



NOAA
FISHERIES

Northeast
Regional
Office

Fisheries Dependent Data Collections

Vessel and Dealer Reporting

Fisheries Data Services Division

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Terms of Reference

5. What are the major fishery-dependent data sources successes and how should they be supported?

6. What are the major fishery-dependent data limitations/weaknesses and how could they be resolved? Define potential improvements and priorities for recommended improvements.

Overview

- **Regulations**
- **History**
- **Vessel Trip Report Processing**
- **Dealer Report Processing**
- **Audits**
- **Data Reconciliation Process**
- **Strengths, Challenges, Proposed Solutions**

Regulations



Regulations

50 CFR 648.7 Regulations for dealer & vessel reporting

50 CFR 648.4 All NER-permitted vessels report every trip regardless of species targeted or location fished (e.g. HMS or Gulf of Mexico)

Regional Administrator has overall authority to modify most reporting requirements outside of council process

Some recent changes are driven by regional fishery management councils and embedded in specific fishery management plans.

Changing reporting requirements may require regulation changes and require council action

A Brief History



20+ Years of Fisheries Reporting

1992

Mandatory reporting for dealers with summer flounder permits

- Used for monitoring quotas coast wide

1994

Mandatory reporting for federally permitted vessels with summer flounder permits

1994-96

Expansion of mandatory reporting to all dealers & vessels with federal permits

1996-present

Expanded use of reports for monitoring quota limited fisheries

May 2004

Mandatory electronic reporting by federally permitted dealers for almost all species

2009-2010

Initiation of catch share program and calculation of "shares" using reports

Jan 2010

Mandatory electronic reporting by dealers with federal lobster only permit

- Vessels with only a federal lobster permit do not have to report to us – most have to report to states

May 2010

Initiation of multispecies catch share program & weekly reporting

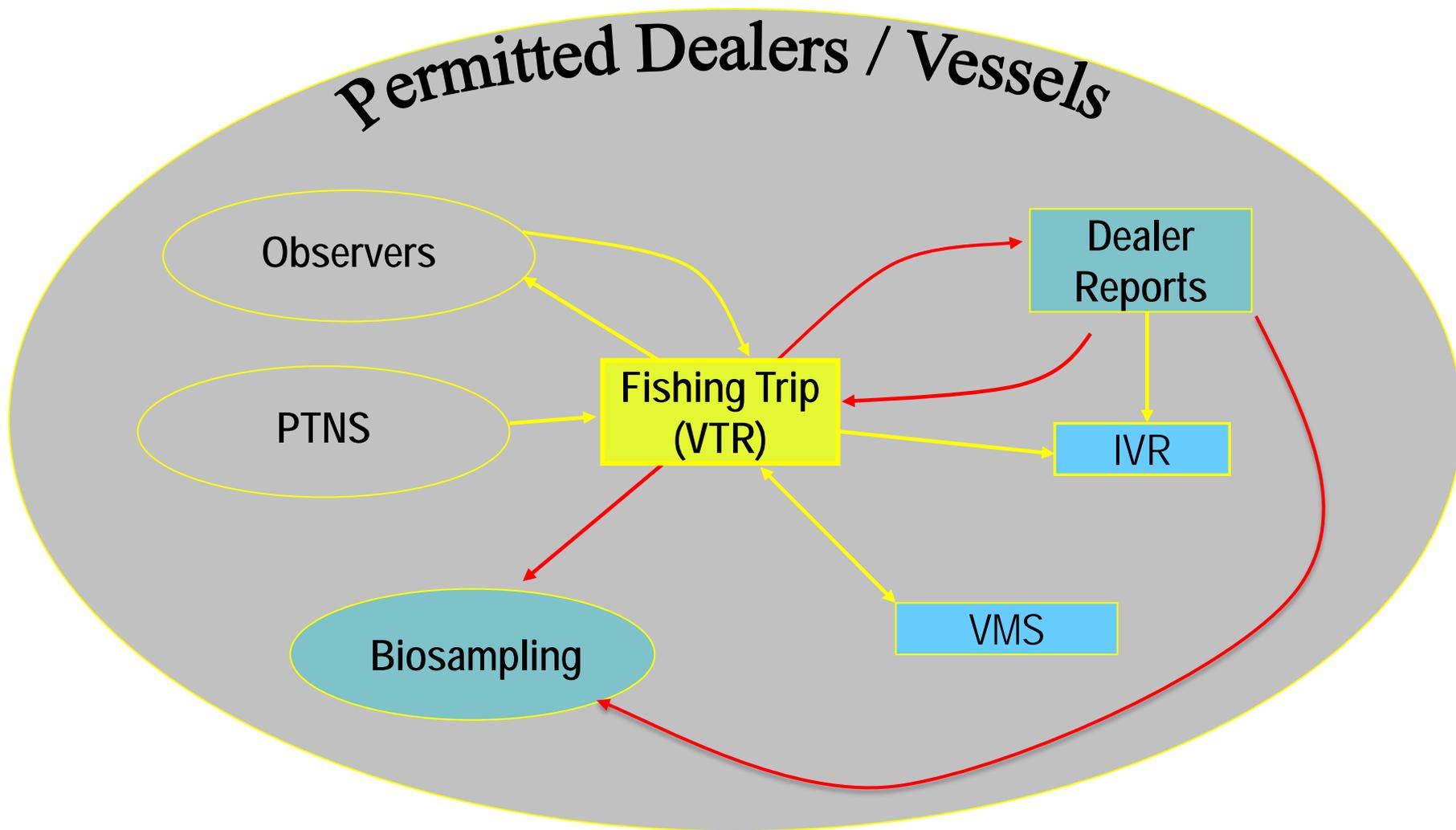
- Weekly reporting later expanded to herring, mackerel, surfclam/ocean quahog IFQ

2012

Annual catch limit (ACL) monitoring

Shift in emphasis from broad data needs at the stock level to detailed trip by trip accuracy of landings, location, gear, etc. for use in assessments and in-season management. Need for financial accounting accuracy

Simplified Data Collection Model



Vessel Reporting



VTR - Reporting Requirements

Report each fishing trip – all federally permitted vessels (commercial, recreational for-hire vessels)

Report each sub-trip (change in gear, mesh or statistical area) separately

Complete report before the vessel docks (except dealer & date sold)

Report by Deadline

- Weekly by Tuesday midnight for Multispecies, Herring, Surf Clam\Ocean Quahog and Tier-3 Mackerel
- Monthly by 15th of month for all other species

Lobster-only permit holders are exempt from VTR reporting.

Processing Flow - Paper

USPS delivers mail (generally around noon)

Vessel trip reports (VTRs) are prepped for scanning and reviewed for gross errors

- VTRs that fail inspection are either corrected in-house or returned to the vessel owner for correction.

VTRs that pass review are scanned

Data entry is performed

Clean VTRs are generally available in our database the day we receive them.

Data Entry Challenges

NOAA Form No. 88-30
RECEIVED
JUN 19 2002
FISHING VESSEL TRIP REPORT 061413530193
 9781367

DID NOT FISH DURING MONTH/YEAR _____

1. VESSEL NAME _____ 2. USCG DOC. or STATE REG. NO. _____ 3. VESSEL PERMIT NUMBER _____

4. DATE/TIME SAILED 6/19/02 5. TRIP TYPE (CHECK ONE) COMMERCIAL PARTY CHARTER 6. NO. OF CREW 1 7. NO. OF ANGLERS 0
 TIME (24 hrs.) 07:30 AM

FILL OUT A NEW PAGE FOR EACH CHART AREA OR GEAR OR MESH/RING SIZE FISHED

8. GEAR FISHED	9. MESH/RING SIZE	10. QUANTITY OF GEAR	11. SIZE OF GEAR
hnb	1/4"	1500	2 1/2 mile

12. CHART AREA	14. LATITUDE/LONGITUDE or LORAN	15. NO. OF HAULS	16. AVERAGE TOW/SOAK TIME
514	LATITUDE 4460 LONGITUDE 9960 STATION BEARING # 45-1-25	2	1

17. SPECIES CODE NAME	18. KEPT POUNDS (I) Recd	19. DISCARDED POUNDS (I) Recd	20. DEALER PERMIT NO.	21. DEALER NAME	22. DATE SOLD (mm/dd/yy)
CBd	100	0		230A SOUTH CAPE SEA FOOD	6/19/02
ADON	100	0			
OSK	100	0			

23. PORT or STATE LANDED P+TOWN MASS 24. DATE LANDED (mm/dd/yy) 6.19.02 TIME LANDED 1:53PM

I certify that the information provided on this form is true, complete and correct to the best of my knowledge, and made in good faith. Making a false statement on this form is punishable by law (18 U.S.C. 1001).

25. OPERATOR'S NAME (printed) and PERMIT NUMBER (if required) _____ 26. OPERATOR'S SIGNATURE _____ DATE 6/14/02

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FISHING VESSEL TRIP REPORT

VTR Serial Number: _____

Documentation or State Registration 969 3. NMFS Vessel Permit Number 2

5. Date and Time Landed Date: 11/26/11 Military Time: 14:00
 record the number of crew including the captain. Party/Charter must also include the number of anglers.
 RSA/EFP: # of Crew _____ # of Anglers _____
 Party: # of Crew _____ # of Anglers _____

COMPLETE A NEW FORM FOR EACH DIFFERENT CHART AREA, GEAR TYPE OR MESH/RING SIZE USED ON A TRIP.

7. Gear Code	8. Mesh/Ring Size	9. Gear Quantity	10. Gear Size	11. Fishing Depth (Fathoms)	12. Number of Hauls
PTL	7"	10	300	25	30

13. Chart Area	14. Latitude DEGREES MINUTES	15. Longitude DEGREES MINUTES	16. Tow / Soak Time HOURS MINUTES
514	13910	44100	72

17. Species Code	18. Kept	19. Discarded	20. Dealer Permit Number	21. Dealer Name	22. Date Sold MM/DD/YY	23. Offloading Port for each species City State
LOB	419		3	Ocean	11/26/11	MA

26. Operator Signature _____ DATE 11/26/2012

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Processing Flow – Electronic Reporting

FLDRS (Fisheries Logbook Data Recording System)

Vessel operator completes trip report

Vessel transmits encrypted file to NEFSC

File is decrypted, verified, loaded into raw data archive and Oracle schemas, then audited for errors which display in Web Portal

Trip data are extracted from database, rolled up to the sub-trip level (if necessary), converted to the NERO database structure

Converted data are loaded into the NERO database.

Processing Flow – FLDRS

Continued

During the load process (to NERO database) the data pass through the same audits as paper-based data

Vessel owners are notified of problems via a standard send-back process

Corrections are made by owner/operator Web Portal at NEFSC

Changes are pushed to NERO the following morning

Processing Flow: electronic Vessel Trip Reports (eVTR)

Only one vendor has a product deployed

- Focuses on multispecies vessels in one sector.
- No customers yet in other sectors or other fisheries.

A test and production portal for submission of trip reports has been developed.

Submissions will come to NERO and, assuming they pass the inline audits, will be loaded into the VTR database.

Submissions that fail the audits are rejected with error messages.

Current eVTR Strategy

Improve quality & timeliness of vessel reporting

Replace paper reports with equivalent electronic reports

Generally focuses on multispecies fishery but planned expansion to other fisheries (such as IFQ clams, mid-Atlantic squid, butterfish)

Bound by current regulations

Move away from stove-pipe, single-purpose concept to integrated data system

More on this later

Submitted VTR Counts - 2010 to 19 July 2013

YEAR_ENTERED	ENTRY_SOURCE	VTR COUNT (Trip)	% OF YEARLY TOTAL
2010	VTR TEAM (paper)	168,056	81.4%
2010	FISH ON LINE (DNF)	38,515	18.6%
	2010 Total	206,571	
2011	FLDRS (eVTR)	291	0.1%
2011	VTR TEAM (paper)	164,726	66.7%
2011	FISH ON LINE (DNF)	82,031	33.2%
	2011 Total	247,048	
2012	FLDRS (eVTR)	2238	0.8%
2012	VTR TEAM (paper)	151,412	56.5%
2012	FISH ON LINE (DNF)	114,329	42.7%
	2012 Total	267,979	
2013	FLDRS (eVTR)	1497	1.3%
2013	VTR TEAM (paper)	55,621	47.5%
2013	FISH ON LINE (DNF)	60,064	51.3%
	2013 Total as of 7/15	117,182	
	Grand Total as of 7/15	838,780	

Dealer Reporting



Dealer Reporting Requirements

Submit reports electronically

Due midnight Tuesday for all previous week's purchases / receipts

All species (with some exceptions)

Three federal reporting mechanisms (SAFIS – hosted by ACCSP)

- Web-based form
- File upload
- PC-based application

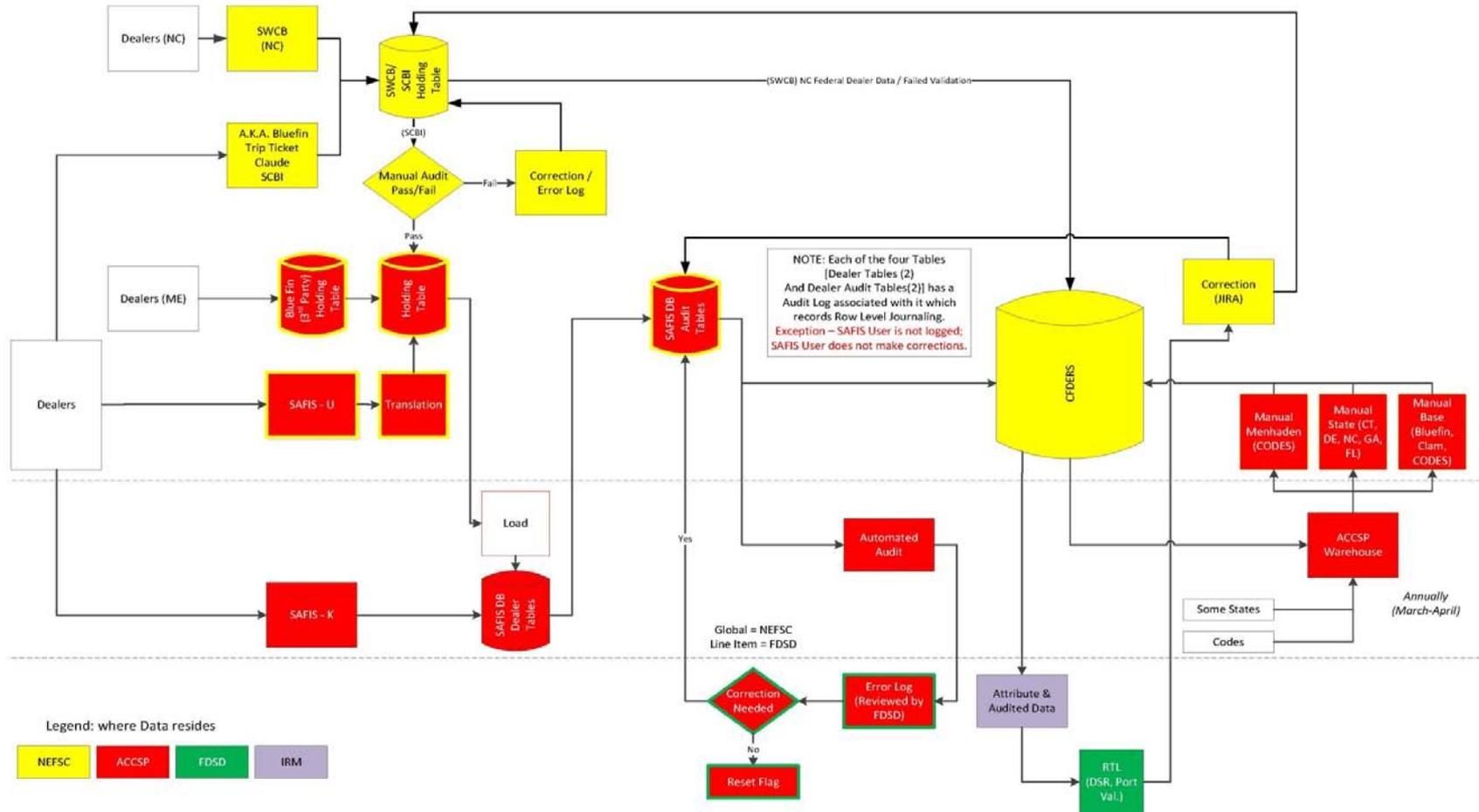
State agencies also have reporting requirements for state- permitted dealers

High Level Dealer Data Flow

Report Capture & Processing

Auditing & Quality Control

Production, Addition of State Data, Reconciliation



Reported Landings by Collection Program (2012)

Partner	Pounds Landed	Percent of Total Landed Weight	Live Weight	Percent of Total Live Weight	Exvessel Value	Percent of Total Value
Maine	72,403,393	5.38%	81,421,273	9.11%	207,247,448	12.00%
New Hampshire	237,995	0.02%	237,995	0.04%	837,710	0.05%
Massachusetts	7,367,303	0.55%	16,138,768	0.98%	22,241,247	1.29%
Rhode Island	1,507,026	0.11%	6,165,126	0.23%	5,335,796	0.31%
Connecticut	8,202,924	0.61%	8,274,456	0.91%	20,689,680	1.20%
New York	1,228,785	0.09%	1,470,299	0.10%	2,309,296	0.13%
New Jersey	32,251	0.00%	40,330	0.01%	321,275	0.02%
Delaware	5,115,968	0.38%	5,115,473	0.33%	7,553,341	0.44%
Maryland	665,163	0.05%	665,163	0.00%	328	0.00%
Virginia	49,040,228	3.65%	57,254,141	3.21%	73,069,041	4.23%
NMFS - Northeast Region	1,186,730,443	88.25%	2,086,659,049	60.22%	1,370,520,326	79.34%
NMFS - Southeast Region	140,164	0.01%	160,109	0.02%	436,859	0.03%
Potomac River Fisheries Commission	11,337,184	0.84%	11,337,184	0.36%	8,105,391	0.47%
HMS	767,923	0.06%	960,039	0.39%	8,805,694	0.51%
Total	1,344,776,750		2,275,899,405		\$ 1,727,473,432	

Audits / Quality Control

VTR Audits & Corrections

Audits take place throughout the processing cycle

Perform a full suite of audits weekly on the previous week's production

Audits cover

- Permit/Registration/Vessel Name
- Duplicate submissions
- Date sail, date land and date sold consistency
- Codes (such as gear, species) validity and range checks

A sample is visually reviewed

VTR Audits & Corrections

In 1Q 2013 we moved from a 'Web Audit Tool' to our standard audit platform

- RTL – see supplemental reading

It's a straightforward proposition to add audits to the base suite

We intend to add additional checks such as: Is catch consistent with gear reported?

Only so much can be done within a source stream with a single ticket approach

Dealer Audits & Corrections

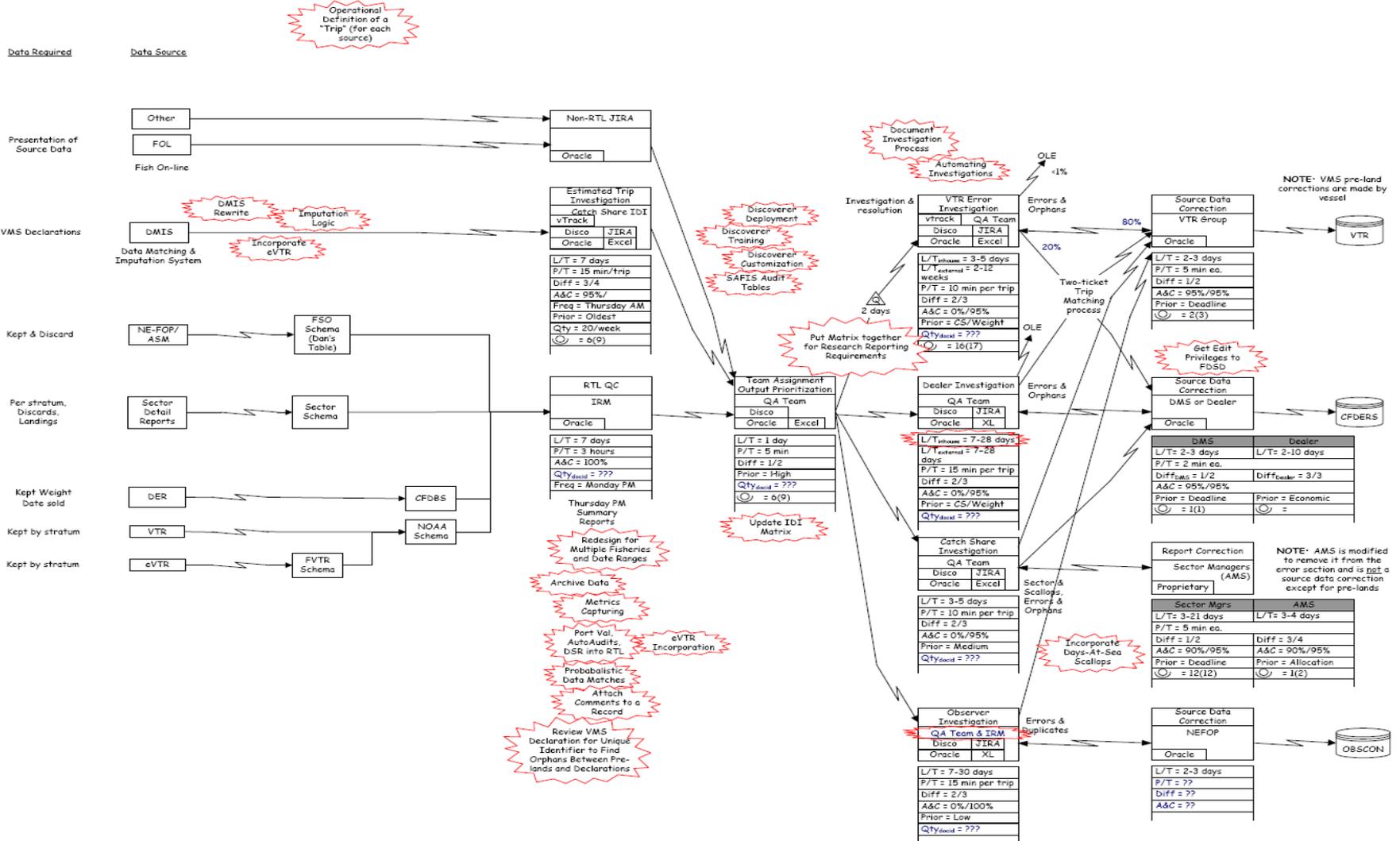
Staff resolve errors identified by custom and automated audits

- Identification of dealer entered, or missing, information errors
- Automated audits hosted by ACCSP identify duplicate entries and price errors.

NEFSC personnel perform audits prior to loading certain data sources

Data Reconciliation Process

Reconciliation Value Stream Map



Data Reconciliation Process

Quality assurance minimizes submission errors

Quality control identifies data errors after submission

- Match multiple data reporting streams and reconcile identified discrepancies
- Has written procedures and work instructions
- Issue-tracking tool deployed to track data correction

Measures and metrics developed to track progress of correction activities

Reports distributed to industry on reconciliation progress

- The Industry Data Investigation Team : six NMFS employees, nine contractors
- Focus on:
 - Discrepancies between data streams – vessel trip (VTR) with dealer reports
 - Working with dealers and vessel operators to correct errors

Data Reconciliation Process

Process defined to match various data reporting streams and to reconcile identified discrepancies

- Trip-matching conducted internally between dealer and vessel data within NMFS data streams
- Trip-matching conducted externally between sector and NMFS data streams for groundfish

Quality control applications developed to match trip information

- RTL (Raw Trip Level) application produces error and orphan reports
- Oracle Discoverer automates investigations
- Quota Monitoring report identifies trip source (handoff from APS)

Strengths, Challenges, & Proposed Solutions



Strengths

Reconciliation of catch share programs

- Approximately 50 million pounds were landed in the 2012 multispecies fishery and just 7000 pounds could not be reconciled

Zero backlog on VTR report processing

Increased compliance with reporting timelines

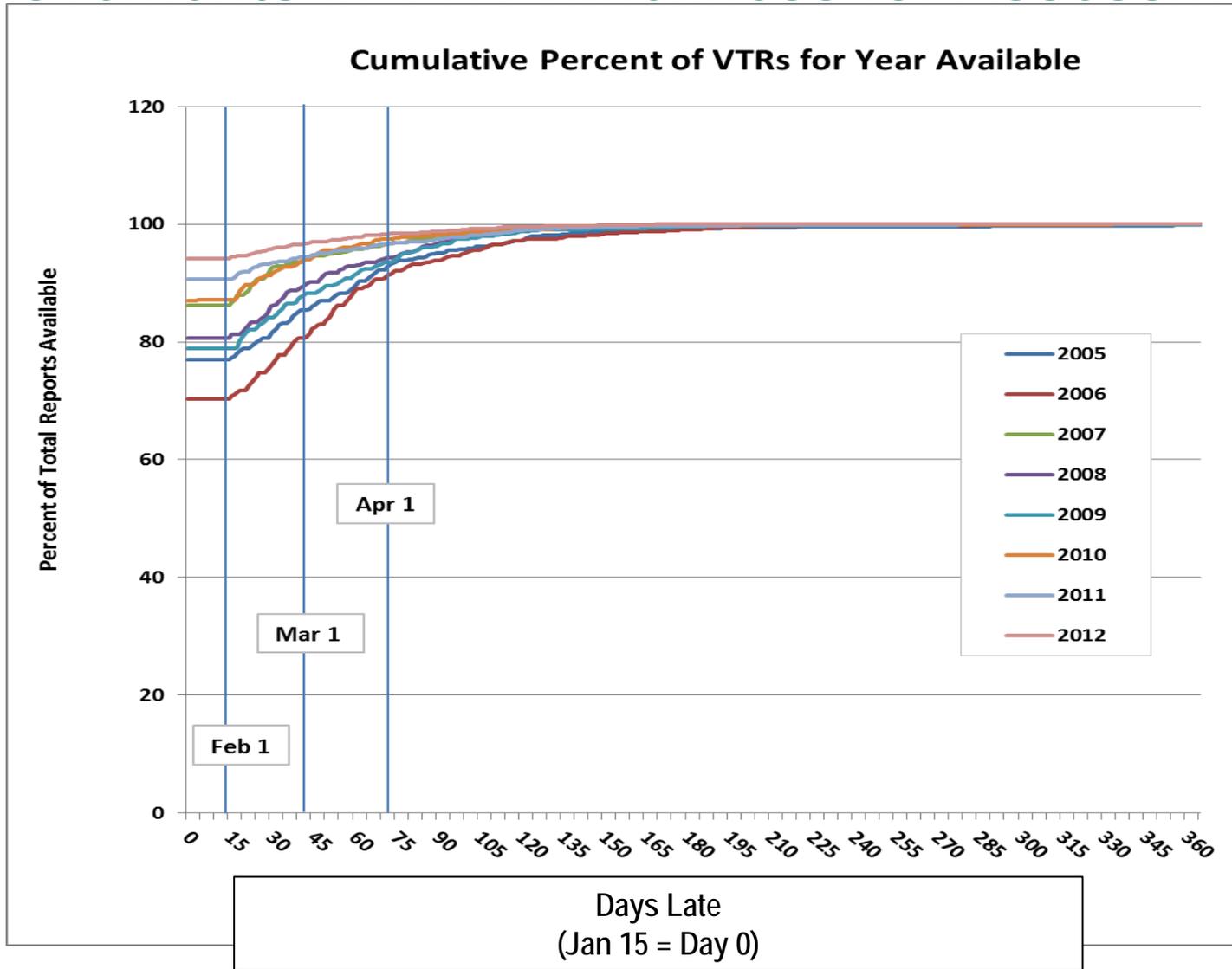
Increased communications with industry, sector managers, vessel operators and dealers

90% of landings data are received within three days of due date

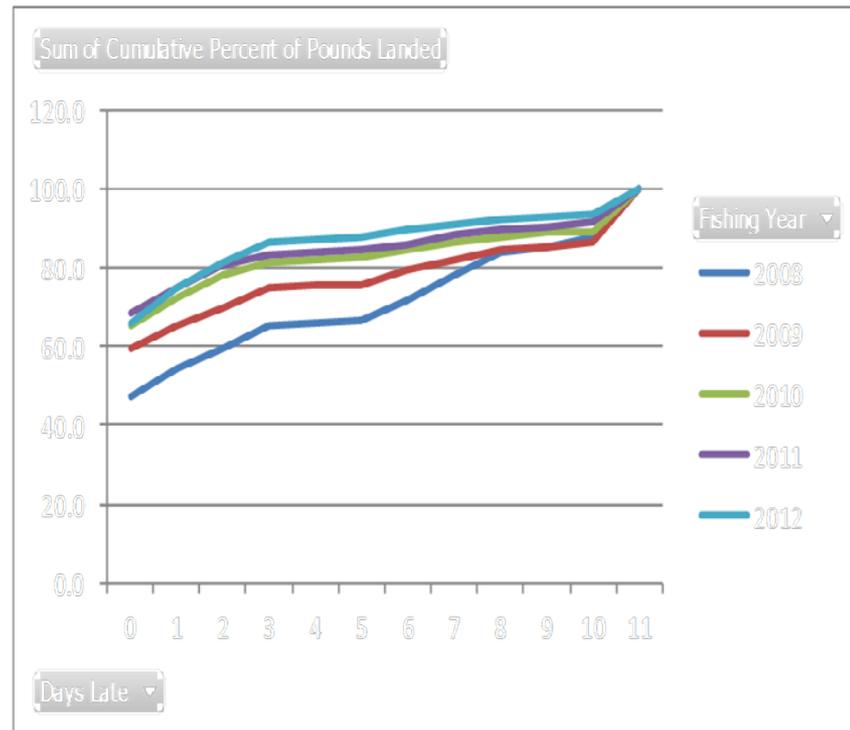
No cost-recovery protests from industry concerning landings history

98% of all vessel reports utilized for stock assessments available by April 1

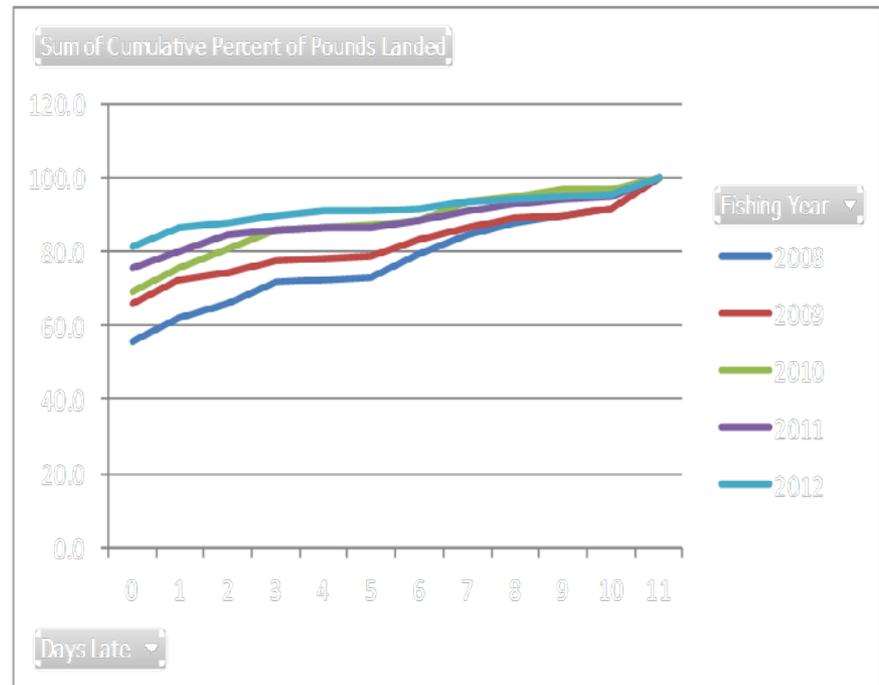
Improvements in VTR Timeliness for Assessments



Improvements in Timeliness of Dealer Reporting (All Species)



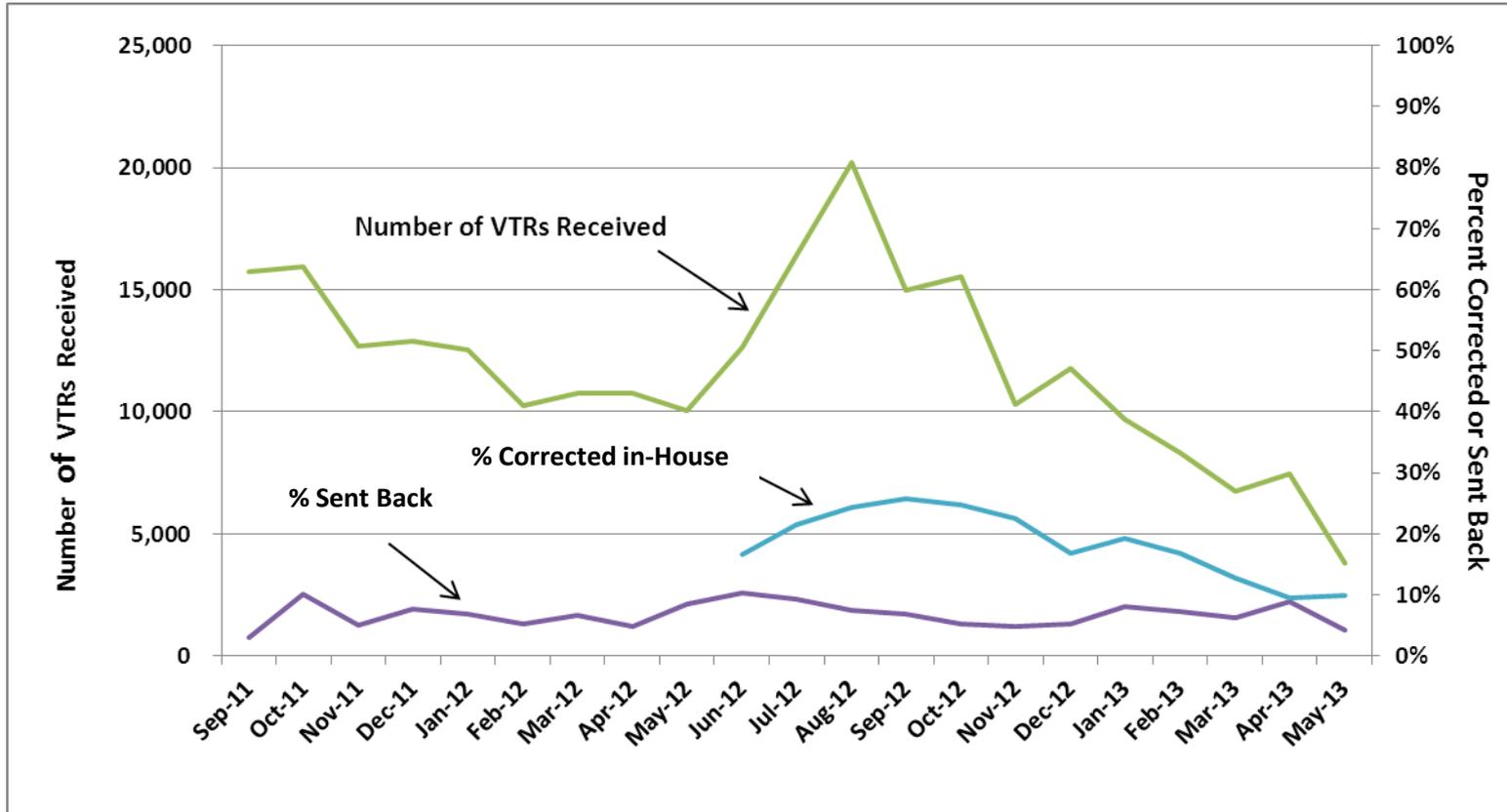
Improvements in Timeliness of Dealer Reporting (Multispecies)



Challenges

- Dealer reports
 - Timeliness for all species
 - No fishing locations
 - Match-up with VTR
 - Correct permit & VTR numbers
 - Single off loads from multiple trips
 - Reassignment of vessel offloads while in transit
- Vessel Trip Reports
 - Correct VTR Serial Number provided to dealer
 - Accurate location information
 - Timeliness
 - Trip/sub Trip level information
 - Spatial resolution
 - For-Hire Recreational Vessels
 - Incorrect reporting of some elements
 - Reporting of discarded catch

VTR Corrections & Sendbacks

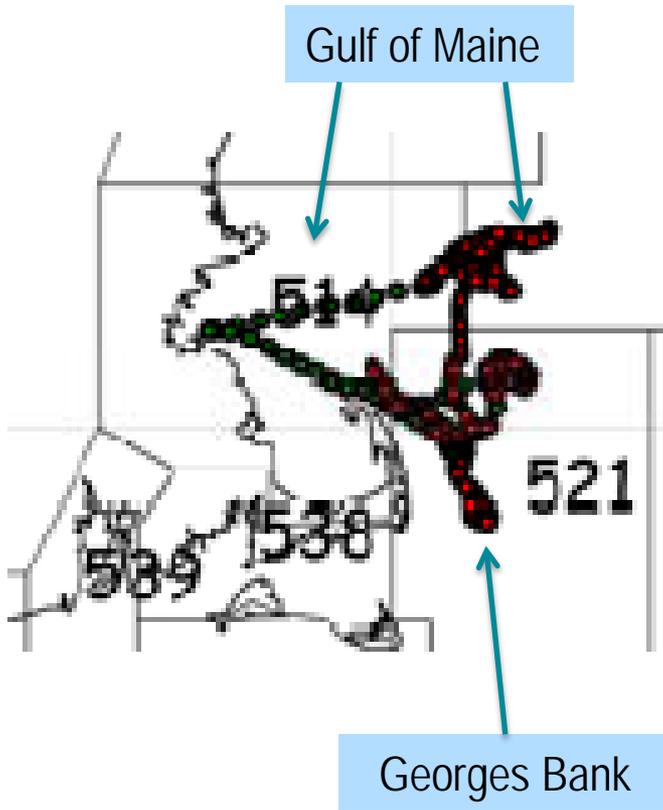


Reasons for sendbacks: damaged or invalid logbook,; DNF; problem with species reported (kept, discarded or spp code); problem with statistical area, Lat or Lon; problem with date (sail, land, sold or signed); problem with vessel, operator or dealer identification; problem with trip, gear, haul or tow information

we been sent back for corrections since Sept 2011 at a cost of about \$10K + in postage alone.

Does not report all areas

Fishing in multiple stock areas



Georges Bank

FOR INTERNAL NMFS USE ONLY

OMB No. 0648-0212
Expires 10/31/2012

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

FISHING VESSEL TRIP REPORT
NOV 18 2011

DID NOT FISH DURING MONTH/YEAR

1. VESSEL NAME: [REDACTED]
2. USCG DOC. or STATE REG NO: [REDACTED]
3. VESSEL PERMIT NUMBER: [REDACTED]

4. DATE-TIME SAILED: 11/20/11 08:30
5. TIME (24 hrs): 20
6. NO. OF CREW: 5
7. NO. OF ANGLERS: [REDACTED]

8. GEAR FISHED: 071 ODP
9. MESH/RING SIZE: 6.5
10. QUANTITY OF GEAR: 2
11. SIZE OF GEAR: 200

12. CHART AREA: 521
13. AVG. DEPTH IN FATHOMS: 110
14. LATITUDE: 42 01.113
15. LONGITUDE: 069 24.139
16. AVERAGE TOW/SOAK TIME: 4:00

17. SPECIES CODE NAME	18. KEPT		19. DISCARDED		20. DEALER PERMIT NO.	21. DEALER NAME	22. DATE SOLD (mm/dd/yy)
	POUNDS (Comm)	COUNT (Rec)	POUNDS (Comm)	COUNT (Rec)			
Poll	14	111		30	[REDACTED]	[REDACTED]	11-13-2011
Cod	150	4		4			
Haddock	150	4		4			
Red	180	4		5			
Whiting	250	0		0			
Mackerel	800	12		12			
SD	50						
FIDAB	3000			30			
Grey	3200			30			
CUSH	25						
LOB	100						

23. PORT and STATE LANDED: Boston MA
24. DATE LANDED (mm/dd/yy): 11-11-2011
TIME LANDED: 08:30

25. OPERATOR'S NAME (printed) and PERMIT NUMBER (if required): [REDACTED]
26. OPERATOR'S SIGNATURE: [Signature] DATE: 11-11-2011

certify that the information provided on this form is true, complete and correct to the best of my knowledge, and made in good faith. Making a false statement on this form is punishable by law (18 U.S.C. 1001).

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Overarching Challenges

Disconnect in reporting regulations (for example, VTR serial number)

Stove-piped systems (1990s technology)

Lack of integration between reporting systems

Complex regulations in reporting requirements (one size fits all)

Party and charter boat reporting (no validation)

Access to data

Consistency of data management practices



Proposed Solutions



Electronic Vessel Reporting – integrate with other collections

Use smart technologies for reporting (for example, smart phones)

On-Line correction of VTRs via web portal (Fish-on-Line)

Eliminate paper-based reporting, did not fish reports, and no-purchase reports

Initiate for-hire reporting validation programs

Adapt reporting requirements to fishery

Promote industry ownership of data

Engage industry in designing reporting systems

Get data right at its source

Permit sanctions for failure to report

Eliminate the requirement to complete VTRs prior to landing, enabling shore side web-based reporting

Provide electronic access to data for Coast Guard and other law enforcement groups

Questions???

Comments...