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Agenda Item H.3.a  
Supplemental NMFS Presentation 1  
November 2019

# NMFS Report

Implementation of the Pacific Coast  
Groundfish EM Program

November 17, 2019

# Council Action

- Final recommendations on revised guidelines and draft program manual
- Consider video review auditing approach options, and
- Provide guidance on EM Program implementation



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# EM Program Guidelines

- EM Service Plan Guidelines
- Vessel Monitoring Plan (VMP) Guidelines



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# EM Service Plan and VMP Guidelines

- H.3.a NMFS Reports 1 and 2
- First drafts presented in September
- Updates made to differentiate requirements in regulation from best practices
- Plan to further refine considering November advisory bodies and Council recommendations
- Final guidelines will be posted online this winter



# EM Program Manual

EM service providers: EM equipment and review services



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# EM Program Manual

- H.3.a NMFS Report 3
- Draft document
  - Focus on the components which can aid potential service providers and fishers in projecting costs
    - Review protocols
    - Sampling rates
  - Incomplete components noted in italics
- Final version will also be posted online



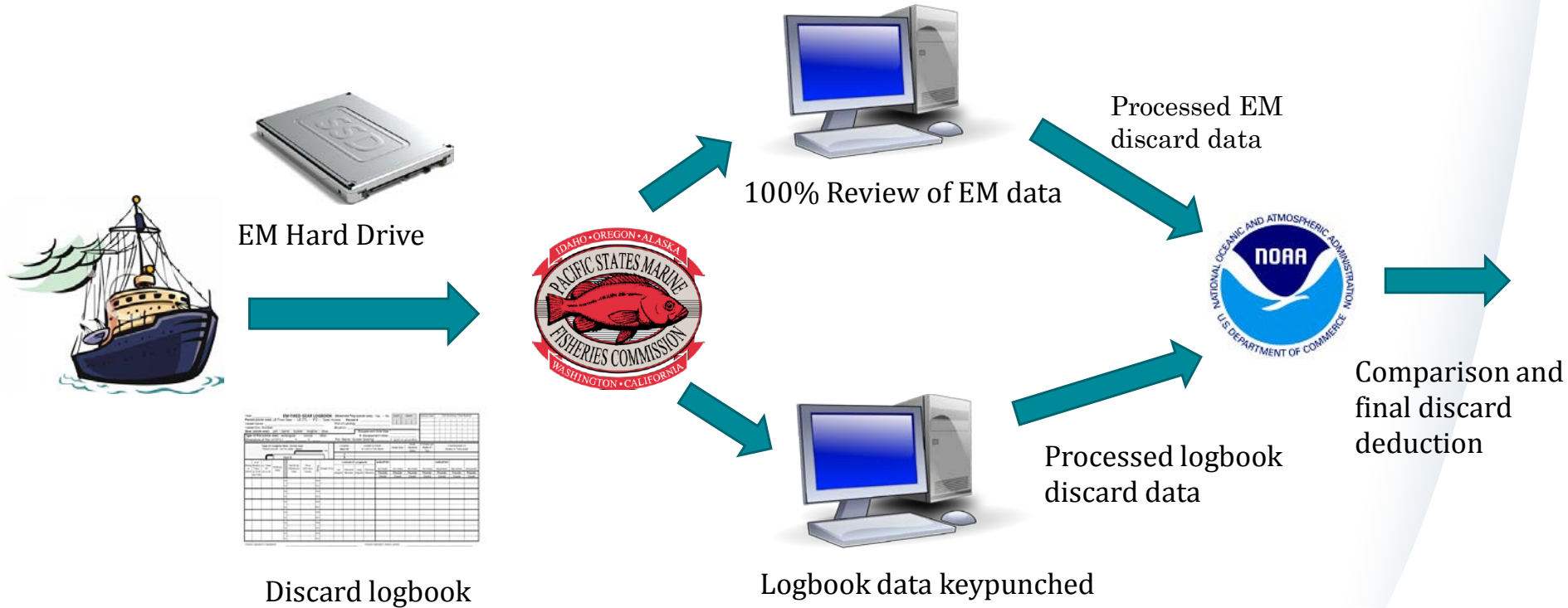
# EM Program Manual Components

- Program overview
- **EM service provider responsibilities**
  - Field and Technical Support
  - Data Services
- **Logbook audit model**
- NMFS' role in assessing data quality and service providers



# Changes to EM Review

Current practices for data submission and review, under exempted fishing permits (EFP) for all gear types:





# Changes to EM Review

## Logbook Audit Model

- Incentivized potential for less than 100% review, where level of review could be a cost-driver
- Every trip reviewed
- Sampling unit = 1 haul, with a minimum of 1 haul per trip reviewed
- If logbook reported discards do not pass the EM comparison (within 10%), triggers full review



# Changes to EM Review

## Logbook Audit Model

### Proposed review rates:

- Shorebased whiting, MS/CV, other maximized retention- **100%**
- **Bottom trawl, other optimized retention - 25% of hauls**
- **Fixed gear - 25% of hauls**
- Random review of steam times



# Changes to EM Review

## Logbook Audit Model

Why **100%** review for maximized retention?

- Industry supports 100% (status quo)
- Fast review already, negligible time and cost savings (H.3 PSMFC Report 1)
- Few hauls per shorebased trip – a lower sampling rate may still result in high review
  - Example, if review 25% of 2 hauls, you still review 1 complete haul, resulting in 50%



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# Changes to EM Review

## Logbook Audit Model

Why **25%** review for optimized retention bottom trawl, optimized retention midwater, and fixed gear?

- PSMFC analysis
  - Examined the effect of different review rates and business rules on the number of trips that would pass the logbook audit, length of video review (\$), and resulting discard estimates
  - Found in general that stringent business rules and higher review rates result in more triggers to 100% review, compared to liberal thresholds with low review rates, but fewer false passes (missed errors) and closer alignment of discards overall



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# Changes to EM Review

## Logbook Audit Model

Why **25%** review for optimized retention bottom trawl, optimized retention midwater, and fixed gear?

- Current review rate by PSMFC is 100% and paid for by NMFS under the EFP program, so captains don't have a true incentive to match logbook discards with EM
- Some vessels perform better than others in the EFP, indicating training and effort can improve performance over time, avoiding 100% review triggers and ultimately reducing costs



# Changes to EM Review

## Logbook Audit Model

Why **25%** review for optimized retention bottom trawl, optimized retention midwater, and fixed gear?

- Majority of IFQ species are retained, minimizing management concerns when hauls reviewed at random (radar-trap)
- Average hauls per trip support subsampling
  - Bottom trawl average 8 hauls per trip (1-2 hauls reviewed)
  - Pot trap gear average of 14 hauls (3-4 hauls reviewed)



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# Changes to EM Review

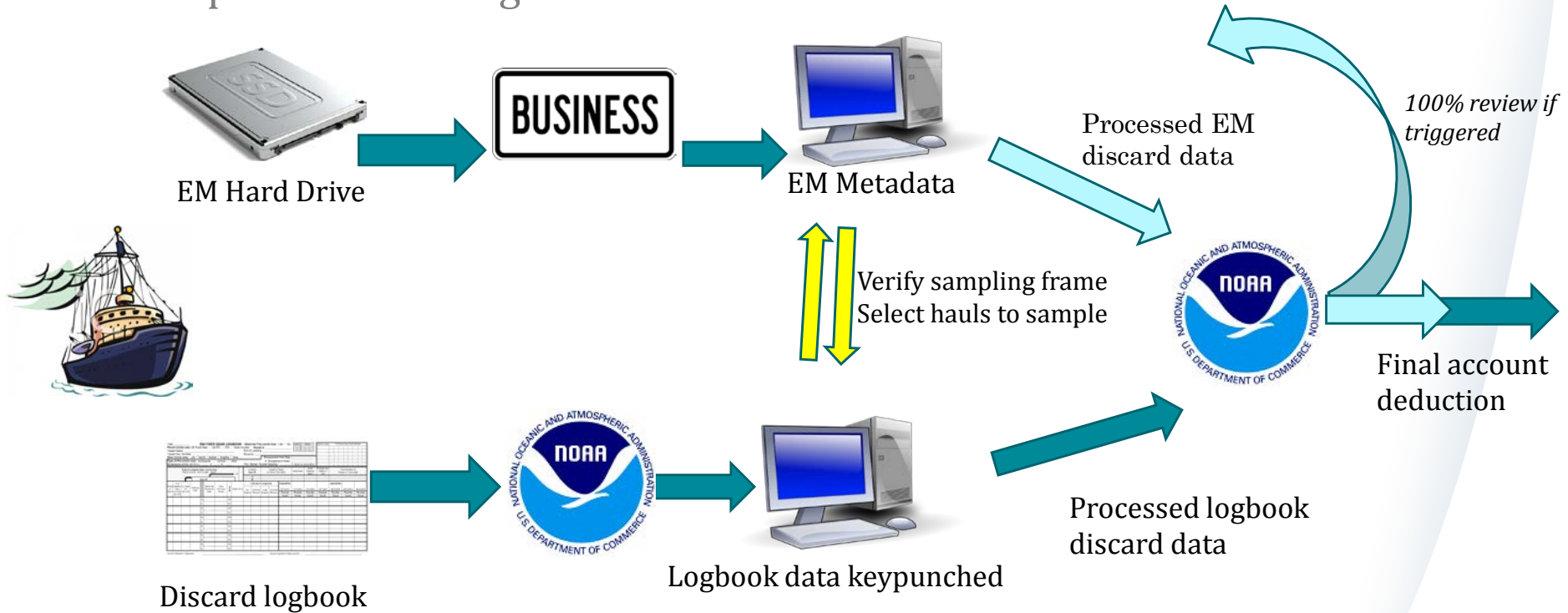
## Logbook Audit Model

- NMFS receives and keypunches **logbook data**
- Service provider checks for **trip/haul level data** on drive (number of trips and the number of hauls for each trip)
- The two are compared, and if they match, the sampling frame is created and the units to sample are selected



# Changes to EM Review data flow

New (2021) review data flow incorporates the third party service provider and logbook audit model:





# Changes to EM Review data flow

## NMFS Debriefing

- Called the “NMFS audit” in draft documentation and in the NMFS reports, which can be misleading
- WCGOP will review a subsample of vessel EM data for the purpose of QA/QC



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# Changes to EM Review data flow

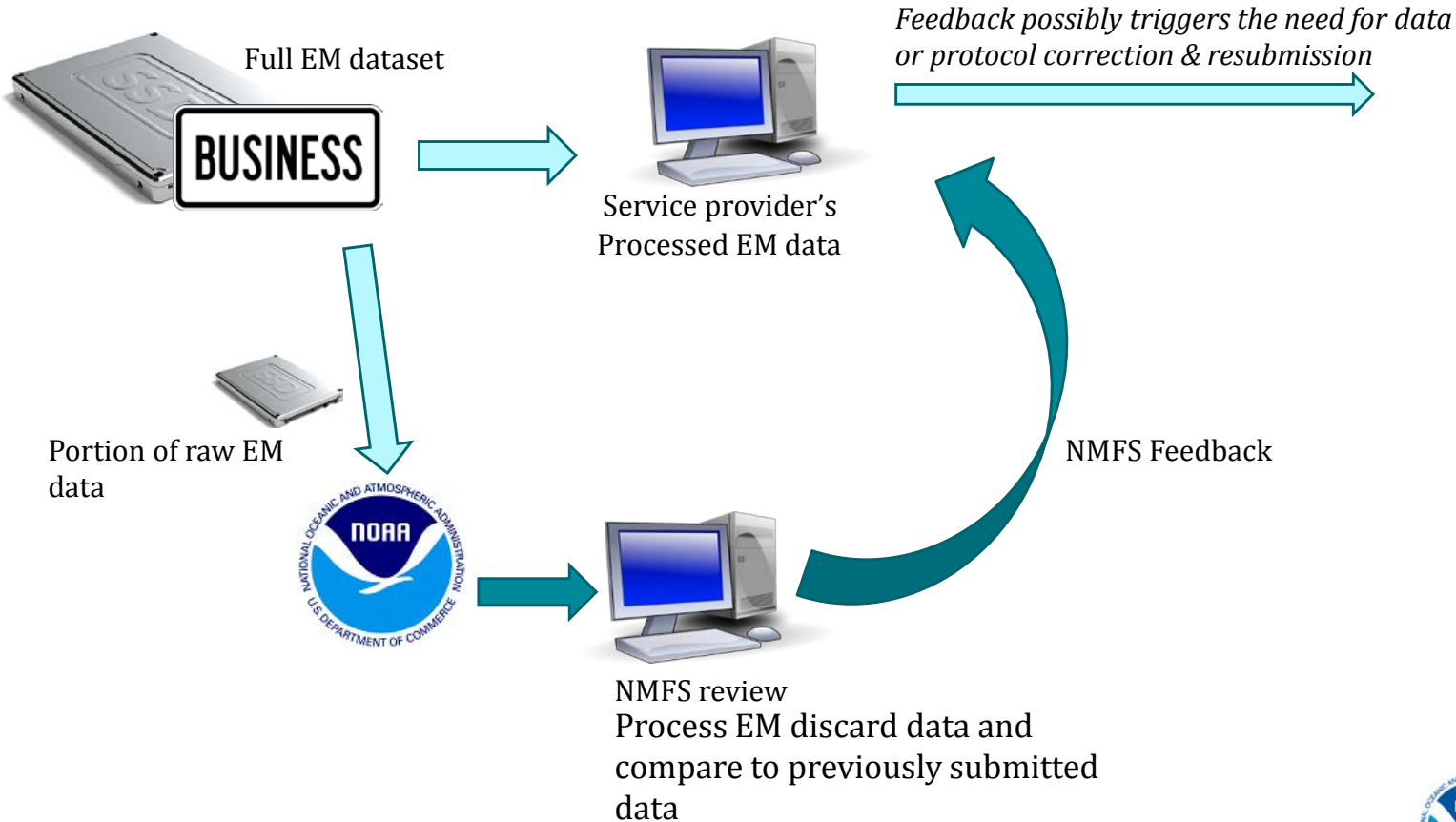
## NMFS Debriefing

- NMFS requests portion of raw data (low rate target 10% of trips per vessel)
- Service provider submits requested data
- NMFS conducts review using same business rules and review protocols as SP
- Feedback given to service provider, which may include further review or correction of previously submitted data



# Changes to EM Review

## NMFS Debriefing:



# Cost Estimates

- NMFS Report 6
- Past and future costs and funding sources
- Table 1 – Total costs to NMFS (incl. PSMFC) and industry
- Table 2 – Cost recovery fee estimates
- Table 3 – Detailed industry estimates
  - Based on PSMFC costs
  - Cost multipliers that providers and vessel owners can use to estimate own costs

