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Resiliency and Maritime Connections

House Committee on Veterans and Emergency Management

Chair – Representative Evans
Vice-Chair – Representative Lewis
Vice-Chair –Representative Meek
Member – Representative Grayber
Member – Representative Wallan
Member – Representative Wright
Counsel – Cassie Passon

Lorraine Churchill
Emergency Manager
Ammonia Safety & Training Institute, 501(c)(3)
A1M, Oregon-based consultancy

Discussion…

Why?

Current Picture

First glance - what are we worried about? Who are we and what are we facing.

Approaches

Harnessing Capabilities

What do we have now, and what will we need?

Options

Forward Paths

Enabling individual and community empowerment through ‘self-resiliency’ and partnership.

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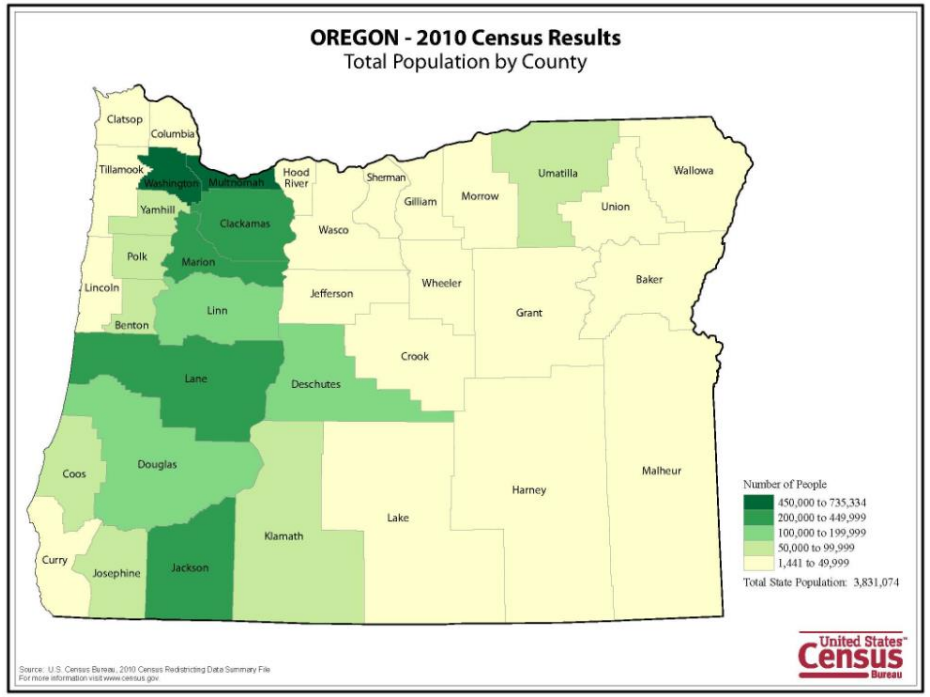
Why – Current Picture



1. **Our Footprint**

   It's where you are

2. **Interdependencies**

   The divide that shouldn't

3. **Supply Dispersion**

   Where's my _____?

4. **The Id of It**

   All hands on deck

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Approaches – Harnessing Capabilities

1. **Organizations**

   Public, Private, Tribes, Associations, Ports

2. **Organic Responders**

   Affiliated and spontaneous volunteers

3. **By Sea, Land and Air**

   Transports

4. **Our River Highways!**

   Our first roads

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Options – Forward Paths

1

Salvage Chief

Floating EOC, Communications, Medical Support, Power, Water, Machining; disaster maritime hub

2

“The Crab Pot Army” & the 4WD Network

Partnered volunteers assisting their communities

3

Surge Kit Community Support

If you’ll need it then, you need it now

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Thank you!

The Salvage Chief

Critical Response & Recovery Capability for the Columbia River

Protecting the Columbia River, A National Strategic Waterway

- Emergency Operations Center
- Emergency Communications
- Six 100 Ton Winches
- Power Generation
- Water Generation
- Hospital Afloat

Objectives

- Secure **$2.1 million** in funding for remaining capability updates necessary to **Ready The Chief**
- Finalize agreements with agencies, departments, and organizations for the Chief to conduct training, exercises, and **disaster response and recovery operations on the Columbia River**

Background

- Originally commissioned as the USS LSM-380
- Retrofitted and re-equipped for shallow-water salvage and recovery operations
- Transformed into a unique, world-class salvage vessel
- Currently in use for training operations with the U.S. Army Special Operations Command (SOCOM), Job Corps, and the local community college

Post War Operations

- Conducted over 300 salvage operations
- Estimated to have saved 95% of the shipwrecks and ships run aground on the West Coast, including response and recovery for the Exxon Valdez disaster

Critical Need

- Access to disaster areas may depend upon the re-establishment of ground and water routes… debris clearance and emergency road repairs will be given top priority to support immediate lifesaving response activities -*Oregon Emergency Operations Plan, Page ESF 3 Public Works*, Page 3-3

National Impacts of Disruption to Columbia River Commerce

- The United States is a Pacific nation, and the Columbia River provides critical access to the IndoPacific for trade
- "In a trade-dependent state like ours, we rely on strong trading partnerships to help Oregon farmers feed the world and local businesses continue to grow… With small- or medium-sized businesses making up nearly 90 percent of all exporters in Oregon, it is promising to see trade activity expand, contributing to a more equitable and prosperous region for all." - *Curtis Robinhold, Executive Director, Port of Portland*

International Impacts of Disruption to Columbia River Commerce

- “The Port of Portland moved more than 6.7 million metric tons of agricultural export cargo in 2011. Approximately 96% of these cargoes were moved in bulk - 84% of exports through Portland were grains, grain products, and soybeans.” This trade supports food security across the IndoPacific region while contributing to a more positive balance of trade for the United States, open seaways and unimpeded trade envisioned by the 2017 US National Security Strategy -
  U.S. Department of Agriculture

Critical Capability

- Six Almond Johnson 200,000 pound winches: three on the bow, and three on the stern
- Allen C. Bradley SCR (silicon controlled rectifier) units provide 220 Volt DC Power to the winches or vessels requiring DC emergency power
- One 25-ton electric operated boom with a maximum boom length 50 feet, and two 18-ton hydraulic cranes

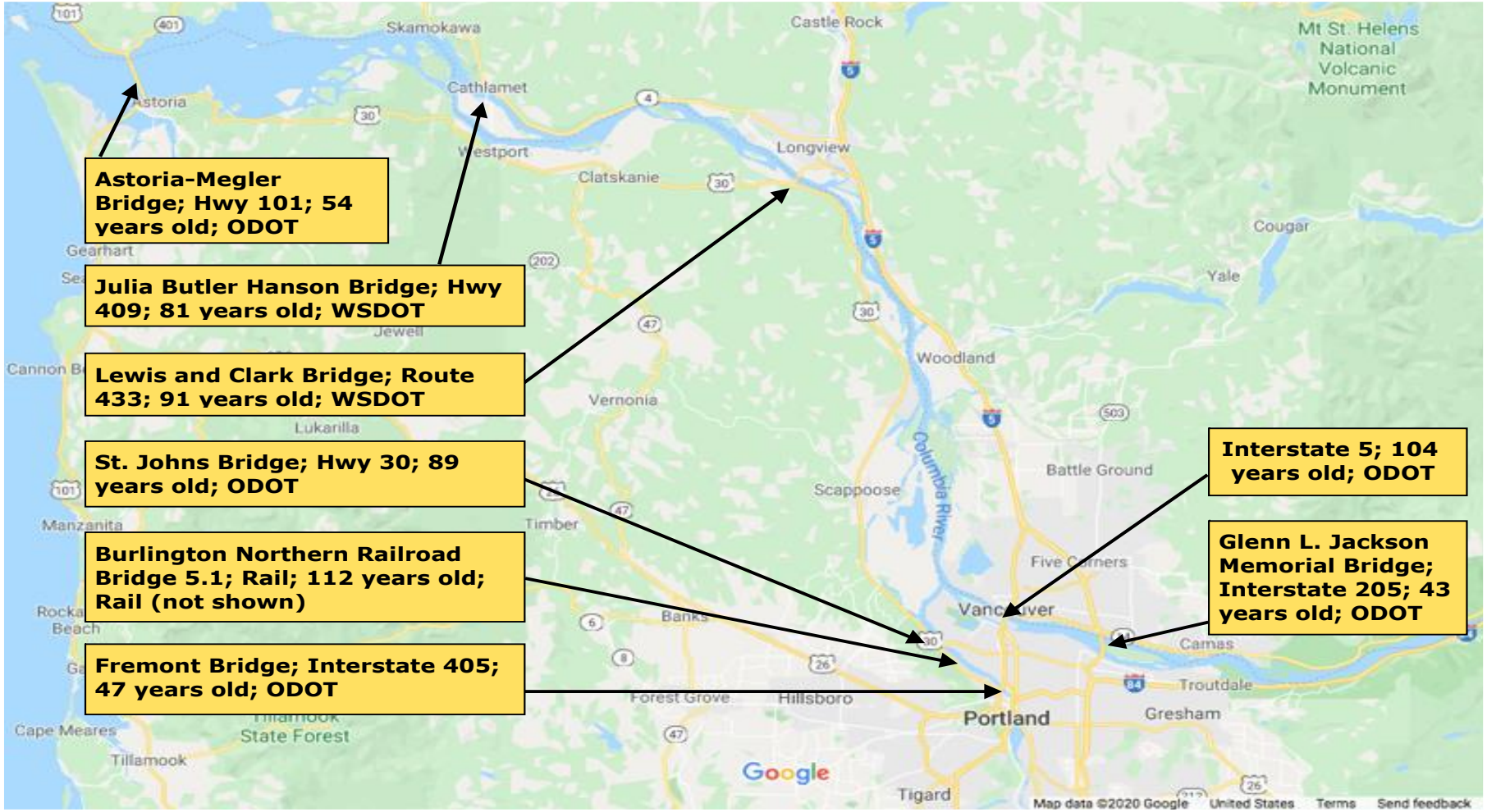
Clearing Downed Bridges

- The Columbia River is a critical navigable waterway
- Over 8 million tons of commercial cargo traversed the Columbia River in 2017, with $15M in direct economic benefits to the region[1]
- A major Cascadia Subduction Zone seismic event is likely to alter Oregon's economy significantly... Most of the bridges over the Willamette and Columbia rivers will either have major damage or will have collapsed[2]

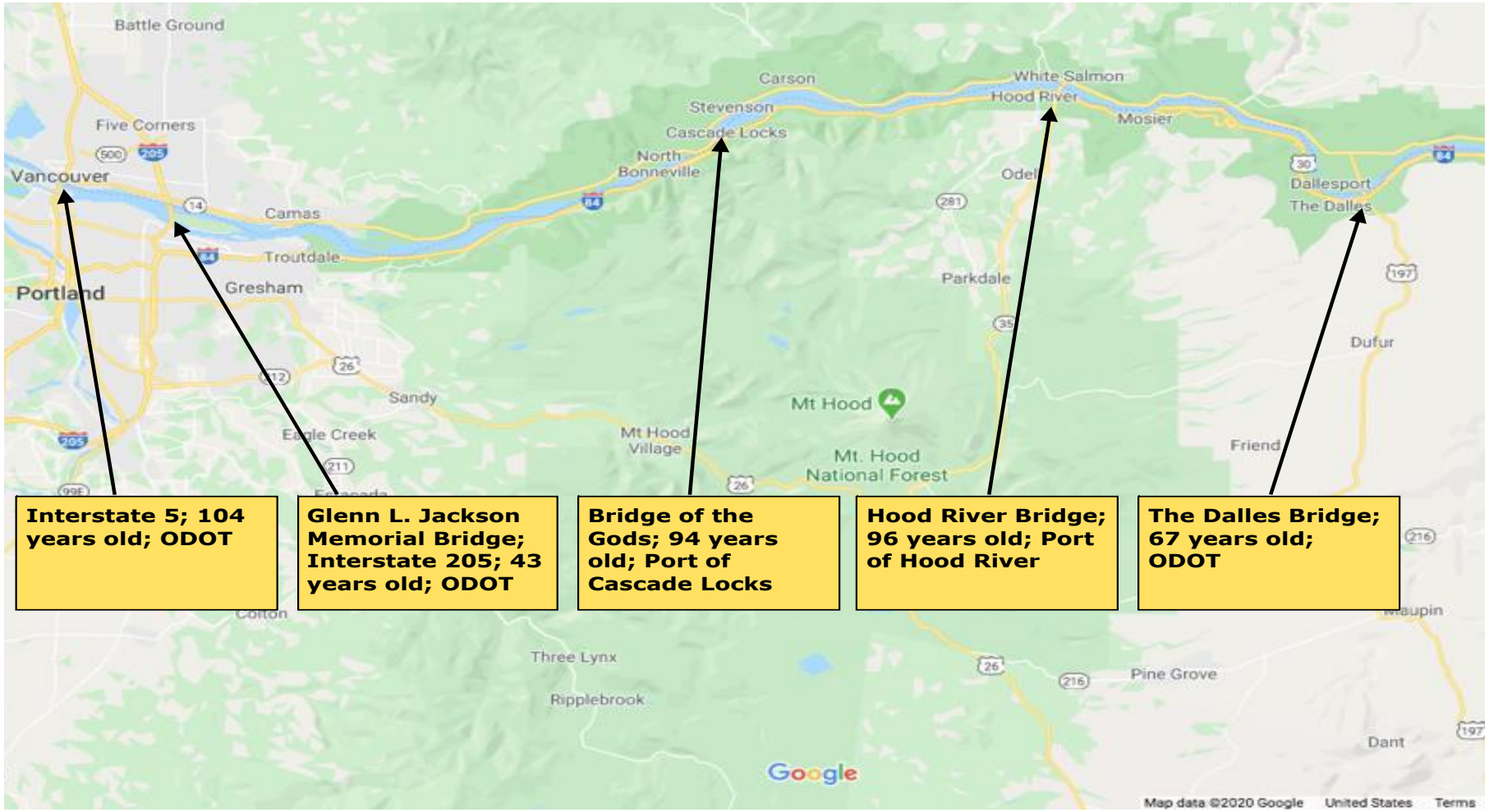
Clearing Downed Bridges

- Extremely thick hull is unmatched by integrity of modern ships
- 28 Watertight compartments
- Two OP 38 Fairbanks Morris engines allow the Salvage Chief to pull, push, run-over, or tamp-down obstacles and fallen bridges in the Columbia River that will halt transportation after Cascadia Earthquake

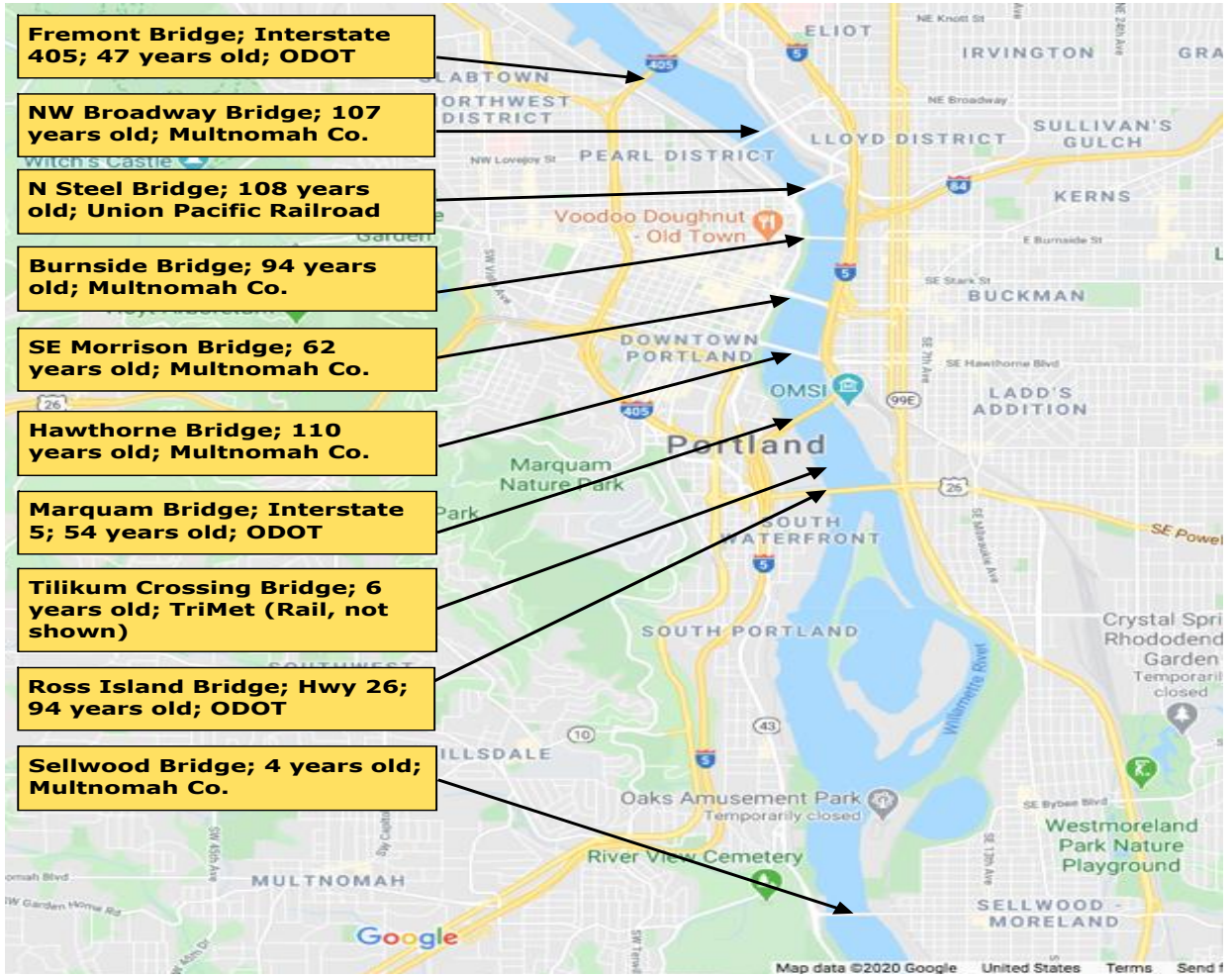
Bridges from Astoria to Portland on Columbia River



Bridges from Portland to The Dalles on Columbia River



Bridges in Portland on the Willamette River

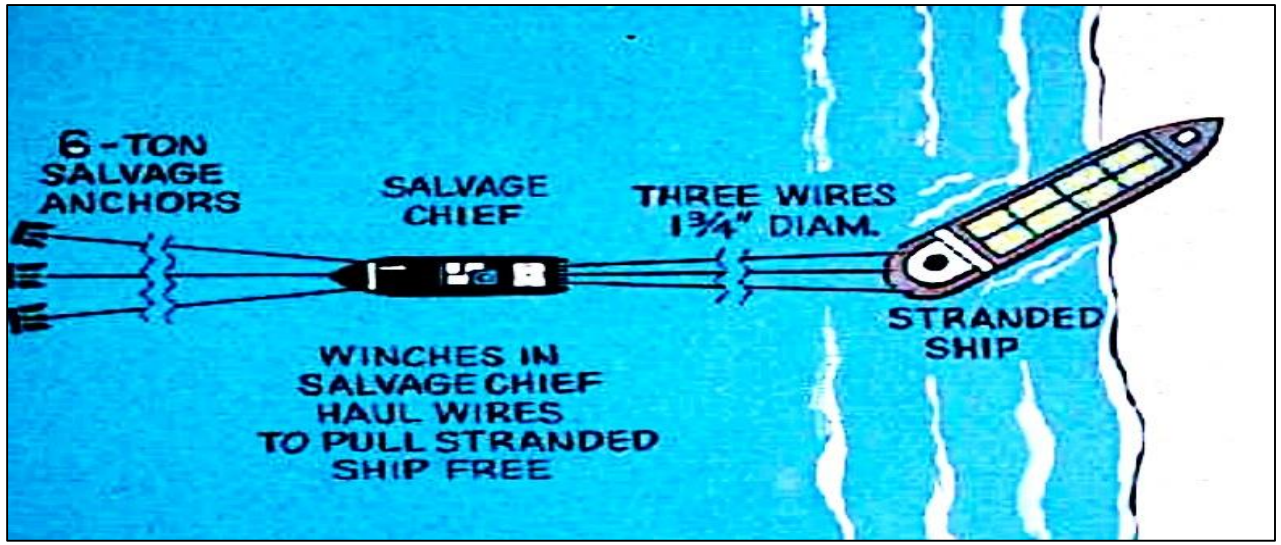


Transportation of Supplies On Columbia River

- The Columbia River is the second largest river in the U.S.
- Chief has a shallow 4 to 9 foot draft
- Chief can store and transport 80,000 gallons of diesel fuel
- Passage of this waterway is a crucial element of the region’s disaster response and recovery operations by allowing supplies and equipment to be delivered to areas impacted by the impending earthquake

Unmatched Capabilities

- The resulting obstruction of the Columbia River waterway would severely hamper crucial supplies needed for response and recovery operations
- Reopening the river quickly will save lives



Emergency Operations Center

- The Chief can serve as fully capable deployable Emergency Operations Center (EOC)
- Chief has a helicopter pad that can accommodate rotary wing aircraft equivalent to a Bell 212
- Chief has crew birthing for 25 plus officers' quarters for six
- Only eight crew are required to operate the ship, which allows for over 20 EOC personnel to remain onboard to conduct and coordinate disaster response operations

Infirmary Capability

- Salvage Chief will be able to provide timely, critical infirmary service to communities adjacent to the Columbia and Willamette Rivers as well as communities on the Pacific Coast. The capability is mission critical to save lives in the immediate aftermath of a major earthquake.
- The Salvage Chief could support hospitals and urgent care centers ashore by providing power and fresh water where critical infrastructure will be disrupted. The Salvage Chief could support larger ships converted into hospitals afloat. Additionally, the Chief could provide infirmary services to injured people who are able to ambulate the Chief’s decks.

Auxiliary Power Generation

- The Chief's five 250kw generators provide enough electricity to power the needs of a small town, such as Saint Helens, Oregon
- If infrastructure has been severely damaged or destroyed, the Salvage Chief can serve as a mobile power plant to provide ship-to-shore power to critical infrastructure such as hospitals, fueling stations, water treatment plants, and power sub-stations
- This critical capability will save lives, and warrants the investment to **Ready The Chief**

Communications

- Two SEA SSB Radios all channel
- Electro International auto distress watch
- Two ICOM VHF Radios
- Drake all frequency receiver
- Cobra CBAM/FM, DMDG
- HAM, HF, WKGY
- SCIF (Sensitive Compartmented Information Facility)

Potable Water Production

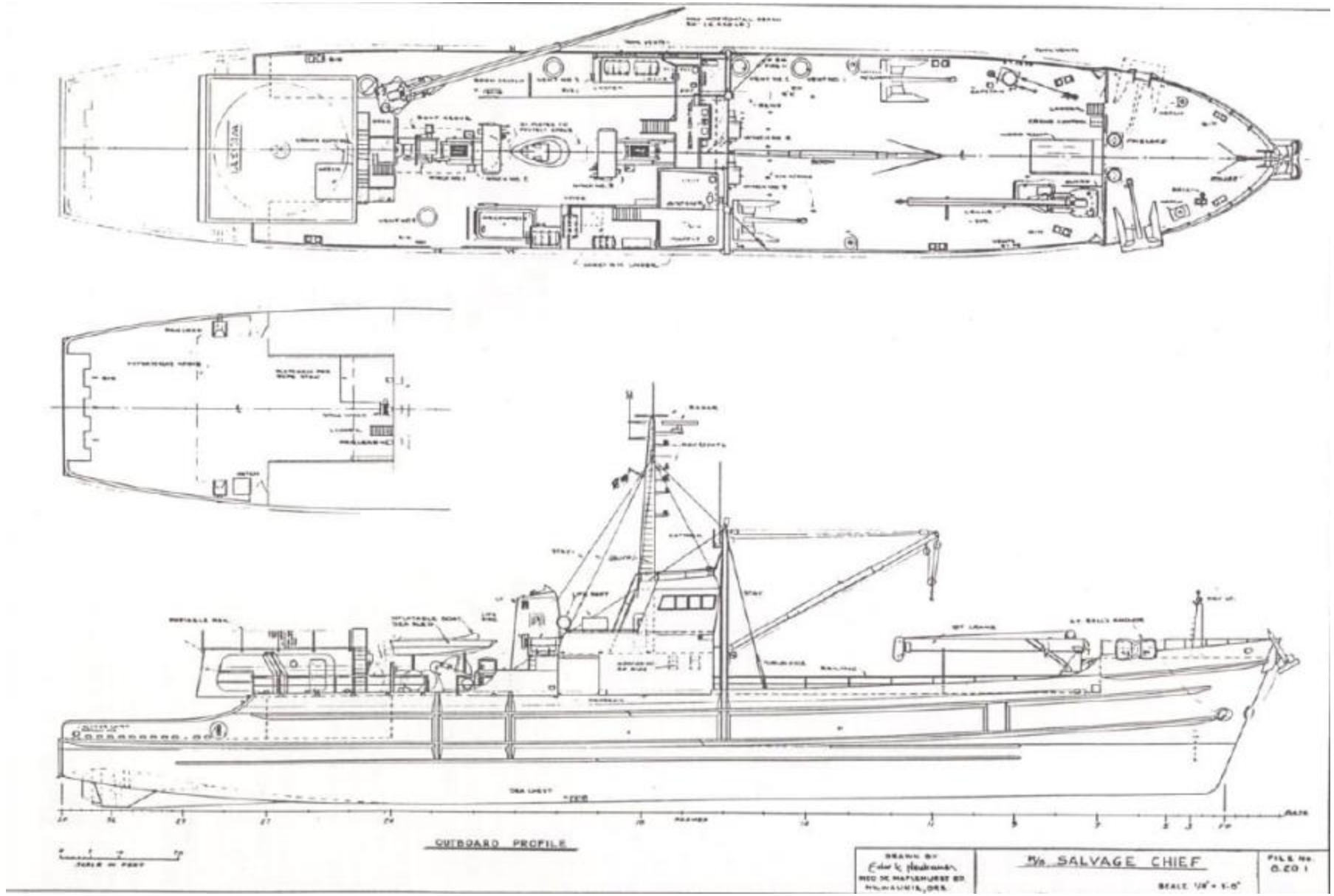
- Equipped with a new UV treatment water purification system, and can produce 3,500 gallons of potable water from fresh or salt water each day
- This capability can supplement the water need of a community who drinking water system has been compromised by earthquake or other disaster

Machine Shop

- Equipment includes three on board machine and welding shops, an inventory of necessary salvage equipment, tools, welding and cutting equipment and patching material

Principal Dimensions

- Over All Length 202.6’
- Breadth 34’
- Depth 17.6’
- Draft 9.5’
- Gross Tonnage 490
- Displacement 1175


OUTBOARD PROFILE
M/s SALVAGE CHIEF
FILE No. 0.20 1

Ready The Chief!

Critical Response & Recovery Capability for the Columbia River