

Goal 1: Provide Efficient and Effective Mission Accomplishment

Science Program Office		Letter Grade	Numerical Score	Weight [†]	Weighted Score	Overall Score
Office of Basic Energy Sciences						
1.1	Impact	A-	3.7	50%	2.00	A-/3.7
1.2	Leadership	A-	3.7	50%	2.00	
Overall BES Total						
Office of Biological and Environmental Research						
1.1	Impact	A-	3.7	60%	2.22	A-/3.66
1.2	Leadership	A-	3.6	40%	1.44	
Overall BER Total						
Office of High Energy Physics						
1.1	Impact	A-	3.7	50%	1.85	A- / 3.70
1.2	Leadership	A-	3.7	50%	1.85	
Overall HEP Total						
Office of Workforce Development for Teachers and Scientists						
1.1	Impact	B+	3.3	40%	1.32	B+/3.24
1.2	Leadership	B+	3.2	60%	1.92	
Overall WDTS Total						

Science Program Office	Letter Grade	Numerical Score	Funding Weight	Weighted Score	Overall Weighted Score
BES	A-	3.70	68%	2.52	A- / 3.7
BER	A-	3.66	2%	0.07	
FES	N/A	N/A	<1%	N/A	
HEP	A-	3.70	30%	1.11	
WDTS	B+	3.24	<1%	0.03	
Performance Goal 1.0 Total					A- / 3.7

MAJOR ACCOMPLISHMENTS

- Experiments conducted at LCLS have demonstrated the feasibility of determining structures of complex biological molecules from nano-scale crystals and single large virus particles for the first time. SLAC staff were members of both multinational teams which published this breakthrough work in two Nature papers in 2011.
- SLAC staff are co-authors on six of many publications based on work at LCLS, including a Physical Review Letter on nonlinear atomic response to intense ultrafast x-ray pulses.
- J. Stöhr received the 2011 Davisson-Germer Award and Z.-X. Shen the 2011 Oliver E. Buckley Award (shared with J.C. Campuzano & P. Johnson), both given by the American Physical Society. K. Hodgson was elected to the National Academy of Sciences.
- To advance energy research, SSRL has developed a suite of experimental techniques including 3-D spectromicroscopy with 30 nm resolution, polymer x-ray scattering and advanced spectroscopy with applications to photovoltaics, fuel cells, battery research and catalysis in addition to supporting the research at nine BES Energy Frontier Research Centers.
- SSRL continues to impact biomedical research as evidenced by the recent FDA approval of a drug for the treatment of advanced melanoma, which was created with key help from x-ray studies conducted at SSRL using BER-supported capabilities.
- Beams have been delivered safely and effectively to support the LCLS user program during FY11.

- Accelerator Directorate (AD) implemented new modes of LCLS operation at 20 and 250 pC, providing additional capabilities to users, in particular additional pulse lengths of ~ 150 fs and <10 fs, respectively. A full 120 Hz operation of the entire LCLS machine has recently been achieved.
- The Fermi LAT Collaboration has published 47 papers in FY11, including an extension of the widely-cited measurement of the spectrum and tight limits on the anisotropy of cosmic-ray electrons from 7 GeV to 1 TeV, discovery of galaxy gamma-ray flares from the Crab Nebula, and studies of the gamma-ray opacity of the universe.
- The BaBar Collaboration has published 31 papers in FY11, including evidence for a long-sought spin-singlet bound b-anti-b quark state $h_b(1P)$ as a probe of the hyperfine structure of the QCD potential.
- The ATLAS group at SLAC has continued to support operation of the high-level trigger and pixel systems, while resolving a difficult performance issue with data acquisition for the muon system, developing physics tools for analysis and contributing to first physics results.
- LSST continued R&D, most notably on camera sensor development and overall systems engineering, and project planning preparations for CD-1 anticipated in early FY12.
- The EXO-200 neutrinoless beta decay experiment began initial operations and submitted for publication the observation of the two-neutrino double-beta decay of with Xenon 136 based on one month of data.

STATUS OF NOTABLE OUTCOME(S)

- N/A for Goal 1

SIGNIFICANT CONCERNS AND MITIGATIONS

- Reduced future budgets could limit full exploitation of opportunity with the accelerator complex. *Mitigation:* Reviewed and optimized the available budget and developed strategies to operate the LCLS and SSRL under FY11 budget scenarios.
- Reduced future budgets could significantly affect the delivery of future science due to reductions in manpower, M&S and equipment budgets. *Mitigation:* Program prioritization and potential descoping of some areas of research. More broadly, the SLAC Laboratory Director along with three other SC Laboratory Directors engaged with many congressional members and staff to further educate them on the DOE Office of Science contributions to society and mission.

Goal 2: Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities

Science Program Office		Letter Grade	Numerical Score	Weight†	Weighted Score	Overall Score
Office of Basic Energy Sciences						
2.1	Provide Effective Facility Design(s)	A	4.0	25%	1.00	
2.2	Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components	A	4.0	15%	0.60	
2.3	Provide Efficient and Effective Operation of Facilities	A	4.0	50%	2.00	
2.4	Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities	A	4.0	10%	0.40	
Overall BES Total						A /4.00
Office of Fusion Energy Sciences						
2.1	Provide Effective Facility Design(s)	A-	3.7	20%	0.74	
2.2	Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components	A-	3.7	80%	2.96	
2.3	Provide Efficient and Effective Operation of Facilities	N/A	N/A	0%	N/A	
2.4	Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities	N/A	N/A	0%	N/A	
Overall FES Total						A-/3.7
Office of High Energy Physics						
2.1	Provide Effective Facility Design(s)	A-	3.5	50%	1.75	
2.2	Provide for the Effective and Efficient Construction of Facilities and/or Fabrication of Components	A-	3.5	50%	1.75	
2.3	Provide Efficient and Effective Operation of Facilities	N/A	N/A	0%	N/A	
2.4	Utilization of Facility(ies) to Provide Impactful S&T Results and Benefits to External User Communities	N/A	N/A	0%	N/A	
Overall HEP Total						A-/ 3.5

Science Program Office	Letter Grade	Numerical Score	Funding Weight	Weighted Score	Overall Weighted Score
BES	A	4.00	68%	2.72	
BER	X	N/A	2%	N/A	
FES	A-	3.7	<1%	0.04	
HEP	A-	3.5	30%	1.05	
Performance Goal 2.0					A/ 3.8

MAJOR ACCOMPLISHMENTS

- Photon Science (PS) Directorate completed commissioning new space for PULSE in Building 40 with research now ongoing in all performing areas, and SUNCAT computer cluster is installed and the theory activities are fully operational. Other renovations of additional laboratory and office space in Building 40 are in process.
- The LCLS CXI (coherent x-ray imaging) instrument completed its early commissioning and began operation for users, several months ahead of schedule. This is the fourth LCLS instrument to come online.
- LCLS delivered more than 4,000 hours of user operation, with machine availability for users of >95%.
- SSRL completed a successful run on July 25, 2011 with a user up-time of 98.4% serving 1,508 unique users. The SSRL beam lines operated with frequent fill at 350 mA and a current stability of 1%. The User Satisfaction Survey continues to yield "excellent" ratings for SSRL's user support program.
- The ARRA funded Advanced Spectroscopy Facility (RIXS-X-ray Raman-XES Spectrometer) at SSRL was completed on schedule in March 2011, and was turned over to user operations expanding SSRL's capabilities in energy and catalysis research.
- FACET completed beamline installation and began user-assisted commissioning in the Summer of 2011.
- MECL successfully secured a combined CD-2/3 approval in December 2010, on schedule, paving the way for an accelerated project completion.

STATUS OF NOTABLE OUTCOME(S)

- BES: Develop the Conceptual Design Report (CDR) for the LCLS-II. (Objective 2.1)
 - The LCLS-II CDR was finalized and a successful CD-1 Lehman review was carried out by BES in April 2011.
 - The LCLS-II Project will receive CD-1 approval in September/October 2011.

SIGNIFICANT CONCERNS AND MITIGATIONS

- Operation of LCLS for users may need to be curtailed if funding falls below the minimal requirements that have been communicated to BES. *Mitigation:* Contingency plans are being prepared for several funding scenarios, which will minimize risk to the LCLS program over the long term.
- If SSRL's funding is below its normal operating needs, it will severely curtail SSRL's ability to face emergencies or upgrade its assets. In particular, SSRL will be unable to make accelerator modifications to reduce RF risk. *Mitigation:* Contingency plans are being prepared for reduced funding scenarios in order to minimize the impact on user operations.
- Funding for full utilization of FACET remains a challenge. *Mitigation:* A proposal to operate FACET as a National User Facility was prepared and funding discussions are ongoing with HEP program office.
- Accelerator Machine Development (MD) time is limited. *Mitigation:* Optimize use of available time, and further integrate the LCLS instrument scientist staff into MD planning.
- Photon Science requires better infrastructure for sustained growth. *Mitigation:* Acceleration of efforts to secure new laboratory space, including the Photon Science Laboratory Building.

Goal 3: Efficient and Effective Science and Technology Program Management

Science Program Office		Letter Grade	Numerical Score	Weight [†]	Weighted Score	Total Score
Office of Basic Energy Sciences						
3.1	Effective and Efficient Strategic Planning and Stewardship	A-	3.6	40%	1.44	
3.2	Project/Program/Facilities Management	A	3.8	30%	1.14	
3.3	Communication and Responsiveness	A-	3.7	30%	1.11	
Overall BES Total						A-/ 3.69
Office of Biological and Environmental Research						
3.1	Effective and Efficient Strategic Planning and Stewardship	A-	3.6	20%	0.72	
3.2	Project/Program/Facilities Management	A-	3.6	30%	1.08	
3.3	Communication and Responsiveness	A-	3.6	50%	1.80	
Overall BER Total						A-/ 3.60
Office of High Energy Physics						
3.1	Effective and Efficient Strategic Planning and Stewardship	A-	3.5	40%	1.40	
3.2	Project/Program/Facilities Management	A-	3.7	40%	1.48	
3.3	Communication and Responsiveness	B+	3.1	20%	0.62	
Overall HEP Total						A- / 3.50

Science Program Office	Letter Grade	Numerical Score	Funding Weight	Weighted Score	Total Score
BES	A-	3.69	68%	2.51	
BER	A-	3.60	2%	0.07	
FES	✘	N/A	<1%	N/A	
HEP	A-	3.50	30%	1.05	
WDTS	✘	N/A	<1%	N/A	
Performance Goal 3.0					A-/ 3.6

MAJOR ACCOMPLISHMENTS

- Successfully recruited a well-credentialed and experienced ALD for Photon Science in Cynthia Friend; with faculty appointment in Photon Science at SLAC.
- Successful growth in Photon Science's Chemical and Materials Science Divisions through the Early Career Award to Dr. Markus Guehr (PULSE) and the recruitment of Prof. Harold Hwang to SLAC/Stanford (SIMES)
- Successful BES Program peer reviews of the LCLS and SSRL operations programs were completed.
- Deployment of common user portal for SSRL and LCLS users has been completed.
- SSRL launched its strategic planning process, building on input from its Scientific Advisory Committee (SAC), Machine Advisory Committee (MAC) and Users' Executive Committee (UEC) meetings.
- The SLAC Energy Taskforce developed a blueprint for future strategic portfolio development in the energy arena and the report has been finalized.
- An international Advisory Committee was established for the Particle Physics and Astrophysics Directorate.
- In October 2010, an external Accelerator Engineering Division review focused on operational efficiency.
- Collaborations with Argonne National Laboratory and Lawrence Berkeley National Laboratory (LBNL) on a potential \$20M+ Injector Test Facility (ITF) and an FEL R&D Program focused on seeded radiation and polarized beams were developed.
- An ALD for the Accelerator Directorate was successfully recruited and appointed.

STATUS OF NOTABLE OUTCOME(S)

- BES: Implement strong, coordinated programs within SLAC's new division structure. (Obj. 3.2)
 - PS Materials Science Division completed strategic plan with four defined strategic goals and science objectives and connectivity elements, guiding strategic diversification and future investment.
 - PS Chemical Sciences Division developing coordinated future growth opportunities in areas that include catalysis research, theory and simulation and LCLS-related science.
- BES: Develop a strategic vision to fully utilize LCLS and to expand the Laboratory's photon science program. (Obj. 3.2)
 - SSRL and PS staff worked closely with LCLS staff in the commissioning and early science of the first four LCLS instruments (AMO, SXR, XPP and CXI) and in planning for/commissioning of the remaining two instruments (XCS and MEC).
 - PS and SSRL host LCLS collaborators and users providing access to off-line infrastructure such as bio/chem. laboratories, off-line characterization tools and setup space. SSRL also provides access to beam lines for commissioning of LCLS instruments and LCLS optics development.
 - SLAC will develop Injector Test Facility (ITF) strategic plan in collaboration with LBNL in the next few years.
- HEP: Develop and execute a plan to align the size and scope of the HEP research program with the planned resource constraints for FY 2011 and 2012. (Obj. 3.2)
 - Particle physics, particle astrophysics and accelerator research plans for different FY12 funding scenarios have been developed.
 - PPA Faculty and senior scientific staff conducted a retreat to examine and identify priorities for future opportunities in intensity frontier physics.
 - Future accelerator research plans, their alignment with the SLAC mission and funding sources are being developed.
 - SLAC is developing a framework to use Work for Others Programs to support SLAC infrastructure.

SIGNIFICANT CONCERNS AND MITIGATIONS

- Budget uncertainties remain. *Mitigation:* Various scenarios have been developed to deal with possible funding level outcomes so as to minimize impact on scientific productivity
- Photon Science must enlarge its portfolio and also expand its scope: *Mitigation:* Closer coupling to the physical and biological research and engineering at Stanford in support of Laboratory growth strategy. Target new programs with Office of Science and other agency sponsorship.

Goal 4: Provide Sound and Competent Leadership and Stewardship of the Laboratory

Element	Letter Grade	Numeric Score	Objective Weight	Weighted Score	Total	
4	Provide Sound and Competent Leadership and Stewardship of the Laboratory (Goal Weight: 25%)					
4.1	Leadership and Stewardship of the Laboratory	A	4.0	33%	1.32	
4.2	Management and Operation of the Laboratory	A	4.0	33%	1.32	
4.3	Contractor Value-added	A	4.0	34%	1.36	
Performance Goal 4 Total					A / 4.0	

SLAC has markedly improved its leadership ability by recruiting key leaders, performing succession planning for the next generation of leaders, and proposing an Executive Variable Pay program to the DOE. An Office of Planning and Assessment was formed to improve Strategic Planning, Assessment and Continuous Improvement. SLAC has initiated its own sustainability plan and played a significant DOE-wide role in that regard.

MAJOR ACCOMPLISHMENTS

- SLAC has recruited six key senior leaders, all well-credentialed and experienced:
 - ALD for Accelerator Directorate, Norbert Holtkamp; with appointment as a joint Photon Science/Particle Physics and Astrophysics faculty member at SLAC
 - ALD for Photon Science, Cynthia Friend; with appointment as a Photon Science Faculty member at SLAC
 - Chief Finance Officer, Linda Rakow; Stanford Business Affairs was instrumental with the search
 - Communications Director, Farnaz Khadem; Stanford Communications provided critical help in the search and recruitment
 - ES&H Director and Chief Safety Officer, Jim Tarpinian; Stanford EH&S was instrumental in helping with the search
 - Head of Scientific Computing, Amber Boehnlein
- SLAC has created a new office, Planning and Assessment, as a collaborative element of the integrated assurance model with Stanford and SSO. Craig Ferguson is the founding director of this office.
- Redesigned Executive Variable Pay ensuring senior management goals set, weighted, and aligned with the Laboratory Agenda is pending DOE Contracting Officer approval.
- SLAC completed a thorough succession planning process for all ALD positions.
- Recruited Internal and External communications leaders to execute the Communications Strategic Plan in order to increase awareness of SLAC within the community and beyond.

STATUS OF NOTABLE OUTCOME(S)

- Demonstrate the use of the full suite of resources at their disposal (including the expertise of laboratory scientists and engineers) to develop innovative, crosscutting strategies for meeting the Executive Order 13514 Goals. (Objectives 4.2, 4.3)
 - Developed and delivered a SLAC Site Sustainability Plan to DOE.
 - An active program is in place in collaboration with SSO to identify projects with a positive return on investment as well as staff behavioral changes that will reduce generation of green house gases at SLAC. Established the Sustainability Transformation Team, which includes representation from Senior Management, Facilities and DOE/SSO.
 - Hired two energy program engineers.
 - SLAC has been a key leader in developing the Office of Science sustainability approach regarding high energy mission-specific facilities and in articulating the SC-wide portfolio approach.

- Fill critical management positions in mission and mission-support areas. (Objectives 4.2)
 - See Major Accomplishments above.
- Implement a Contractor Assurance System (CAS) in accordance with Clause H.42¹ of the prime contract. (Objective 4.2)
 - Finalized both the SLAC Laboratory Management Plan and Quality Assurance Plan, strengthening critical elements of the Contractor Assurance System.
 - Established the Director's Assurance Council to identify, evaluate, integrate and manage institutional risk.
 - The elements of the CAS are established and implemented, though the level of maturity varies. The Office of Science CAS peer review is scheduled for January 2012.

SIGNIFICANT CONCERNS AND MITIGATIONS

- The search for a new Computing Division Director/Chief Information Officer (CIO) has begun. SLAC has named Mark Reichanadter, Deputy COO, as the interim Director/CIO during the search process.

¹ Error note: The Prime Contract clause is actually H.033.

Goal 5: Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health and Environmental Protection

Element	Letter Grade	Numeric Score	Objective Weight	Weighted Score	Total	
5	Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection (Goal Weight: 20%)					
5.1	Provide an Efficient and Effective Health and Safety Program	A-	3.7	50%	1.85	
5.2	Provide Efficient and Effective Environmental Management System	B+	3.3	50%	1.65	
Performance Goal 5 Total					A- / 3.5	

SLAC continues to demonstrate its commitment to maintain a safe and healthy workforce and responsibly steward its environment. Health services has been markedly improved to the benefit of the Laboratory’s work. Safety issues are being dealt with early, with increased emphasis on ergonomics. The oversight of SLAC’s subcontractors continues to receive strong Laboratory management attention.

MAJOR ACCOMPLISHMENTS

- To improve health services, Occupational Medicine services were transitioned to the Stanford University Occupational Health Center (OHC). Quality and quantity of services have improved and SLAC staff have benefited from integration with the Stanford health environment; 700 of the 1,600 SLAC personnel have participated in the Stanford Be Well program.
- Total visits/consultations (occupational and non-occupational) to Occupational Medicine have doubled. Case management has helped to reduce severity of injuries:
 - Lost days per DART from 17.4 (FY07-09) to 7 (FY11)
 - Ratio of TRCs that become DARTs from 70% (FY06-10) to 52% (FY 11)
- An unacceptable rate of low-speed vehicle accidents (no injuries) of 12 per quarter was reduced to 2 per quarter, correlated with a safety stand-down and mandatory training for all 850 vehicle drivers, along with increased driver accountability. This training is now for all employees.
- SLAC has proactively collaborated with the EM ID/IQ contractor to ensure needed site remediation, significantly reducing the potential risk associated with legacy soil and groundwater contamination, and improving the relationship with the regulator.
- Accomplishments in sustainability are mentioned in Goal 4. Additionally:
 - SSRL replaced a chiller reducing the inventory of a Class I Ozone Depleting Substance by 600 lbs.
 - A bottled water reduction pilot was saving \$24K and with a projected reduction of 86,000 disposable bottles over a five-year period.

STATUS OF NOTABLE OUTCOME(S)

- Commence disposition of excess materials using protocols formerly covered by the moratorium. (Objective 5.2)
 - SLAC has successfully completed the FY11 goals:
 - § Disassembly of the BaBar detector has been safely completed on schedule. The transition of PEP-II accelerator to the minimum maintenance state was completed, and the first set of PEP-II and BaBar metal components to be released for recycling was prepared.
 - § Protocols for radiological release of CSBs and metals from the Boneyard, the BaBar detector and the PEP-II accelerator were prepared and reviewed by peers from CERN, Stanford University and other DOE laboratories. These protocols include radiological survey procedures, measurement

protocols and technical basis documents for release of these materials from radiological control at SLAC.

- § Following verification and validation (V&V) of RP procedures and survey records by the SSO, 87 large CSBs from the SLAC Boneyard were released for disposal in December 2010. Over 300 of the remaining blocks still at SLAC have been fully radiologically characterized and are ready to be released.
- § The first batches of accelerator metals at SLAC to be released since the DOE moratorium took effect in CY2000 have been surveyed and processed, including a 20 cubic-yard container of PEP-II aluminum cables, and three, three cubic-yard containers with BaBar cables and wires. These materials have been radiologically characterized. The release process has also undergone an extensive V&V by SSO. The materials are ready for release and have been shipped.
- § SLAC has ordered a radiation portal monitor that will be installed by December 2011, enabling an increase in the number of shipments of materials from both the PEP-II accelerator and the BaBar detector.

SIGNIFICANT CONCERNS AND MITIGATIONS

- SLAC has experienced an increase in the number of recordable cases; half of which are ergonomic in nature. There have been 28 recordable cases (TRC rate ~1.8), and 15 DART cases. SLAC has been increasing awareness of ergonomics, and increased reporting is typical during early stages of a proactive ergonomic program. Early reporting and treatment minimizes lost workdays and lost productivity, and there has been only one lost workday associated with the above cases compared to an average of 31 lost days per year over the last five years for similar cases.
- There have been several incidents this year involving construction subcontractors that are of concern. In January 2011, a SLAC subcontractor was air pressure testing and not following prescribed work planning and control (WPC) procedures, which resulted in a potentially serious injury. In September 2011, a roofing subcontractor had a near miss that could have resulted in a severe injury by using modified equipment and poor WPC. In both cases, SLAC issued Stop Work orders and contractual Cure Letters to the subcontractors, and conducted thorough investigations. With the increasing construction activities now underway and continuing for the next several years, SLAC's oversight activities on construction subcontractors will need to be vigilant.

Goal 6: Deliver Efficient, Effective and Responsive Business Systems and Resources and Enable the Successful Achievement of the Laboratory Mission(s)

Element	Letter Grade	Numeric Score	Objective Weight	Weighted Score	Total	
6	Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s) (Goal Weight: 40%)					
6.1	B-	2.7	35%	0.95		
6.2	A-	3.6	20%	0.72		
6.3	B+	3.4	10%	0.34		
6.4	A-	3.7	20%	0.74		
6.5	A-	3.7	10%	0.37		
6.6	B-	2.6	5%	0.13		
Performance Goal 6 Total					B+ / 3.3	

The SLAC financial controls environment has been improved and is now meeting expectations. Significant improvements have been made in both financial and administrative systems. Progress on Business Systems has been slowed mostly as a result of SLAC attempts to ensure a Best Value procurement. Nevertheless, significant improvements in financial, procurement, human resource processes and IT systems continue to improve critical Laboratory services. The Stanford/SLAC retirement analysis and recommendation is close to closure.

MAJOR ACCOMPLISHMENTS

- The Financial Controls environment of SLAC is much improved:
 - Home-grown systems (e.g. ARF) have been retired with needed functionality integrated into core PeopleSoft.
 - Rigorous procedures and policies, formalized checklists, enhanced internal management review, and more user training have all been implemented.
 - The FY09 and FY10 Allowable Cost audits were completed in FY11. While these did contain expected repeat findings from the FY08 audit, that audit had only been issued in June 2010. In their reports, Internal Audit and Institutional Compliance (IAIC) noted, "SLAC management has been very active in responding to our audit findings and is currently implementing the appropriate corrective actions presented in the FY 2008 report. SLAC has made significant progress toward improving internal controls ..."
- Business system improvements have been made including direct deposit of reimbursements; laboratory-wide budgeting and reporting; eShop online marketplace providing access to hundreds of manufacturers and thousands of items; and online time and effort reporting is in its final pilot stage.
- In September 2011, SLAC determined it would pursue strategic sourcing of its needed business systems through a formal RFP process. This culminated the RFI process utilizing an independent contractor to document business requirements.
- The procurement environment at SLAC is also much improved:

- PERT review, June 2011, resulted in zero findings and observations
- Procurement authority was increased, reducing time to procure
- DOE awarded SLAC its Outstanding M&O Small Business Achievement Award for demonstrating the greatest improvement in small business awards in the M&O complex
- All FY11 balanced scorecard metrics with cost savings of over \$9.6 million nearly doubled the FY11 goal
- The Contracts & Policy Manager and SCM Compliance Manager positions were hired to ensure the quality and control of procurement processes.
- SLAC's Technology Transfer supported the identification of ten possible inventions, six of which may result in patenting and commercialization by Stanford and DOE. Four provisional or regular patent applications were filed by Stanford related to SLAC inventions.
- SLAC strengthened its Human Resources processes including:
 - On-line systems for both applicant tracking and objective-based performance evaluation.
 - Improved recruitment including sourcing and screening of candidates and targeted recruitment of underrepresented groups for identified job categories.
 - Reduced layers of management with consistent scopes of authority and delegation.
 - New manager orientation and managerial skills development program.
- As described in Goal 4, SLAC created the Office of Planning and Assessment (OPA) in FY11. OPA is responsible for developing and coordinating the Laboratory's integrated strategic planning and performance process, and for supporting line organizations with business planning, continuous improvement resources and performance measurement.
- The computing and telecommunications environment at SLAC has been improved by the:
 - Formation of Scientific Computing Steering Committee and large investments in the scientific computing support infrastructure and implementation of a financial support model for ongoing operations.
 - Central deployment of workstation support personnel to increase standardization of the IT environment.
 - Upgrade of the central telephone switch.
- A strategic approach to improved internal and external communications has been developed and SLAC Today has been totally revamped.
- Improved financial controls as documented by Stanford University Internal Audit results.

STATUS OF NOTABLE OUTCOME(S)

- Improve financial management systems consistent with current business practices and an associated Plan of Action and Milestones (POAM). (Objective 6.1)
 - A rigorous and thorough business systems feasibility analysis was concluded including the the use of an independent consultant; analysis of options, recommendation and plan resulted in a decision to issue an RFP for the future of SLAC Business Systems.
 - Also see Major Accomplishments.
- Demonstrate efficient and effective execution of all American Recovery and Reinvestment Act (ARRA) activities at the Laboratory. (Objective 6.2)
 - All ARRA projects were performed on-cost and on-schedule and met rigorous Federal reporting requirements, with notable examples including the SSRL seismic upgrade and infrastructure upgrade projects.
 - Audits by Federal OIG and the Stanford University Internal Audit team, as well as the A-133 PricewaterhouseCoopers audit were all completed with no major findings.

SIGNIFICANT CONCERNS AND MITIGATIONS

- Delivery of new business systems to SLAC is the highest operational priority. *Mitigation:* An RFP process is being implemented.
- SLAC has worked with Stanford to develop a clear understanding of issues related to SLAC's participation in the Stanford Retirement Annuity Plan and the associated SLAC liability. This will be presented to DOE within next few weeks.
- The Technology Transfer function will be improved; a respected subject matter expert has been contracted to analyze the function and develop a path forward. The needed support structure is being defined and pursued.

Goal 7: Sustain Excellence in Operating, Maintaining and Renewing the Facility and Infrastructure Portfolio to meet Laboratory Needs

Element	Letter Grade	Numeric Score	Objective Weight	Weighted Score	Total	
7	Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to Meet Laboratory Needs (Goal Weight: 15%)					
7.1	B+	3.4	50%	1.7		
7.2	A	3.9	50%	1.95		
Performance Goal 7 Total					A- / 3.7	

SLAC facilities are moving forward aggressively. The SLI program, associated Stanford contributions, and increased investments of SLAC indirect funding are directly addressing SLAC’s scientific objectives. The recent Mission Readiness peer review demonstrated the rigor of the SLAC approach and the SLAC project management environment is improved with some work still remaining. The deferred maintenance at SLAC, while being addressed at an appropriate priority, still leaves the residual risk of unexpected failures.

MAJOR ACCOMPLISHMENTS

- SLAC’s 2010 Long Range Development Plan was completed as a joint collaborative effort between SLAC and Stanford University Architect and campus planning team.
- Increased investment in infrastructure by 50% (from \$6M to \$9M) in FY11.
- Critical Capital Projects in support of SLAC’s scientific objectives continue to make move forward aggressively, on cost and schedule:
 - Research Support Building (RSB) project achieved CD-2/3A.
 - Building 28 construction has begun.
 - B041 final design is completed.
 - Building 52 design-build contract has been awarded and contractor has mobilized, trailers demolition is complete.
 - Science and User Support Building (SUSB) project achieved CD-0.
- Small projects improved, for example the SSRL seismic infrastructure upgrade mentioned in Goal 6.
- Agreement was reached between SLAC and Stanford for the proposed site for the Stanford Research Computing Facility (SRCF), went to the Board of Trustees for concept and design and was approved.
- Mission-readiness peer review was successful including recognition of the high-level support of Mission Readiness, its alignment with SLAC Agenda and integration of facilities planning and accountability into laboratory-wide planning.
- SLAC has enhanced its project support staffing profile, its ability to deliver projects and manage subcontractors, including five new project managers, three new building engineers, two systems engineers, policies and procedures manager and controlled documents specialist.
- Implemented Facility Transition Manager Plan to incorporate operations and maintenance requirements during the project planning and delivery process.
- Implemented Reliability-Centered Maintenance Program, with emphasis on predictive maintenance for some critical systems.
- Began multi-year program to update conventional infrastructure drawings to reflect current configuration.

STATUS OF NOTABLE OUTCOME(S)

- Create and utilize a reliable, robust and consistent project management methodology, ensuring a sufficient number of quality project managers are available. (Objective 7.1)
 - Defined R2A2s for project managers.
 - Formal project manager training, which includes Earned Value Management and purchasing, has been defined, implemented and continuously improved.
 - Hired skilled and trained project managers to support major capital projects and business systems projects (also see Major Accomplishments).
- Achieve CD-0 for at least one facility of the Signature Buildings Project. (Objective 7.2)
 - Achieved CD-0 for SUSB.
 - Significant progress to achieve CD-1 by March 2012; Conceptual Design Report for SUSB will be completed by December 2011.

SIGNIFICANT CONCERNS AND MITIGATIONS

- SLAC-wide indirect project funding limitations increase the risk of infrastructure failure. Gradual renewal of the infrastructure will minimize single-point failure potentials and improve maintenance efficiencies.
- The availability of quality project managers (PMs) for smaller projects continues to be of concern. SLAC is developing an incentive program for PMs, along with a PM development and training program to raise the level of competency of this key resource.

Goal 8: Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems

Element	Letter Grade	Numeric Score	Objective Weight	Weighted Score	Total	
8	Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems (Goal Weight: 10%)					
8.1	B+	3.3	25%	0.83		
8.2	B	3.0	25%	0.75		
8.3	B+	3.4	25%	0.85		
8.4	B+	3.3	25%	0.83		
Performance Goal 8 Total					B+ /3.3	

SLAC, in close partnership with SC and HSS, is modernizing its Site Access controls. Emergency response has been practiced and demonstrated successfully. Improvements have been made in Cyber Security, but a recent SLAC self-assessment indicates further improvements are needed.

MAJOR ACCOMPLISHMENTS

- Dramatic improvements in SLAC site access and security are being realized:
 - New Badging Office has been constructed, occupied and is now in service, including a new visitor parking lot.
 - SLAC DOE HSS and DOE SC are aggressive in the design and implementation of the Security Access infrastructure project; the project is on track and has been successfully reviewed.
- Favorable Safeguards & Security (S&S) Peer Review Assessment was completed. This was the first of its kind S&S peer review in the Office of Science and will serve as a template for future peer reviews in the complex.
- Development and implementation of the Emergency Response Organization (ERO) continues to make improvements. During FY11, there were two full successful exercises to test the program:
 - In October, SLAC participated with the rest of Stanford University in the first ever University-wide evacuation exercise.
 - In May, SLAC participated in a DOE-initiated No Notice Exercise.
- The SLAC Cyber Security environment continues to improve:
 - Most issues raised in the 2010 and 2011 OIG FISMA review on Configuration and Vulnerability Management of Desktop Systems have been closed.
 - A SLAC self-assessment of its Cyber Security profile has been conducted.
 - SLAC identified that some staff members and guests were accessing inappropriate websites via the SLAC network. SLAC has now procured a web proxy appliance from BlueCoat that is capable of automatically blocking access to malware and inappropriate websites.

STATUS OF NOTABLE OUTCOME(S)

- Implement the planned State-of-the-Art Security Upgrade. (Objective 8.3)
 - Working with SSO, DOE HSS and HSS contractors (NSTech) successful progress has been made:
 - § Phase 1 addresses site access, including the perimeter of the site, full automation of Alpine Gate and the implementation of a license plate reader system for Sand Hill Gate. Worked with SSO, HSS and DOE SC to secure \$400+K in funding to implement this phase. Installation activities on Phase 1 began in Q4 and all of the civil construction and installation work is complete.

- § Phase 2 scope was fully developed, including interior gates, fences, key buildings and Conduct of Operations documentation. Worked with SSO, HSS and DOE SC to secure \$800+K in funding to implement this phase during FY12.
- § Also see Major Accomplishments above.
- Provide an Efficient and Effective System for the Protection of Classified and Sensitive Information (Objective 8.4)
 - SLAC has had no breaches of Personally Identifiable Information. A new system, Bluecoat, has been purchased and will provide additional security by blocking unsafe websites.

SIGNIFICANT CONCERNS AND MITIGATIONS

- Programming of the security database will require integration of SLAC's Training Database, and workload demands on the Computing Division are challenging to secure programmer and project manager resources. ES&H and Computing leadership coordinated.
- The just-completed SLAC self-assessment of its Cyber Security profile has identified vulnerabilities that must be prioritized and addressed via a risk-based approach.

PERFORMANCE SCORE SUMMARY

Science and Technology

		Letter Grade	Numerical Score	Weight [†]	Total Score
1	Provide for Efficient and Effective Mission Accomplishment	A-	3.7	TBD%	
2	Provide for Efficient and Effective Design, Fabrication, Construction and Operations of Research Facilities	A	3.8	TBD%	
3	Provide Effective and Efficient Science and Technology Program Management	A-	3.6	TBD%	
Science and Technology Score					

Leadership and Stewardship

		Letter Grade	Numerical Score
4	Provide Sound and Competent Leadership and Stewardship of the Laboratory*	A	4.0

Management and Operations

		Letter Grade	Numerical Score	Weight	Weighted Score	Total
5	Sustain Excellence and Enhance Effectiveness of Integrated Safety, Health, and Environmental Protection	A-	3.5	20%	0.70	
6	Deliver Efficient, Effective, and Responsive Business Systems and Resources that Enable the Successful Achievement of the Laboratory Mission(s)	B+	3.3	40%	1.32	
7	Sustain Excellence in Operating, Maintaining, and Renewing the Facility and Infrastructure Portfolio to meet Laboratory Needs	A-	3.7	30%	1.11	
8	Sustain and Enhance the Effectiveness of Integrated Safeguards and Security Management (ISSM) and Emergency Management Systems	B+	3.3	10%	0.33	
Management and Operations Score						A-/ 3.5

S&T and M&O Score Calculation

	Numerical Score	Weight	
S&T Score		0.75	
Goal 4.0 Score	4.0	0.25	
Final S&T Score			
M&O Score	3.5	0.75	
Goal 4.0 Score	4.0	0.25	
Final M&O Score			A-/3.6

[†]The final weights to be utilized for determining the overall S&T score will be determined following the end of the performance period and will be based on actual cost for FY 2011.

* The Goal 4 score will only be used as an adjustment factor to determine the final S&T and M&O scores for the laboratory as shown in the *S&T and M&O Score Calculation* table.