Science, Service, Stewardship

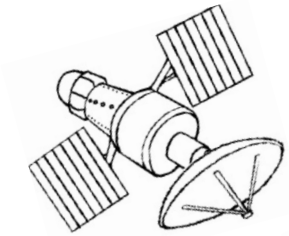
Integrated Reporting: Definition and Benefits

January 2, 2014

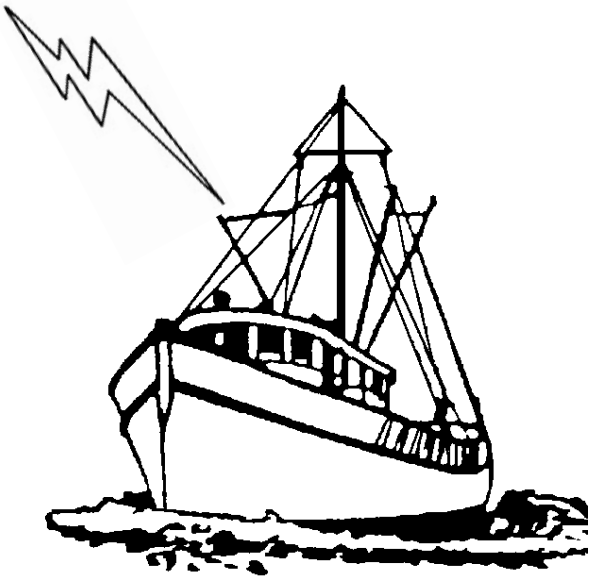
NOAA FISHERIES SERVICE

NOAA FISHERIES SERVICE

Reporting Today – Step 1

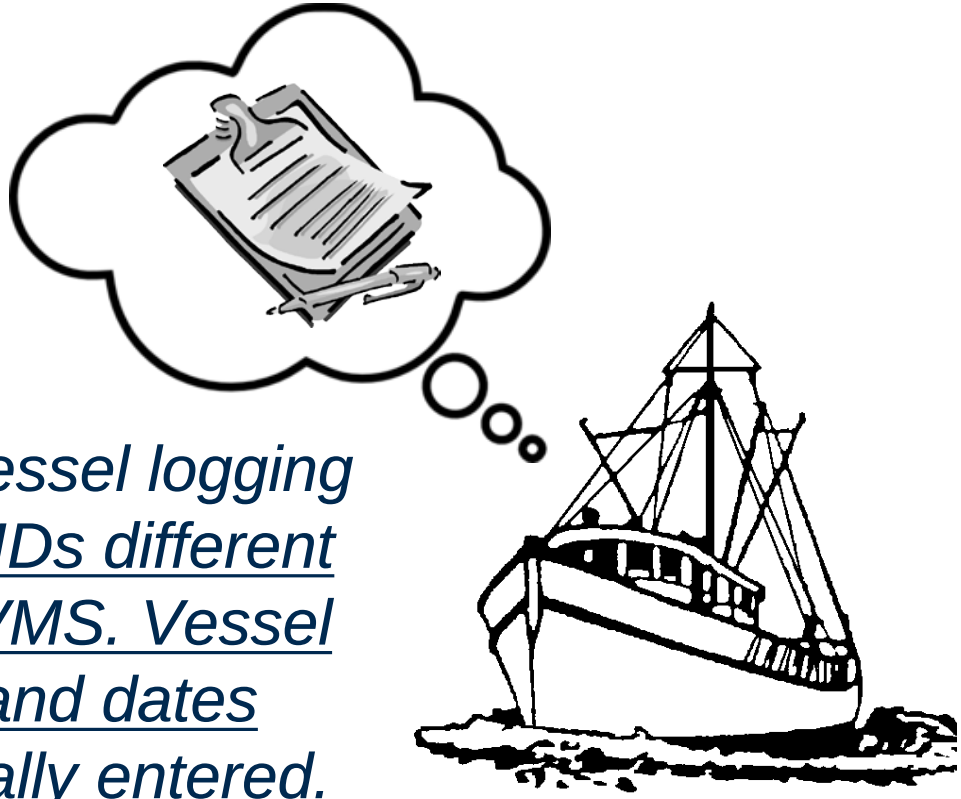


VMS Trip Declaration



NOAA FISHERIES SERVICE

Reporting Today – Step 2

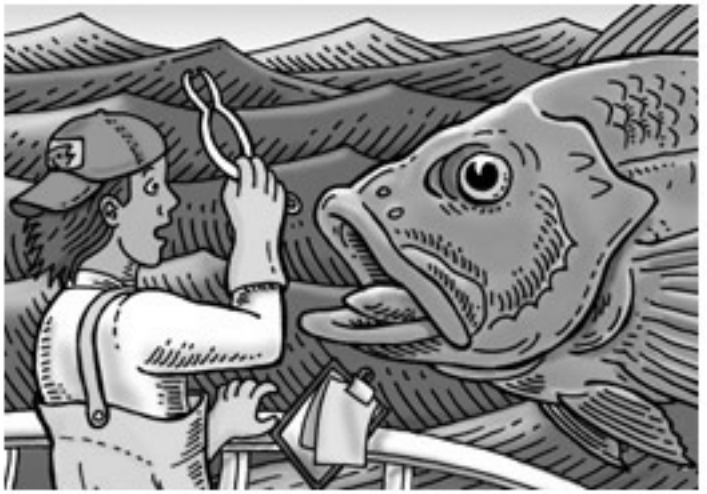


Subtrip vessel logging using IDs different from VMS. Vessel ID and dates manually entered.

NOAA FISHERIES SERVICE

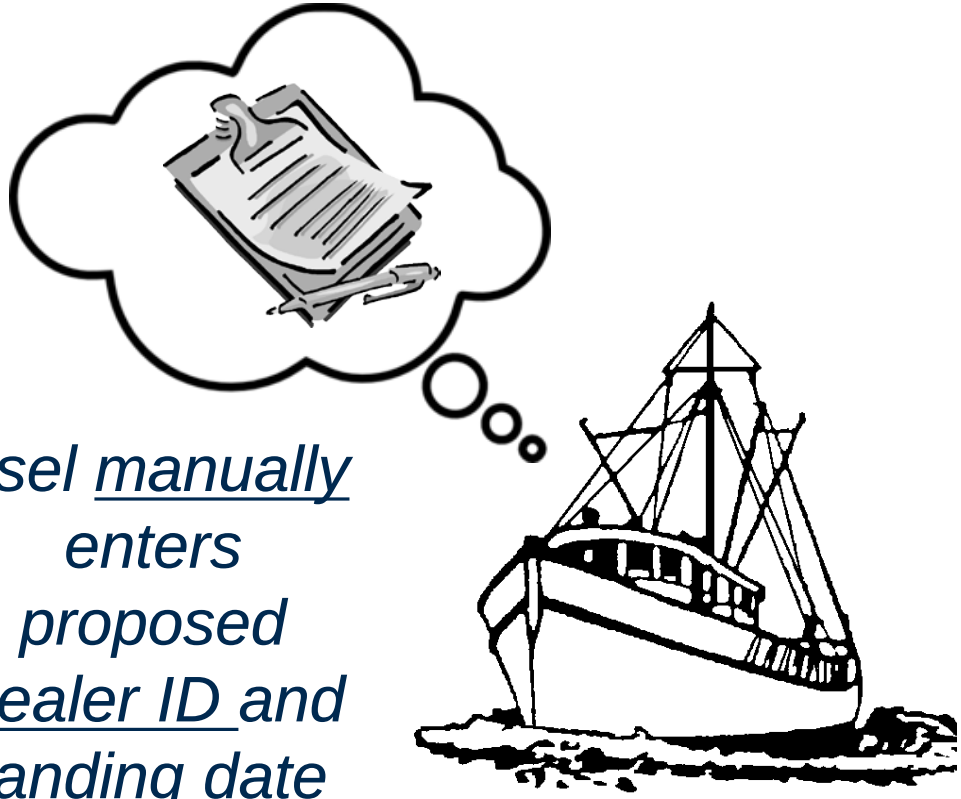
Reporting Today – Step 3

Observer manually enters data including trip ID, vessel ID, and dates.



NOAA FISHERIES SERVICE

Reporting Today – Step 4



Vessel manually enters proposed dealer ID and landing date into log

NOAA FISHERIES SERVICE

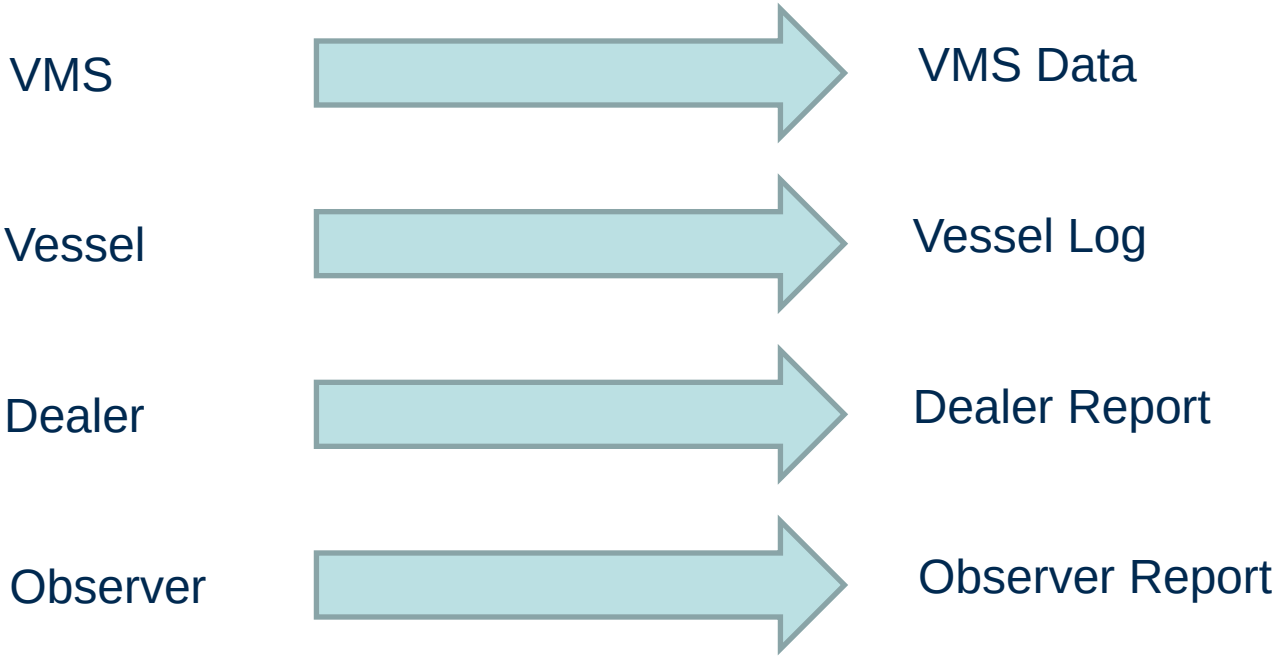
Reporting Today – Step 5

Dealer manually enters vessel ID, trip ID, and landing date into dealer report

NOAA FISHERIES SERVICE

Reporting Today – Step 6

Four separate reports are generated for one event.



NOAA FISHERIES SERVICE

Reporting Today – Step 7

Report Matching

Note different trip ID numbering systems.

Vessel log entries are subtrips.

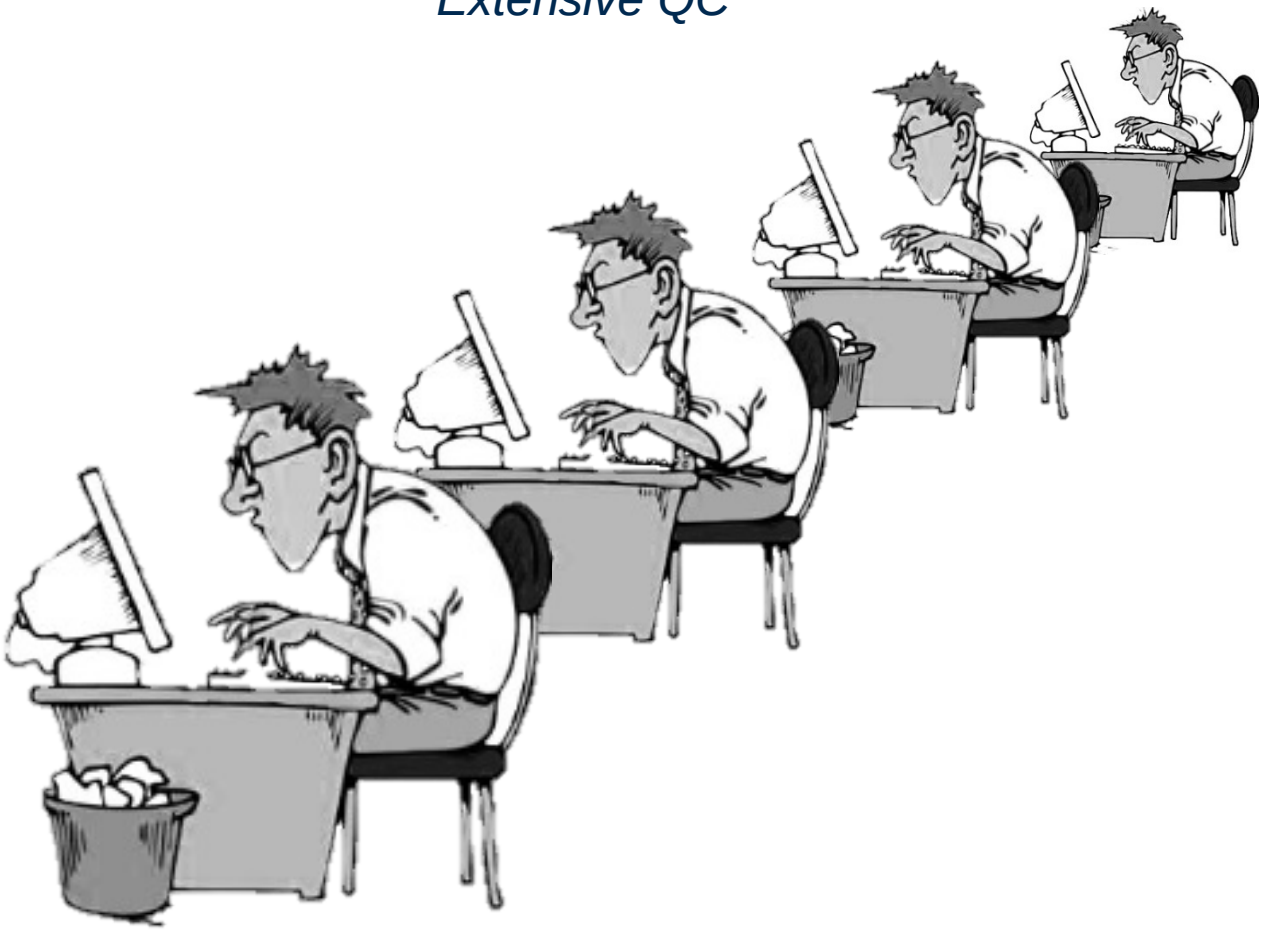
Match by trip ID, vessel ID, dealer ID, or date?

VMS Data		Vessel Logs		Observer Reports		Dealer Reports
VD1		VL1		OR1		DR1
VD2	?	VL2	?	OR2		DR2
VD3		VL3		OR3	?	DR3
VD4		VL4		OR4		DR4
VD5		VL5		OR5		DR5
VD6		VL6		OR6		DR6
VD7		VL7		OR7		DR7
.		.		.		.
.		.		.		.
.		.		.		.

NOAA
FISHERIES
SERVICE

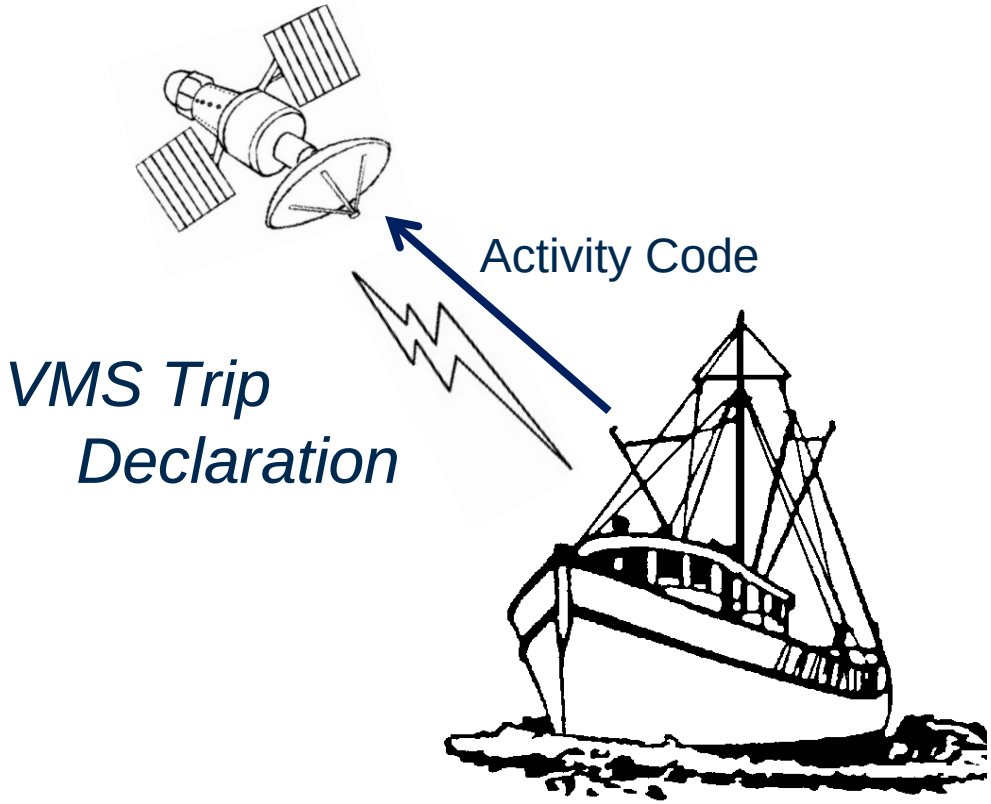
Reporting Today – Step 8

Extensive QC



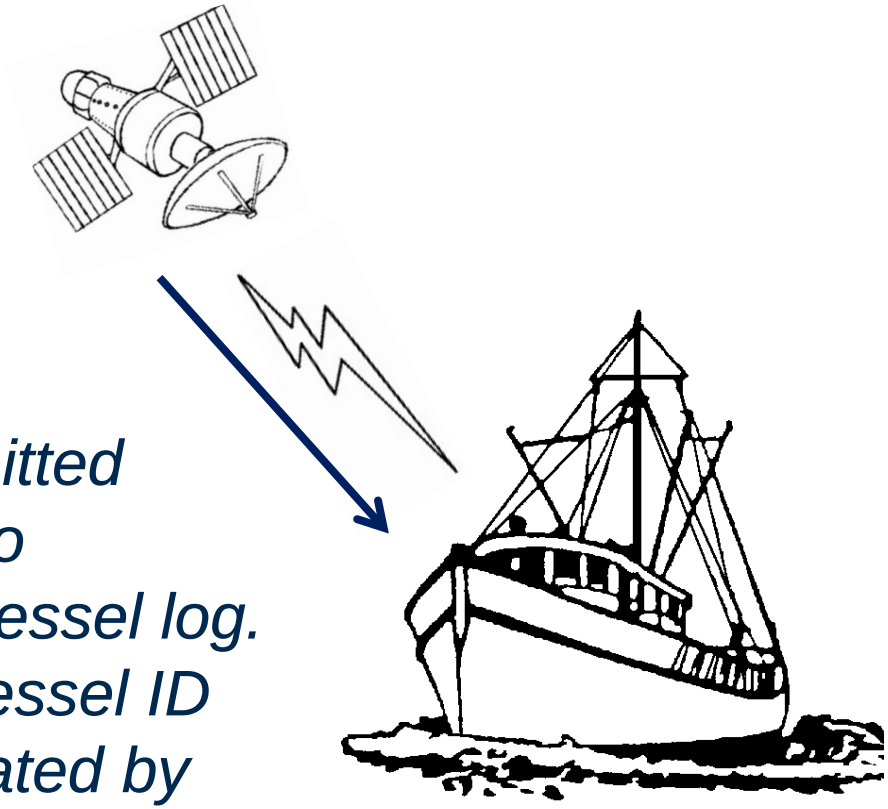
NOAA FISHERIES SERVICE

Integrated Reporting – Step 1



NOAA FISHERIES SERVICE

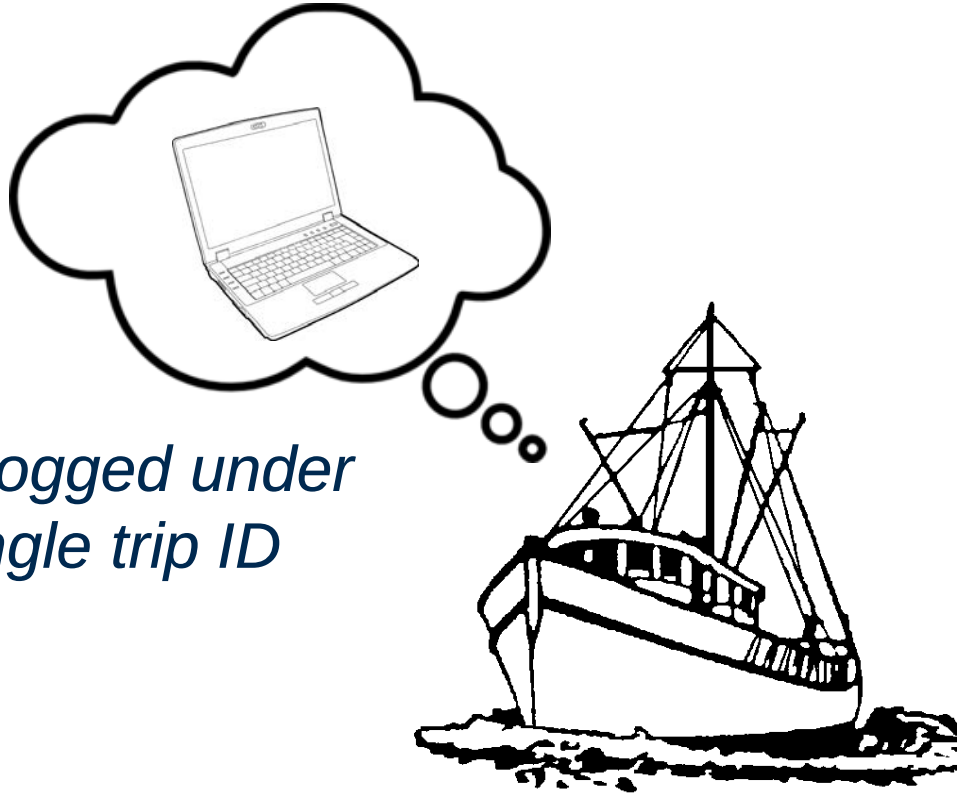
Integrated Reporting – Step 2



Trip ID transmitted from VMS to electronic vessel log. Date and vessel ID auto-generated by vessel log.

NOAA FISHERIES SERVICE

Integrated Reporting – Step 3

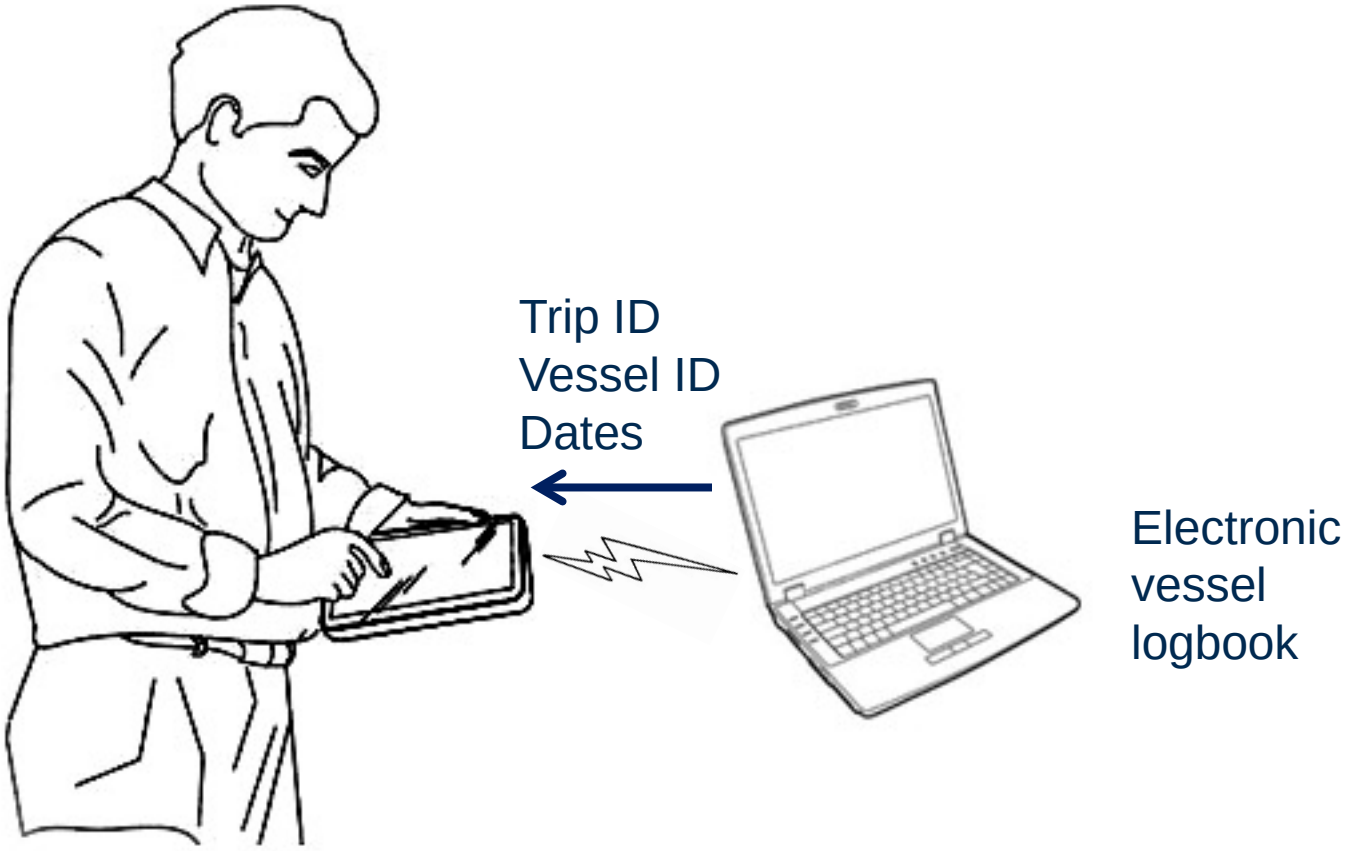


Subtrips logged under a single trip ID

NOAA FISHERIES SERVICE

Integrated Reporting – Step 4

Observer electronic reporting system acquires trip data.



NOAA FISHERIES SERVICE

Integrated Reporting – Step 5
Error case

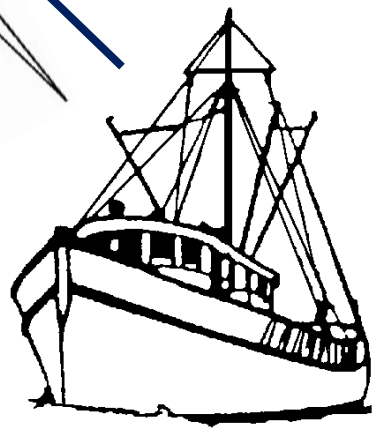
Integrated Reporting Web App

Intent to sell
Trip ID
Vessel ID
Landing Date

Vessel arrives at dealer A but declares intent to sell to dealer B

Dealer B

Dealer A



NOAA FISHERIES SERVICE

Integrated Reporting – Step 6
Error case

Integrated Reporting Web App

Upon attempt to sell, dealer informs vessel operator that no intent notice was received.

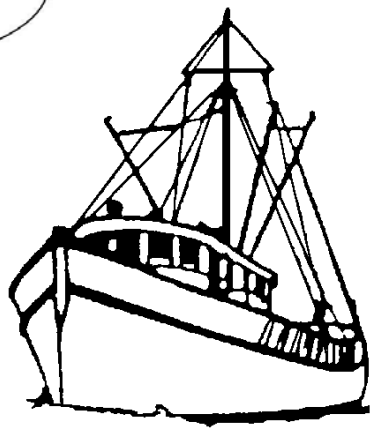
BLOCKED

Sorry, we can't buy your fish.

Dealer Report

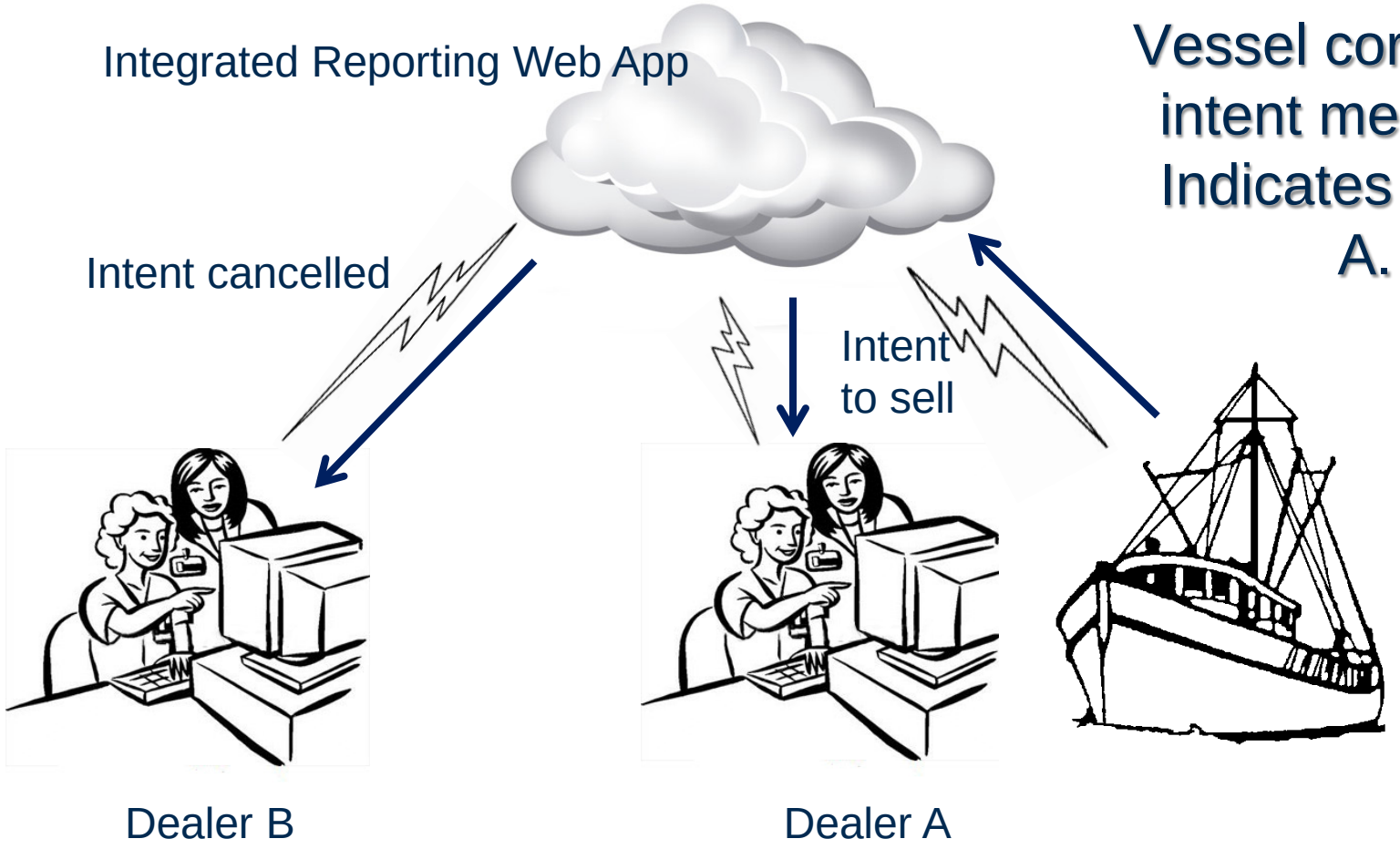
Dealer B

Dealer A



NOAA FISHERIES SERVICE

Integrated Reporting – Step 6
Correction option 1

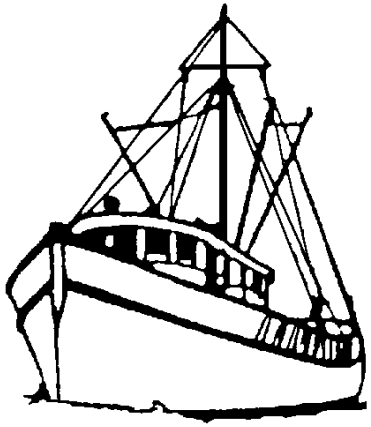


NOAA FISHERIES SERVICE

Integrated Reporting – Step 6 Correction option 2

Integrated Reporting Web App

Vessel sells to dealer B.



Dealer B

Dealer A

NOAA FISHERIES SERVICE

Integrated Reporting – Step 7

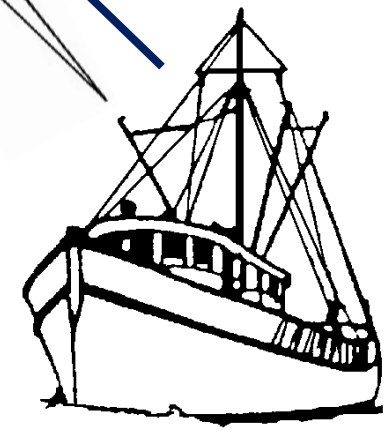
Integrated Reporting Web App

Reports uploaded via wireless at dealer

Dealer data

Vessel log data

Observer data



Dealer

NOAA FISHERIES SERVICE

Two Realizations of Integrated Reporting

1. All data is written to a single report via the web app
2. Logical equivalent: subsystems communicate the following information directly to each other
    1. Trip ID
    2. Vessel ID
    3. Dealer ID
    4. Trip dates

NOAA FISHERIES SERVICE

Summary

- The integrated reporting concept is derived by identifying the sources of errors in reporting systems and preventing each of these errors.
- Errors become nearly impossible to generate
- Important side benefits
  - Near real time
  - Major cost savings in QC
  - Saves effort for reporters due to data not entered
  - Matching step is trivial or can be eliminated altogether