



Priorities for Fiscal Year 2017

PURPOSE

The Southwest Fisheries Science Center (SWFSC) FY13-17 Strategic Plan establishes our strategic direction, as guided by NOAA and NMFS goals and priorities. This FY17 Priorities document describes the current fiscal setting and challenges under which the SWFSC operates to meet its mission. The FY17 Priorities also provides direction to meet the requirements of legislative mandates, Science Program Reviews, the West Coast Regional Office, the Pacific Fishery Management Council, and others while also recognizing the importance of emerging and evolving strategic congressional and agency drivers. Finally, the FY17 Priorities links to some of the ongoing FY16 activities currently advancing SWFSC Strategic Goals and specific FY17 activities that will address emerging priorities.

FISCAL AND ORGANIZATIONAL LANDSCAPE

The FY16 Congressionally approved budget funded the Center in some areas slightly above our FY15 level, which has helped offset some of the increasing cost of Center operations. The funds also reflect a national emphasis on recovery of ESA-listed species, ecosystem-based solutions for fisheries management (EBFM), and expanding annual stock assessments. Much of the work already completed for these could not be accomplished without leveraging our partnerships. We recognize the need for continued collaboration with academia, cooperative institutes, federal and state partners, and the private sector in order to meet our mandates. We will continue to pursue these relationships wherever possible to leverage external funding that supports NMFS core priorities and advances mission-oriented research. FY16 reimbursable funding from other federal and state agencies showed an increase from the previous year as a direct result of support for salmonid recovery, ESA and MMPA activities (e.g., abalone, cetaceans, pinnipeds) and aquaculture.

In FY16 NOAA proposed and Congress approved a restructuring of its budget to permit greater flexibility in applying resources to meet NMFS's emerging programmatic and organizational requirements. These changes place emphasis on maintaining transparency and accountability internally and externally for prioritizing activities to best meet our goals. As in previous years, the Center's budgeting process accounts for the previous year's allocation, current year priorities, budgetary decisions made by NMFS, and input from the NMFS Science Board regarding requirements of Regions and Science Centers.

NOAA's [FY17 budget request](#) included modest additional increases to support NMFS's four main sub-programs of Protected Resources Science and Management, Fisheries

Science Management, Habitat Conservation and Restoration, and Enforcement. As a result, we expect the SWFSC's FY17 budget to remain relatively unchanged. However, within our allocation, our emphases will be on West Coast ESA-listed Species in the Spotlight, ecosystem-based solutions, understanding climate impacts, increased data management capabilities, enhanced survey and assessment methodology, and aquaculture. Congress holds the final decision on NOAA Fisheries' budget and at the time of this FY17 Priorities publication, congressional discussions are ongoing. However, ongoing discussions of the budgets proposed by NOAA and Congress, and the changes in administration in 2017, it is prudent to plan for a Continuing Resolution with level or slightly reduced funding. Given this uncertainty, it is important the Center strategically prioritize activities.

Prioritization of Center activities will also facilitate a better understanding of staffing requirements needed to meet mission goals. Leadership understands that an uncertain budget situation, coupled with a shrinking federal workforce and increased mission responsibilities, has placed extra demands on existing personnel. We recognize these organizational challenges and are committed to working with Divisional leadership to find more effective ways to recruit, retain, and develop the personnel required to meet strategic science goals.

MEETING AGENCY AND LEGISLATIVE MANDATES

In FY16, legislative mandates, DOC, NOAA, and [NMFS strategic priorities](#) did not change substantially from previous years. Congress has directed NMFS to be responsive to the requirements contained in the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA) and U.S. Antarctic Marine Living Resources (AMLR) Convention Act of 1984 supporting the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The SWFSC is also driven by Department and Agency strategic priorities and emerging innovative initiatives. An example being the [“Species in the Spotlight: Survive to Thrive”](#) initiative that requires SWFSC to identify and prioritize the conservation needs of four of eight high-profile ESA-listed endangered species (white abalone, Pacific leatherback turtles, Sacramento River winter-run Chinook, and Central California Coast Coho), with a fifth one (southern resident killer whales) done in collaboration with the NWFSC. Additionally, SWFSC will continue to work closely with the West Coast Regional Office (WCRO) to address priorities specified in the [WCRO Strategic Plan](#). We will also continue to advance and track implementation of activities under the science research themes (RT) outlined in the NOAA Fisheries Strategic Plan through our own SWFSC Strategic Plan. The main SWFSC Research Themes focused on in FY16 have been:

- Population assessment (RT1)
- Ecosystem analysis (RT2)
- Observations, measurements and surveys (RT3)
- Technological innovation and development (RT4)

Many of the activities executed in FY16 ([see Appendix](#)) substantially contributed to the NMFS research themes which emphasize sustainability of fisheries, protected species

and habitats; understanding impacts of climate change; data integration supporting resilient fishing economies, and understanding ecosystems.

MAINTAINING STRATEGIC RELEVANCE

In addition to legislative and Agency requirements, the Center must also respond to emerging issues that maintain its relevance as a leader in “generating the scientific information necessary for the conservation and management of the region’s living marine resources”. This is particularly significant as NOAA continues to emphasize its vision of resiliency in the face of short-term and long-term environmental change. Immediate examples being the [Protected Species \(Fish\) Science Program Review](#) which emphasized more scientific coordination between the NWFSC and SWFSC and integration of human dimensions into recovery efforts; the [Protected Species \(Mammals/Turtles\) Science Program Review](#) which highlighted the need to develop an integrated agency-wide program for the management of marine protected species genetics samples; and the recent 2016 [Ecosystem Science Program Review](#) which emphasized the need for continued integration of our climate and ecosystem modeling capabilities to better build predictive capabilities and for conducting ecosystem modeling in house. The following three broader initiatives are intended to provide additional guidance to Divisions in prioritizing activities for FY17:

1. NMFS Climate Science Strategy
2. Ecosystem-Based Fisheries Management
3. Public Access to Research Results

The [NMFS Climate Science Strategy \(NCSS\)](#) and the associated [Western Regional Action Plan \(WRAP\)](#) provide a framework and guidance for the types of activities that will help fulfill the generation of and access to increased NOAA Fisheries climate-related research and products. The guidance outlines seven key objectives to meet the informational needs of climate-related challenges and highlights both immediate and near-term actions for consideration. The WRAP outlines efforts underway to increase the production, delivery, and use of the climate-related information required to fulfill our mission. The WRAP conforms to a nationally consistent framework that guides efforts by NOAA Fisheries and partners to address the agency’s climate-related information needs.

The [Ecosystem-Based Fisheries Management \(EBFM\)](#) Policy established earlier this year, defines EBFM and strives to communicate the benefits and legal authorities related to Living Marine Resources (LMR) management. The policy provides a context of six guiding principles that should facilitate the rapid establishment of EBFM as an integrated and adaptive management strategy to better understand interactions that are affecting the California Current Living Marine Ecosystem (CCLME). An ***Ecosystem-Based Fisheries Management Road Map*** is also being completed that describes actions, that together with existing [Integrated Ecosystem Assessments \(IEA\)](#) approaches will help establish EBFM and provide the SWFSC a research framework to meet ecosystem-based mission goals.

The [Public Access to Research Results \(PARR\)](#) Memo issued in 2013 by the White House Office of Science and Technology Policy (OSTP) aims to increase access to federally funded scientific research. The PARR Memo is just one of the several overarching [Environmental Data Management](#) policies applicable for federal scientists and data managers. The SWFSC is fundamentally a scientific data and information producing organization and we will continue to place emphasis on the proper management of generated scientific data to facilitate transparency, communications, and above all, greater collaboration across agencies, with academia, cooperative institutes, NGOs and the public and private sectors.

ORGANIZATIONAL EXCELLENCE

In FY17, we will emphasize creatively acknowledging the efforts of personnel. Our people are our most important asset and the new SWFSC Workforce Collaboration Team will be actively working on new approaches to employee recognition. Emphasis will also be placed on evaluating personnel resources required to meet science objectives, communicating staffing requirements to Center leadership to develop focused strategic staffing plans, and to consider succession planning for key positions. We will also foster ways to increase diversity and inclusion in our workplaces.

Additionally, the organization should be looking for increased efficiencies by reviewing administrative office processes including operating procedures, travel, procurement, hiring, and budget. Efficiencies can also be realized by implementing cost-effective mechanisms for managing our internal and external Information Technology Services that will enable faster implementation of efficient IT services (e.g., N-wave, new data storage capacity). Finally, leadership from all Divisions should engage in Center strategic planning in order to accomplish core mandates and identify and respond to strategic priorities as they emerge in the face of resource constraints. Center and Division leadership is committed to this view and will be working in FY17 to fully implement a robust Science Plan implementation process, using planning tools to prioritize and execute mission-oriented activities.

APPENDIX: Divisional FY16 accomplishments and plans for FY17

The following reflect the SWFSC Divisions' priorities. Each Division assesses its accomplished multiple milestones in FY16 and outlines planned accomplishments for FY17.

Antarctic Ecosystem Research Division (AERD)

FY16 Accomplishments

In FY16, AERD focused on conducting science relevant to the management of the Antarctic krill fishery in the region surrounding the Antarctic Peninsula. By the end of FY16, major accomplishments toward achieving this overarching research objective will have included:

- completion of the 5th U.S. AMLR survey, marking the end of the AERD's first stanza of winter ecosystem studies and comprising the longest time-series record of such studies in the Antarctic (RT3);
- development of a feedback management (and EBFM) strategy that includes candidate decision rules for adjustment of krill-fishery removals based on observations of krill-predator success (RT2, RT3, RT4), and
- continuation or initiation of several multi-year projects, including development of an integrated krill stock assessment model, expanded monitoring of krill-dependent predators using remote, autonomous camera systems, and study of Antarctic toothfish movements in the Ross Sea (RT1, RT2, RT3, RT4).

FY17 Priorities

AERD's FY17 priorities will continue to be informed by internal AERD and SWFSC planning processes and constituents' needs for scientific advice, as well as the 2016 review of our krill stock assessment by the Center for Independent Experts and the results of the 2016 External Review of SWFSC Ecosystem Science. In addition, work by the Division will be consistent with and advance key national initiatives such as EBFM, NCSS and PARR.

FY17 is pivotal in AERD's implementation of its strategic plan to enable continuation of priority research and monitoring relevant to the management of the krill fishery in the Antarctic Peninsula region while in a constrained budget environment. This strategy hinges on suspending its annual U.S. AMLR survey schedule in FY17, enabling AERD to capitalize a new summer survey that will occur in two of every three years beginning in FY18. Suspending the survey in FY17 will also allow the AERD to fund other important science needs, including:

- disseminating program accomplishments and inject new ideas into the program from external researchers by increasing its participation at science meetings (RT1, RT2, RT3, PARR, EBFM, NCSS);
- increasing the technical capabilities of scientific equipment used at sea and in our

field camps (RT1, RT3, RT4, EBFM, NCSS);

- bolstering already substantial division scientific output by contracting additional scientific and technical expertise (RT1, RT2, RT3, RT4, EBFM, NCSS), and
- maintaining two field camps in the South Shetland Islands and other infrastructure critical to AMLR science. Specifically, AERD will begin executing a 3-year plan to renovate its Cape Shirreff field camp. (RT1, RT2, RT3, EBFM, NCSS).

The AERD will continue several multi-year projects including development of a feedback management strategy for the Antarctic krill fishery (RT2, RT3, RT4) and a krill stock assessment model (RT1), studying Antarctic toothfish movements (RT3) and providing data and scientific expertise in support of development of marine protected areas (MPAs) in the Ross Sea and Antarctic Peninsula regions (RT2, RT3, RT4). All of these efforts address U.S. stakeholder priorities and can achieve NMFS principles on EBFM and climate science by promoting resiliency to changing human and natural conditions, incorporating ecosystem considerations in management advice, explicitly evaluating tradeoffs of diverse stakeholders, elucidating the effects of fishing and climate, and increasing understanding of ecosystem- and climate-level processes.

Environmental Research Division (ERD)

FY16 Accomplishments

The Environmental Research Division (ERD) conducts research on climate and environmental variability and provides integrated data services for the sound management of trust species in the California Current Living Marine Ecosystem (CCLME) and the broader North Pacific. Major accomplishments toward achieving this overarching research objective included:

- collaborations with other Divisions from SWFSC, NWFSC and WCRO to provide integrated ecosystem reports and assessments for the development of (i) the State of the California Current Report in the annual CalCOFI Report and (ii) the State of the California Current Ecosystem Report delivered each March to the Pacific Fishery Management Council. This also included leading the transition from large pdf-based reports to dynamic web-based IEA products critical for more timely data availability to managers and regulators;
- provided significant input into the drafting of the Western Regional Action Plan (WRAP) the west coast component of the NOAA Fishery Climate Science Strategy Plan focusing on assessing climate impacts on fishery resources through modeling and research supporting multi-sector ecosystem based management;
- developed preliminary dynamic ocean management strategies that respond to changes in the ocean conditions and human demand through the integration of near real-time biological, oceanographic, social and/or economic data;
- released a new ERDDAP web-interface software with enhanced data searches, visualization and access via standardized requests providing data in various formats, maps, and graphs for increased efficiency;
- co-lead the FY16 SWFSC Ecosystem Science Review.

FY17 Priorities

ERD's FY17 priorities will continue to be informed by SWFSC internal planning processes, final recommendations of the 2016 review of SWFSC Ecosystem Science, and advancement of key national initiatives such as EBFM, NCSS / WRAP and PARR. ERD will continue to focus on supporting continued ecosystem modeling and development of integrated products made available through enhanced data access tools. Provide for enhanced ecosystem and climate modeling activities.

The ERD will invest in enhanced modeling capabilities recommended by the Ecosystem Science Program Review and vital components of both the Western Regional Action Plan (WRAP) and the Ecosystem-Based Fisheries Roadmap. Focus will be on fully developing the California Current Integrated Ecosystem Assessment (CCIEA) tool to move ecosystem approaches to fisheries management towards projecting broad-scale biological and physical conditions in the California Current. Other important FY17 surveys and scientific research includes:

- implementation of the Ecosystem Science Review recommendations;
- develop multi-sector dynamic ocean management applications;
- pursue the joint hire with OAR/ESRL of an ecosystem modeler
- further development and release of the web-based dynamic access and plotting of CCIEA Indicators;
- support IEA Indicator Workshops and meetings (PFMC indicator workshops and Channel Islands National Marine Sanctuary Indicators for the Condition Report);
- stand-up PolarWatch to serve NOAA satellite data and derived products for the Polar Regions;
- continue developing ERDDAP and CoastWatch services to enhance PARR;
- conduct a 3-day Satellite Oceanography course which explores the various environmental satellite datasets available and how data can be used with ArcGIS, Matlab, R or other analytical software;
- support Fisheries And The Environment (FATE) activities to develop and evaluate ecological indicators important for quantifying long-term environmental variability.

Fisheries Ecology Division (FED)

FY16 Accomplishments

In FY16, FED focused on conducting science supporting mandates of the MSA and ESA to provide scientific assessments and advice for managing fish stocks and recovery of protected species. Major accomplishments toward achieving this research objective included:

- development, CIE review and application of a Sacramento River winter-run Chinook salmon life cycle model to support the NMFS biological opinion on California WaterFix and emergency drought operations;
- significant contribution to the development of the Western Regional Action Plan (WRAP), outlining the center's future directions in climate-related research;

- successfully helped resolve fish health problems and improve release practices at Kingfisher Flat Hatchery, bolstering recovery of Central California Coast (CCC) Coho salmon;
- completed 5-year status review updates for California ESA-listed salmon ESUs;
- completed 33rd annual rockfish recruitment survey, green sturgeon abundance survey, deployment and testing of large-scale PIT tag arrays in the Delta;
- published 50 papers (Oct 2015-May 2016).

FY17 Priorities

FED's FY17 priorities continue to be informed by internal planning processes and recommendations of the 2015 West Coast Protected Fish Species Program Review, Species in the Spotlight initiatives, as well as advancement of key national initiatives such as EBFM, NCSS/WRAP and PARR. FED will continue to enhance life cycle model development, integrate human dimensions, assess the impacts of harvest actions on recovery objectives, contribute to the CCIEA, assist with salmon hatchery reform efforts, and better understand implications of climate projections for species recovery objectives.

Species in the Spotlight: FED will focus on scientific support for Winter-run Chinook Salmon and Central California Coast Coho Salmon identified as two of eight ESA listed species for which immediate efforts are critical for preventing extinction. For Winter-run Chinook, FED will focus on development and application of decision support tools and tagging studies to support the NMFS biological opinion on California WaterFix, drought planning, fisheries management and real-time water operations. For CCC Coho, FED will continue to work with partners to support and improve conservation hatcheries and habitat restoration projects. The SWFSC has been identified as a lead partner for several key actions including water temperature and biological modeling, restoration of biologically valuable habitat and improvement of juvenile survival rates through enhanced modeling.

Other important FY17 surveys and scientific research include:

- large-scale study of predation on salmon in the Delta to better understand migration mortality;
- expansion of salmonid tagging program into the Carmel River for enhanced life cycle monitoring;
- stock assessments of CA Chinook salmon and ~3 groundfish stocks supporting MSA and ESA mandates;
- external review of the FED economics research program to improve integration, identify best practices, and share successes and challenges within our science enterprise; and,
- development of range-wide molecular genetic and analytical platforms for efficient stock and individual identification of Pacific salmon using high throughput DNA sequencing.

Fisheries Resources Division (FRD)

FY16 Accomplishments

In FY16, FRD focused on conducting science directly supporting mandates of the MSA and ESA to provide scientific assessments and advice for managing fish stocks and recovery of protected species. Major accomplishments toward achieving this research objective included:

- transition from EK60 to EK80 high precision wideband echo sounder to enhance target information for fish stock assessments;
- contributed to an analysis of seabed classification using acoustic model parameters important for characterizing, mapping, and quantifying potential seabed habitat for improved population estimates by incorporating more precise habitat information into survey design;
- provided substantial tuna, billfish and shark stock assessment information to the Stock Assessment and Fisheries Evaluation (SAFE) Reports in support of the Pacific Fishery Management Council as well as Tuna Regional Fisheries Management Organizations (RFMO);
- completed the *Assessment of the Pacific Sardine Resource in 2016 for U.S.A. Management in 2016-17* based on input from STAR Review and recommendations from the Pacific Fishery Management Council (PFMC) Scientific and Statistical Committee (SSC);
- provided environmental, biological and economic data to the development of the California Current Integrated Ecosystem Assessment (CCIEA) State of the California Current Report, 2016 to the Pacific Fishery Management Council;
- contributed data collection, processing and analysis to the CalCOFI Program; participated on ISC species working groups to provide leadership, data, and scientific advice in support of international fishery management organizations, including IATTC and WCPFC.

FY17 Priorities

FRD's FY17 priorities continue to be informed by internal planning processes and recommendations of the 2016 Ecosystem Science Review, Species in the Spotlight initiatives, mandates of the MSA and ESA, advancement of key national initiatives such as EBFM, NCSS/WRAP and PARR, and continued attention to the assessment of HMS such as Pacific Bluefin tuna and North Pacific Albacore.

Species in the Spotlight: FRD will focus on scientific support for White Abalone identified as one of eight ESA listed species for which immediate efforts are critical for preventing extinction. FRD will focus on several key actions including identifying its role for the expansion of a captive breeding program, contributing to a successful outplanting program, monitoring white abalone population in the wild, and identifying, characterizing and prioritizing potential white abalone habitat.

In collaboration with our international partners in the ISC, IATTC and WCPFC, the FRD will continue its efforts on Pacific Bluefin tuna, including the implementation of Close-Kin

Genetic methods to obtain fishery-independent estimates of population abundance, and the FRD will also initiate a Management Strategy Evaluation (MSE) for North Pacific albacore.

Other important FY17 surveys and scientific research include:

- continue to support stock assessments for HMS and CPS, the CCIEA State of the California Current Report, 2017, data collection, processing and analysis for the CalCOFI Program and assessments of sardines and anchovies in the California Current;
- execute actions from the National Saltwater Recreational Fisheries Implementation Plan to promote improved recreational fisheries data collection and reporting;
- expand managed fish stock climate vulnerability analyses and incorporate guidance on changing climate information into management practices;
- continue work to prioritize fish stock assessment on the Pacific Coast;
- evaluate survey and other data collection mechanisms for their utility in detecting change for transboundary species (US and Mexico);
- support for life history and habitat ecology, age and growth, reproductive biology, and status of trends for all trust species;
- provide biological information on CPS and HMS for CCIEA effort, including abundance, trophic ecology, fishery-dependent data management, economics, extraction, aquaculture and management activities;
- continue advancing sampling technology through survey and research and development effort for enhanced distribution and abundance data;
- continue Pacific fishery capacity analyses and fishery-independent shark surveys;
- foster international cooperative research for efficient and effective data integration;
- HMS fisheries economic analyses, migration, stock structure and age and growth studies for use in stock assessments and management support;
- outreach for CPS, HMS and Advanced Technologies with constituents in the recreational and commercial fisheries industries.

Marine Mammal and Turtle Division (MMTD)

FY16 Accomplishments

In FY16, MMTD focused on field, laboratory, and analytical research to assess marine mammals and turtles according to the mandates of the MMPA and ESA, needs of WCRO and HQ Office of Protected Resources (OPR), and special agency initiatives (e.g., Species in the Spotlight). Major accomplishments included:

- conducted the Eastern North Pacific Gray Whale abundance and calf production surveys, representing time series of 50 and 22 years, respectively;
- conducted the “Collaborative Large Whale Survey” (maiden voyage of NOAA Ship *Reuben Lasker*) to clarify the spatial distribution and associated stock structure of foraging gray whales, and the critically endangered North Pacific Right Whale (the latter, in collaboration with AFSC);

- conducted the “Passive Acoustic Survey of Cetacean Abundance Levels” aboard NOAA Ship *Bell M. Shimada* to develop algorithms for identifying species-specific beaked whale vocalizations with an ultimate goal of using passive acoustics for beaked whale abundance estimates;
- conducted the central California Leatherback Turtle (a Species in the Spotlight) survey focused on abundance, life history, ecology and bycatch mitigation;
- conducted quarterly California Sea Lion diet sampling research, representing a time series of 36 years, and providing insight into Unusual Mortality Events and ecosystem-level changes in the California Current;
- conducted “Expedition Vaquita” at the request of, and in collaboration with, Mexico’s Department of the Environment, to estimate abundance of this critically endangered species; published results of the survey and associated five-year acoustic monitoring program;
- completed a special issue of *Marine Mammal Science* on use of genetic data to define subspecies;
- conducted an aerial survey for Loggerhead Turtles in the southern California bight to help refine the implementation of the El Niño-triggered time-area closure within the Loggerhead Conservation Area;
- continued field research on green sea turtle demography and habitat use in southern California;
- developed a dolphin acoustic classifier algorithm for passive acoustic data collected during the 2014 “California Current Cetacean & Ecosystem Assessment Survey”;
- updated and validated predictive habitat-based density models for 25 cetacean species/species groups in the California Current Ecosystem and the central Pacific to facilitate assessment of potential impacts from U.S. Navy testing and training operations and develop mitigation measures; and,
- conducted field work designed to assess health and condition of cetaceans using hexacopters and photogrammetric analyses, including seasonal sampling of endangered Southern Resident Killer Whales (a Species in the Spotlight).

FY17 Priorities

MMTD’s FY17 priorities continue to be informed by internal (MMTD and SWFSC) planning processes, action items arising from NOAA Fisheries’ National 2015 review of Protected Species Science (<https://swfsc.noaa.gov/2015ProtectedMammalTurtleReview/>), advancement of key national initiatives, and science needs of the WCRO and OPR. Major priorities include:

- maintain critical time series (Eastern North Pacific Gray Whale calf production and abundance surveys; California Current Cetacean & Ecosystem Assessment Surveys; pinniped abundance and diet surveys; Green, Loggerhead, and Leatherback turtle ecological research) and resurrect those temporarily suspended due to lack of funds and infrastructure (e.g., Coastal Bottlenose Dolphin surveys);
- continue to clarify population structure of marine mammals and turtles;

- expand the use and development of advanced technologies (e.g., passive acoustics, unmanned aerial systems sampling, satellite telemetry, hormone assays, stable isotopes, next generation sequencing);
- further develop quantitative tools to facilitate implementation of MMPA and ESA; and,
- further develop formal partnerships with all Pacific-based science centers, U.S. Navy, Bureau of Ocean Energy Management, and USFWS to secure a sustainable program for conducting cetacean and ecosystem assessment surveys.

Operations and Management Division (O&M)

FY16 Accomplishments

O&M focused on activities related to support a variety of programmatic and administrative operations. Several key accomplishments include:

- Implemented a simplified Center budget structure to align with the new NMFS budget structure;
- Completed over 500 procurement actions including new and modified task orders on contracts, reimbursable agreements, establishment of new service contracts for seawater and facility needs, and numerous vessel charter and field support contracts;
- Oversaw management of the Center's Purchase Card Program with 90+ purchase cardholders;
- Served as the Center's sole Contracting Officer Technical Representatives on over a dozen contracts with a value of over \$30M dollars;
- Addressed ratifications (violations of the Anti-deficiency Act) for the research divisions and assured completion of the required corrective action plans;
- Began implementing the transition to full usage of the WebTA online time and attendance system;
- Completed several audits/reviews as part of ongoing efforts by NMFS and NOAA to increase internal controls on personnel, time/attendance, budget, fiscal integrity, security and acquisitions;
- Organized or provided eight Center-level trainings on a variety of topics, including procurement, purchase cards, travel, Core policy, supervisory training, appropriations law and safety;
- Participated in the national effort to create the NMFS Reimbursable and Other Agreements Handbook, which now serves as the definitive resource on reimbursable arrangements;
- Provided guidance and support to divisions on Human Resources matters throughout multiple NOAA Workforce Management transitions this year;
- Supported hundreds of travel trips, including many complex foreign travel trips involving back-to-back travel to multiple countries with different requirements;
- Implemented several facilities upgrade and modifications in support of the science mission;

- Completed the annual property inventory and oversaw the Center's property program;
- Provided library and graphics services, as well as Center education and outreach support; and,
- Continued weekly meetings with science divisions to communicate and troubleshoot on a variety of topics related to disciplines in the O&M Division

FY17 Priorities

O&M's FY17 priorities continue to be informed by internal controls reviews and processes, statutory and regulatory audits, and annual management control reviews. Maintaining core staff for budget, procurement, facilities, property, HR, travel, safety and library services will be the highest priority. In addition to these activities O&M will:

- contribute to help shape new NMFS approaches to addressing key areas of organizational risk and respond to requests for information from HQ;
- co-chair the new SWFSC Safety Committee;
- complete full transition to WebTA 4.2;
- continue to transition to the new budget structure;
- continue to assist the research divisions on Human Resources through the changing HR landscape in NOAA, including the implementation of the new HRConnect system; and,
- continue regular meetings with research divisions to troubleshoot issues on a variety of topics related to disciplines in the O&M Division

Information Technology Services (ITS)

FY16 Accomplishments

In FY16, ITS focused on modernizing core network computing and storage services to provide centralized data processing and storage of all SWFSC. ITS also addressed numerous DHS-mandated security compliance measures on all network and computing platforms to ensure a positive security posture for all SWFSC systems in compliance with FISMA, FITARA, PARR, and Archiving federal mandates. In addition, the ITS team upgraded all existing servers to the latest versions of Windows server and database platforms. ITS personnel also provided routine operational support to all Center personnel for daily operations. ITS leadership is now an integral part of the NMFS Fisheries Information Management Advisory Committee (FIMAC) and the HQ PARR Transition Team (PTT) to develop NMFS-wide standardized solutions for technical and procedural matters while ensuring SWFSC unique mission requirements are fully captured and addressed. Major accomplishments toward achieving these goals included:

- Procured and implemented PowerBroker to facilitate reduction of 300+ "Privileged user accounts" to support all Center applications in a secure and auditable environment;

- Designed and deployed a new modular enterprise-grade Dell “Blade” server farm that will provide high-speed virtualized computing platforms for scientific data processing;
- Designed and deployed a new modular enterprise-grade NetApp network storage arrays at La Jolla and Santa Cruz for centralization of all SWFSC data for more efficient use of storage and compliance with PARR and Archiving mandates;
- Designed and procured new state-of-the-art VoIP solution to all SWFSC sites for high-quality audio & video communications for all personnel;
- Deployed 100Mbps N-Wave connection to Santa Cruz lab; and,
- Supported the development of a NMFS-wide solutions to meet requirements of the Presidential Directive on Public Access to Research Results (PARR), and is leading a Pilot effort to evaluate and recommend the best platform for NMFS-wide deployment.

FY17 Priorities

The ITS Division’s FY17 priorities continue to be informed by internal planning processes and IT requirements of NOAA and NMFS Office of the Chief Information Officer (O-CIO), as well as facilitating the advancement of key national initiatives such as PARR and Archiving, while addressing SWFSC-specific ITS goals. In FY17, ITS will focus on further modernization efforts for all SWFSC computing resources, including hardware, software, and system virtualization. Other important FY17 activities planned for FY17 include:

- Continued core support services;
- Implementation of PTT-recommended solution for NMFS-wide PARR compliance based on results of Pilot effort in FY16;
- Support the creation of Center-wide and scientific division Data Management Plans (DMPs);
- Deployment of VoIP system at all sites that will provide voice & video; telecommunications capabilities for all SWFSC personnel, including full access of services on desk-lines, all PC/Mac computers, and all mobile devices;
- Deployment of 500Mbps network connectivity at La Jolla, Santa Cruz and Monterey;
- Phase I Intranet modernization implementation; and,
- Implementation of SWFSC-wide IT Advisory Board for division input on ITS goals and objectives in support of all scientific and administrative requirements.