

FALL 2021 MARINE INCIDENT SUMMIT

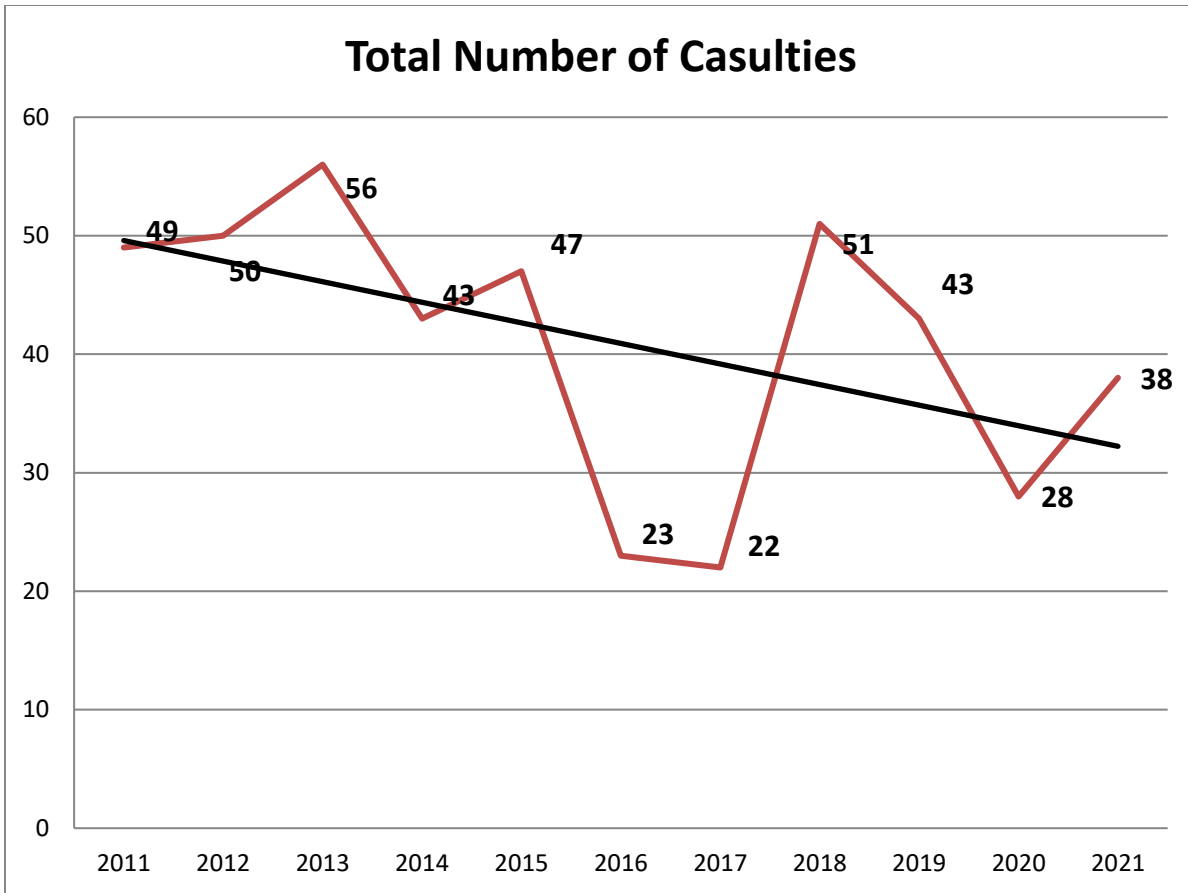
CASUALTY SUMMARIES



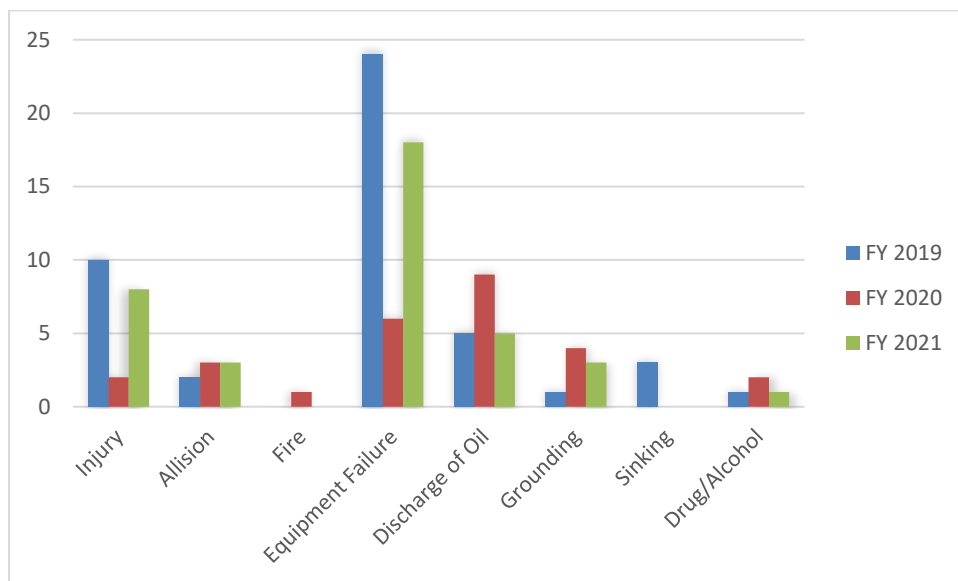
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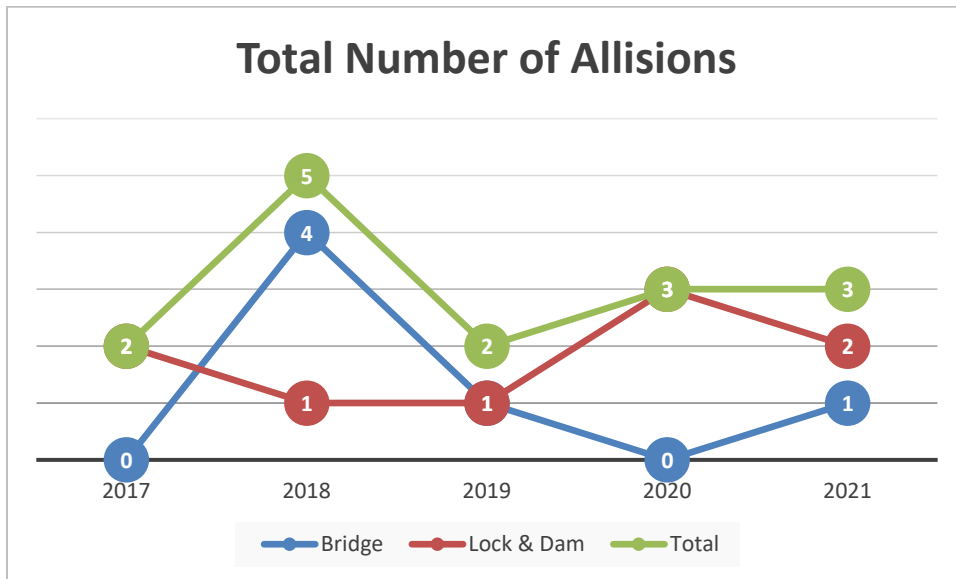
Disclaimer: This document is an unofficial chronicle of discussions between the Huntington District Waterways Association, the Waterways Association of Pittsburgh and the USCG, and is not intended to affect or influence the outcome of the official USCG investigations conducted.



This graph represents the past 10 years of incidents investigated within MSU Huntington's AOR.



This table represents reportable marine casualties investigated within MSU Huntington's AOR for the past 3 fiscal years.



This graph represents the past 5 years of allisions that occurred in MSU Huntington's AOR.

A variety of reportable marine casualties investigated this year.

- 1) JUL 2021 LOSS OF STEERING MSU HUNTINGTON
INFORMAL

An ITV was in the process of locking through the Belleville Lock & Dam at MM 204.4 OHR while pushing 3 loaded asphalt barges it experienced a loss of steering. While conducting trouble shooting, the ITV discovered a loose bolt on the flanking rudder control pod. The crew tightened the bolt and installed a double nut to secure the bolt against vibration. Steering test conducted and found satisfactory.

As a result of its investigation, the Coast Guard determined the initiating event for this casualty was the failure of the bolt on the flanking rudder control pod to remain secure. Once the bolt loosened, control of the flanking rudder was lost. The causal factors that contributed to this incident: the effects of vibration over time to the bolt on the flanking rudder control pod and lack of a robust preventative maintenance schedule to inspect the steering gear system for unsecured/loose equipment.

- 2) JUL 2021 LOSS OF STEERING MSU HUNTINGTON
INFORMAL

An ITV while towing 05 loaded coal barges was transiting down bound at MM 81 Kanawha River when they lost steering due to an unknown reason. The vessel lost control of the primary and flanking rudder capabilities. They were able to back into mooring cells on the right descending bank in the immediate vicinity without further issues. Vessel awaited tow from another ITV. Vessel transited from MM 81 Kanawha River to repair yard to conduct further investigation into the cause of the steering failure.

As a result of its investigation, the Coast Guard determined the initiating event for this casualty was the loosening of the steering system foundation bolts and directional control valve. The causal factors that contributed to this casualty were: (1) the operator does not have a system in place to routinely check the steering system before or during operation, (2) the small work boat carried by this vessel obstructs half of the access to the steering compartment located on the after deck, and (3) towing vessels are subject to constant vibration while underway and Subchapter M does not specify any requirements for checking fastener hardware on steering components at any set intervals.

Above 2 incidents were similar enough in a short period of time to have MSU Huntington route up a Findings of Concern to Headquarters. Below is an excerpt of the pending submission.

The Incident. During July 2021, the Coast Guard completed two investigations involving loss of steering on towing vessels due to loose hardware in the steering hydraulic systems.

Contributing Factors and Analysis. In both investigations, the CG and vessel operator identified vibrations during routine operations, contributory to the loose fastening hardware on the steering systems. The fasteners were not routinely required to be examined for tightness, but gone undetected, these loose fasteners ultimately led to the loss of steering.

Findings of Concern. Coast Guard investigators identified the following measures as prudent to mitigate the risks associated with the above identified contributing factors:

- Provide securing devices, i.e., lock nuts, double nuts, cotter pins, lock wire, welding nuts to bolts, on steering system fastening hardware, where space allows.
- Include inspection of steering system hardware for tightness every 3 months as part of the required tests under 46 CFR 143.245.

3)	SEP 2021	COLLISION	MSU HUNTINGTON DATA COLLECTION
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The section of river near Marietta, OH to Parkersburg, WV was closed on 12 September from 1300-1400 for the sternwheeler festival at both respective waterfront parks. Shortly after 1400 the river was reopened to commercial traffic. An ITV and 3x5 tow of empty hopper barges with lids was transiting down bound near MM 172 just West of the Highland Ave bridge and before the Muskingum river enters the Ohio river, when the Pilot of the ITV (first time transiting the area) lost control of the vessel and began to slide to the right descending bank and towards the waterfront festival. He summoned the Master of the vessel to the bridge who was at the time below decks. The master took the helm of the vessel and began evasive maneuvers backing down and slowing the vessel and tow. Interviews conducted concluded that there were approximately 15 knot winds blowing across the river towards the waterfront festival. There were 10+ sternwheelers vessels pushed into the right descending bank in addition to numerous pleasure crafts anchored along the channel of the Ohio River. The Master's intent was to avoid all contact but decided it would be better to hit a large 120' recreational vessel vise hitting 8-10 anchored pleasure crafts. Collision occurred between the 4th barge from the head of the tow starboard side and the stern of the rec vessel causing the vessel to be pushed up onto the shoreline. An adjacent rec vessel tied along the port side also suffered damages and was pushed approximately 2 feet

into the shore line. All persons from both vessels were evacuated to shore prior to the collision and nobody was reported injured and no pollution was reported. Investigation is still ongoing.

4) APR 2021

BARGE BREAKAWAY

MSU HUNTINGTON
INFORMAL

An ITV was heading down bound on the Ohio River approaching Long Bottom Bend, which is an approximate 150 degree turn to port, with 15 unregulated loaded coal hopper barges. Vessel began its turn to port but the pilot noted the head of the tow as turning faster than anticipated. The pilot turned the rudder back to starboard to attempt to correct and slow the turn. The starboard face wire on the fwd starboard barge broke from the correction force and the front 3 barges remained connected only by the port face wire causing the barges to hinge to the port side. This caused the port forward barge to run aground on the left descending bank causing the tow to rotate clockwise until it became perpendicular to the river.

After grounding the pilot backed down to port at half throttle as the deckhands were still working with the broken wire on the tow into attempt to break it free. Once the crew returned to the vessel the pilot backed down at full throttle. The entire length of the tow continued to pivot around the grounded fwd barge until the vessel quickly approached the right descending bank at which time the pilot made the decision to break the towing vessel free from the tow. Approximately 2 minutes after the aft starboard barge allided with the bank, the stern barge lashing broke causing the aft 3 barges to break away from the tow and drift downriver. The remaining 12 barges pivoted around the initial grounded barge to settle on the left descending bank facing up river.

As a result of its investigation, the Coast Guard determined the initiating event for this casualty was the vessel being overcorrected by the master and that the master has 20+ years of navigation experience with vessel navigation, however had he had more current experience and been more familiar with this specific vessel and its horsepower he likely wouldn't have oversteered and required the correction force that caused the lines to part.

5) MAY 2021

CREW INJURY

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An ITV was completing fleet work at Paint Creek Terminal on the Kanawha River MM79.1. A crew member was disembarking a loaded coal hopper barge onto the tow vessel using a mooring chock as a step down from the less than 3 ft elevation change. When the crew member stepped onto the chock, they slipped off and their right leg landed on the chock having the right knee get injured. The crewmember was taken to the hospital for additional testing to determine severity of injury as well as complete drug and alcohol testing.

As a result of this investigation, the Coast Guard has determined that the initiating event for this casualty was the slipping on the chock while embarking the tow vessel. The causal factors that contributed to this casualty include: (1) Lack of step or ladder in vicinity of injury, (2) Company policy on required steps or ladders for elevation of 3ft or greater, and (3) chock used as a step.