



Stock Assessment Process Improvements

SEFSC-SFD and Center Leadership

SEDAR Steering Committee Meeting

March 24-26, 2024



Throughput and Timeliness

- In 2018, the SEFSC envisioned the RT/OA assessment

[SEDAR Research Track](#)

- We expected the RT/OA to:
 - Increase throughput by 10-20%
 - Improve quality as analysts will have time for rigorous, expansive analyses without the constraints of producing immediate management advice
 - Increase efficiency as data providers will not be asked to provide the most recent data in multiple formats
 - Increase 'reserve capacity' and flexibility to address unforeseen circumstances
 - Increase stakeholder involvement through cooperative research projects

RT/OA has not achieved its potential



- RT/OA process has **reduced throughput and timeliness**, and has **increased the burden on data providers**. Complete RT/OA cycle takes 3-4+ years!
- Panelists express concerns about the limitations imposed on data explorations
- Does not significantly increase integration of new science compared to benchmark assessment
- CIE Reviewers have expressed strong concerns about the lack of final datasets and model diagnostics
- Reserve capacity and flexibility not realized due to heavy burden on data providers, and difficulty scheduling the OA assessments that follow RT
- Emphasis on transparency and thoroughness is the primary bottleneck because it is extremely time-consuming for data providers



Data Provision Highlights

- Standardization and automation efforts have streamlined the provision of commercial finfish landings, recreational removals, length data, and observer data
- Improved coordination efforts and data scoping for SEFSC led operational assessments, including publicly accessible parameters page for each assessment (example for [SA Tilefish](#))
- Increased communication with data providers, analysts, and stock assessment leads, both within SEFSC and with partners
- Working papers documenting data analyses routinely provided, and many are automated
- Additional work needed to improve a few data provision processes (e.g. age composition and Gulf shrimp)



Clear need to improve process

During January and February 2024, SEFSC staff met with SAFMC and GMFMC staff to discuss Council objectives, and improvements to “SEDAR” to better meet them. Topics included:

- Identification of primary objectives
- Evaluation of trade-offs
- What has/hasn't worked
- Refinements to stock assessment process

Important Caveat: Assumed no increase in resources or staffing



Primary Council Objectives

SAFMC

- Timeliness (i.e. recency of TY)
- Flexibility to address issues that emerge
- Throughput – update ABCs every 1-2 years
 - MSE tested MPs/Interim Assessment
 - Routine updates of assessment and projections
 - DLMs
 - SAFE Reports
- Transparency and thoroughness as needed
- Do the assessment that is appropriate for the data. Right-size expectations of reviewers
- **Timeliness/Frequency > Thoroughness**

GMFMC

- Accuracy/Reproducibility
- Timeliness (i.e. recency of TY)
- Throughput
- Transparency as needed
- Automation/Access to data, including FI Indices
- “Long-lasting” catch advice
 - Interim assessment
 - Routine updates, etc
- Thoroughness
- **Accuracy > Timeliness**
- **Throughput > Complexity**



Primary Council Concerns

SAFMC

- Insufficient frequency and timeliness of management advice
- No flexibility or bandwidth to respond to an emerging issue
- Too long to put an assessment in the queue

GMFMC

- Insufficient frequency and timeliness of management advice
- Lack of access to key data streams leads to council requests
- Current process is insufficiently transparent (e.g. to allow external reviewers to reproduce results)
- TORs may not be met (the intentions)
- Documentation fragmented (e.g. final projections not in SEDAR report)



Recommended Changes

1) *Eliminate RT/OA process*

2) *Eliminate nomenclature and the slot concept -*

- An age structured assessment conducted without a DW, TWGs or CIE review takes about 6-9 months
- Choose the project “add-ons” and develop appropriate calendar
 - Stock ID Workshop adds ~6 months
 - Data Workshop adds ~3 months
 - Each Assessment Webinar adds ~1 month
 - Incorporation of new information/Each TWGs adds ~1-3 months
 - CIE review adds ~1-3 months
 - Rework for SSC adds at least 3-4 months (due to frequency of SSC meetings)



Recommended Changes

3) Identify “Key Stocks” and prioritize them

- Declare priorities two-years in advance, but no need to lock in detailed calendars
- This would allow more flexibility to address changing priorities/emerging needs

4) Remaining stocks could be assessed using less time-consuming approaches

- Stock assessments with limited webinars/workshops
- Update assessments or updated projections
- Less complex assessment approaches, data limited methods and interim assessment/MPs



What could this look like?

- You cannot have flexibility and full transparency and also create a long-term calendar that maximizes throughput
- We envision establishing a process where the Center communicates frequently with Council Staff to develop project schedules and insert them into the planning calendar at first opportunity

Hypothetical Planning Example

		2026												2027											
LEAD	SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1 & 2	Key Stock #1	Data Prep			Data Workshop			TWG 1	TWG 2	TWG 3	AW 1	AW 2	AW 3	AW 4	AW 5	Assessment Work			CIE Review			SSC Rework			
3	Key Stock #2	2025						Data Prep			Data Workshop			TWG 1	AW 1	AW 2	AW 3	Assessment Work			SSC Rework				
4	Other #1	Data Prep			Assessment Work			SSC Rework																	
5	Other #2	2025												Data Prep			Assessment Work			SSC Rework					

This example assumes that we have 4 leads (or 5, with one assessment requiring two leads). Note - Lead 3 and 5 are completing an assessment from the previous year

Step 1) Assign highest priority assessments to available leads, IN ACCORDANCE with the availability of data provision

Hypothetical Planning Example

		2026												2027											
LEAD	SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1 & 2	Key Stock #1	Data Prep			Data Workshop			TWG 1	TWG 2	TWG 3	AW 1	AW 2	AW 3	AW 4	AW 5	Assessment Work			CIE Review			SSC Rework			
3	Key Stock #2	2025					Data Prep			Data Workshop			TWG 1	AW 1	AW 2	AW 3	Assessment Work			SSC Rework					
4	Other #1	Data Prep			Assessment Work			SSC Rework																	
5	Other #2	2025												Data Prep			Assessment Work			SSC Rework					
4	Other #3															Data Prep			Assessment Work			SSC Rework			
1	Other #4	Interim Advice																							
2	Other #5	Interim Advice																							



Step 2) When there is additional data provision capacity, lower priority projects can be added if a stock assessment lead is also available

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		2026												2027											
LEAD	SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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4	Other #3																Data Prep			Assessment Work			SSC Rework		
1	Other #4	Interim Advice																							
2	Other #5	Interim Advice																							



Step 3) Projects that require little data provision can be slotted in when an assessment lead is available

Hypothetical Planning Example

		2026												2027											
LEAD	SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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2	Other #5	Interim Advice																							
	EMERGENT NEED ?								5	5	5	4&5	4&5	4	4	4				D	D	D	5	5	5

Limited Data Provision

Data Provision (age comp?)

What about an emergent need? This example reserves a small amount of “white space” to address an unexpected issue, although the availability of data provision must also be considered

Note: “White-space” does not really exist. There is a tradeoff between the throughput of operational management advice, council services, and our ability to improve existing processes and improve management advice



What requires additional discussion?

- How many key stocks, how often?
- Exactly how/when to negotiate the necessary “add-ons”, TORs and project schedule for each assessment
- Desired level of transparency, and how to achieve it while ensuring desired throughput?
 - As defined in NOAA’s Scientific Integrity Policy
 - Transparency ensures that all relevant data and information used to inform a decision made or action taken is visible, accessible, and consumable by affected or interested parties, to the extent allowable by law
 - Transparency, traceability, and integrity at all levels are required for NOAA to achieve its strategic vision of “healthy ecosystems, communities, and economies that are resilient in the face of change.” They are core values of our organization.



Next Steps

- Receive feedback on initial recommendations
- Identify assessment priorities. Age and growth providers must begin work on 2026 assessments
- Continue conversations with Council Staff to establish and describe the process
- Develop project schedules for stocks to be assessed beginning in 2026