

85th Meeting of the Coastal Engineering Research Board

Operating Constraints
and
Performance Thresholds
at
Coastal Stations and Ports

1 of 132



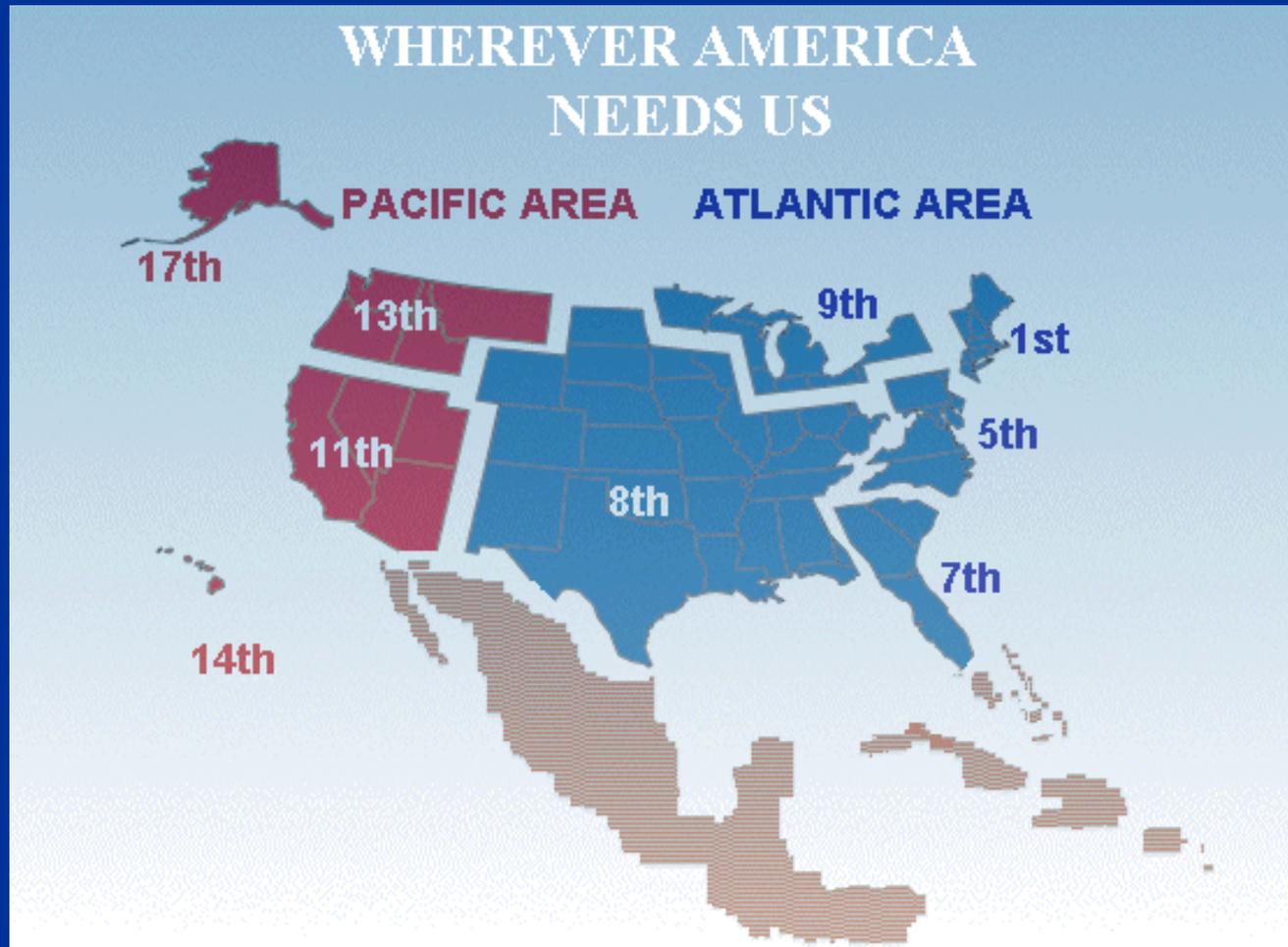
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CDR John Moriarty, USCG
Chief, Waterways Management Branch
Coast Guard District 13

**United States
Coast Guard**



U.S. Coast Guard District 13

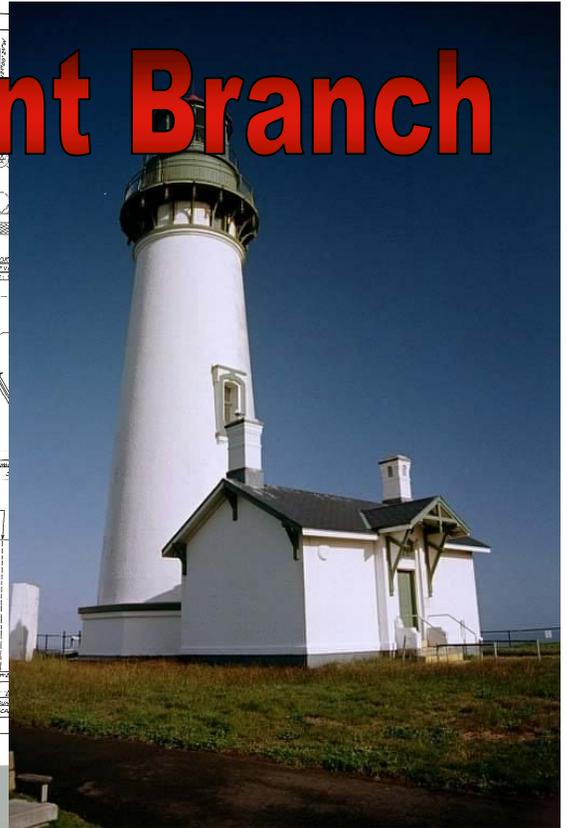
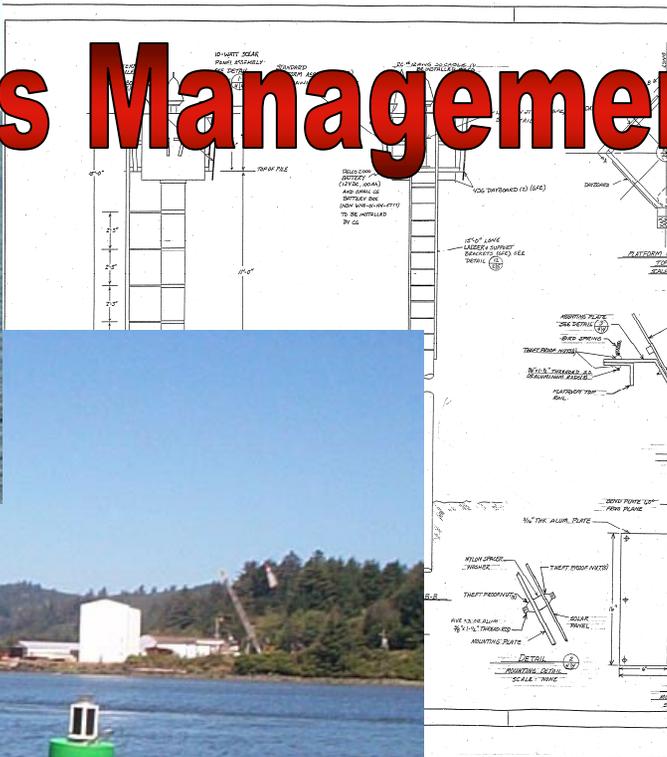


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Waterways Management Branch



WATERWAYS MANAGEMENT BRANCH



Responsibilities:

Manage 1860 federal AtoN & 750 Private AtoN (most in PAC).

Regulate 600 bridges over navigable waters.

Program oversight for 3 buoy tenders & 4 ANTs.

Directly supervise CGC FIR & CGC HENRY BLAKE.

ADCON for LORSTA George, WA & Havre, MT.

Recurring review of AtoN requirements in waterways (WAMS).

Lead with NOAA data buoy assists (6 in D13 AOR).

Lead with ACOE for waterway management & safety of navigation



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WATERWAYS MANAGEMENT BRANCH



ATON Units:

1 - 225' WLB – CGC FIR, Astoria

1 - 175' WLM – CGC HENRY BLAKE, Everett

1 - 100' WLI – CGC BLUEBELL, Portland

ANT Puget Sound – 55' ANB, 2 TANBs

ANT Astoria – 2 boats

ANT North Bend – 2 boats

ANT Kennewick – 2 boats

LORAN Stations

Havre, MT

George, WA



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Coastal Oregon & Washington



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“Just another day at the office”

Farmer's Almanac worst weather list:
#1 Washington Coast

#2 Oregon Coast

Breaking bars @ river entrances

Waves > 6 ft. 50% of time October - March



Frequent winter gales with winds > 80 knots.

Hypothermia risk

2,500 miles of NW coastline, 700 miles of navigable rivers



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[47Turn.wmv](#)

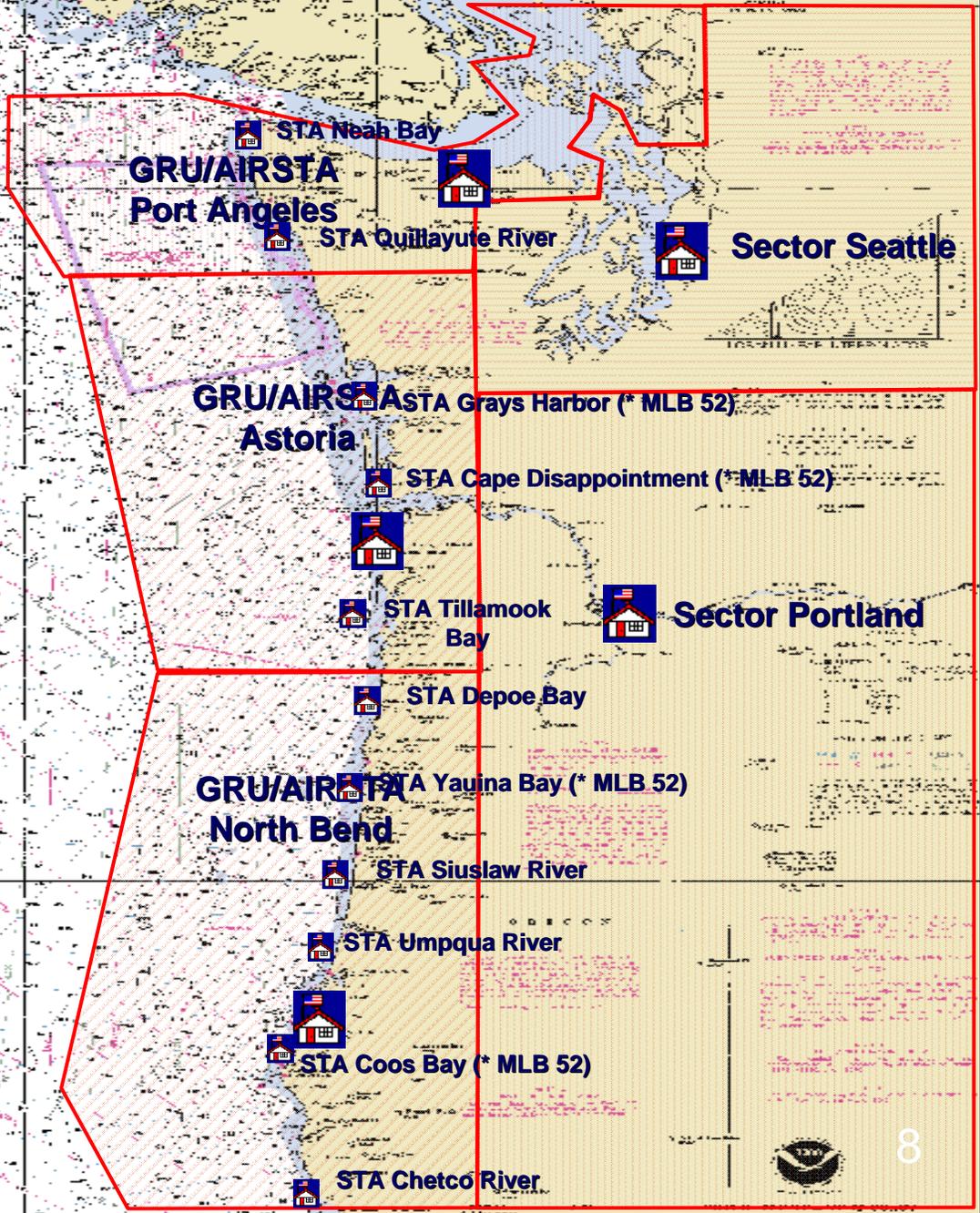
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Coastal Issues.

- Breaking Bar Conditions
- Marine Transportation System
- Hazards to Navigation
- Flooding Re

• 3 HH65C's
• 8 WPB's
(7-87's, 1-110')

• 5 HH65B's
• 1 WPB (110')



52' Motor Life Boat



Max Speed: 11 Knts
Max Range: 495 NM
Max Seas: 35ft
Max Surf: 25ft
Draft: 7 ft
Towing Cap: 100 Tons

Cape Disappointment
Yaquina Bay
Coos Bay
Grays Harbor



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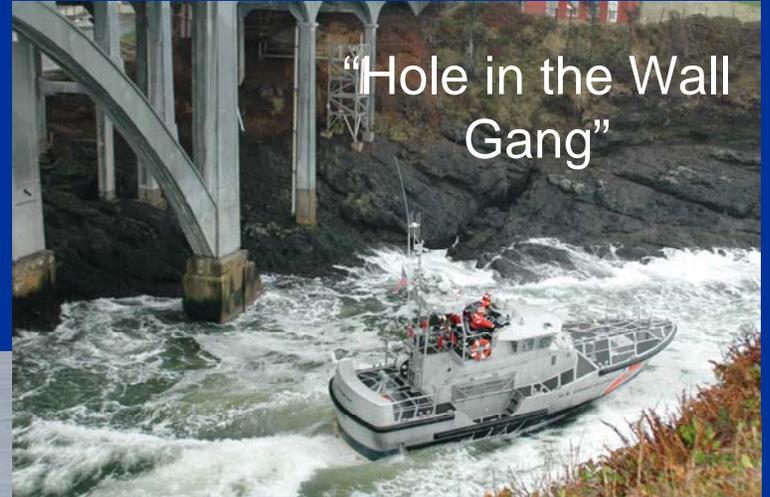
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47' Motor Life Boat



Cape Disappointment
Tillamook Bay
Siuslaw river
Umpqua River
Coos Bay
Yaquina Bay
Depoe Bay
Chetco River
Grays Harbor
Quillayute River



“Hole in the Wall
Gang”



Max Speed: 25 Knts
Max Range: 200 NM
Max Seas: 30ft
Max Surf: 20ft
Draft: 5 ft
Towing Cap: 150 Tons



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25' Defender Response Boat



Cape Disappointment
Siuslaw River
Umpqua River
Coos Bay
Yaquina Bay
Depoe Bay
Grays Harbor
Quillayute River

Max Speed: 43 Knts
Max Range: 175 NM
Max Seas: 6ft
Max Surf: 0!!
Draft: 3 ft
Towing Cap: 10 Tons



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45' Response Boat - Medium



Max Speed:	42.5 Knts
Max Range:	250 NM
Max Seas:	Under Testing
Max Surf:	Under Testing
Draft:	4 ft
Towing Cap:	100 Tons



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CONSIDERATIONS IN DETERMINING IMPACT

ENVIRONMENTAL

- TIDAL RANGE
- CURRENT
- ENTRANCE & PORT CONDITIONS
JETTIES
SHOALING

OPERATIONAL CONSTRAINTS

TRAFFIC & USERS

CREW INPUT



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Location	USACE District	Civil Port	USCG Concern	Controlling Depth	Source	Project Depth	Chart	USACE Maintained	Breaking Bar	USCG Vessel	Draft	Navigation Draft
Cape D/Baker Bay W	Portland	Ilwaco	Red	8	Tabulation	10	18521	Yes	No	52 MLB	6	9
Astoria	Portland	Astoria	Green	21	Charted depth	None	18521	Yes	Yes	210' WMEC	12	18
Tongue Point	Portland	Astoria	Red	18	Tabulation	None	18521	No	No	225' WLB	13	18
Portland	Portland	Portland	Green	11	Charted depth	None	18526	No	No	100' WLI	5	6
Kennewick	Seattle	Kennewick	Yellow	19	Charted depth	None	18542	No	No	23' TANB	2	3
Tillamook Entrance	Portland	Garibaldi	Yellow	15	Chart Note	18	18558	Yes	Yes	47' MLB	6	9
Tillamook Bay CG	Portland	Garibaldi	Yellow	7-10	Charted depth	0	18558	No	No	47' MLB	6	9

Left half or south side of channel is much shallower than mid channel to north half.

Depth is closest charted depth to Astoria city piers, access is from 30 ft deep maintained channel.

At approximately 125 yds from the pier FIR passes a place w/ only 3 feet beneath the keel.
ACOE has reportedly dredged around the pier in the past while working nearby on other projects.

Depth is closest charted depth to CG pier at Sector Portland, access is from 30 ft deep maintained channel.

No problems reported. Lake Sacajawea maybe a issue in the out years.

Jetties a significant issue. Shoaling inside the channel might change when the jetties are repaired.

Controlling Depth less than Navigational Draft but still deeper than actual draft. Marina that USCG utilize for mooring of towed vessels has reported shoaling.

**EYE
CHART**



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RISK TO LIFE MITIGATION

- RISK ASSESMENT
- ASSET CAPABILITIES
- BROADCAST NOTICE TO MARNINERS & LOCAL NOTICE TO MARINERS
- RELOCATION (PERMANENT AND TEMPORARY)
- **DREDGING**



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SUCCESSFUL COOPERATION

- Rogue River [Rogue1.wmv](#)
- Siuslaw River
- Baker Bay
- Q- River



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QUESTIONS?

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