



"...NOAA is one of the most valuable service agencies in the U.S. government. Through our network of observations, forecasts, and assessments, we strive to provide the foresight and information people need to live well and safely on this dynamic planet. – *Dr. Kathryn Sullivan, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator*

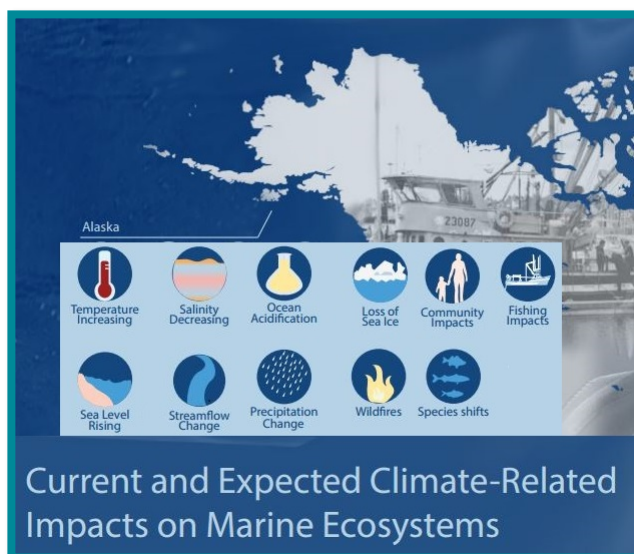
## AFSC Priorities and Annual Guidance for FY2017

### Purpose:

The Alaska Fisheries Science Center's current Science Plan (AFSC Science Plan 2.0, July 2016) 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 FY2017 Implementation Process by balancing the AFSC's mandates and stakeholder priorities with the fiscal outlook. In addition, this guidance will help position us for challenges and opportunities which will inevitably arise over the several years.

### AFSC Mission and Challenges:

The AFSC mission is guided and informed by a suite of strategic planning documents prepared by the Department of Commerce, NOAA, and NOAA Fisheries<sup>1</sup>. Broad policy objectives these plans which resonate at the AFSC include: "foster healthy and sustainable marine resources, habitats, and ecosystems," "listen and respond to stakeholder concerns," "ensure the productivity and sustainability of fisheries and fishing communities through science-based decision-making and compliance of regulations," "recover and conserve protected resources through the use of sound natural and social sciences," and "improve organizational excellence." A few specific guiding documents are discussed below.



The [National Ocean Policy Implementation Plan](#)<sup>2</sup> has identified specific research priorities pertaining the AFSC's mission, including: ensuring sustainable marine fisheries; determining the impacts of interacting stressors on ecological systems, economies, and communities; strengthening Arctic science and stewardship; and supporting coastal and marine spatial planning.

The [NOAA Fisheries' Climate Science Strategy](#) (August, 2015) is the national guidance that precipitated the AFSC Climate Science Strategy Alaska Regional Action Plan (ARAP) describing how the AFSC

<sup>1</sup> [Department of Commerce Strategic Plan \(2014-2018\)](#), [NOAA's Next Generation Strategic Plan \(2010\)](#), [NOAA's Annual Guidance Memorandum \(2014-2020\)](#), [NOAA Fisheries' Priorities and Annual Guidance \(2016\)](#), [NOAA Fisheries Climate Science Strategy \(2015\)](#), [National Strategy for the Arctic Region \(2013\)](#) and associated [Implementation Plan \(2014\)](#), and [NOAA's Arctic Action Plan \(2014\)](#).

<sup>2</sup> National Ocean Council, 2013

works to understand the impact of climate change on fisheries in Alaska. In the next several years, the AFSC will develop a Regional Action Plan (RAP) for each of our Large Marine Ecosystems. A draft of the first RAP on the [Southeastern Bering Sea LME](#) was released in February 2016.

NOAA Fisheries also identified eight “species” listed under the Endangered Species Act which are among the most at risk of extinction in the near future. As a result, the “Species in the Spotlight: Survive to Thrive” initiative was launched to provide a concerted agency-wide effort to spotlight and save these highly at-risk species. In Alaska, the Cook Inlet beluga whale population is the “Species in a Spotlight,” and the AFSC and Alaska Regional Office will prioritize funding new programs to promote the recovery of this population.



Finally, NOAA Fisheries has recently drafted a [report to Congress](#) that provides a five year outlook on the science enterprise and priorities under the four key research areas prescribed by Section 404 (Fisheries Research) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The areas are: 1) research to support fishery conservation and management; 2) conservation engineering research; 3) research on the fisheries (i.e., socio-economic research); and 4) information management research. This document also contributes to the identification of AFSC research priorities in FY2017.

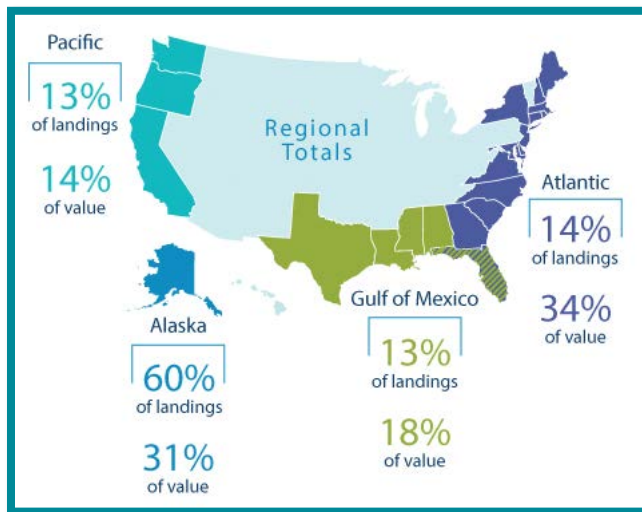
As we look to the future, it is helpful to review the scope of the AFSC mission and some of the budget challenges we have and will be facing.

**Geographical Challenges:** The coastal oceans of Alaska under the AFSC’s research umbrella cover 66 percent of the U.S. Continental Shelf; 7 of the 11 Large Marine Ecosystems in U.S. waters<sup>3</sup>; and total nearly 1.5 million square miles in the Gulf of Alaska, Bering Sea, Aleutian Islands, and the Arctic Ocean.



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<sup>3</sup> AFSC research is routinely conducted in the following 6 LMEs: East Bering Sea, Gulf of Alaska, Aleutian Islands, Northern Bering-Chukchi Seas, Beaufort Sea, and the California Current. The AFSC also occasionally conducts research in a seventh LME, the West Bering Sea LME. (<http://www.lme.noaa.gov/>)



**Economic Impact:** Alaskan waters – and research conducted by the AFSC – support some of the most important commercial fisheries in the world. Alaska accounts for more than half of the nation’s fish catch by weight, and a third of its commercial fishery value. This economic benefit is spread across Alaska and the entire west coast of the U.S. Alaska fisheries substantially contribute to the U.S. trade balance<sup>4</sup>. In addition, oil and gas development and production in Alaska is a key contributor to the U.S. goal of becoming energy independent.

**Fishery Stock Assessments:** Alaska is unique across the U.S. and elsewhere in that there are no fish or shellfish stocks subject to overfishing, and only one stock (Pribilof Islands Blue King Crab) is in an “overfished” status. 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 2017, the AFSC will conduct 55 groundfish and crab stock assessments, 32 of which are part of the fish stock sustainability index (FSSI), out of a nationwide total of 199 FSSI stocks.

**Fishery-Dependent and Independent Data Collection:** For the 2015 calendar year, staff conducted 93 training classes, ranging from 3-week trainings for new observers to 1-day briefings for returning observers. The AFSC deployed 478 observers, for a total of 46,640 days at sea and at processing facilities in the Bering Sea and Gulf of Alaska groundfish fisheries. These observers collected data on board 498 fixed gear and trawl vessels and at 7 processing facilities. This represents about half the total observer effort nationwide collecting critical fishery-dependent data enabling stock assessment and fishery management. Biological samples collected by observers included otoliths (ear bones), fish stomachs, tissue samples, and scales.



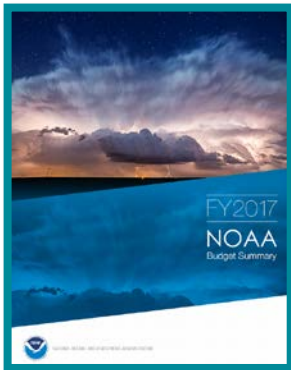
In 2015 AFSC scientists, contractors, colleagues and partners spent over 4,075 person days at sea conducting resource surveys for Alaska fish and crab stock assessments and important ecosystem research.

**Marine Mammal Stock Assessment:** In 2015 the AFSC continued to monitor marine mammal trends in abundance for key stocks, including Steller sea lions, northern fur seals, ice-associated seals, harbor 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 under the Marine

<sup>4</sup> [Fisheries of the United States, 2014](#)

Mammal Protection Act and Endangered Species Act to harvest marine mammals for subsistence purposes. Native communities are dependent on these resources for food and materials, as well as income derived from the sale of handicrafts made from marine mammal skins, bone, and teeth. Research conducted by the AFSC is critical to providing for sustainable usage of marine mammals by the subsistence community in Alaska.

In 2015, our scientists, contractors, colleagues, and partners spent 3,544 person days at sea, in the air, and on field camps conducting surveys supporting marine mammal population assessments and research projects to improve our understanding on marine mammal ecology and behavior, population dynamics, life history, and status and trends.



### FY2017 Budget Outlook

The FY2017 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” – that is the core of our mission. For NOAA Fisheries, and specifically NOAA Fisheries in Alaska, the FY2017 Budget Request requested increased funding to:

- Expand programs to strengthen consultation and permitting capacity required to meet mandates of the Endangered Species Act, Marine Mammal Protection Act, and Magnuson-Stevens Act;
- Support the development, testing, and installation of electronic monitoring and reporting technologies for fishery-dependent data collections;
- Expand programs in support of aquaculture in U.S. waters.

Also reflected in the FY2017 Budget Request is the implementation of NOAA Fisheries’ overall budget restructuring. The agency has consolidated many of our “Programs, Projects and Activities (PPAs)” to reduce the total number of budget lines in the appropriation. The result of this change will provide NOAA Fisheries more flexibility for mandates and mission activities that were previously supported by several PPAs.

The FY2017 President’s Budget Request is only the first step in a long appropriations process. At the AFSC we will review a series of planning scenarios, which will include the President’s Request, the budget mark-ups from the Senate and House, and a “flat-funding” scenario at FY2016 enacted spending levels. We will also explore options for addressing budget reductions of up to 5% relative to FY2016 enacted. This precautionary planning exercise will help us prepare for budget uncertainties as well as for increased agency-wide fee-for-service programs to improve NOAA corporate services on which we all rely.

## FY2017 Priorities: Research, Collaboration, and Sharing Research Results

Our general priorities at the AFSC are to maintain support for our two 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 (2) provide ecological and socioeconomic information responsive to the North Pacific Fishery Management Council and NMFS Alaska Regional Office (AKR) requests for scientific information to support management decisions, quota monitoring, analyses required by legal and regulatory processes.

The AFSC's core research foci are consistent with the core priorities of NOAA Fisheries: to ensure the productivity and sustainability of fisheries and fishing communities through science-based decision-making and compliance with regulations; to recover and conserve protected resources through the use of sound natural and social sciences; and to improve organizational excellence. Similarly, the challenges that NOAA Fisheries faces as a whole are being experienced by the AFSC, including: staffing shortfalls; inadequate ship time to meet all our mission objectives; dated infrastructure; and increasing responsibilities. It is these challenges that highlight the importance of prioritization, innovation, and efficiency.

To further our continued focus on core fishery assessments, we must prepare for the future. To do so, we must first address the continued loss of expertise in our fishery-independent survey groups due to retirements and eroding purchasing power of our base budget supporting these efforts. New employees must be recruited and trained if we are our current surveys are to be sustained.

We must also better align ecosystem process studies with stock assessments. Specifically, in FY2017, the AFSC will finalize and implement its Regional Action Plan (RAP) for the southeastern Bering Sea which describes the research needed to address the vulnerability of commercial fisheries to climate change in this LME. In FY2017, the AFSC has also agreed to develop a RAP for the Gulf of Alaska Large Marine Ecosystem. 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.

“...changes in marine ecosystems due to climate and other stressors are increasing the need for more advanced scientific assessments to sustain economically viable commercial and recreational fisheries and to ensure that threatened and endangered species are protected.” – *Dr. Kathryn Sullivan, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator*

## Public Access to Research Results

In FY2017, the AFSC will be focused on responding to requirements from the White House's Office of Science and Technology Policy to provide increased Public Access to Research Results (PARR). The goal of the PARR Policy is to allow the public to access publications and digital environmental data produced by federal researchers or by recipients of federal funds. In the near future, more aspects of data management – including making our data and data products available and accessible – will become routine components of planning and conducting our research. A PARR implementation plan will be finalized in FY2017 to address how the AFSC intends to achieve the information dissemination requirements. A tentative target date for making digital data used for management purposes available to the public across the agency is March 2018.

## FY2017 Funding Priorities for the AFSC

Funding priorities in FY2017 were determined after consultation with NOAA Fisheries Headquarters and the Alaska Regional Office. They include:

- 1) continued success of the observer program, including related prohibited species monitoring and progress with electronic monitoring capabilities;
- 2) sustained stock assessments of groundfish (including maintaining the longline, acoustic and trawl surveys), shellfish, and protected species;
- 3) research on process studies connecting climate effects to improved stock assessments, in particular for eastern Bering Sea and western Gulf of Alaska pollock, Bering Sea commercially-important flatfish, Gulf of Alaska sablefish, and ice-associated seals;
- 4) research on Cook Inlet beluga whales;
- 5) research that supports the Region's efforts to manage bycatch of salmon and halibut in groundfish fisheries in Alaska;
- 6) studies in response to the FY2013-2016 Science Program Reviews; and
- 7) fulfilling our commitments to our external partners with whom we have formal agreements.

## Internal Collaborations and External Partnerships

Collaboration will continue to be strongly encouraged wherever possible, connecting areas of strength across Divisions to increase success in securing external funds, communicating with stakeholders, conducting interdisciplinary modeling and synthesis components of research activities, and improving overall research impact. Examples of research areas naturally disposed to cross-Divisional collaboration 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, studies to improve electronic monitoring technologies, ecosystem modeling, and research directed at enhancing aquaculture practices in Alaska. The Activity Plan assessment criteria was revised in FY2016 to elevate scores for research activities exhibiting significant cross-divisional collaborations.

Partnerships and cooperative research will continue to be a mission priority at the AFSC. Following earlier guidance to focus on the core NOAA Fisheries mandates, the AFSC is committed to following three overarching principles regarding support for cooperative research and partnerships: (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 to maximize local benefits; and (3) making strategic choices consistent with the AFSC Science Plan.



## Alignment of Research Activities and Workforce Capabilities

As noted, under the President's FY2017 budget, we expect near-level funding to continue. However, we must also be prepared to respond to budget cuts on the order of 5% overall, depending on the final budget allocations. In this environment, we will continue to use the following strategies to align our workforce capabilities and research activities with fiscal realities:

- Use of non-competitive reassignments where possible to fill labor shortfalls. Although some future workforce needs will require applicants external to the AFSC, non-competitive reassignments will be used when possible, as a way to contain labor costs while aligning workforce capabilities to mission needs.
- 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 our priorities and through connecting management support and access to temporary funding, temporary allocation of ship time, and other research capabilities to AFSC priority research.
- Continue progress in process research integration through cross-Divisional staff integration in Recruitment Process Alliance prioritized research activities.
- Continue efforts to control federal and contract labor costs. Our current estimated cost of federal labor is \$44 million. Maintaining existing staffing commitments would likely result in an increase in labor costs of over \$1 million in FY2017 alone. Given the current fiscal environment, this will likely require the AFSC to continue to reduce its federal workforce through attrition from our current level of 326 positions to a level as low as 310-320.

"We are fortunate to have a highly skilled and passionate workforce. Our people come to work each day committed to serving the public and advancing our mission. Every one of our investments in the FY 2017 budget – from improving products and services to positioning ourselves for the future – will help the organization as a whole strive for excellence and deliver the environmental intelligence this country needs to better prepare for and respond to the growing environmental challenges we face." – *Eileen Sobeck, Assistant Administrator for Fisheries*

While it is almost certainly the case that the AFSC will have less operational funding available in FY2017 than we did in FY2016 (as was the case for FY2016 relative to FY2015), the base resources available to the AFSC to support research in waters off Alaska remain considerable. We envision being able to carry out most, if not all, of the five historically conducted fishery surveys. We will also continue to provide relative abundance information for Steller sea lions, northern fur seals, harbor seals, and Cook Inlet beluga whales. We will continue to train, debrief, and make available groundfish observers to the North Pacific groundfish fisheries, and will follow through on our pre-implementation plans for FY2017 for electronic monitoring in these fisheries. And, we will conduct a variety of process studies and climate change research that will contribute to the Agency's commitment to ecosystem-based fisheries management and to better understand the impacts of climate change on commercial fisheries. In addition, a significant number of research projects will be funded through reimbursable agreements with BOEM and NPRB, as well as with temporary funding from the NOAA Fisheries' Office of Science and Technology. While we will likely be doing less research overall in FY2017 relative to previous years, the selection of which programs will have to be reduced in scale or eliminated will be done strategically and transparently.