

F/V
A.E. CLIFFORD
RESPONSE
JANUARY 2019

MSU Duluth Case Study

*F/V
A.E.
CLIFFORD*

*Hughitt Slip
Superior, WI*



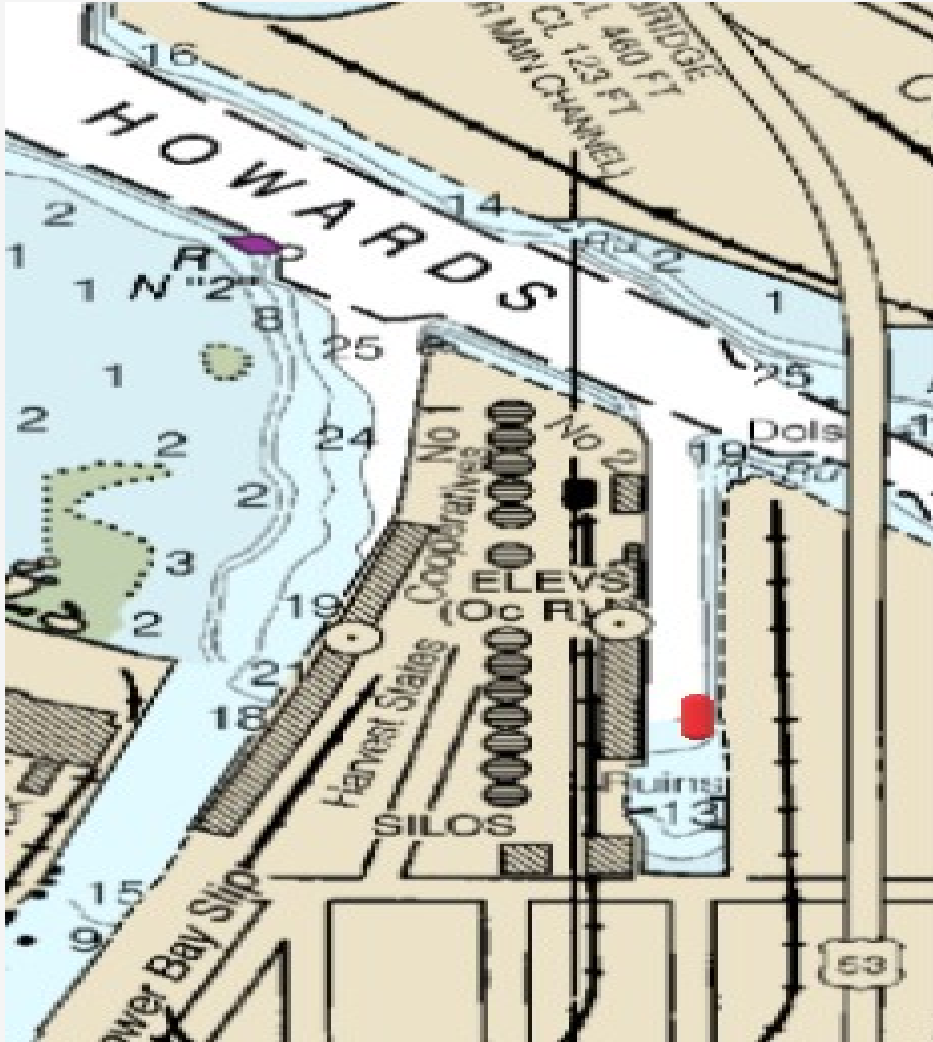
Background

04JAN19

- At approximately 1300 hours the A.E. CLIFFORD was observed sunk in Hughitt Slip in Superior, WI.
- At approximately 1430 hours, MSU Duluth was notified. NRC #1234569.
- Arrived on-site at approximately 1500 hours. STA Duluth and the Superior FD were on-scene attempting to dewater the vessel.



Location



Vessel Info



- Constructed in 1946
- Fishing Tug/Trawler
- Length: 40.6'
- Hull: Steel
- 33 Gross Registered Tons
- Diesel Engine
- Two 200-gallon diesel fuel tanks
- Hydraulic net recovery equipment
- Last known Activity: July 1998

Situation



- Actively Sheening Vessel
- Owner/Operator Unknown
 - Tribal?
 - Commercial Entity?
- Water Depth: 13-15 feet
- Ice Thickness: 12 inches (estimate)
- Moored along Central Harvest States (CHS) property. (MTSA 105 facility)
- Weather: 37 degrees Fahrenheit
- Incoming winter storm & cold

Challenges



- Government Shutdown
- Weather
- Ownership
- Ice
- Shore side Access
- Vessel Position
- Subcontractors
- Colorful Character

Challenge:

Government Shutdown

- Furlough of civilian employees within the Coast Guard
 - National Pollution Funds Center (NPFC)
 - Shore Infrastructure Logistics Center (SILC)
 - D9 District Response Advisory Team (DRAT)
 - National Vessel Documentation Center
 - Inaccurate information was transmitted by personnel unfamiliar in response operations
- Furlough of employees in other federal agencies

Challenge:

Weather & Ice

Weather

- Consistent single digit temperatures throughout the majority of the response.
- Wind chills typically -10 degrees
- 4-Gas meters inoperable below -4 degrees

Ice

- Varying thickness
 - 20 to 24 inches around boom (Cutting Time)
 - 6-10 inches around vessel (Safety)
- Old Ice to New Ice Composition (50/50)
 - Old ice on top half, new ice on bottom
 - Old ice clogs the chainsaws

Challenge:

Ownership of Vessel

- Sivertson Fishing Company (Commercial)
 - Dissolved on December 22, 2018
 - Registered Vessel Owner (Title)
 - States the A.E. CLIFFORD given to a private tribal individual as payment for debts owed for the fisherman's fish.
- Private Tribal Individual
 - Bad River Band of Lake Superior Chippewa member
 - No official documentation of ownership
 - Verbal commitment as the vessel owner

Challenge:

Shore Side Access

- An old army crane was blocking the access to the vessel for the placement of the heavy lift crane
- CHS Facility Security Officer did not know the owner of the crane and two small work barges on shore at the location outside the secure/restricted area



Challenge:

Vessel Position

- Down by the bow
 - Estimated 80+% of the interior volume of the vessel under water
 - Vessel rudder resting on submerged piling keeping stern above water
 - 2-4 feet of ice accumulated on the exterior and interior of the vessel's bow
 - 2 feet of ice in the vessel's bilge along the entire keel
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Challenge:

Subcontractors & Local Character

Subcontractors

- Unwilling to bring requested equipment to the site on the weekend

Local Character

- Showed up multiple days and harassed USCG and OSRO personnel
- Stated he could do it better and knew what he was doing. No connection to incident
- Wanted to raise the vessel on his own using a pump
- Refused to acknowledge the pollution release

Solutions & Responses



Solution:

Government Shutdown

- Reassignment of Active Duty personnel at the NPFC, SILC, & D9 DRAT to cover furloughed employees
- Use of the NOAA Scientific Support Coordinator (SSC) in Cleveland, OH



Solution:

*Weather
&
Ice*

Weather


- Daily Safety Briefing
- Proper PPE
- Reduce exposure, heated rest areas (vehicles/trailers)

Ice

- Utilize a hydronic ground heating unit to melt ice within the vessel interior and contaminated ice
 - Extra day of cutting ice to be able to place the containment boom
 - 48" chain saw bar utilized
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Solution:

Vessel Position

- Utilize a shore-side crane
 - Utilize a dive team to survey the vessel, position lift straps and dewatering pump in bow section
 - Remove surface ice on exterior of vessel as it breaks the surface
 - Slow lift process
 - Smart dewatering of the vessel into containment area from the deepest point (bow), then onto vac trucks once shore crane could lift the vessel within its safe operating range.
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Solutions:

Shore Side Access Subcontractors Local Character

Shore Side Access

- Subcontractor able to relocate the derelict crane
- Owner of derelict crane located

Subcontractor Weekend Non-Delivery

- Unresolved

Local Character

- COTP informed individual to stop interfering with operations
- Superior Police Department

Results



- Estimated 200 gallons of diesel recovered from port fuel tank
- Estimated 200 gallons of diesel/water mixture recovered from starboard fuel tank
- Estimated 20 gallons of hydraulic fluid removed
- Estimated 5,400 gallons of oily water removed from the interior of the vessel during lift process and once interior ice melted
- Vessel sank on 01APR19 at the same location within containment boom

Conclusions

- Old Ice greater than 8 inches thick will greatly increase the cutting time to emplace containment boom
 - Hydronic ground heating units are a effective and cost friendly method in melting large quantities of ice for disposal
 - Chainsaw bar length necessary for ice thickness: 36 inches and greater
 - Continue interaction with the Bands of the Lake Superior Chippewa and the Great Lakes Indian Fish & Wildlife Commission (GLIFWC)
 - Definitions of Dewatering and Decanting within the Area Contingency Plan
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