# Shoreside EM Program

## Implementation Overview

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# Installation and Participants

**2020 EM Pool = 28 vessels**

**2021 EM Pool = 52 vessels total**

➢ **21 new installs, 3 previously EM installed (whiting fishery)**

➢ **Installs in Dutch Harbor, Kodiak, Seattle WA, Reedsport OR**

➢ **44 Archipelago and 8 SWI systems**

- BS Only = 29 vessels
- GOA Only = 10 vessels
- BSAI/GOA = 13 vessels

# How Are We Doing?

## Issue Reporting and Equipment Performance

1. Vessel initiated contacts and types

2. In season reported equipment issues (by location)

3. Specific component issues overview (vessel reported)
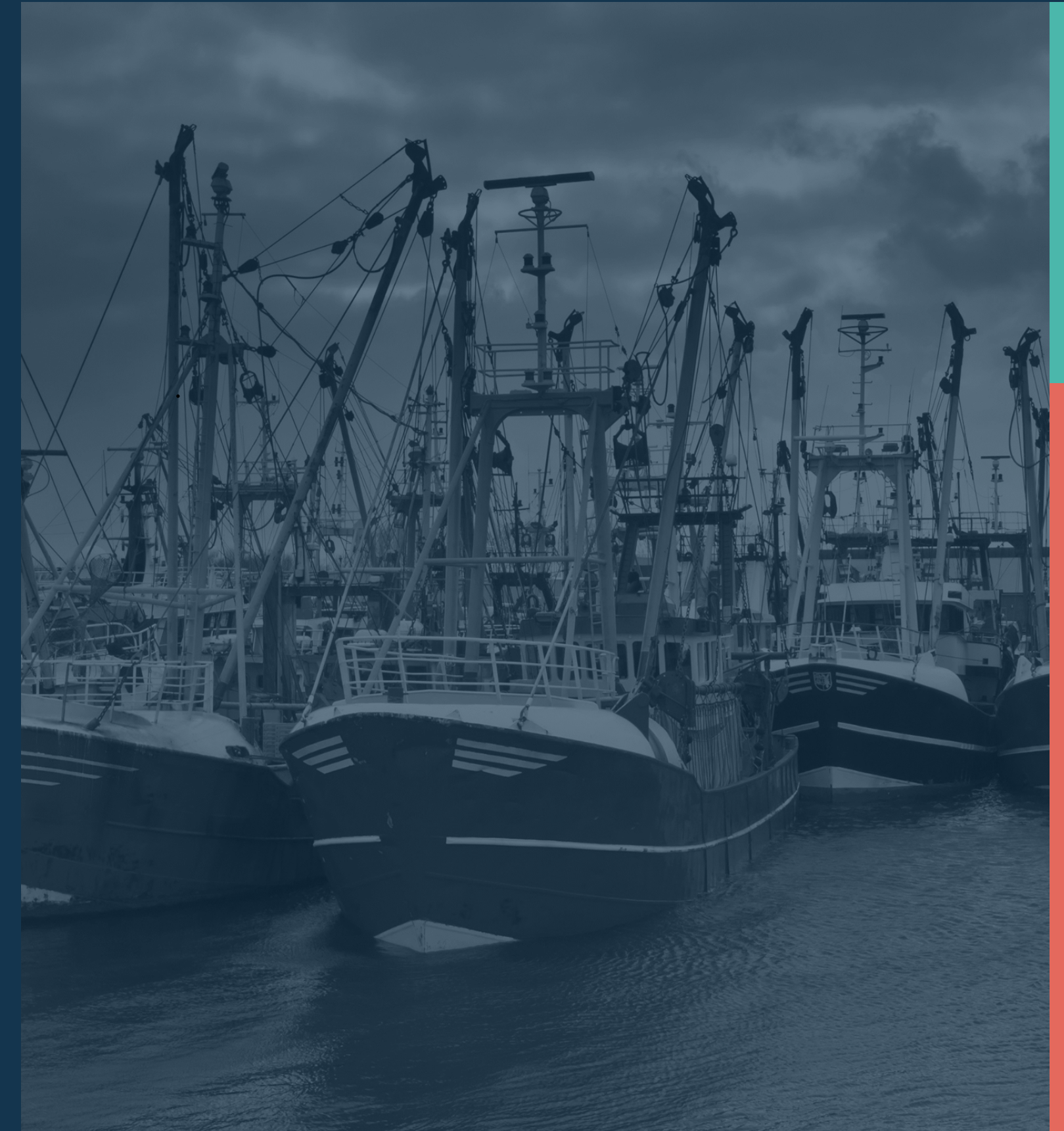
# Vessel Contact Types

## Procedures/EFP Requirements
➢ e.g. logbook submission issues, repair before/during offload, system reboots (not continuous power)
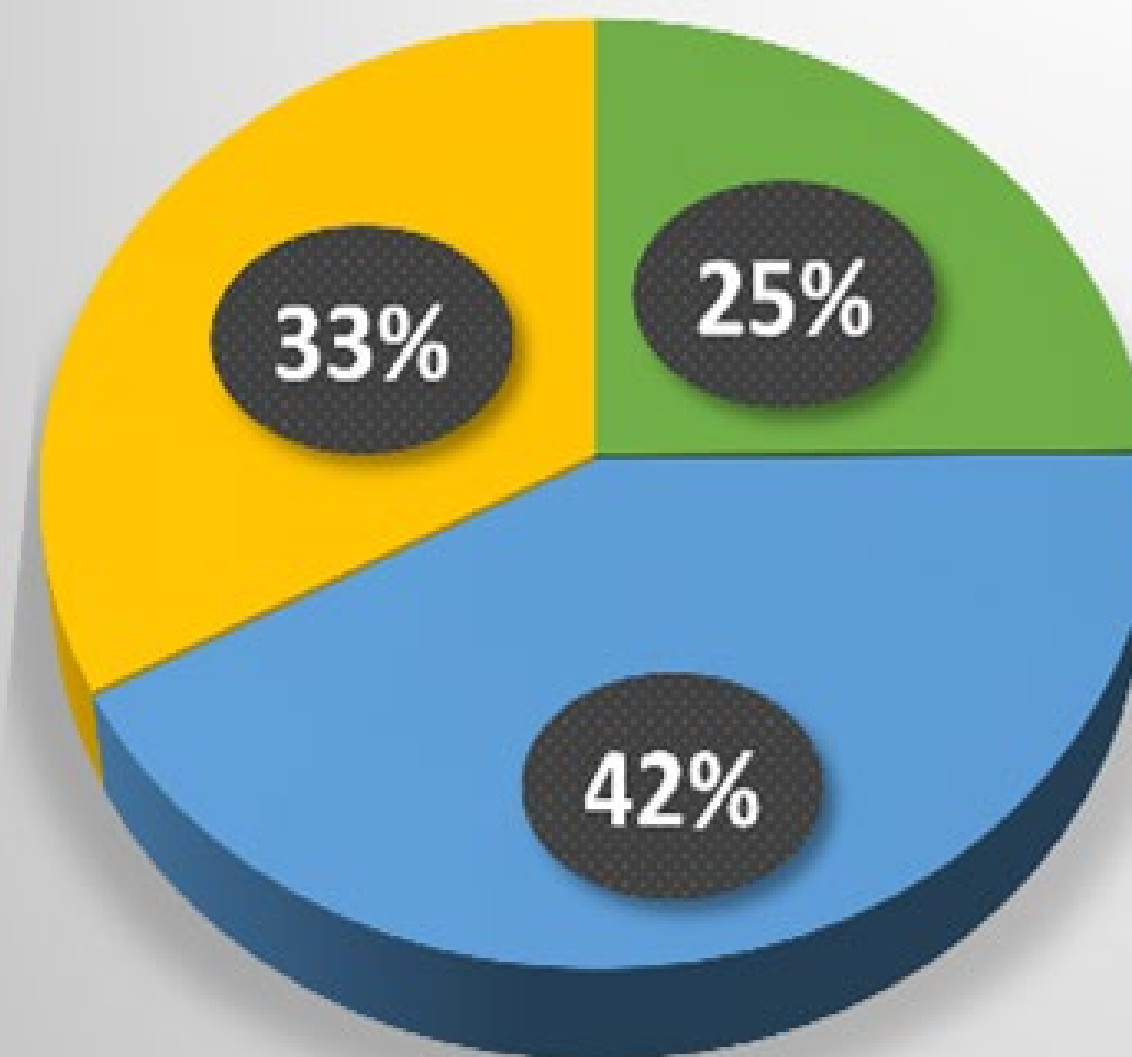
## Malfunction (no service required)
➢ System or vessel resolved

## Malfunction (service required)
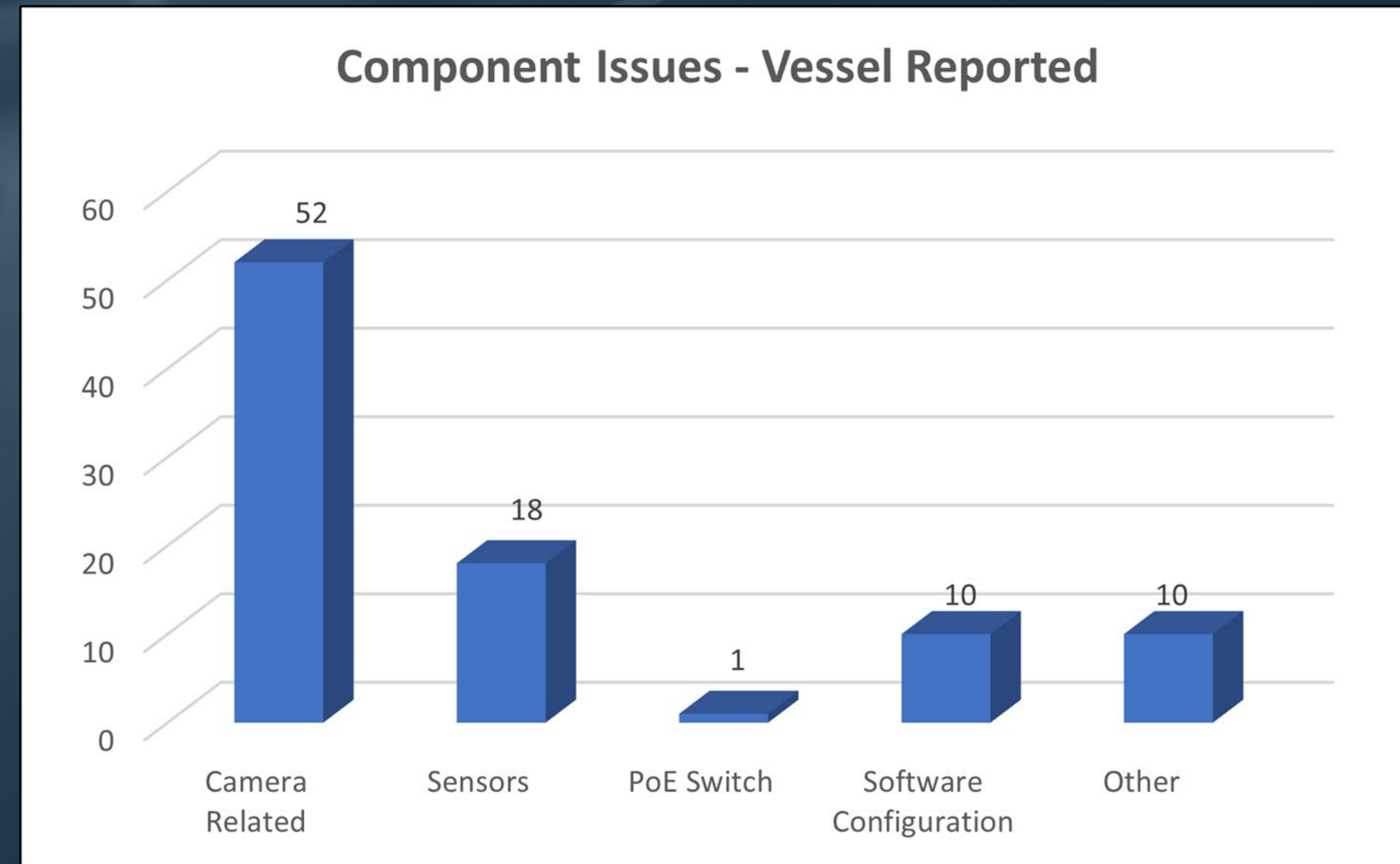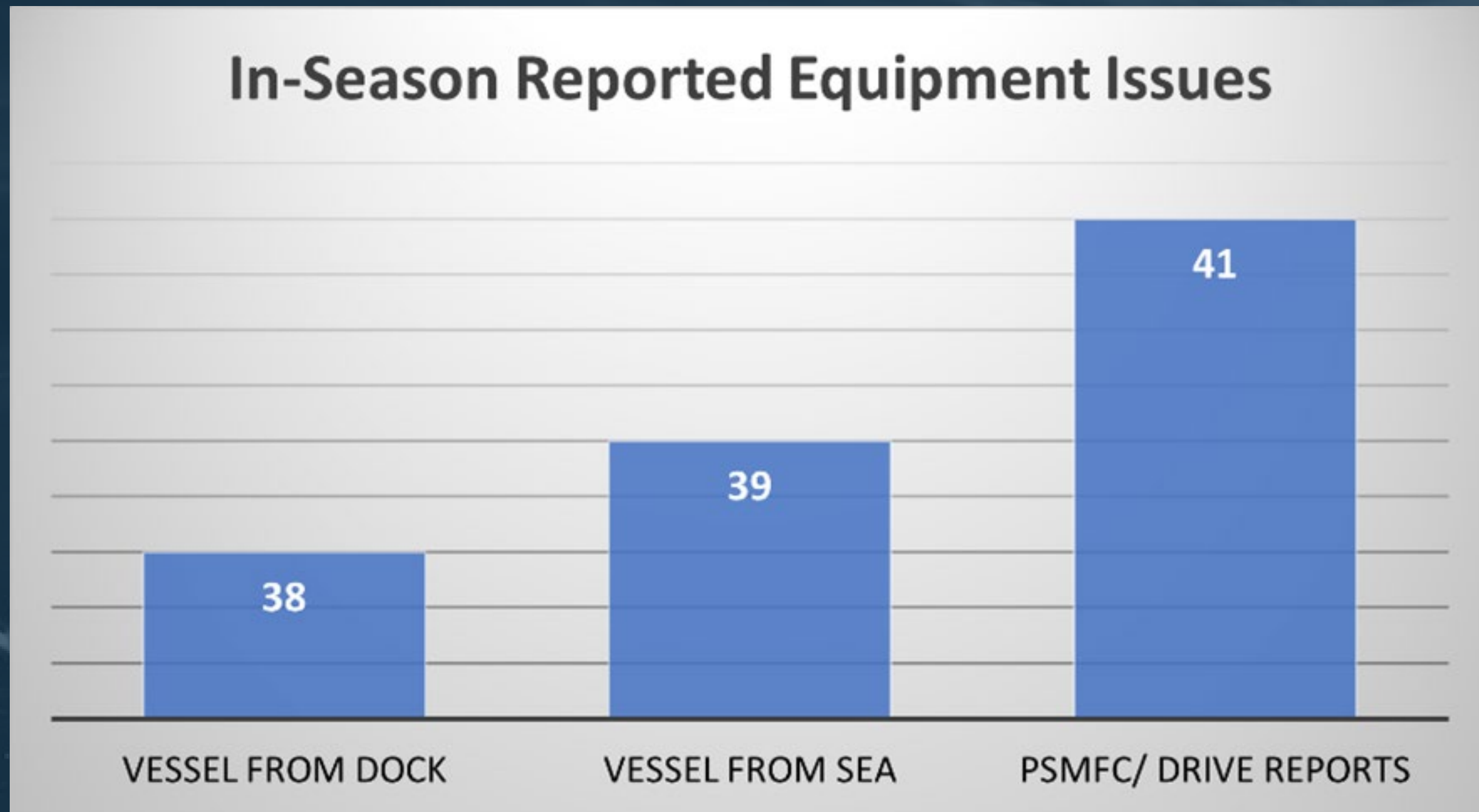➢ Technician required

### Vessel-Initiated Contacts - By Type

25% ■ Program Procedures / EFP Requirement

33%

42% ■ Malfunction ( service required )

■ Malfunction ( no service required )
* system or crew resolved

**Jan 2020 through Apr 15, 2021**

# In-Season Equipment Issues

## Reported From ...

**In-Season Reported Equipment Issues**

- VESSEL FROM DOCK: 38
- VESSEL FROM SEA: 39
- PSMFC/ DRIVE REPORTS: 41

## Specific Component

**Component Issues - Vessel Reported**

- Camera Related: 52
- Sensors: 18
- PoE Switch: 1
- Software Configuration: 10
- Other: 10

Jan 2020 through Apr 15, 2021

# Issue Reporting and Equipment Performance How are we doing - Summary

- Equipment performing as expected and issues are getting resolved quickly

- Vessels doing a good job at identifying and reporting malfunctions and working with the remote support team to resolve

- Redundant camera views and backup sensors are helping reduce critical data loss

- Vessel Operators new to the EM program this year are up to speed with system operation and able to resolve minor issues on their own!

# How Are We Doing?

## Feedback Loops / Drive Report Overview

1. Reported Issues Categories

2. Data Quality Category – Issue types

3. Vessel EFP Reporting Category – Issue types

# Drive Reports

- Completed/emailed after each trip

- Main Feedback loop

- Details on Issues encountered

- Comments on EFP requirements met

5 Reporting Categories (for some "metrics")

# Drive Report Categories

## 1. Catch Issues

- handling/sorting & discards
- Retention /allowable discards

## 2. Data Quality Issues
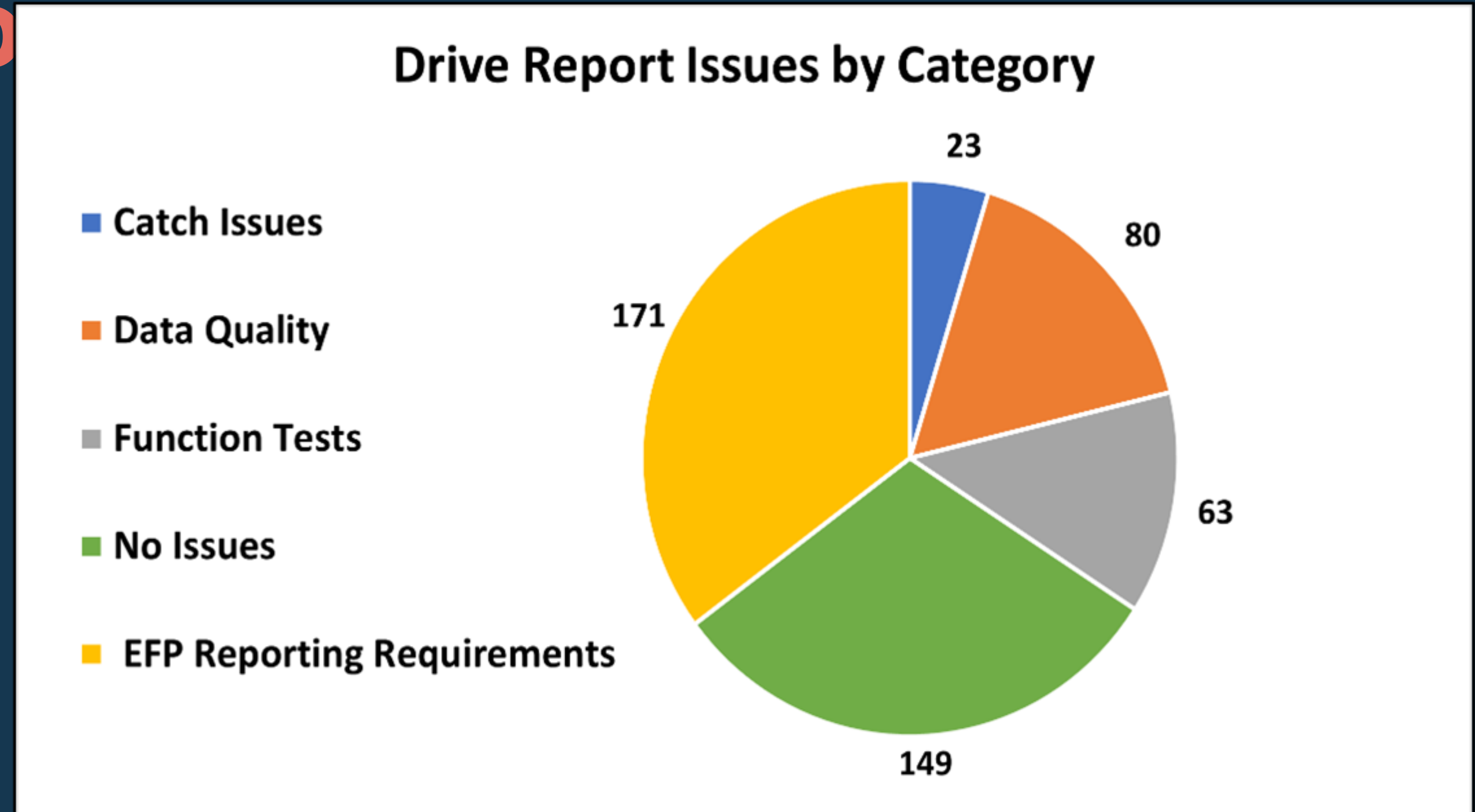
- Sensor and video data complete
- unobstructed camera views

## 3. Function Test Completed?

## 4. No Issues !

## 5. EFP Reporting Requirements

- Logbook and Hard drive submission
- Offload video recording

### Drive Report Issues by Category

- Catch Issues
- Data Quality
- Function Tests
- No Issues
- EFP Reporting Requirements

23
80
171
63
149

**Jan 2020 through Apr 15, 2021**

# Data Quality Issues

## Video Gaps (major)
- gaps during fishing or offload

## Video Gaps (minor)
- Gaps outside of fishing or offload

## Data Gaps Short & Long
- Missing sensor and video data

## Delayed Power On
- system not on prior to departing port

## Catch Handling
- catch processed outside of view (primarily onboard use)



### Data Quality Issues

- Video Gaps - Major (affected review)
- Video Gaps - Minor (doesn't affect review)
- Data gaps - Long (> 5 mins)
- Data gaps - Short (< 5 mins)
- Delayed EM system power on
- Catch Handling

Pie chart values: 3, 12, 14, 18, 18, 13
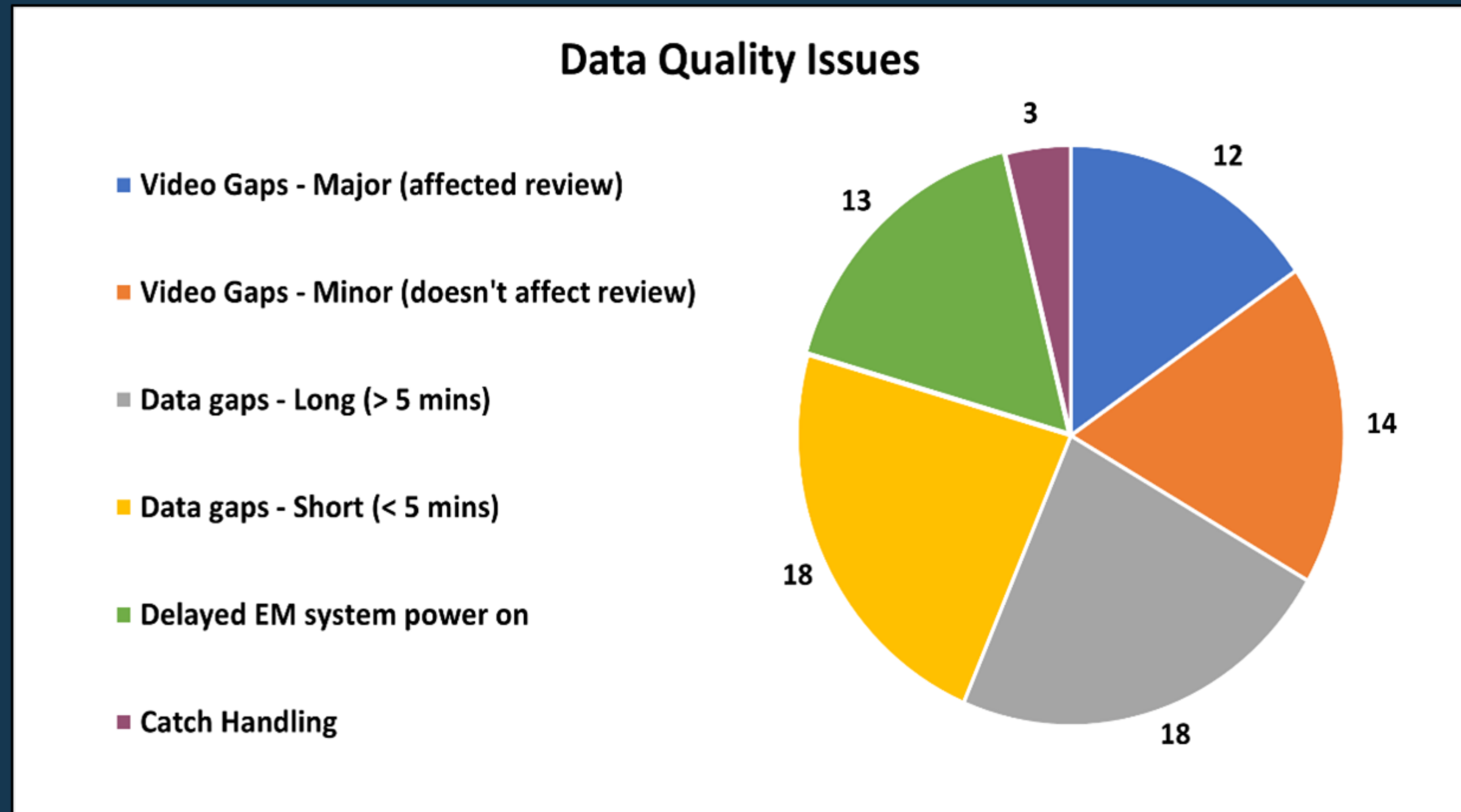
**Jan 2020 through Apr 15, 2021**

# EFP Reporting Require[ment]

## Delayed Drive Submission
- >3 Trips

## Log Submission
- within 24hrs of landing/offload

## Trip Limit Per Drive
- currently 3 max

## Incomplete/Missing Offload
- entire offload not recorded *

## Log Recording Errors/Missing Logs
- Discards as comments, use on board missing

### EFP Reporting Requirements

- Delayed drive submission
- Delayed log submission
- Drive with more than 3 trips
- Incomplete offload recording
- Log recording error
- Missing logbook or page(s)
- Missing offload recording

3    7    12

34

63

37

15
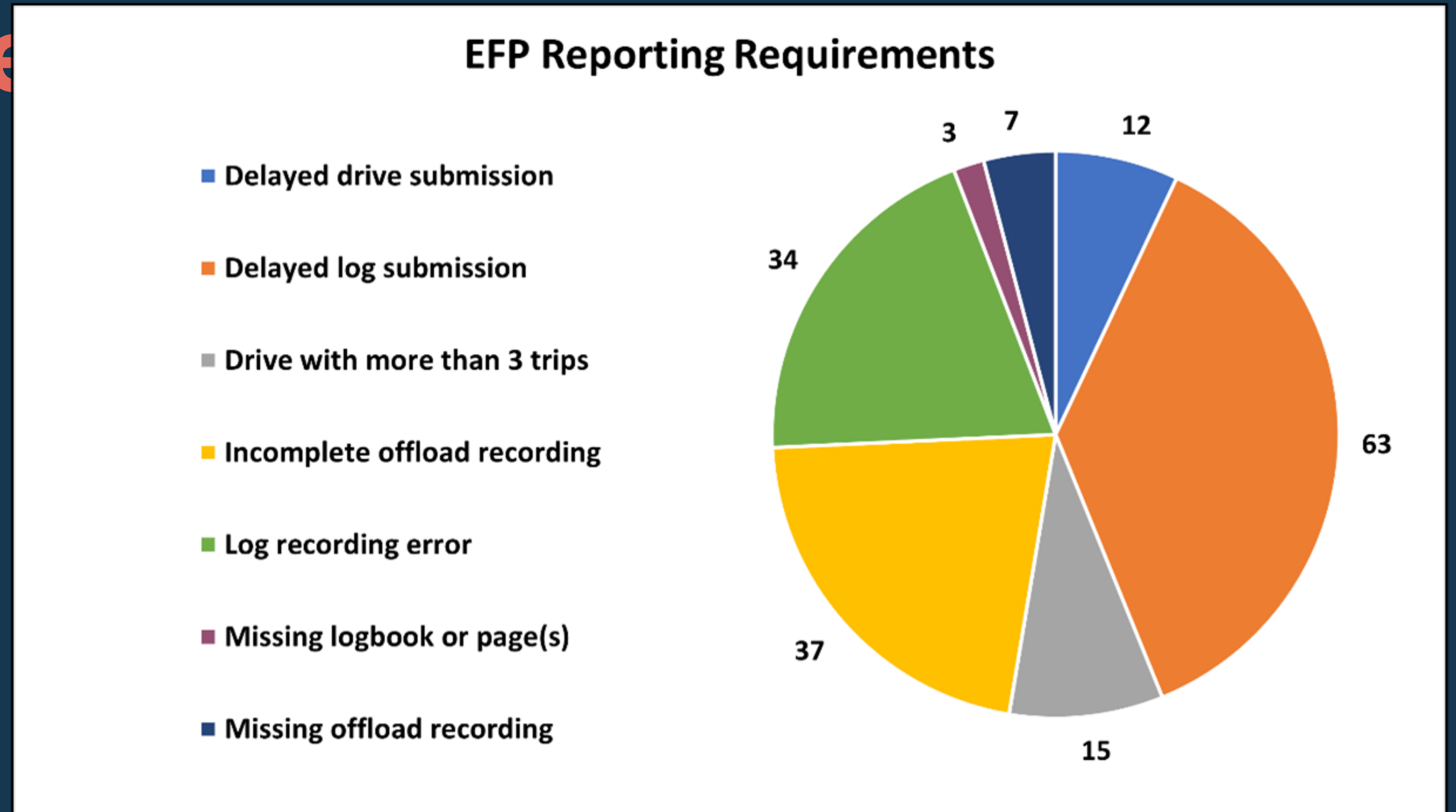
**Jan 2020 through Apr 15, 2021**

# How Are We Doing?

## Feedback Loops / Drive Report Summary

1. Feedback loops are critical and working well

   - ✓ New vessels/relief operators up to speed quickly

   - ✓ fewer instances of repeat issues

2. Data quality and EFP reporting requirements continually improving

   - ✓ "No issues' or minor issue only drive reports are on the rise!

# Looking Forward ...

1. Continued EM Capacity Building

   ➢ be ready for future EM expansion for pollock program and other trawl fisheries (data review and equipment service capacity)

   ➢ what service ports and when/how to staff them

   ➢ explore the potential use of shoreside observers for other EM program assistance (e.g. electronic data transfer coordination)?

2. Continued Technology Advancements (hardware and software)

   ➢ continue to explore the use of AI algorithms and other technologies for video review efficiencies and reducing EM data size.

   ➢ e-log and e-data transmission capacity exploration

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# QUESTIONS?

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