



NOAA FISHERIES

Alaska Fisheries Science Center

“Whether it’s supporting science-based stewardship of living marine resources or supporting sound decision-making for human, ecological, and economic health, NOAA’s science enhances our understanding of our planet’s marine and coastal ecosystems.” – Dr. Kathryn Sullivan, NOAA Administrator and Under Secretary of Commerce for Oceans and Atmosphere

AFSC Priorities and Annual Guidance for Fiscal Year 2015 (FY15)

Purpose

The Alaska Fisheries Science Center’s current Science Plan (AFSC 2009) defines our vision, goals, and objectives. The purpose of this Guidance Memo is to focus the AFSC on the coming year’s programmatic priorities through our FY15 Implementation Process by balancing the Center’s mandates and stakeholder priorities with the fiscal outlook. In addition, this guidance will help position the Center for out-year (2-5 year) challenges and opportunities.

FY14 in Review

FY14 has proven to be an amazingly challenging year, and it’s shaping up to be demonstrative of why I am honored to be the Science and Research Director for the Alaska Fisheries Science Center. Even after an inauspicious start with the first government shutdown in 17 years, AFSC staff rallied, picked up where we left off, and continued on to accomplish an impressive suite of research and scientific support activities.

Despite these challenges, the AFSC will accomplish the following in FY14, including:

- complete key groundfish and crab stock assessment surveys in the Bering Sea and Gulf of Alaska (see sidebar);
- conduct surveys for key marine mammal stocks in Alaska, including Steller sea lions, northern fur seals, Cook Inlet beluga whales, and Arctic cetaceans;
- complete key process studies in the Gulf of Alaska, Aleutian Islands, and eastern Bering Sea Large Marine Ecosystems;
- produce a full suite of groundfish and shellfish stock assessments for the North Pacific Fishery Management Council (NPFMC);
- produce a full suite of marine mammal stock assessments for Alaska, as well as for some marine mammal stocks that occur along the U.S. West Coast;
- complete the third year of the restructured, partial-coverage observer program to collect fishery-dependent data on previously unobserved fleets and will transition the costs of this observer coverage to be supported predominantly by industry fees;

2014 Fish Surveys

Gulf of Alaska

- Winter Shelikof Strait and Shumagin Islands echo integration-trawl (EIT) surveys of walleye pollock
- Longline survey

Bering Sea and Aleutian Islands

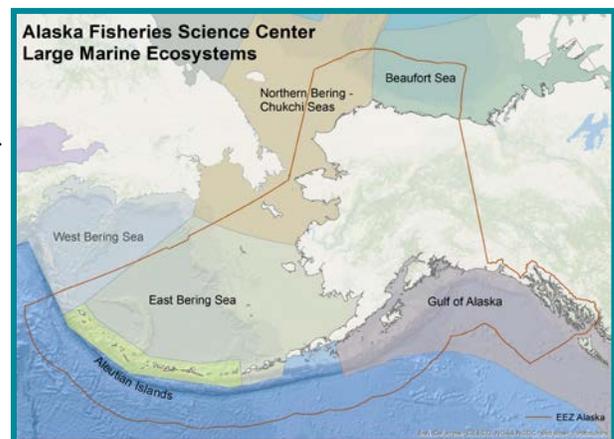
- Summer eastern Bering Sea EIT survey
- Winter Bogoslof Island EIT survey
- Annual bottom trawl survey of eastern Bering Sea continental shelf crab and groundfish stocks
- Biennial Aleutians Islands trawl survey of crab and groundfish stocks
- Spring recruitment processes ichthyoplankton survey in southeastern Bering Sea
- Bering Arctic Subarctic Integrated Survey (BASIS)

- collaborate with commercial fishers and private industry to further the national priority of utilizing electronic monitoring technologies to supplement observer coverage;
- conduct cooperative research to ground truth the presence and abundance of coral habitat inside and outside canyon areas in the eastern Bering Sea;
- complete the third, and final, year of the Alaska Deep-Sea Corals project;
- establish an AFSC Safety Council to better coordinate and communicate health and safety concerns, policies, and solutions;
- continue genetic stock identification of salmon bycatch from the Bering Sea and Gulf of Alaska;
- complete pelagic and coastal surveys of Arctic marine mammals, fish, and invertebrates and the habitats on which they depend; and
- conduct economic surveys of several commercial groundfish and crab fisheries, and of Alaska saltwater angler charter businesses.

AFSC Mission and Challenges

As we look to the future, I thought it would be first helpful to review the scope of the AFSC’s mission and some of the budget challenges we have and will be facing.

Geographical Challenges: The coastal oceans of Alaska under the AFSC’s research umbrella cover 66% of the U.S. Continental Shelf; 7 of the 11 Large Marine Ecosystems in U.S. waters¹; and total nearly 3 million square miles in the Gulf of Alaska, Bering Sea, Aleutian Islands, and the Arctic Ocean.



Economic Impact: Alaskan waters – and research conducted by the AFSC – support some of the most important commercial fisheries in the world. Alaska accounts for approximately half of the Nation’s fish catch by weight. The commercial catch in Alaska exceeds 2M metric tons with a value of nearly \$1.8B after initial processing. This economic benefit is spread across Alaska and the entire west coast of the United States. In addition, oil and gas development and production in Alaska is a key contributor to the U.S. goal of becoming energy independent.

¹ AFSC research is routinely conducted in the following LMEs: East Bering Sea, Gulf of Alaska, California Current, Aleutian Islands, Northern Bering-Chukchi Seas, and Beaufort Sea. The AFSC also occasionally conducts research in the West Bering Sea LME. (<http://lme.edc.uri.edu/LMEWeb/downloads/LME66.pdf>)

Fishery Stock Assessments: Alaska is unique across the country and elsewhere in that there are no fish or shellfish stocks subject to overfishing. This remarkable achievement is possible because of a combination of hard work and scientific excellence, where AFSC research addresses more than 250 fish and shellfish stocks and 41 marine mammal stocks distributed across 591,000 square miles of the U.S. Continental Shelf and adjacent pelagic waters. In 2013, the AFSC conducted 54 fish stock assessments. Of these, 31 were for stocks that are part of NOAA Fisheries' Fish Stock Sustainability Index (FSSI), out of a nationwide total of 68 FSSI index stocks.

*“Science is the foundation upon which sound management of ocean and coastal resources is based,” – Dr. John P. Holdren
Office of Science and Technology Policy
Director*



Fishery-Dependent and Independent Data Collection: In 2013, the AFSC deployed 467 observers for a total of 40,466 days at sea and 3,177 days at shore-side processing plants, involving 821 observer briefings and 684 debriefings. This represents about half the total observer effort nationwide that collects critical fishery-dependent data

essential for stock assessment and fishery management. In 2013, AFSC scientists, contractors, and colleagues from the International Pacific Halibut Commission and Alaska Department of Fish and Game spent over 2,300 person days at sea conducting resource surveys for Alaska fish and crab stock assessments.

Marine Mammal Stock Assessment: In 2013, the AFSC continued to monitor marine mammal trends in abundance for key stocks, including Steller sea lions, northern fur seals, Cook Inlet beluga whales, bowhead whales, and California sea lions. Such efforts are needed to understand and mitigate, as possible, the impacts of anthropogenic activities (e.g., commercial fishing, oil and gas development and production) and climate change. In addition, Alaska is unique in the U.S. in that Alaska Native subsistence hunters are allowed to harvest marine mammals for subsistence purposes under the Marine Mammal Protection Act and Endangered Species Act. Native communities are dependent on these resources for food and materials, as well as on income derived from the sale of handicrafts made from marine mammal skins, bone, and teeth. Research conducted by the AFSC is critical to ensure the sustainable use of marine mammals by the subsistence community in Alaska.

AFSC Budget Challenges

AFSC Budget Sources and History: There are three primary funding sources that support the AFSC’s research programs.

Allocated Funds: These are federal funds that are allocated to the AFSC to support our permanent labor costs, our facility costs, and a portion of our scientific operations.

The AFSC is constrained in how allocated funds are used. Within our allocation, our funds are comprised of dozens of budget lines called PPAs (Programs, Projects, and Activities). Each PPA has specific language tracing back to the original Congressional intent that limits the type of research that it can support. The PPAs can be grouped into five broad groups, described in the table to the right.

AFSC Funding Type in FY14 Allocation	Amount
Mammals	\$12,777,475
Fish	\$34,379,467
Enforcement / Observers	\$7,790,976
Habitat Conservation and Restoration	\$201,621
Other Activities Supporting Fisheries	\$4,785,304
AFSC Allocation:	\$59,934,843

Table 1: Groupings of PPAs supporting the AFSC.

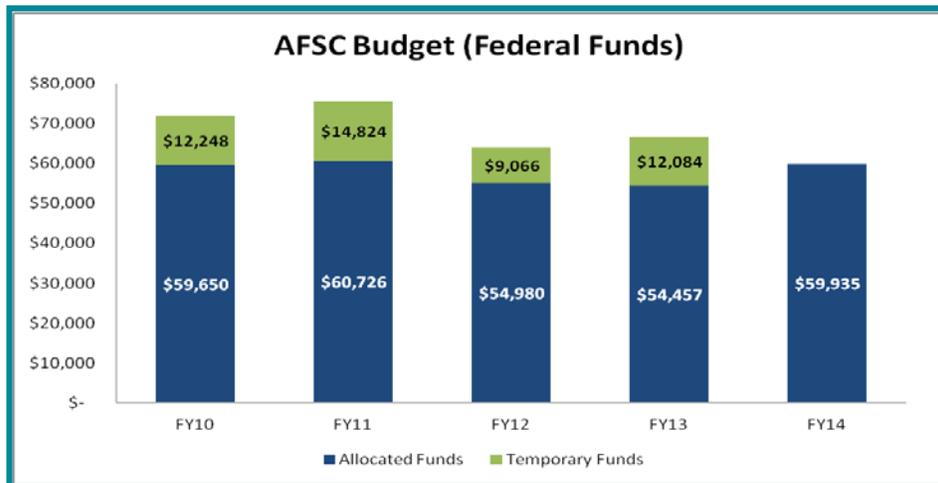


Figure 1: Federal funding of the AFSC in recent years. Note that the amount of temporary funds received in FY14 will be calculated at the end of the fiscal year.

The AFSC’s FY14 allocated budget increased by a modest 1.1% relative to FY13, with increases primarily targeting fishery observer and marine mammal activities. Additionally, we received allocations for some of our critical fish surveys which had previously been transferred to the AFSC on a

temporary year-to-year basis, making planning challenging. The NMFS Office of Science and Technology also restored funding for the AFSC’s Loss of Sea Ice (LOSI) program. This work was discontinued in 2010, and staff are refreshing the 2007 Implementation Plan for LOSI² to better reflect current research in this area and the new source of funding, which emphasizes stock assessment activities.

² Hollowed, A. B., R. P. Angliss, M. F. Sigler, B. A. Megrey, and D. H. Ito. 2007. Implementation plan for Loss of Sea Ice (LOSI) program. AFSC Processed Rep. 2007-5, 48 p. Alaska Fish. Sci. Cent., NOAA, Natl. Mar. Fish. Serv., 7600 Sand Point Way NE, Seattle WA 98115.

Temporary Funds: These are federal funds that are held by other NMFS Program Offices or by other NOAA Line Offices that are either awarded to the AFSC on a competitive basis through a Request for Proposals, or are provided for a particular need on a temporary basis. For example, the AFSC Fisheries-Oceanography Coordinated Investigations (FOCI) group receives a temporary transfer each year from the Office of Science and Technology’s Marine Ecosystems Program Office to help support their climate and ecosystem program. The competitive internal grants process run by many Headquarters’ offices are examples of temporary funding supporting the AFSC.

Reimbursable Funds: These are funds that come from outside of NOAA for specific projects. The majority of the AFSC’s reimbursable funds originate from other federal agencies (e.g., Department of the Interior’s Bureau of Ocean Energy Management), from other governmental agencies (e.g., State of Alaska), or from non-profit research institutions (e.g., North Pacific Research Board).



As has been the case in prior years, the AFSC’s research portfolio is heavily augmented by partnerships both inside and outside the agency to provide operational funding for critical research needs. These alliances continue to be especially important to our high-Arctic investigations, accelerating the collection of Arctic baseline data including habitat and living marine resource data through partnerships with the Bureau of Ocean Energy Management, the North Slope Borough, North Pacific Research Board, and the University of Alaska – Fairbanks.

Taken together, the three sources of funding provide for an AFSC research enterprise approaching nearly \$80M per year.

Abbreviated Budget Process: Each year, upon receipt of our allocation, we first ensure that labor and other fixed costs are covered. In FY14, this meant covering \$45M in labor and \$9M in additional fixed costs, for a total of \$54M in non-discretionary obligations. Fortunately in FY14 there were sufficient funds in all funding types to support these expenditures. That has not always been the case, and in those years, we have had to rely upon temporary money from Headquarters to support not only research activities, but for some of the fixed costs such as labor and facilities as well.

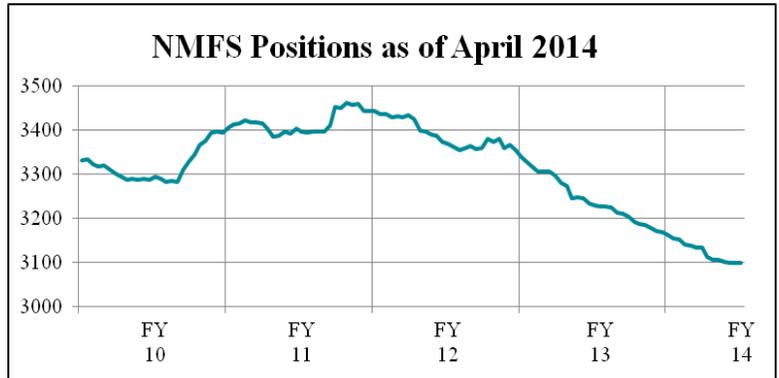
After fixed costs were covered, the types of funds left in our FY14 PPAs enabled us to fund about \$2.5M in marine mammal research activities (mostly pinniped and beluga whale research), about \$900K in observer activities (mostly contracted staff in critical positions), and about \$2.5M for the rest of the AFSC research activities. Given that the annual fishery surveys (trawl, acoustic, and longline) cost approximately \$5.2M, the AFSC was required to seek additional funds for their completion. This shortage on the “fish side” of the allocation includes a host of

Cost Category	Millions	Cumulative
Labor	\$45.0	\$45.0
Facilities	\$4.5	\$49.5
Other Must Pay (e.g., IT)	\$4.5	\$54.0
Marine Mammal Science	\$2.5	\$56.5
Observer Program	\$0.9	\$57.4
Major Fisheries Surveys	\$5.2	\$62.6
All other research and support activities	\$1.8	\$64.4

Table 2: Major cost categories of FY14 expenditures. Red items indicate costs above the AFSC's allocation.

other research activities needed to support the core management requirements of the NPFMC and NMFS Alaska Regional Office (AKR). For the balance, we are dependent upon Headquarters support each year through supplemental temporary money.

Recent Labor History: Declines in budgets between FY11 and FY13 and flat budget allocations in FY14 and anticipated in FY15 has led the AFSC to embark on a level-funded labor strategy, where our goal is to hold the AFSC total labor cost at \$45M. Given 3-4% growth in personnel costs each year, primarily due to salary increases stemming from the Commerce Alternative Personnel System (CAPS), the AFSC has had to drop over 60 Full Time Equivalent (FTE) positions (17% decline) since peak staffing levels in FY11 in order to maintain the constant \$45M in labor costs. The rest of NMFS also downsized in recent years, although not at the rate experienced by the AFSC (i.e., a 10% agency-wide reduction since FY11).



The reduced workforce has resulted in a contraction in the AFSC's science mission. This reduction has been felt in all Divisions and laboratories -- more acutely in some than in others. For example, longstanding Auke Bay Laboratories programs such as hydrocarbon research, ocean acidification, and nearshore habitat studies have diminished to the point that they are no longer viable research groups. Additionally, at the AFSC we recognize that workforce reductions have caused workload increases center-wide for remaining staff. For example, all of our critical survey programs within the Resource Assessment and Conservation Engineering Division are understaffed and all other Divisions are in need of additional administrative support positions.

Is the end of such a tight fiscal environment in sight? Are we at the point of stabilizing our workforce and our mission capacity (i.e., is the savings created by attrition sufficient to allow replacing staff at a 1:1 ratio while maintaining a constant labor cost)? Not quite yet, although the small budgetary growth (1.1%) we experienced in FY14 is a step in the right direction. Absent additional increases in our allocated budget, we will continue to use our science planning process to internally prioritize the allocation of resources towards critical core research activities to fit within our limited budget. Unfortunately, without budget increases and in order to ensure that our core research programs remain viable in the near-term, we will not be able to replace staff at the same rate as attrition. However, we are also continuing to communicate across the agency and to our stakeholders regarding the AFSC challenges to maintain the research needed to support 1) science-based stewardship in the waters off Alaska; and 2) activities associated with oil and gas production in the high-Arctic, while supporting the Alaska Native subsistence lifestyle.

FY15 Budget Outlook

The FY15 President’s Budget Request for NOAA recognizes the importance of science-based stewardship of living marine resources and the need for information to support sound decision-making for human, ecological, and economic health. The budget request provides support and improvements to our network of observations, forecasts, and assessments – information termed “environmental intelligence” – which is the core of our mission. For NMFS, and specifically NMFS in Alaska, the FY15 Budget Request includes increased funding to the following:

- develop and implement electronic monitoring and reporting technologies that enhance monitoring of catch and bycatch;
- strengthen fishery stock assessment capacity and increase the number of “next generation stock assessments” which incorporate ecosystem data into assessment models; and
- increase observations in the Arctic region through expansion of the Distributed Biological Observatory (DBO) to improve understanding of how climate is affecting subsistence cultures and the environment.

The FY15 President’s Budget Request is only the first step in a long appropriations process. At the AFSC we are undertaking a series of planning scenarios, which will include the President’s Request and any Congressional budget marks that are released, as well as receiving flat funding levels. .

FY15 Priorities: Research, Collaboration, Partnerships, and Outreach

Our general priorities are to maintain support for the two AFSC core research foci, namely: 1) maintain the information and capabilities needed to support the assessments required for the federal management of fish, shellfish, and marine mammal stocks; and to 2) provide ecological and socioeconomic information to the NPFMC and AKR to inform and evaluate management decisions and support quota monitoring and analyses required by legal and regulatory processes.

To further our continued focus on core assessments, we must prepare for the future. To do so, we will better align ecosystem process studies with stock assessments. Additionally, we will emphasize improvement of our science programs by continuing efforts to incorporate environmental effects into selected stock assessments and providing improved observational methods through the use of advanced sampling technologies.

NOAA’s Five-Year Research and Development Plan include the following Grand Science Challenges:

- *Understand and characterize the role of the oceans in climate change and variability and the effects of climate changes on the ocean and coasts*
- *Assess and understand the roles of ecosystem processes and biodiversity in sustaining ecosystem service*

Our funding priorities in FY15 are as follows: 1) continued success of the observer program and progress with electronic monitoring capabilities; 2) operational funding for AFSC use of NOAA ship time and of pre-paid charter time; 3) sustained stock assessments of groundfish (including maintaining the longline and trawl surveys), shellfish, and protected species; 4) research on process studies related to linking recruitment of commercially important species to environmental change, including climate change; 5) research on the western population of Steller sea lions; 6) high-Arctic research on marine mammals, fish, and habitat including the Bering Arctic Subarctic Integrated Survey (BASIS) data collected as part of the DBO, and our

commitments to the Arctic Ecosystem Integrated Survey (Arctic Eis); 7) 20-year climate forecasts for commercially-important fish and shellfish populations; 8) bycatch reduction research; 9) research in response to the FY13 and FY14 Program Reviews on fishery stock assessment data and science; and 10) fulfilling our commitments to the Bureau of Ocean and Energy Management (in support of NOAA permit reviews of oil and gas explorations and development) and the North Pacific Research Board, including the Gulf of Alaska Integrated Ecosystem Research Program (GOA IERP).

Collaboration will continue to be strongly encouraged wherever possible, connecting areas of strength across Divisions and Laboratories to increase success in securing external funds; communication with stakeholders; interdisciplinary, modeling, and synthesis components of research activities; and overall research impact. Examples of research areas naturally disposed to cross-Divisional collaborations include Arctic activities; research on populations listed under the Endangered Species Act and depleted populations of pinnipeds; fishery oceanographic and habitat research leading to improved stock assessments; and ecosystem modeling.

Partnerships and cooperative research will continue to be a mission priority at the AFSC. Following the FY14 NMFS guidance to focus on the core NOAA Fisheries mandates, the AFSC is committed to following three overarching principles regarding support for cooperative research: 1) focusing limited resources to maximize national benefits; 2) working closely with our state and tribal partners, as well as stakeholders in the industry and environmental community; and 3)

“With increasing demands on our ocean, we must improve how we work together, share information, and plan smartly to grow our economy, keep our ocean healthy, and enjoy the highest benefits from our ocean resources, now and in the future.” – Nancy Sutley, Chair of the Council on Environmental Quality and Co-Chair of the National Ocean Council.

making strategic choices consistent with the AFSC’s Science Plan. In support of that, the Science and Research Director’s office will continue to advocate for conference travel and travel associated with professional development, recognizing that travel policies implemented by NOAA must be neither counter-productive nor demoralizing to staff. That is particularly true in Alaska where 80% of communities can only be reached by a plane or ferry, and where most trips taken by AFSC staff in or to Alaska are in excess of 1,000 miles.

Alignment of Research Activities and Workforce Capabilities

As noted, under the President’s FY15 budget, we expect level funding to continue with a few small increases targeting specific research activities such as electronic monitoring and next generation stock assessment. However, we must also be prepared to respond to budget cuts on the order of 5-10% in FY15 overall or at least in some PPAs, depending on final budget allocations. In this environment, we will plan to use the following strategies to align our workforce capabilities and research activities.

1. Use of non-competitive reassignments where possible to fill labor shortfalls. Although some future workforce needs will require applicants external to the AFSC, we should be using non-competitive reassignments where possible as a way to contain labor costs while aligning workforce capabilities to mission needs.
2. Utilize the current AFSC Science and Implementation planning process to provide incentives for this workforce realignment through feedback on the relevancy of AFSC research activities to AFSC priorities and through connecting management support and access to

temporary funding, temporary allocation of ship time, and other research capabilities to AFSC priority research.

3. Develop Divisional organizational and workforce changes needed by FY17 that are responsive to the assumption of sustained level budget funding and a level labor cost ceiling.

Improvements for FY15

The Implementation Process and its resulting products provide a roadmap of how the AFSC will maintain high priority research, improve staff morale, support new research activities, maintain critical infrastructure and services, and phase out work that is expected to either be completed or that is of lower priority and can no longer be funded. The Implementation Process was expected to be iterative, and continues to be so with the following improvements initiated for FY15:

- 1) Finalize and implement the AFSC Science Plan version 2.0, drafted during FY14 to replace version 1.0 drafted in 2009.
- 2) Implement a specific program in response to staff morale issues identified in the recent Agency-wide survey.
- 3) Incorporate an ecosystem-based management (EBM) component to the new Science Plan to help prioritize the bulk of the non-core research activities and provide guidance to AFSC EBM research.
- 4) Adopt a database for compiling Activity Plans – particularly associated costs and funding type to enable the AFSC to respond more effectively to different budget calls, analyses, and opportunities.
- 5) Increase reliance of AFSC science execution on Activity Plans scores, informing decisions for ship time, budget allocations, and staffing.
- 6) Increase reliance on input and recommendations from the Alaska Regional Office regarding allocation of limited resources consistent with spending constraints imposed by Congress, Department of Commerce, and NOAA.
- 7) Refinement of AFSC science management to the project or Sub-Activity level.