



# Electronic Technologies Policy Development



**NOAA**  
**FISHERIES**



Brett Alger  
Electronic Technologies Coordinator  
Office of Science and Technology

May 29, 2019  
PFMC GEMPAC Webinar

# Electronic Technologies Policy Development

## Glossary

- Electronic Monitoring (EM)
- Electronic Technologies (ET)
- Policy Directive (PD)
- Procedural Directive (pd)

## Overview

- Final PD – ET
- Final pd – EM Cost Allocation
- Draft pd – Third-Party Video Retention
- New Retention Schedule for Federal Records
  - Video and data from EM programs
- Regional ET Implementation Plans
- EM Guidance and Best Practices

# Electronic Technologies PD Update (2019)

- Authorized by Deputy AA for Regulatory Programs & Director of Scientific Programs & Chief Science Advisor
  - ET Coordinator
  - ET Working Group (internal to NOAA)
  - Headquarters programs and regional staff
- Clarified objectives and definitions
- Added observer technologies
- New guidance on developing Regional ET plans
- Regional ET plans to be updated annually

# Electronic Monitoring Cost Allocation pd

- Demands for increasing monitoring and data collection
- New programs may exceed existing capacity
- Will not approve a program if:
  - Provisions create an unfunded or unsustainable cost
- Program funding should consider:
  - a range of funding authorities
  - existing cost recovery provisions
- Specify costs and monitoring functions
- Develop transition plans for existing programs

# Electronic Monitoring Cost Allocation pd

- Sampling – Hardware, video review and storage
- Administrative – Program support, provider certification/auditing, data analysis, and storing Federal records

Function	Cost Responsibility
Sampling	<ul style="list-style-type: none"><li>• Industry</li><li>• NOAA Fisheries - fees collected from industry - EX: North Pacific landings fee</li><li>• NOAA Fisheries for specific Federal programs - EX: ESA, MMPA, SBRM</li></ul>
Administrative	<ul style="list-style-type: none"><li>• NOAA Fisheries</li><li>• NOAA Fisheries - fees collected from industry - EX: West Coast cost recovery program</li></ul>

# Electronic Monitoring Cost Allocation pd

## Clarified terms on EM video vs. data

- Storage costs for sampling and administrative functions
- Forthcoming video and data retention polices

## Fee collection language for LAPPs

- NMFS authorized and required under MSA
- May collect them to support an EM program

## Limitation on EM applicability

- Clarified the range of applications of EM

## VMS in the EM definition

- Clarified the application of the EM cost allocation pd

## Range of additional comments

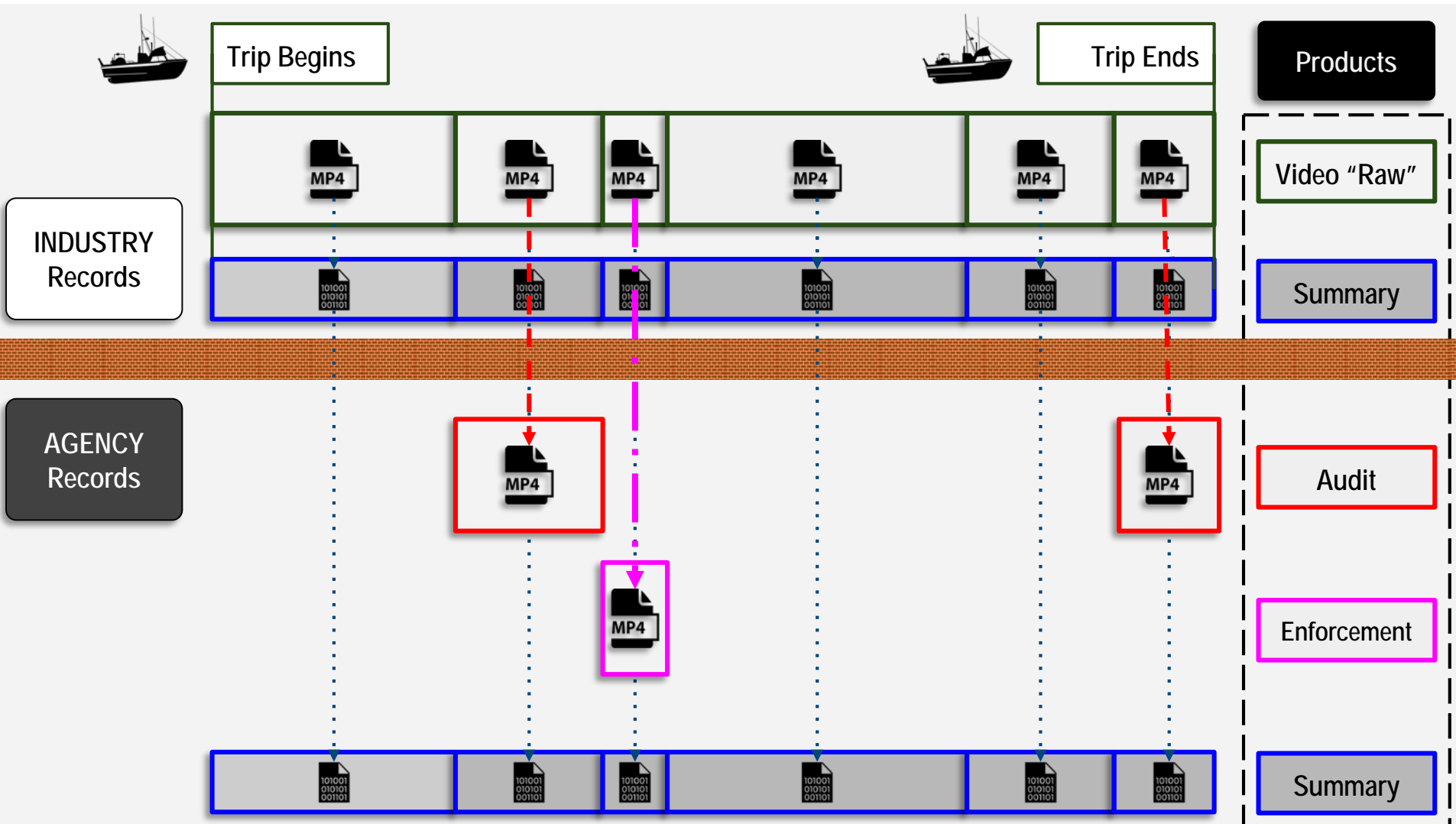
- Follow up with Council(s) as appropriate

# Final EM Cost Allocation pd and Transition

- May 2019 – Finalize pd to CCC
- Establish provisions within 2 years
- Implementation within 5 years total
- Provisions must include:
  - List of allocations by category
  - Step-wise transition, if appropriate
- Transitions plan included in Regional ET Plans



# Third-Party Model Explained





# EM Data Product Buckets



## PROGRAMMATIC (Primary)

This is the primary purpose of the monitoring program.

EX: auditing self-reported data, compliance monitoring, bycatch

\*\*\*Auditing a third-party provider falls into this bucket



## ENFORCEMENT (Secondary)

Outside the primary scope, and is opportunistic in nature.

EX: EM reviewer flags a potential enforcement issue(s)



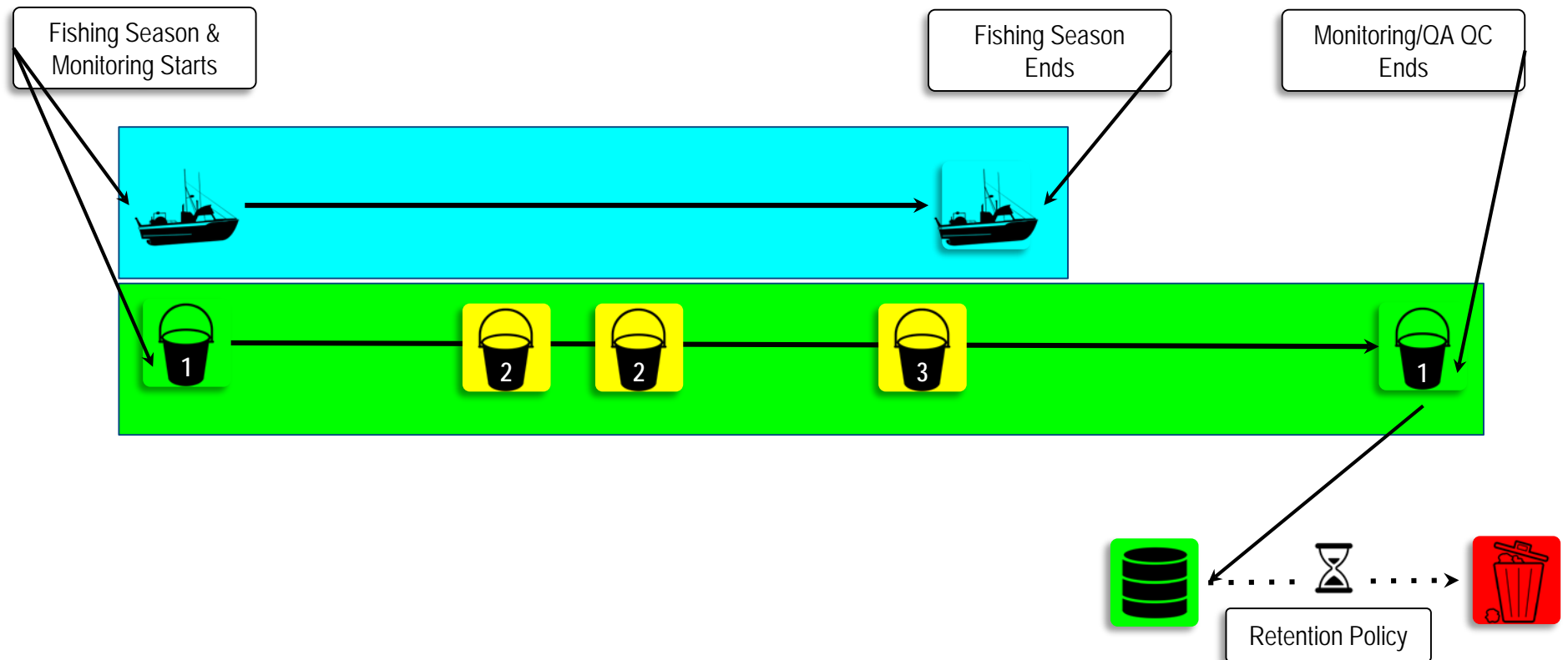
## SCIENCE & RESEARCH (Secondary)

Outside the primary scope, and is opportunistic in nature

EX: imagery for training machine learning algorithms.

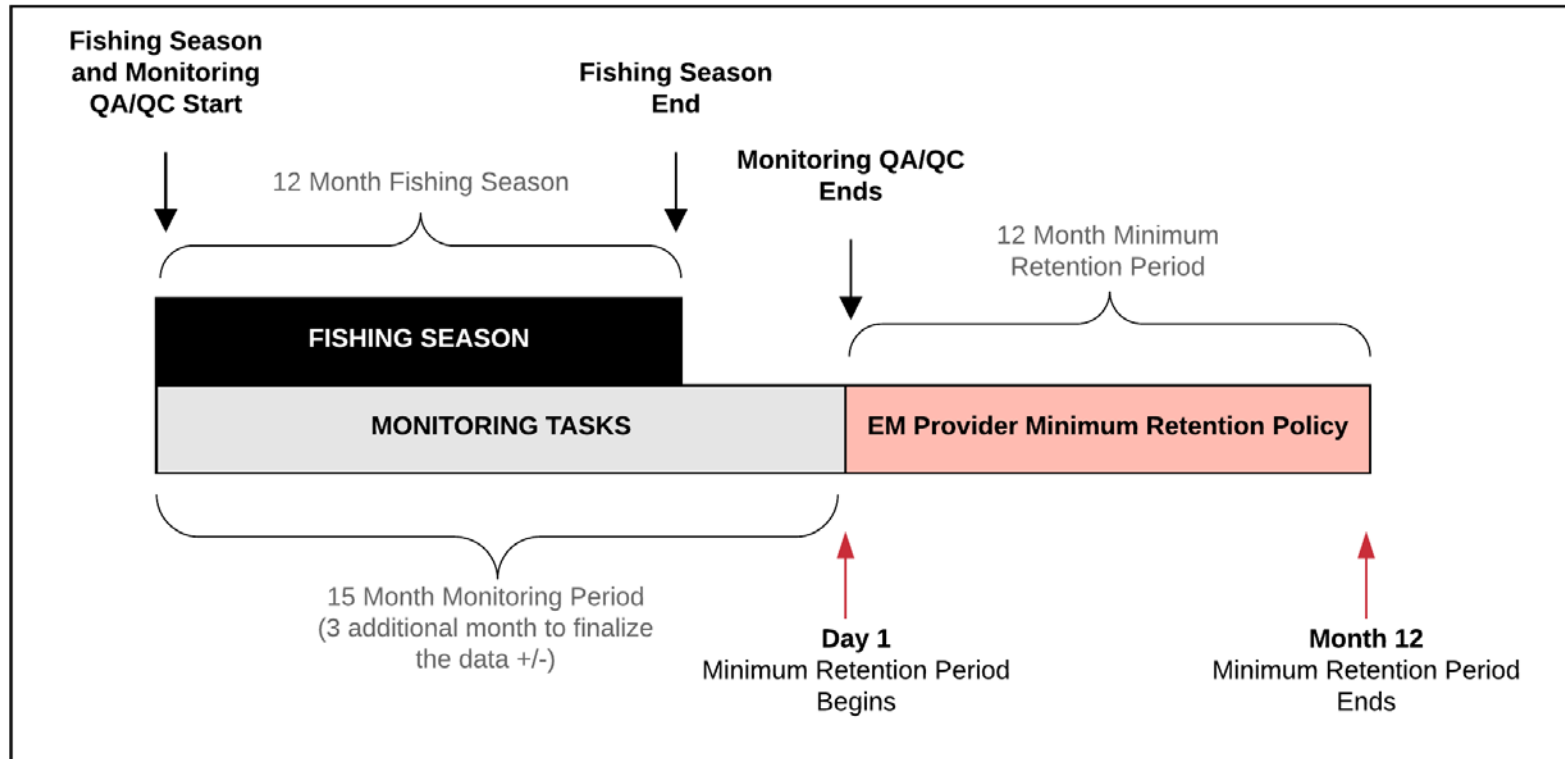
# EM Data Lifecycle

Data is collected (Buckets 1, 2 and 3); catch monitoring is ongoing during the fishing year. Once the year is over, and the monitoring/QA QC ends (e.g. “the books are closed”), data is stored and subject to the minimum retention policy.



# Third-Party Video Retention Procedural Directive

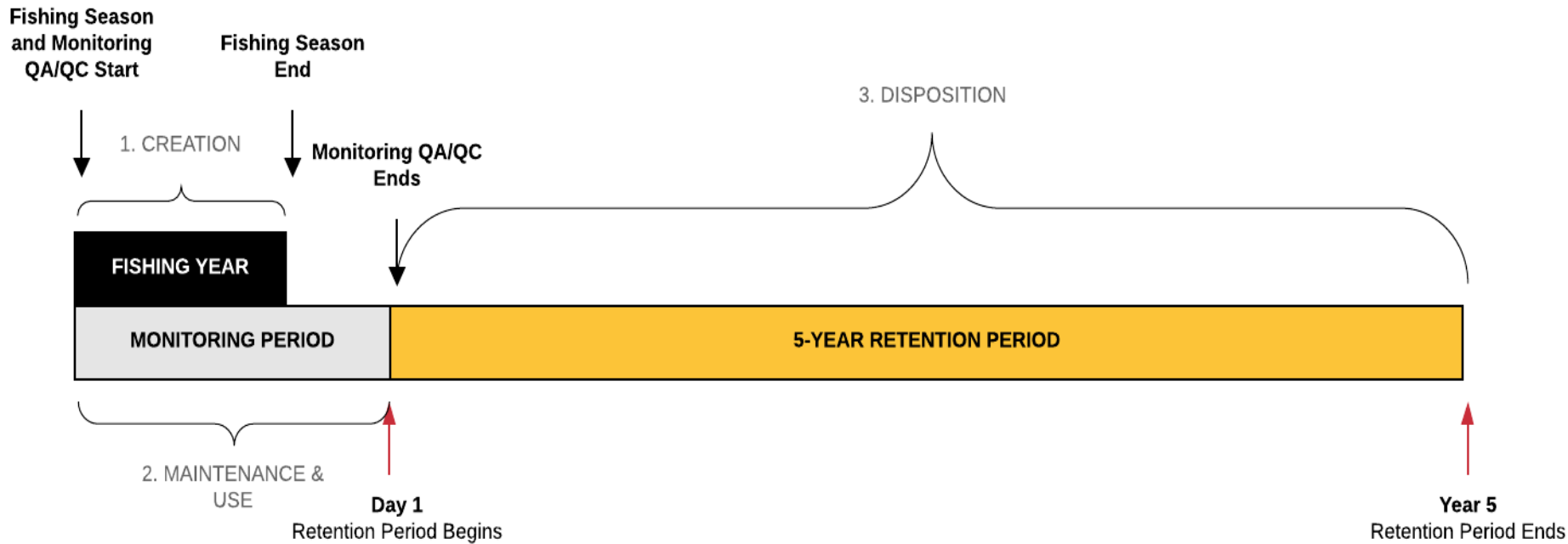
- Current – Retained indefinitely
- Future – New pd and guidance to Regions
- Process – Same as EM cost allocation pd



# Federal Records Retention Schedule

## National Archive and Records Administration

- Current - Retain with observer records (indefinitely)
- Future – New retention schedule for video and images
- Process - NARA publishes an FR notice, 45-day comment period



# Regional ET Implementation Plans

## Guidance and template out to Regions in June

- Regional 5-year vision and priorities
- Council actions, research, development, and pilot projects
- Data integration and interoperability (e.g., One touch reporting)
- Impediments to implementation and resource needs
- Tables to track progress for EM, ER, VMS, observer technology, etc.
- EM costs and transition plans
  - As required by the EM cost allocation procedural directive

## Communication and outreach

- NOAA will formally announce this initiative
- Engage and coordinate with all stakeholders
- Encourage cross-regional planning

# National EM guidance and best practices

## EM program design

- Pre-implementation
- Operational Programs

## Minimum standards and best practices

- Vessel systems
  - Hardware
  - Software
  - Data collection and integration
- Video review and data management
  - Sampling schemes
  - Transmission and storage
- Data standardization and uses

## EM case studies

## Status of EM-related policies

# Thank you



Brett Alger  
Electronic Technologies Coordinator  
NOAA Fisheries  
Brett.Alger@noaa.gov

*National EM Workshop 3.1  
Portsmouth, NH Fall 2019*

*National EM Workshop 3.2  
Seattle, WA Early 2020*

# Fishing Industry – Sampling Costs

- Hardware
  - Purchase/lease, install, maintain, and replace
- Training for captain and crew
- Develop vessel monitoring plans (VMPs)
- Video and data transmission to reviewers
- Initial video review and storage
- Service provider fees and overhead



# NOAA Fisheries – Administrative Costs

- Program administration support
  - Address science, enforcement, and management needs
  - Review VMPs, troubleshoot issues, manage vessel selection
- Certification of EM service providers
- Program performance monitoring
  - Audit service providers (video and data)
  - Ensure data quality standards
- Data analysis and storage of Federal records

# Video Review - Overview

- Current – Human review of most/all video
- Reduced human review
  - Review a portion (e.g., 20%) of trips, hauls, catch, etc.
- Computer-assisted human review
  - Review fishing events only
  - ID flat vs roundfish
- Computer review
  - ID species
  - Collect length/weight
  - Monitor compliance
- More to come soon
  - Internal/external investments
  - Cameras on the R/V Bigelow
  - ICES Working Group
  - NMFS workshop

Type	flat
SubType	plaice
Count Label	ignore
Fish ID	2
Total Fish	78
Frame Counted	3671
Go To ID:	<input type="text"/>
<input type="button" value="Add Region"/>	
<input type="button" value="Remove Region"/>	
<input type="button" value="Next + Copy"/>	

