Integrated Reporting: In Brief
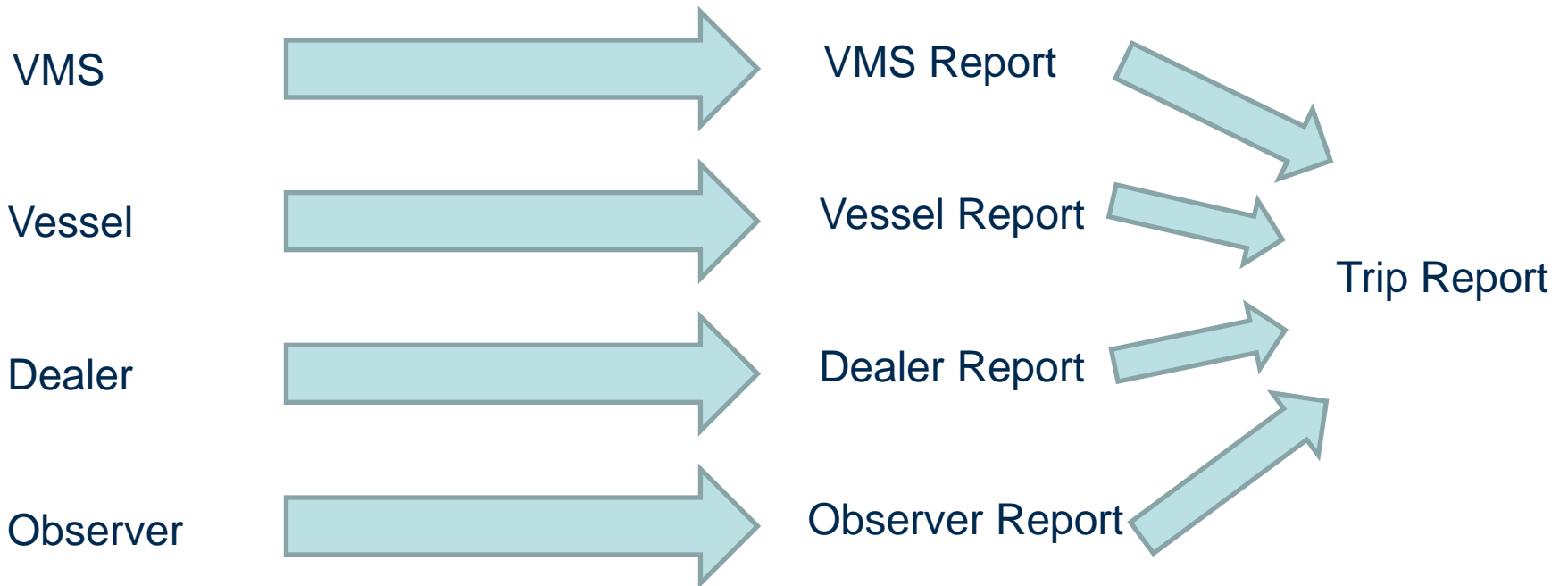
July 24, 2014

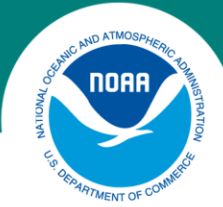NOAA
FISHERIES
SERVICE

There are two kinds of reporting

- **Trip matched**: Matching is done after the trip is complete.
- **Integrated**: All trip data goes to a single report. No matching is required.
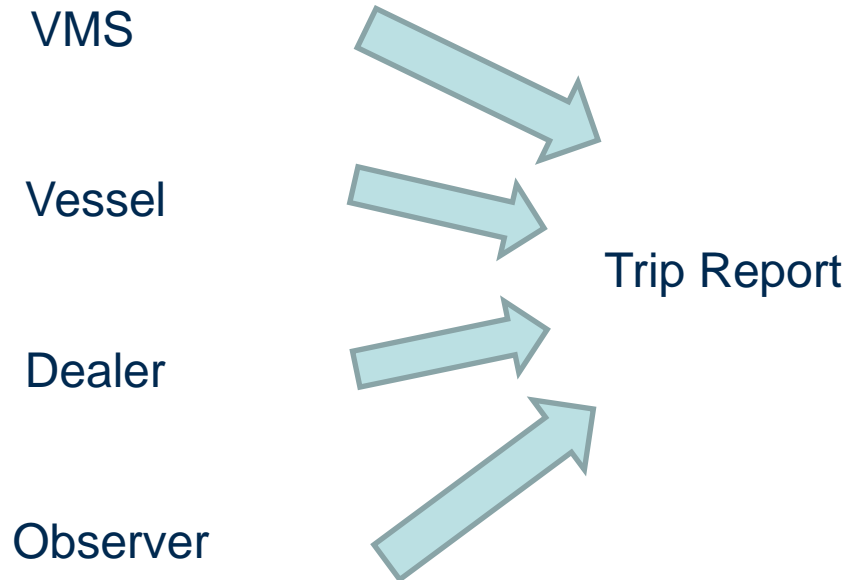
Trip matched reporting

- Four separate reports are generated for each trip.
- Analysts need data combined at the trip level, so…
- Individual reports of trip are matched after the trip.

VMS → VMS Report

Vessel → Vessel Report

Dealer → Dealer Report

Observer → Observer Report

VMS Report, Vessel Report, Dealer Report, Observer Report → Trip Report

Integrated reporting

- All entities contribute to a single report.
- Or the logical equivalent.

VMS

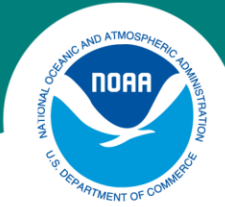Vessel

Trip Report

Dealer

Observer

Report Matching

Distinguishing between incorrect trip identifiers
(permit #, date, trip ID)
and missing reports is unsolvable.

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

- Fuzzy matching and imputation matching are examples of QC.
- QC detects and fixes errors.
    - Guesswork is involved.
    - Catch is overestimated or underestimated.
    - An unknown number of errors remain.
- QA prevents errors
    - A prevented error is equivalent to a perfect QC fix.
    - More efficient

Two Other Important Principles of Integrated Reporting

1. Detect invalid entries upon input and give meaningful feedback. Ask for corrected entry.
2. If data can be machine generated, *do not* collect it from humans.
   - Trip ID
   - Today's date
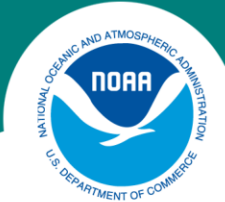   - Vessel permit number
   - Dealer permit number
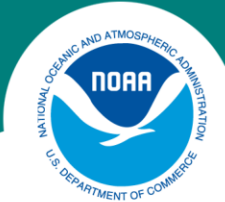
Arguments for Not Implementing Integrated Reporting

1. It was invented at Headquarters.
2. We don't have the resources to implement it.

Response to Arguments for Not Implementing Integrated Reporting

1. Actually, it wasn't invented at Headquarters.
2. There is a version called Logical Equivalent.
   - Breaks development into tiny steps
   - Each step results in a fully functional system.