



# D4 AFSC Survey modernization and prioritization (SSC only)

April 2025

## Action Memo

- Council Staff: Dr. Diana Stram
- Other presenters: AFSC staff - Dr. Bob Foy, Dr. Lewis Barnett, Dr. Paul Spencer, Dr. Sean Rohan, Mr. Shawn Russell, Ms. Nicole Charriere, Dr. Stan Kotwicki, Dr. Meaghan Bryan, Mr. Chris Lunsford, Mr. Pat Malecha, Mr. Kevin Siwicke
- Action Required:
- a. Review AFSC modernization report on trawl and longline surveys; recommendations as needed
  - b. Review AFSC FY25 planned survey and longer term spatial and temporal report; recommendations as needed

## BACKGROUND

This agenda item addresses two survey-related topics. Alaska Fisheries Science Center (AFSC) staff will present an overview of the survey modernization efforts. The goal of this item is to provide updates and discussion on multiple aspects of the AFSC survey modernization efforts. Specific to the eastern Bering Sea bottom trawl survey, topics will focus on a new survey design covering the eastern and northern Bering Sea, incorporation of deeper stations, tow duration, new gear design and calibration, calibration of the time series, and transition timing. For the Alaska longline survey, AFSC staff will present the current challenges leading to the need to change the survey. Additionally, AFSC staff will present the FY25 survey plan, and considerations for the long term spatial and temporal distribution of survey coverage will be discussed.

As an additional resource for the SSC's discussion, a draft assessment/survey summary spreadsheet prepared by Council staff is posted to the eAgenda. This spreadsheet provides a listing of all BSAI/GOA groundfish and BSAI crab stock assessments, their tier levels, the surveys which are incorporated into the relevant assessments, ratio of TAC/ABC in 2023-2024, and a summary of elevated groundfish assessment risk table scores and categories in 2023-2024. For additional information on the rationale for and historical scores for risk table categories for all stocks, see the [Groundfish Risk Table Report: 2024 Update](#) which was provided under the SSC's December 2024 eAgenda.

This agenda item is being provided by the AFSC in response to the SSC's request. The SSC is not required to take any action. The AFSC will explain their current plan for moving forward on both initiatives. Upon reviewing materials and plans, the SSC has the opportunity to provide feedback as appropriate on any additional aspects for the AFSC to consider, and/or useful considerations or analyses for future planning.

Some background materials that may be of interest for context for this agenda item include the [October 2020 SSC report](#) on the Survey Loss Analysis completed by AFSC staff; and the 2018 report from the [NPFMC SSC Sub-Committee Meeting with AFSC on Trawl Survey Options and Priorities](#). Several additional published papers on analyses for the survey modernization work are listed below, with links for reference.

ICES. 2020. [ICES Workshop on Unexpected Survey Effort Reduction \(WKUSER\)](#). ICES Scientific Reports 2:72. 92pp.

ICES. 2023. [Workshop on Unavoidable Survey Effort Reduction 2 \(WKUSER2\)](#). ICES Scientific Reports 5:13. 115 pp.

Oyafuso, ZS, Barnett, LAK & Kotwicki S. 2021. [Incorporating spatiotemporal variability in multispecies survey design optimization addresses trade-offs in uncertainty](#). *ICES Journal of Marine Science* 78(3):1288–1300.

Oyafuso, ZS, Barnett, LAK, Siple, MC & Kotwicki S. 2022. [A flexible approach to optimizing the Gulf of Alaska groundfish bottom trawl survey design for abundance estimation](#). *U.S. Dep. Commer., NOAA Tech. Memo. NMFS-AFSC-434*, 142 p.

Oyafuso, ZS, Barnett, LAK, Siple, MC, Cooper, DW & S Kotwicki. 2023. [Simulation testing of alternative survey designs for the US Chukchi bottom trawl survey](#). *Frontiers in Marine Science* 10.

Vilas, D, Barnett, LAK, Punt, AE, Oyafuso, ZS, DeFilippo, LB, Siple, MC, Zacher, L & S Kotwicki. 2024. [Optimized stratified random surveys best estimate multispecies abundance in a rapidly changing ecosystem](#). *ICES Journal of Marine Science* fsae158.