

# AWO Combined Regions Annual and Safety Meeting February 21, 2024

Prepared by Michael J. Simbulan  
& Omar La Torre Reyes

Analyst, Office of Investigations  
& Analysis

U.S. Coast Guard



The American  
Waterways Operators



# Office of Investigations & Analysis

The Office of Investigations & Casualty Analysis (CG-INV) reports to the Director of Inspections & Compliance (CG-5PC) and is located at the U.S. Coast Guard Headquarters building in Washington D.C. The office is comprised of three divisions:

- Investigations Division (CG-INV-1)
- Compliance Analysis Division (CG-INV-2)
- Data Administration and FOIA Division (CG-INV-3)

In addition, the following Coast Guard Headquarters Units report to the Office:

- Investigations National Center of Expertise, New Orleans LA
- Suspension & Revocation National Center of Expertise, Martinsburg WV
- Marine Safety Lab, New London CT

<https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/cginv/Office-of-Investigations-Casualty-Analysis-Copy/>

# Incident Investigation Reports



## USCG Maritime Information Exchange Incident Investigation Reports

[SEARCH IIR](#) [FEATURED LINKS](#) [WEB ACCESSIBILITY POLICY](#) [FOIA REQUESTS](#) [CONTACT US](#)

[Skip Navigation](#)

### Welcome to the United States Coast Guard Online Incident Investigation Reports

The Online Incident Investigation Report provides you with information regarding maritime incidents investigated by the U.S. Coast Guard under Part D of Title 46 of the U.S. Code. These published reports are limited to reportable marine casualties, as defined in Section 4.05 of Title 46 of the Code of Federal Regulations, that were closed after October 2002. Additional reports, those closed prior to November 2002 may be added in the future.

The information published herein complies with Federal laws designed to protect from disclosure personal and private information about members of the public. In particular, the Privacy Act (5 U.S.C. 552a) and the Health Insurance Portability And Accountability Act (HIPAA) of 1996 (P.L. 104-191) prohibit the Coast Guard from disclosing certain information to the public.

This website offers several options to search for reports and retrieve a listing of incidents that match your search criteria. You can then view selected reports from that list. However, due to the complexity and volume of the data involved, the report initially displayed contains only top level data. You are provided the option to add timeline and detail data if you wish. However, doing so may significantly add to the load time of the detailed report. We welcome your suggestions on ways to improve this site.



## USCG Maritime Information Exchange Incident Investigation Reports

[SEARCH IIR](#) [FEATURED LINKS](#) [WEB ACCESSIBILITY POLICY](#) [FOIA REQUESTS](#) [CONTACT US](#)

[CGMIX Home Page](#)  
[IIR Home Page](#)  
[Search IIR](#)

### SEARCH INVESTIGATION REPORTS

Activity Number:  [Search Tips](#)

Vessel Service:

Involved Vessel:

Involved Organization:

Involved Facility:

General Keyword:

Start Date Range: **From:**   **To: End Date**

<https://cgmix.uscg.mil/IIR/Default.aspx>

# Port State Information Exchange



## USCG Maritime Information Exchange XML Web Services

[XML WEB SERVICES](#) [FEATURED LINKS](#) [WEB ACCESSIBILITY POLICY](#) [FOIA REQUESTS](#) [CONTACT US](#)

[Skip Navigation](#)

### CGMIX XML Web Services

#### Available Web Services:

(For your convenience, these web services return either a .NET Framework Dataset or an XML string.)

<http://cgmix.uscg.mil/xml/PSIXData.asmx>

The Port State Information Exchange (PSIX) system contains vessel specific information derived from the US Coast Guard's Marine Information Safety and Law Enforcement System (MISLE). The information contained in PSIX represents a weekly snapshot of Freedom of Information Act (FOIA) data compiled within the MISLE database.

<http://cgmix.uscg.mil/xml/EquipmentData.asmx>

This database contains approved or certified equipment by the Commandant of the US Coast Guard for use on commercial vessels and recreational boats, for the reference of ship-owners, operators, builders, and other persons affected by the Marine Inspection and Navigation Laws and Regulations.

<http://cgmix.uscg.mil/xml/IIRData.asmx>

The Online Incident Investigation Report provides you with information regarding maritime incidents investigated by the U.S. Coast Guard under Part D of Title 46 of the U.S. Code. These published reports are limited to reportable marine casualties, as defined in Section 4.05 of Title 46 of the Code of Federal Regulations, that were closed after October 2002. Additional reports, those closed prior to November 2002 may be added in the future.

The information published herein complies with Federal laws designed to protect from disclosure personal and private information about members of the public. In particular, the Privacy Act (5 U.S.C. 552a) and the Health Insurance Portability And Accountability Act (HIPAA) of 1996 (P.L. 104-191) prohibit the Coast Guard from disclosing certain information to the public.



## USCG Maritime Information Exchange Port State Information Exchange

[SEARCH PSIX](#) [FEATURED LINKS](#) [WEB ACCESSIBILITY POLICY](#) [FOIA REQUESTS](#) [CONTACT US](#)

[CGMIX Home](#)

[PSIX Home](#)

[PSIX Vessel Search](#)

[PSIX Vessel Contact Search](#)

### PSIX VESSEL SEARCH

Vessel Name:

Primary Vessel Number:

Hull Identification Number (HIN):

Vessel Call Sign:

Vessel Flag:

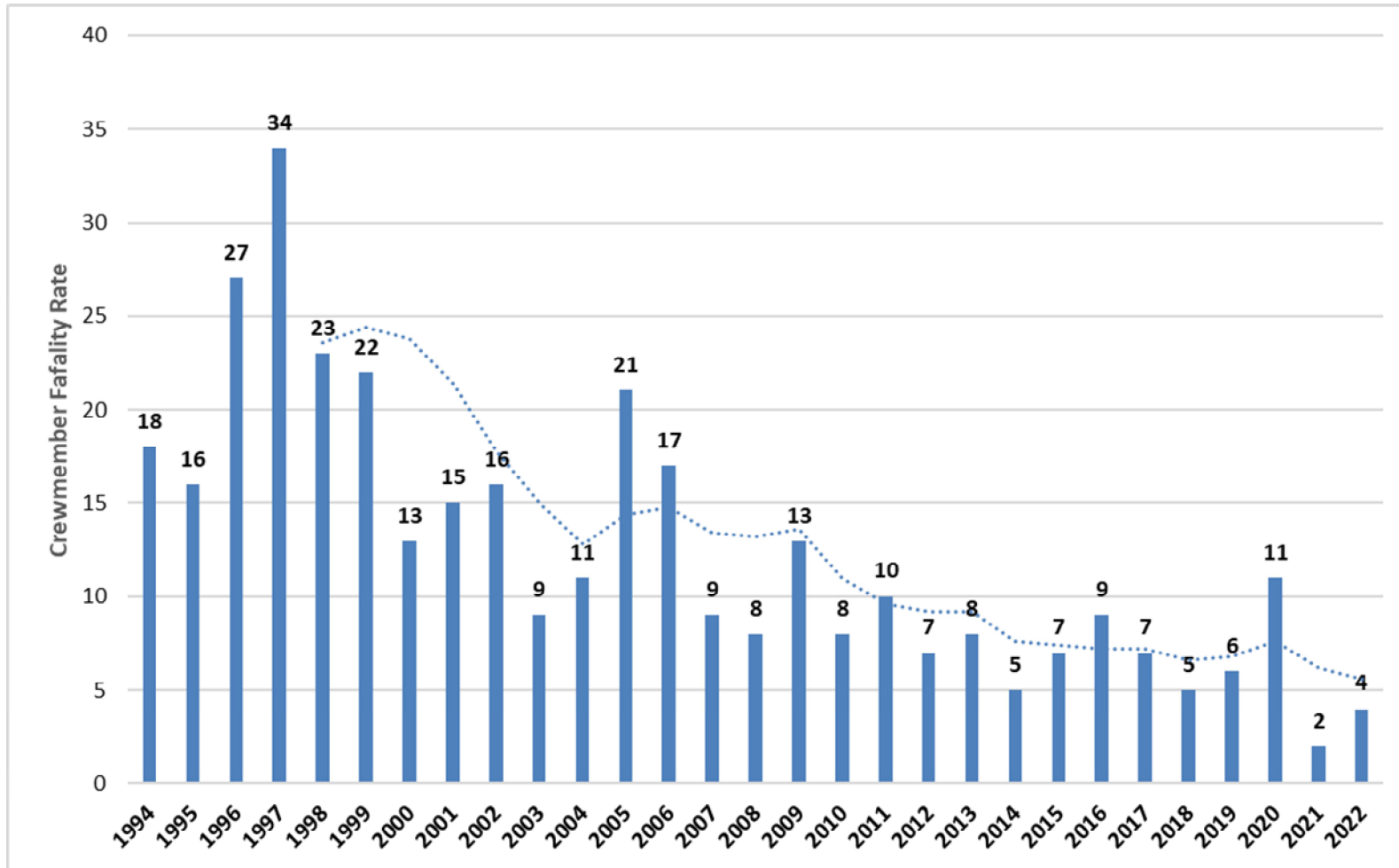
Vessel Service:

Vessel Build Year:  (YYYY)

Out of Service:

<https://cgmix.uscg.mil/PSIX/PSIXSearch.aspx>

# Crewmember Fatality Rate



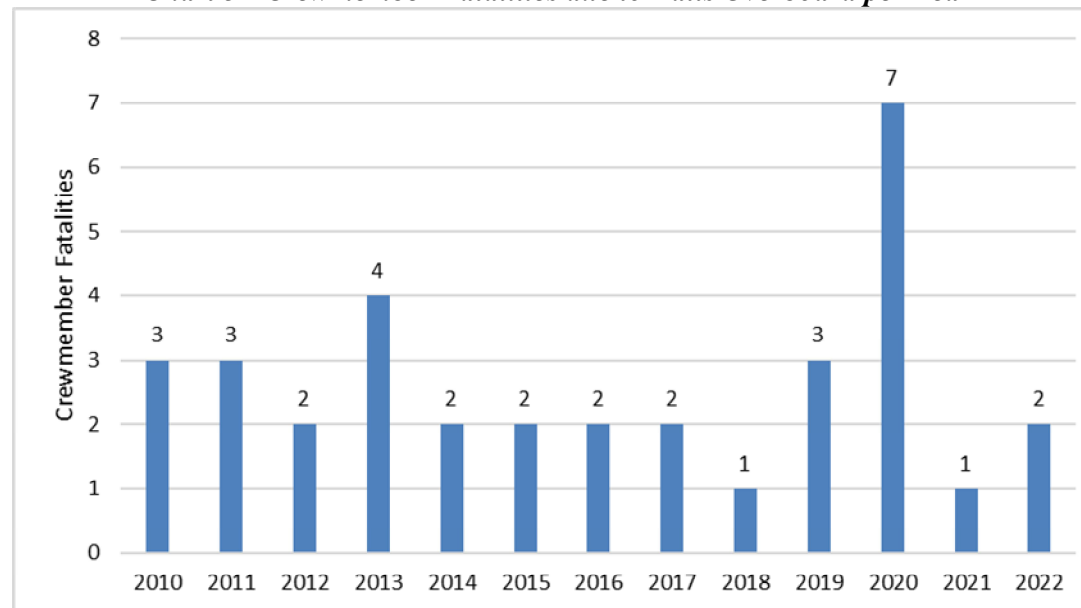
## Summaries:

- A crewmember fell into the water while moving a dredge pipe. The coroner reported that the crewmember suffered a cardiac arrest due to cold water exposure and that pre-existing medical conditions were a factor. (7383285)
- While crewmembers were installing deck rigging, one crewmember was struck by a line and thrown into the air landing on another barge. The crewmember suffered a severe head injury and a fractured leg and died from the injuries.
- While engaged in crane operations, a crewmember was struck in the head by a suspended load and died from the injury.
- While locking through, a crewmember fell into the water and was crushed between the towing vessel and barge.

# 2023 Preliminary Fatality Data

- 3 Fatalities related to vessel operations:
- 2 involved falls overboard (one line handling related).
- 1 incident involved a vehicle rolling off a barge with driver inside.

**Chart 3 - Crewmember Fatalities due to Falls Overboard per Year**



**Table 1 - Crewmember Fatalities by Accident Type 2018-2022 versus Cumulative Totals 2000-2022**

Accident Type	2018	2019	2020	2021	2022	Accident Type 2018-2022	Accident Type 2000-2022
Contact Injury- Fall into water	0	1	3	0	0	4 (15.4%)	83 (43.7%)
Noncontact Injury - Asphyxiation	2	1	4	0	0	7 (26.9%)	34 (17.9%)
Contact Injury- Crushed between objects	1	2	0	1	2	6 (23.1%)	21 (11.1%)
Other/Unknown	0	1	3	1	0	5 (19.2%)	14 (7.4%)
Struck by Moving Object	0	0	1	0	0	1 (3.8%)	10 (5.3%)
Fall Onto Surface	0	0	0	0	0	0	8 (4.2%)
Line handling/Caught in Lines	0	0	0	0	0	0	8 (4.2%)
Contact Injury- Other	0	0	0	0	0	0	4 (2.1%)
Contact Injury- Collision with Fixed Object	1	0	0	0	1	2 (7.7%)	4 (2.1%)
Burn	0	0	0	0	0	0	2 (1.1%)
Noncontact Injury - Exposure	0	0	0	0	1	1 (3.8%)	2 (1.1%)
<b>TOTAL</b>	<b>4</b>	<b>5</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>26</b>	<b>190</b>

# 2021 BLS Census of Fatal Occupational Injuries

## Key Findings

*Table 3 – Number and Rate of Fatal Work Injuries for 2021 by Industry Sector*

Industry	Number of fatal work injuries	Fatal work injury rate (per 100,000 full-time equivalent workers)
Construction	986	9.4
Transportation and warehousing	976	14.5
Agriculture, forestry, fishing, and hunting	453	19.5
Manufacturing	383	2.6
Retail trade	263	1.9
Leisure and hospitality	243	2.4
Other services (excluding public administration)	242	3.8
Wholesale trade	177	5.1
Educational and health services	167	0.7
Financial activities	97	0.9

- The 3.6 fatal occupational injury rate in 2021 represents the highest annual rate since 2016.
- A worker died every 101 minutes from a work-related injury in 2021.
- Suicides continued to trend down, decreasing to 236 in 2021 from 259 in 2020, an 8.9-percent decrease.
- Workers in transportation and material moving occupations experienced a series high of 1,523 fatal work injuries in 2021 and represent the occupational group with the highest number of fatalities. This is an increase of 18.8 percent from 2020.
- Transportation incidents remained the most frequent type of fatal event in 2021 with 1,982 fatal injuries, an increase of 11.5 percent from 2020. This major category accounted for 38.2 percent of all work-related fatalities for 2021.

# Incidents Involving Towing Vessels or Barges AND Recreational Vessels

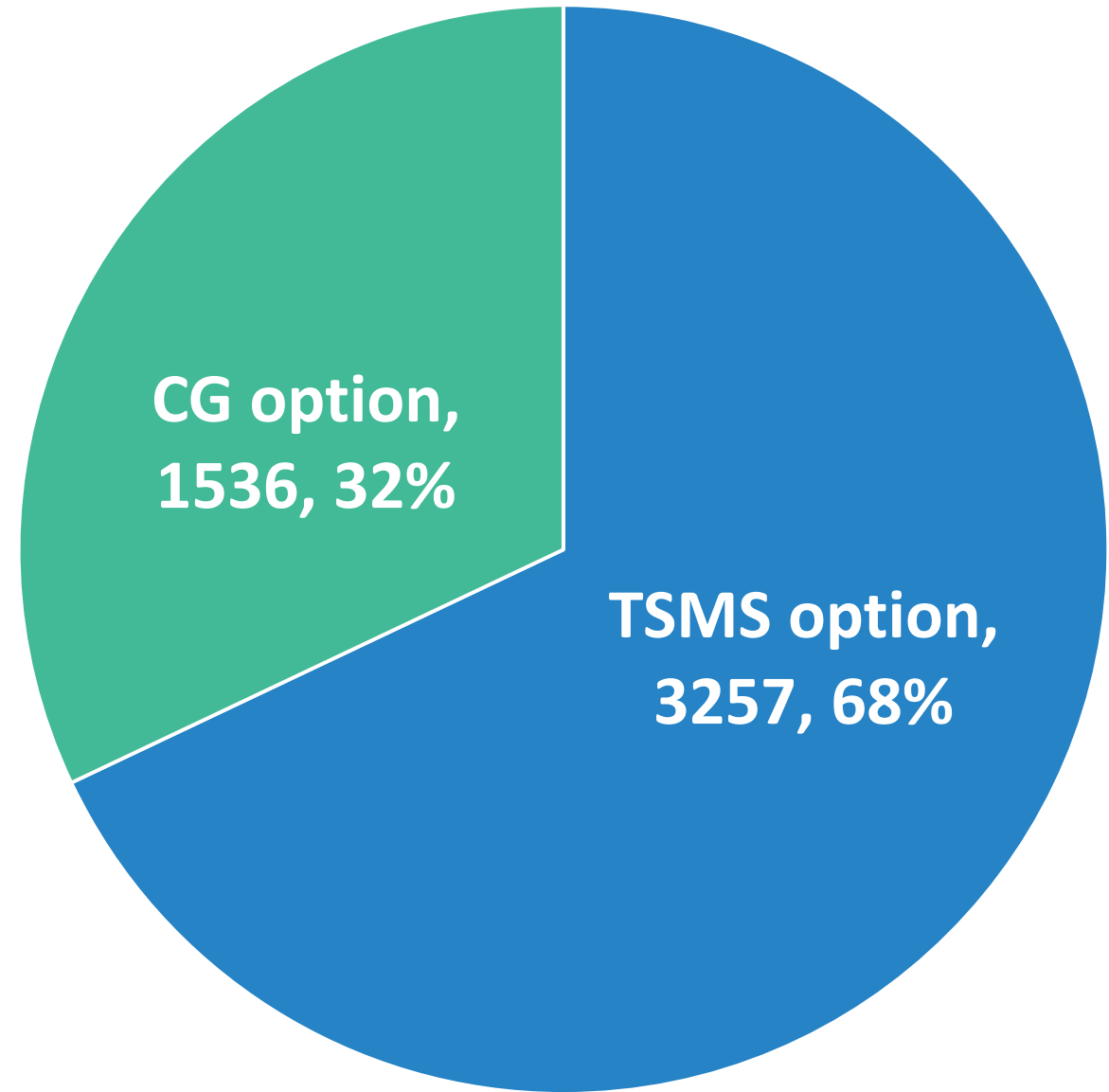
<b>SMI or Non-SMI</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Grand Total</b>
Serious Marine Incidents	3	4	2	8	6	23
Non-SMI	2	3	5	3	2	15
<b>Grand Total</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>11</b>	<b>8</b>	<b>38</b>

<b>Initiating Event Types</b>	<b>Count of Event Type</b>
Collision	15
Allision	10
Capsize	3
Vessel Yawl/Pitch/Roll/Heel	2
Material Failure/Malfunction	2
Loss/Reduction of Vessel Propulsion/Steering	2
Grounding	2
Flooding - Initial	1
Sinking	1
<b>Grand Total</b>	<b>38</b>



# Comparison TSMS vs CG Option

*Inspected Towing  
Vessel Fleet as of  
February 12, 2024*



# Comparison TSMS vs CG Option



# Line Handling Incidents

TABLE 1 - Line Handling Cases resulting in Fatality or Injuries

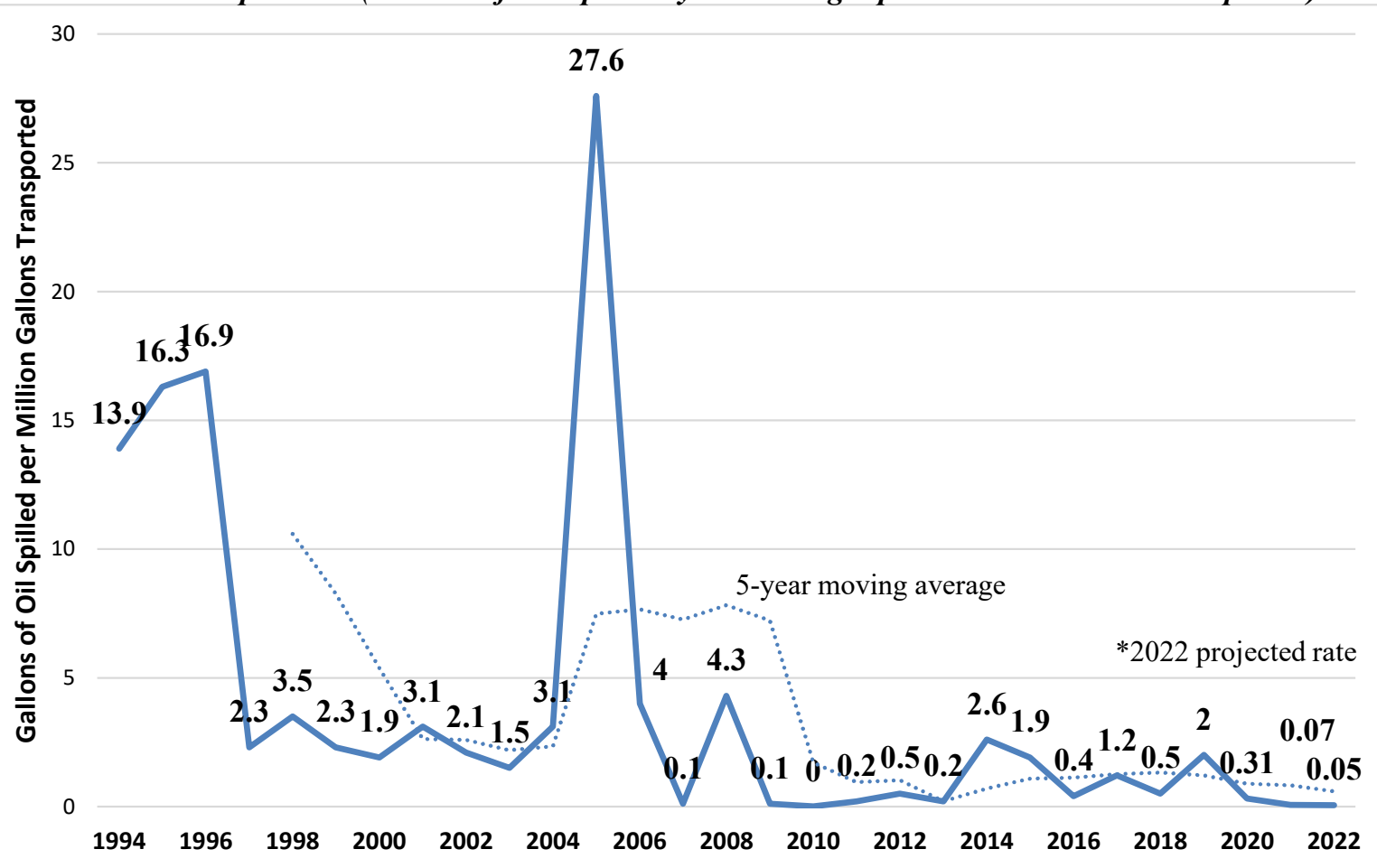
<b>Accident Type - Casualty Type - Injury Severity</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Grand Total</b>
<b>Contact Injury- Line handling/caught in lines</b>	<b>38</b>	<b>31</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>150</b>
<b>Dead</b>	<b>2</b>					<b>2</b>
<b>Injured</b>	<b>36</b>	<b>31</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>148</b>
Critical	1	2			1	4
Severe	4	2	2	4	2	14
Serious	7	6	11	6	4	34
Moderate	17	10	10	8	10	55
Minor	7	11	5	9	9	41
<b>Grand Total</b>	<b>38</b>	<b>31</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>150</b>

**Trends:**  
**Other highlights from the**  
**AWO-CG Annual Safety Report**

Published August 2023

# Oil Spill Rate

Chart 6 – Oil Spill Rate (Gallons of Oil Spilled by Tank Barges per Million Gallons Transported)



Summary of causes for the four largest oil spills involving tank barges:

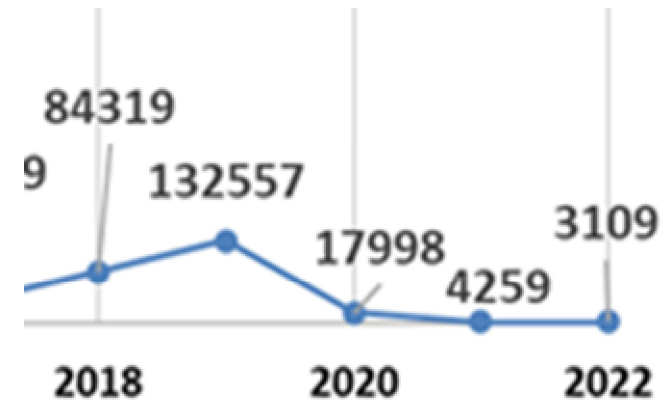
- A transfer hose was pinched between two vessels and ruptured resulting in an oil spill.
- A malfunction with the transfer hose handle resulted in overfilling of the day tank on the vessel.
- A tankerman failed to follow transfer procedures by not monitoring tank levels adequately resulting in the overfilling of a tank and subsequent oil spill.
- A tankerman failed to follow transfer procedures by not reducing the flow rate when nearing completion of the transfer resulting in the overfilling of a tank and subsequent oil spill.
- In the last two incidents, the high-level alarm and overflow alarms malfunctioned.

# Oil Spill Data

*Table 4a - Tank Barge Oil Spills by Spill Size Category for 2022*

Discharge Category	Number of Tank Barge Spills	Amount of oil discharged Top 4 Spills only
less than 1	3	-
1 to 10	33	-
10 to 100	8	-
100 to 1000	4	222, 630, 850, 1000
1000 to 10000	0	-
<b>Total</b>	<b>48</b>	

Oil Spilled from Tank Barges (gallons)  
2018 to 2022



*Table 4b - Towing Vessel Oil Spills by Spill Size Category for 2022*

Discharge Category (in gallons)	Count of Discharge Category	Sum of Discharge Amount into Water
less than 1	11	2.4
1 to 10	120	446
10 to 100	36	1357
100 to 1000	5	2869
1000 to 10000	2	8062
more than 10000	1	20000
<b>Total</b>	<b>175</b>	<b>32736</b>

# Incidents by AWO Incident Severity Class

*Table 6 – Incidents by AWO Severity Class*

AWO Severity Class	2018	2019	2020	2021	2022	Total
Low	912	1,024	975	964	952	<b>4827</b>
Medium	139	130	130	109	142	<b>650</b>
High	73	124	157	163	151	<b>668</b>
<b>Total</b>	<b>1,124</b>	<b>1,278</b>	<b>1,262</b>	<b>1,236</b>	<b>1,245</b>	<b>6145</b>

Five Initiating Event types most commonly associated with high severity incidents for 2022:

- In 79 of the 151 (52.3%) the injury of a crewmember.
- In 18 (11.9%) an allision.
- In 15 (9.9%) a material failure or malfunction.
- In 6 (4.0%) a vessel maneuver.
- In 6 (4.0%) the death of a crewmember

Incident Severity	Description
<b>Low</b>	Damage: \$0 - \$50,000 or not reported No injuries or deaths Pollution: 0 - 10 gallons of oil spilled CG Casualty Class: None/Routine
<b>Medium</b>	Damage: \$50,001 - \$250,000 No injuries or deaths Pollution: 11 - 1,000 gallons of oil spilled CG Casualty Class: “Significant”
<b>High</b>	Damage: \$250,001 or more ANY injuries or deaths Pollution: 1,001 or more gallons spilled CG Casualty Class: “Serious” or “Major”

# Incidents by USCG Injury Severity Class

*Table 7 - Number of Injuries by Severity Category*

Injury Severity	2018	2019	2020	2021	2022	Total	% Total
<b>Critical</b>	0	1	0	0	2	3	0.6%
<b>Severe</b>	2	5	5	2	3	17	3.1%
<b>Serious</b>	15	22	22	24	15	98	18.1%
<b>Moderate</b>	35	50	45	56	40	226	41.8%
<b>Minor</b>	37	42	38	39	41	197	36.4%
<b>Total</b>	<b>89</b>	<b>120</b>	<b>110</b>	<b>121</b>	<b>101</b>	<b>541</b>	<b>100.0%</b>

*Table 8 - Critical, Severe, Serious Injuries by Accident Type for 2022*

Accident Type	Critical	Severe	Serious	Total
Contact Injury- Collision with Fixed Object			1	1
Contact Injury- Crushed between objects	1		3	4
Contact Injury- Fall onto surface			4	4
Contact Injury- Line handling/caught in lines		1	3	4
Contact Injury- Struck by Moving Object	1	1	2	4
Other Injury Type		1	1	2
Overexertion Injury- Strain or sprain			1	1
<b>Total</b>	<b>2</b>	<b>3</b>	<b>15</b>	<b>20</b>

Five incidents resulted in critical or severe injuries to crewmembers.

- In four of the incidents, the crewmembers were working with lines or wires when they were injured. In two incidents of these incidents, the crewmember was also working with a winch.
- In one incident, the crewmember lost his balance and fell resulting in a severe injury.



# Recommendations



## Types of Recommendations

- Safety Recommendation
- Administrative Recommendation
- Finding of Concern
- Safety Alert

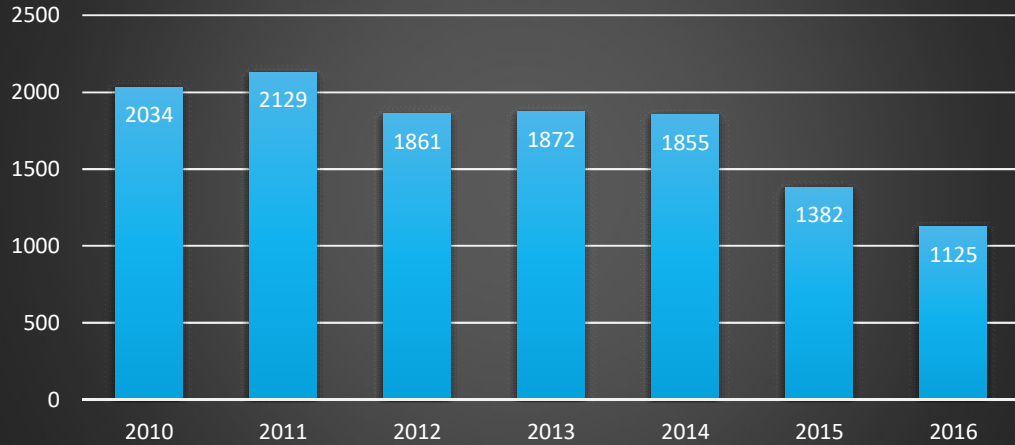


## What triggers a safety recommendation?

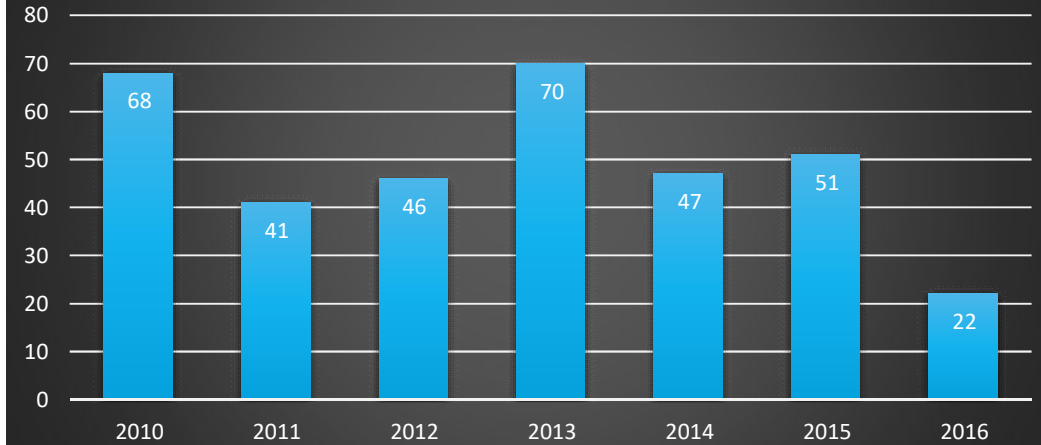


## How are safety recommendations processed and utilized by the Coast Guard?

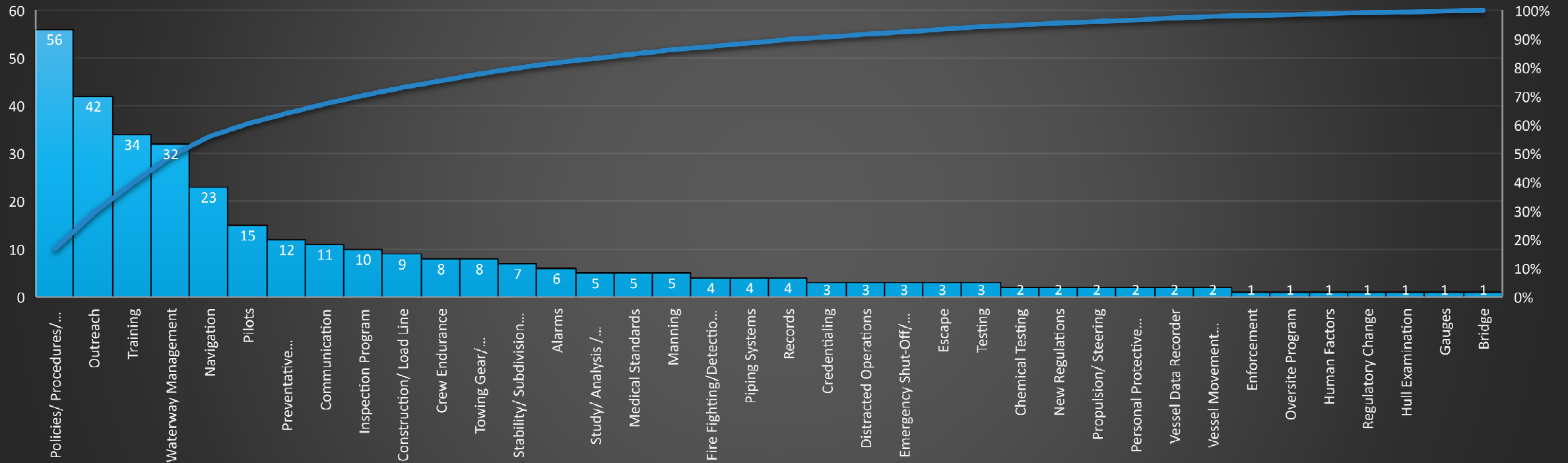
### RMCs with at Least One US TV Involved



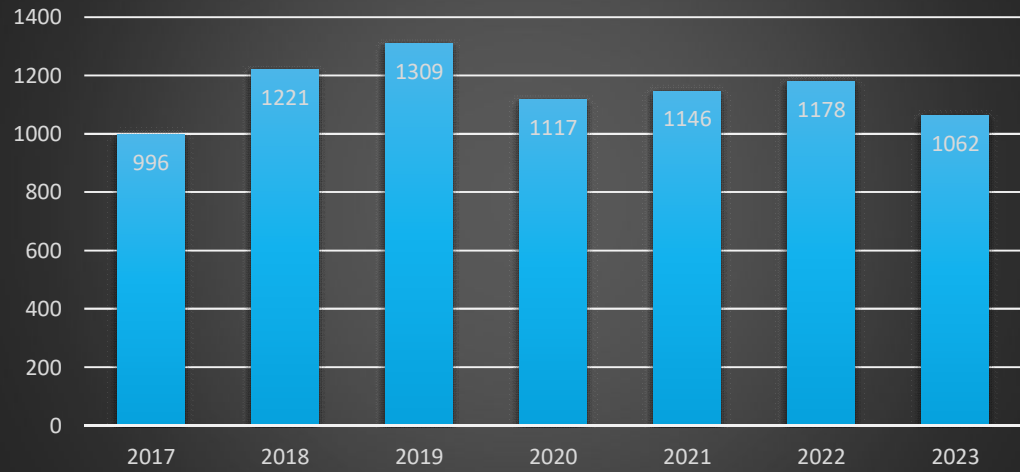
### Safety Recommendations 2010-2016



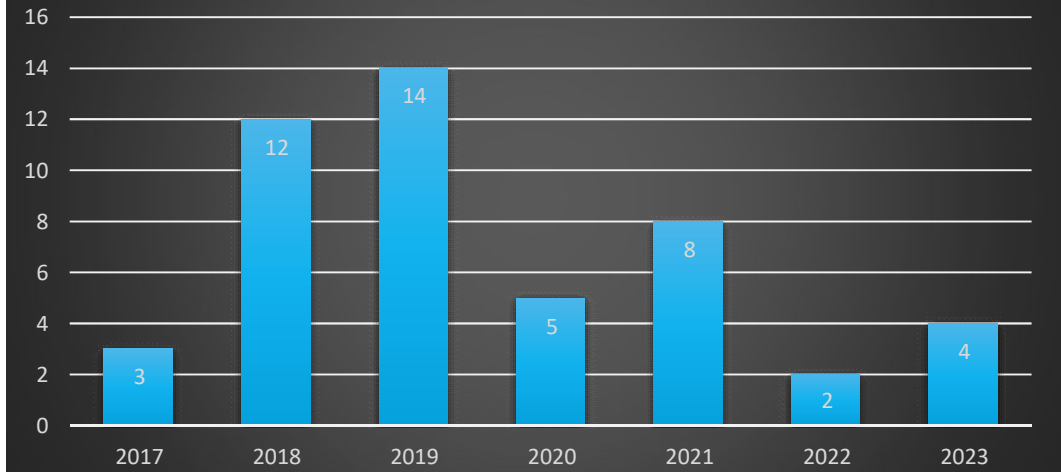
### Safety Recommendation Groups 2010-2016



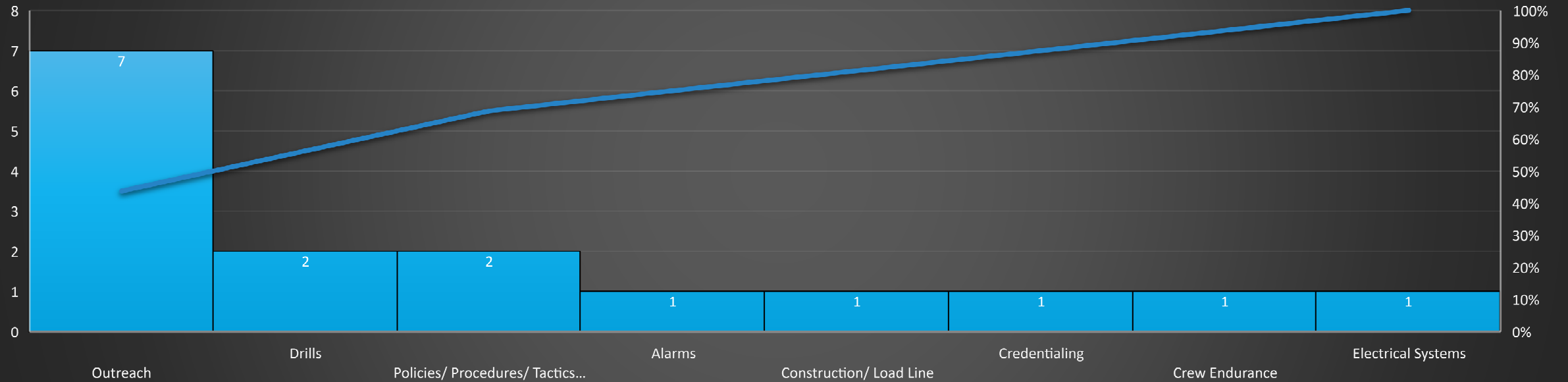
### RMCs with at Least One US TV Involved



### Safety Recommendations 2017-2023



### Safety Recommendation Groups 2017-2023



# Questions?

Michael J. Simbulan

Michael.J.Simbulan@uscg.mil

Omar La Torre Reyes

Omar.LaTorreReyes@uscg.mil