

Working Group to Evaluate Integration of Industry Platforms with NEFSC Bottom Trawl Surveys

Current membership:

Chair: Wendy Gabriel

READ: Russ Brown, Kathy Sosebee, Chad Demarest

PEMAD: Phil Politis

EAD: Dave Packer (Habitat), Chris Melrose (Oceanography)

FRMD: John Hoey (Cooperative Research)

OMI: Nathan Keith, Teri Frady

DMS : Dave Chevrier

GARFO: Ryan Silva

SAC: Sarah Pike or designee

Background:

NOAA Fisheries is starting to evaluate alternative approaches to integrate fishing industry vessels with NEFSC Spring and Fall Bottom Trawl Surveys by the NOAA Ship *Henry B. Bigelow* in ways that maintain survey data collection quality and time series integrity. An internal NEFSC working group is being established to appraise a wide range of options for scientific and logistic feasibility. The group will work closely with the Northeast Trawl Advisory Panel (NTAP), and seek broader industry input via the Council process.

Terms of Reference:

1. Provide input on use of FY17 scheduled DAS on industry vessels relative to potential alternatives identified at 29 September NTAP Meeting (see below). Consider capabilities of contacted vessels. Develop pros and cons of each alternative relative to selected vessels.
2. Identify internal and external priorities and objectives (scientific, operational, outreach) that could be met through the use of industry vessels in conjunction with ecosystem/bottom trawl surveys. Identify a range of options to incorporate use of industry vessels to achieve these priorities and objectives. Consult and engage with the Northeast Trawl Survey Advisory Panel (NTAP) on all aspects of this process, on an ongoing basis. Document current survey performance standards. (For some options, all activities may not need to be carried out.)
 - Estimate time and labor required to meet components of TORs and communicate costs to the NEFSC Executive Staff
 - Document status quo data quality standards, practices, and protocols.
 - Review previous feasibility studies of moving fishery-independent surveys to industry platforms, and review results and recommendations of earlier program reviews.
 - Document statistical and operational performance metrics for calibrations to ensure continuity of time series.
 - Catalog and evaluate current research and monitoring products provided by the ecosystem/bottom trawl surveys on the Bigelow, as well as data collection activities that support research partners. Identify physical infrastructure required to maintain survey data collection quality (sensors, freezers, etc.)

- Identify issues which may require particular consideration and evaluation (e.g., standardization, station density, catchability, consistent availability of industry platforms over time).
- Identify operational strengths and weaknesses of current activities (e.g., staging, staffing). Identify operational strengths and weaknesses of options.
- Engage with Canada DFO relative to any transboundary management, research and survey interoperability objectives; and other stakeholders to identify any additional priorities and objectives.
- Identify possible future data needs not currently included in status quo data collection, e.g., based on NEFSC Strategic Plan, derived from emerging technologies, or identified by NTAP.

2. Identify safety and habitability requirements for scientific personnel on proposed survey vessel platforms, including safety training and requirements for HAZMAT use.
3. Identify required changes to hardware and software infrastructure, data products, and systems to be developed to support efficient accessibility of data products under each option, e.g., including implications for use of multiple vessels; and associated costs and benefits.
4. Review scientific and operational performance of industry-based surveys conducted in the Northeast, other regions and countries. Evaluate protocols used in industry-based surveys to standardize performance.
5. Evaluate the costs, benefits and likely success of each option, based on scientific and operational criteria identified by NEFSC and NTAP in TOR 1¹
 - Identify and execute key areas of research required to inform the evaluations (e.g., effect of autotrawl systems, effects on stock assessment uncertainty).
 - Evaluate costs of calibration studies to estimate conversion coefficients and expected frequency of such required studies (depending on option).
 - Evaluate costs/investments to maintain or enhance productivity.
 - Identify and provide narrative for preferred, non-preferred and rejected options..
6. Generate requirements for vessel and infrastructure capabilities for preferred and non-preferred options. Evaluate availability of suitable industry platforms. Develop timelines, milestones, deliverables, and budget projections to meet status quo data quality and continuity standards for preferred and non-preferred options.
7. Communicate working group progress monthly to NEFSC and GARFO Executive Staff, all NEFSC and GARFO staff, and NTAP members. Provide regular updates to the New England and Mid-Atlantic Fishery Management Councils.

¹ An external peer review may be appropriate after completion of Step 5.

List of Potential Alternatives (discussed at 29 September NTAP Meeting)

- A new twin-trawl survey
- A new flatfish survey
- Catchability studies to better apply Bigelow survey
- Augment/blend/reduce Bigelow with industry-based stations
 - Random
 - Strata-specific
 - “Habitat” specific
- Out of survey area (inshore or offshore)
- Develop industry capability to “step-in”
- Re-stratification of survey / re-stratification with industry vessels