee, and may therefore be used for both personal and business calls. An employee with a cell phone allowance must maintain an active cell phone contract for the life of the allowance.

* Misuse of the phone – using it in ways inconsistent with SLAC policy or with local, state or federal laws – will result in immediate cancellation of the cell phone allowance.

* Departmental cell phones are excluded from this policy.

Implementation

* The cell phone allowance is paid through SLAC's Payroll Department, and is included in the employee's paycheck/direct deposit.

* The allowance shows as a separate line item on the employee's pay stub.

* This allowance does not increase the employee's base salary and will not be included in the calculation of any University benefits.

* This allowance is subject to all applicable taxes.

New Administrative Services Manager

New ASM

* I have appointed Kathy Webb to the position of Administrative Services Manager for PPA, replacing Nancy Crow.

* Kathy's extensive experience in both a corporate environment and as the BaBar Administrator here at SLAC allows her to bring unique perspective and direction to this role.

* With the many changes that are taking place at SLAC we anticipate the ASM position to have a somewhat different flavor than in the past. Kathy will be working closely with both David and me to evaluate and reorganize the administrative staff into a stronger, more efficient team.

* In our next Department Heads meeting, we will roll out our plan for the reorganization of administrative support within PPA.