



Governor's Tsunami Debris Task Force

18 DEC 2012

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Japanese Tsunami Marine Debris Task Force

Agenda

Dec. 18, 2012

(11:00am - 2:00pm)

INTRODUCTIONS – Brigadier General Mike Caldwell (*Chair, Governor’s Task Force on JTMD*)

RECAP OPERATIONS BY AGENCY

1. TSUNAMI WORKGROUP UPDATE – John Lewis (*Director of Plans & Training, OEM*)
2. NOAA Weather Patterns – Rick Brown
(*Marine Debris Coordinator, National Oceanic & Atmospheric Administration*)
3. ORPD Debris Update – Chris Havel
(*Public Information Officer, Oregon Parks & Recreation*)
4. ODFW Invasive Species – Caren Braby
(*Marine Resources Manager, Oregon Dept. of Fish and Wildlife*)
5. NGO Update– Briana Goodwin (*Public Affairs, SOLVE*)
6. OR STATE MARINE BOARD - Scott Brewen (*Director*)
 - Update – At Sea Marine Debris Work Group
7. GOVERNOR’S OFFICE – Gabriela Goldfarb (*Natural Resources Advisor*)
 - Japanese Funding

OUTREACH

1. Road Show/County Commissioner’s Meeting/Public Affairs Update - Kim Lippert
(*Public Information Officer, OEM & the Gov’s Task Force on Tsunami Marine Debris*)
 - Road Show, Brochures, Public Service Announcement
2. Question/Answer/Roundtable Discussion – Perspective, Ideas & Suggestions on what we should focus on.

NEXT STEPS

1. GOVERNOR JOHN KITZHABER
 - Governor receives update on current status of tsunami marine debris and plan
 - Governor Kitzhaber brief comments
 - Governor signs plan and opportunity for photos
2. Purpose Charge of Task Force Moving Forward

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Oregon Military Department

Welcome - Brigadier General Mike Caldwell,
Deputy Director, Oregon Military Department
Chair, Governor's Task Force on JMTD

Introductions

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Oregon Emergency Management



Welcome – John Lewis,
Director of Plans & Training
Oregon Emergency Management

Tsunami Workgroup Update

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Marine Debris

NOAA Marine Debris Program | Office of Response and Restoration | NOAA National Ocean Service



Marine Debris Sightings as of November 29, 2012

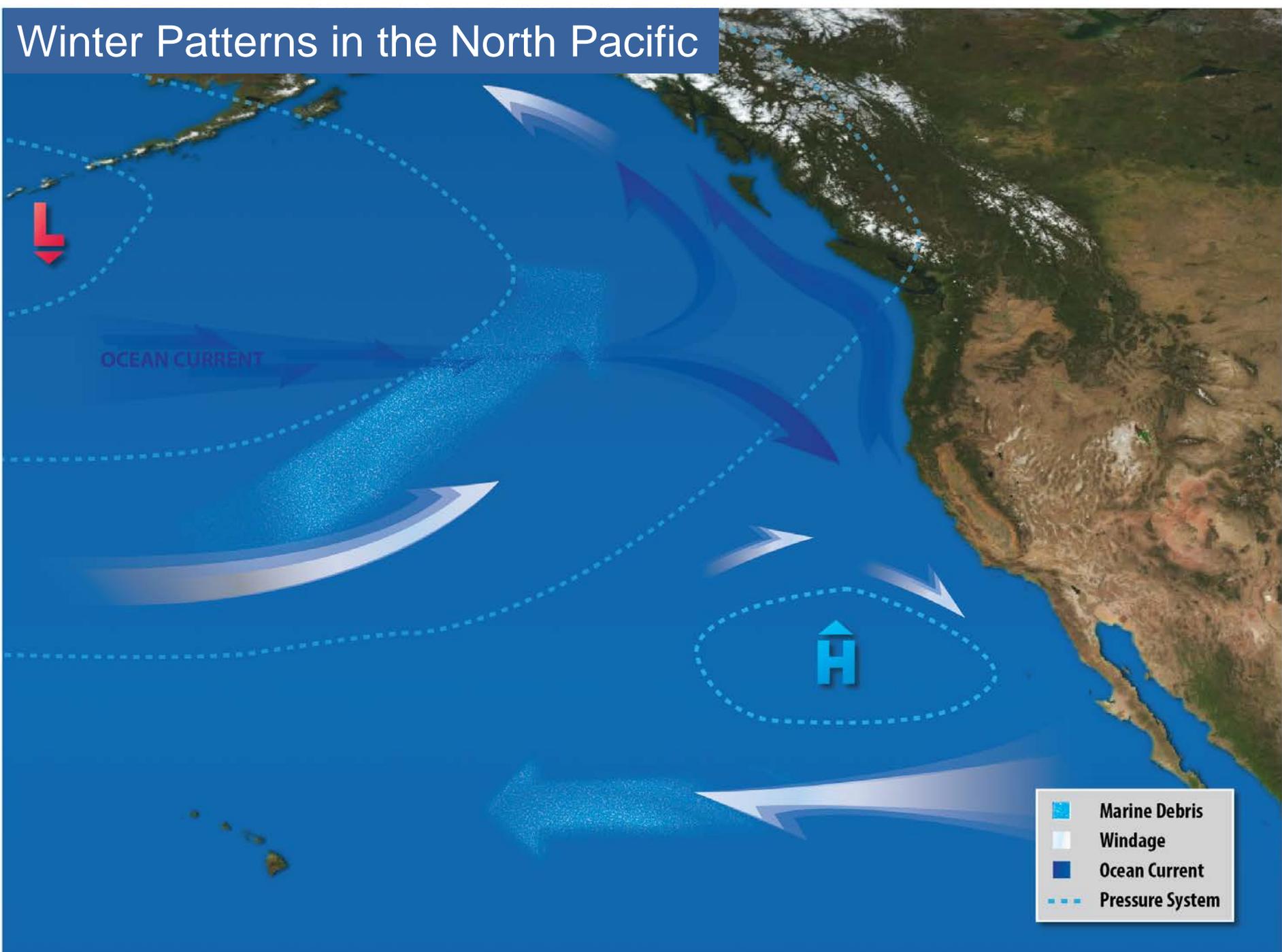


NOAA Update to Oregon JTMD Task Force

December 18, 2012

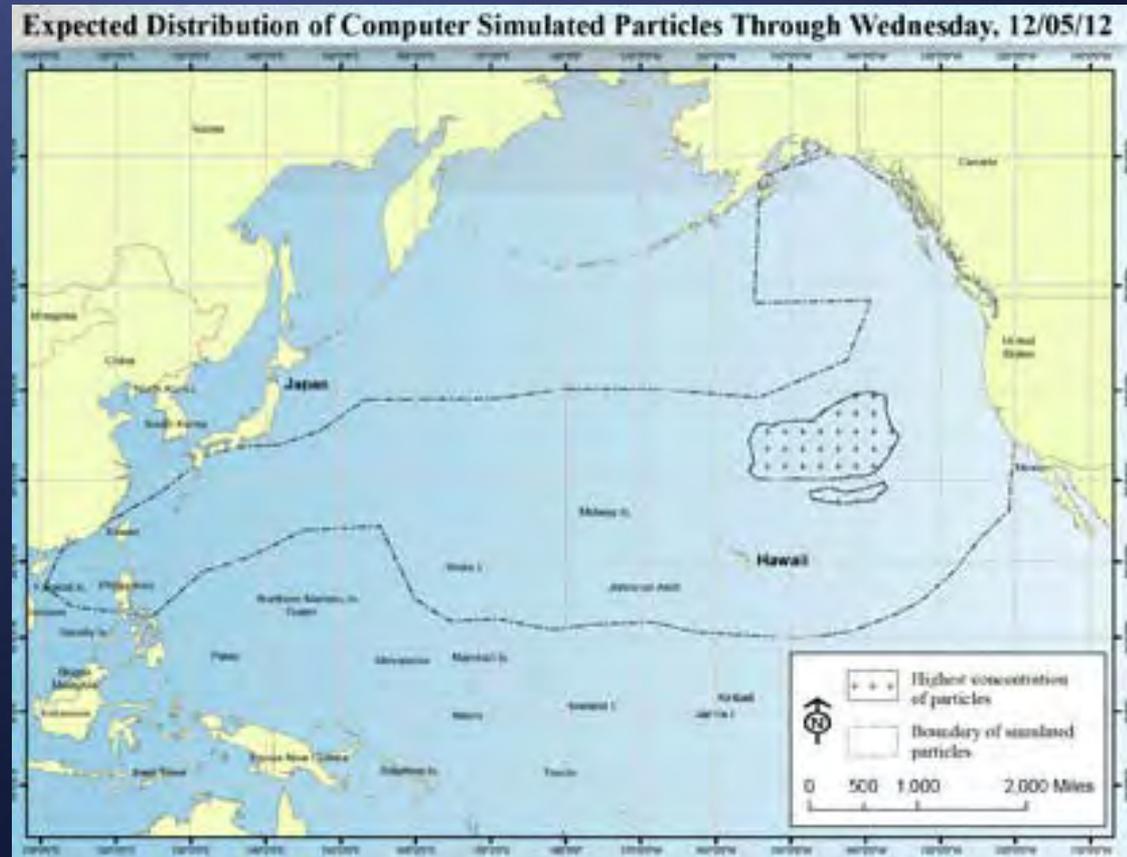
NOAA Marine Debris Program

Winter Patterns in the North Pacific



Modeling Output

- Hindcast model
- Updated monthly
- No significant changes from the August run
- Available on the Web
- Bigger picture:
 - Season shift occurred mid-October
 - Deposition intermittent, widely scattered
 - More JTMD in Hawaii

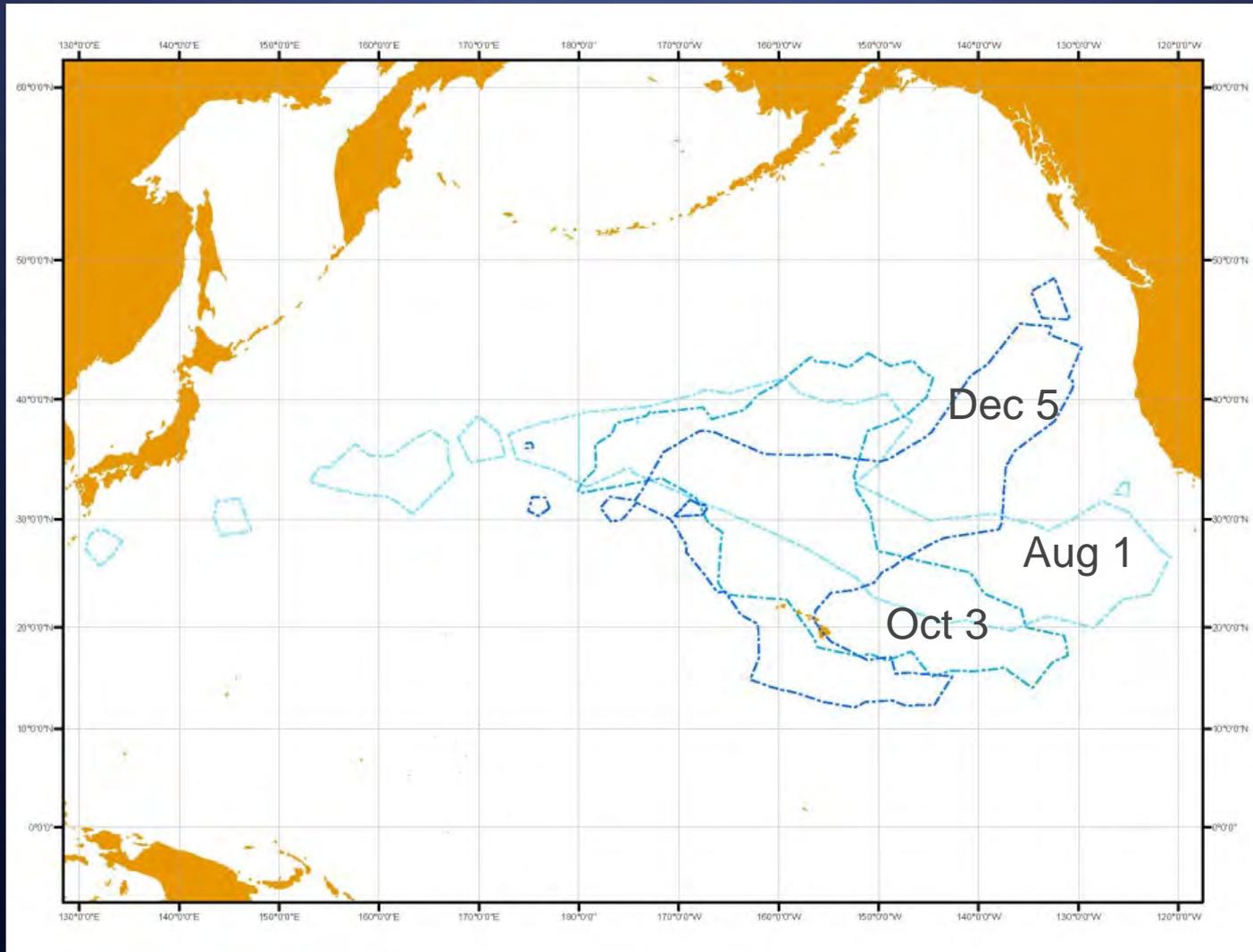


Marine Debris

NOAA Marine Debris Program | Office of Response and Restoration | NOAA National Ocean Service



Seasonal Variation, Particles with 3%-Windage





Longer Outlook

- In winter 2012-2013, the model indicates high floating debris items again arriving along the Oregon, Washington and British Columbia Coast.
- The amounts of high floating debris are expected to be less than what was observed last winter.
- Lower floating objects are forecast to arrive along the West Coast of North America between Northern California and British Columbia.

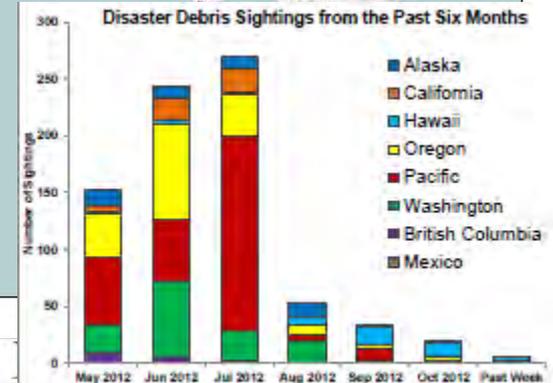
JTMD Sightings: Pacific Rim

Marine Debris Sightings as of November 29, 2012



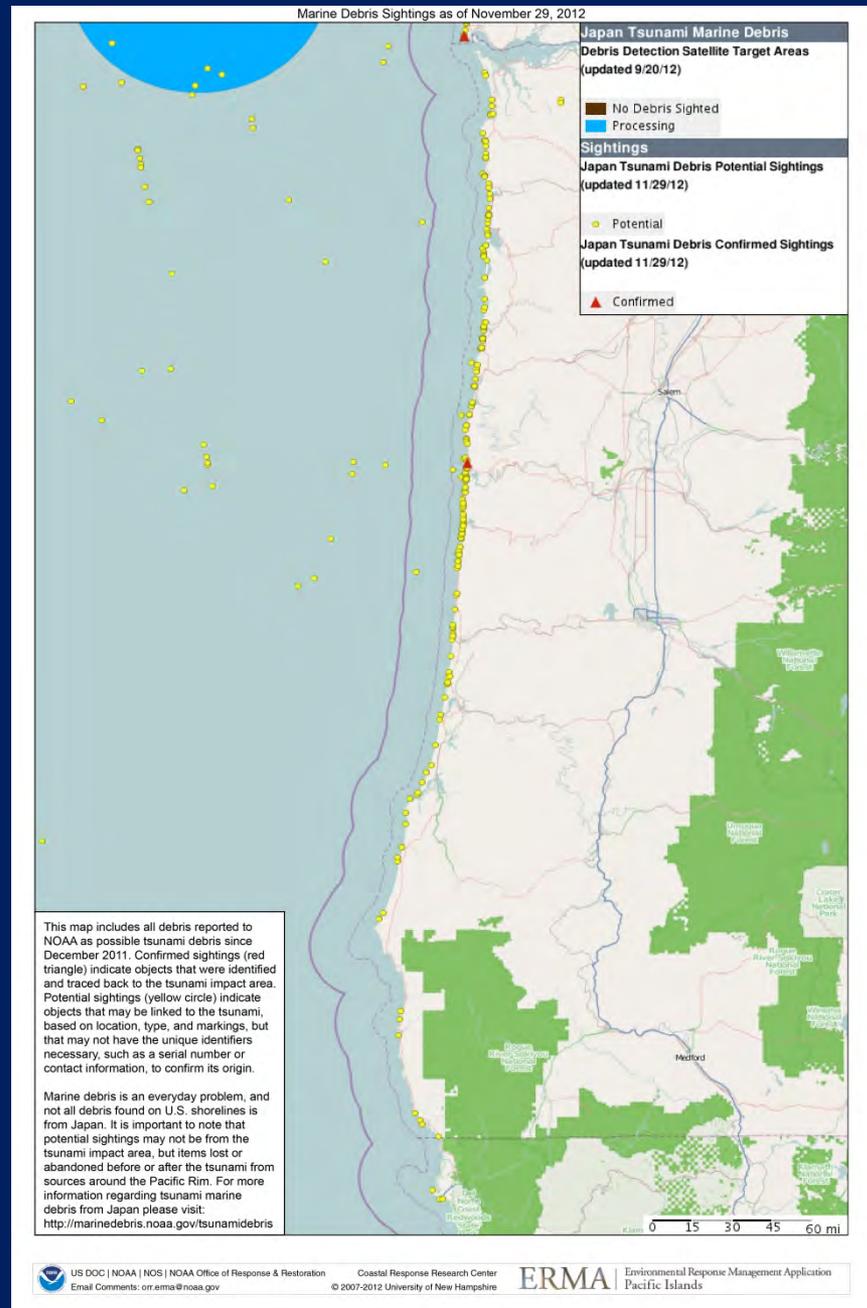
This map includes all debris reported to NOAA as possible tsunami debris since December 2011. Confirmed sightings (red triangle) indicate objects that were identified and traced back to the tsunami impact area. Potential sightings (yellow circle) indicate objects that may be linked to the tsunami, based on location, type, and markings, but that may not have the unique identifiers necessary, such as a serial number or contact information, to confirm its origin.

Marine debris is an everyday problem, and not all debris found on U.S. shorelines is from Japan. It is important to note that potential sightings may not be from the tsunami impact area, but items lost or abandoned before or after the tsunami from sources around the Pacific Rim. For more information regarding tsunami marine debris from Japan please visit: <http://marinedebris.noaa.gov/tsunamidebris>



JTMD Sightings: Oregon

- Increased reporting recently
- Possibility of more low windage items
- Amounts, type, exact locations, and timing impossible to predict
- NOAA expects that marine debris deposition will continue to be scattered and intermittent





Thank you

Get info:

<http://marinedebris.noaa.gov/tsunamidebris/>

http://www.oregon.gov/OPRD/PARKS/Pages/tsunami_debris.aspx

Report sightings:

disasterdebris@noaa.gov

Nir Barnea

Nir.barnea@noaa.gov

206-526-6943



**Oregon
Parks &
Recreation
Department**

On the beach

- **Agate Beach dock removed.**
 - **200+ tons.**
 - **A week to cut up and haul off.**
 - **Cost ~\$85,000.**
 - **Important to attack large debris immediately to preserve beach.**
 - **Popular in the short run, leaving debris would eventually drive visitors away.**



On the beach: the dock

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Department**

On the beach

- **Volunteer efforts.**
 - **More than a 20 small cleanups so far this summer ... 3X normal.**
 - **Average people per work party has doubled (from 17 to 34).**
 - **Removed 20 tons of debris ... 4X normal (increase due to more debris, more volunteers).**
 - **Organized by the nonprofit Oregon Marine Debris Team.**
 - **Oregon Chapter of the Surfrider Foundation, Oregon Shores Conservation Coalition, SOLVE, Sea Grant, Washed Away.**
 - **Cost ~\$10,000 so far for sturdy cleanup bags.**



On the beach: volunteers cleaned it

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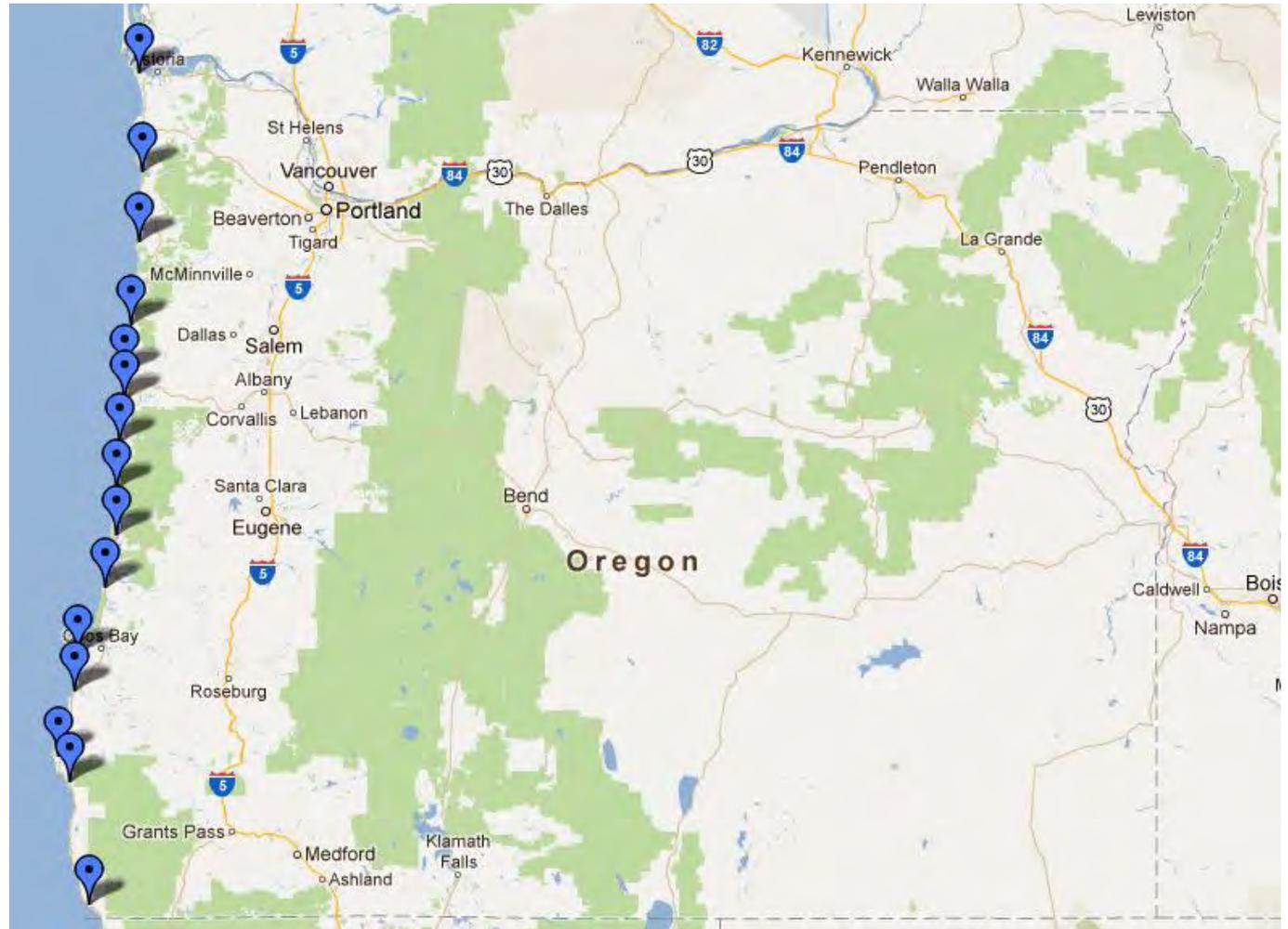
Off the beach

- **Debris containers.**
 - **Containers at 15 state park campgrounds in summer. Reduced now in some places due to low need.**
 - **15 of 17 municipal transfer stations shut down for now due to low demand.**
 - **Costs \$10,000+ so far.**
 - **Will continue to add/drop locations based on need.**



Off the beach: drop-off sites

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Off the beach

- **211 phone system**
 - Callers on the coast can make debris reports of all kinds by calling 211 (800-SAFENET).
 - System has taken more than 300 calls since July.
 - Half the calls are about normal debris, a quarter get forwarded to the Coast Guard and the rest are information requests.
 - Costs \$12-24,000 a year depending on call volume.



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Parks &
Recreation
Department**

Off the beach

- **First grant**
 - Received \$50,000 in aid from NOAA.
 - Competing for \$150k NOAA grant.
 - Japan sending \$5 million to US, but don't know how it will be divided.
 - About \$234,000 in costs so far (materials and labor), and expecting more than a million based on current projections.
- **Winter may be very challenging.**
 - Seeing pockets of debris now, but not widespread.
- **Couldn't do this without volunteers.**



ODFW is Lead Agency for Marine Invasive Species Issues in Oregon's JTMD Response



Roy Elicker, Director
Caren Braby, Marine Resources Program Manager
Oregon Department of Fish & Wildlife
December 18, 2012



Invasive Species

- What are invasive species?
 - Organisms that evolved in one location, are moved by humans to another and reproduce successfully in the new location
 - Numerous species are known to be invasive outside of OR and pose a high risk
- Why invasive species are a concern:
 - Invasive species would have a significant impact on region
 - Ecosystem impact (competition, predation with native species)
 - Economic impact (fisheries, maintenance, etc.)



The Japanese Floating Dock

- Agate Beach, Newport
 - June 3, 2012
- ODFW removed living matter
 - Goal:
 - Prevent invasive species from establishing
 - Authority:
 - Protect native species in terrestrial, freshwater, and marine ecosystems;
 - Prevent introduced and invasive species from establishing
- OPRD dismantled & removed the dock



OSU: Taxonomic ID of Invasives

1 species of urchin



Northern Pacific seastar
Asterias amurensis



Japanese shore crab
Hemigrapsus sanguineus



4+ species of barnacle



Solitary tunicate

Granular claw crab



Oedignathus inermis



Oyster



Mytilus galloprovincialis



Undaria pinnatifida



Bryozoans



3+ species of amphipod



Sponge on mussel



8+ species of mollusk



Anemone



4+ species of worm





ODFW Scraped & Sterilized Dock Top & Sides

- 13 staff
- 3 days
- ~\$3,000
- 2+ tons of living material removed



Bottom
of
dock?





OPRD & ODFW Buried Organisms

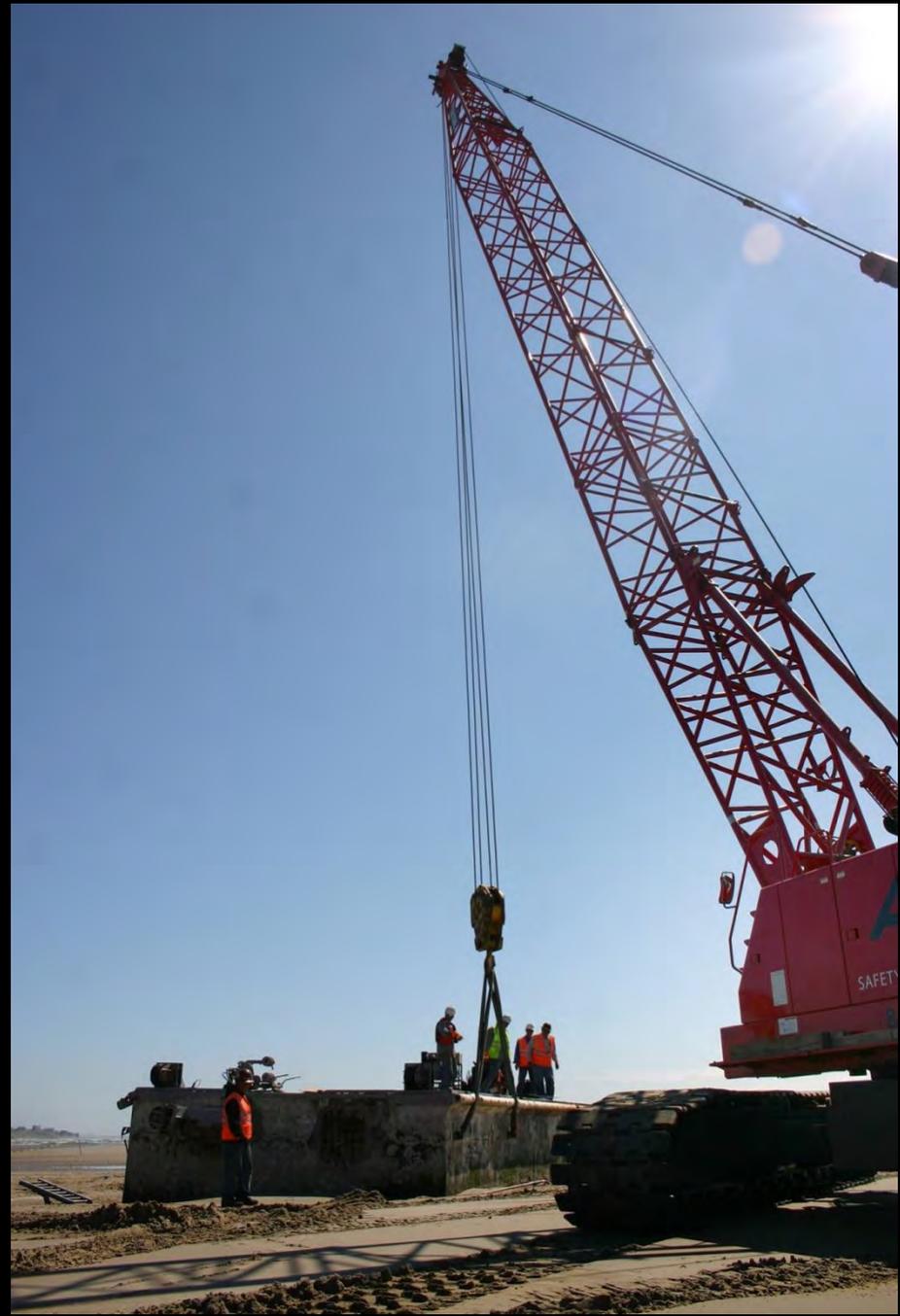
- Excavate 10-12 ft deep trench in sand above high tide line
- Burial of 4,260 lbs of marine organisms
- Lethal disposal of invasive species





OPRD Demolished & Removed Dock

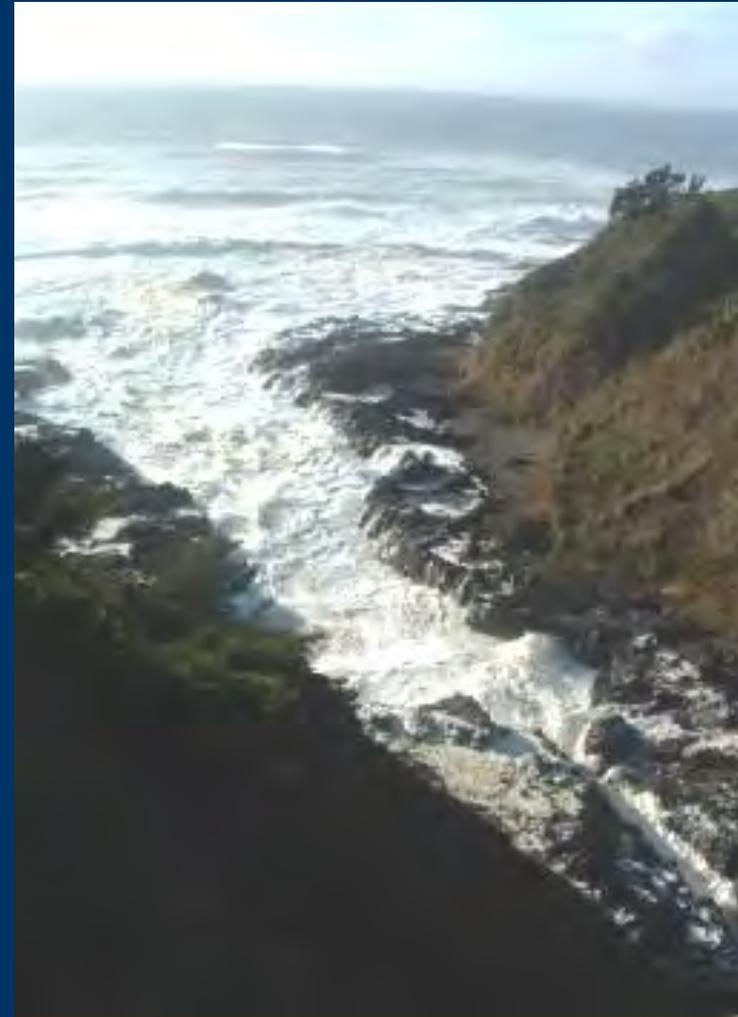
- ODFW recommended removal rather than re-use in bay/marina
- Marine organisms on dock bottom crushed and scoured during grounding
- During removal, more invasive species found inside bumpers





Lesson: situation could have been worse

- Isolated location along OR coast
- Along offshore islands, cliffs, or rocky headlands
- Lodged in rocky intertidal or shallow subtidal
- Far from marine scientists & agency responders





ODFW's on-going role

- Participate in JTMD Task Force, Coordination Group
 - Help develop “At-sea Plan” for TF
- Coordinate on JTMD invasive species issues
 - Website, academics, state and federal agencies
- Monitor reports of marine debris
 - Inspect debris when there is high risk of invasive species
 - So far, no invasive species confirmed since dock

The Japanese Coast Guard reported that 506 vessels were washed out to sea by the tsunami





ODFW monitors reports: “Black float covered in white Asian clams”





ODFW's advisory role: Japanese Floating Dock #2 in Hawai'i

- Reported off Maui & Molokai on Sep 19, 2012
- Misawa Dock #2? Still unconfirmed



- Shoreline searches and helicopter flights unable to relocate dock #2
- Dock #2 lost and presumably still adrift at sea



More information

- Google:
 - ODFW Tsunami Debris (news, fact sheet)
- Contacts:
 - Beach.debris@state.or.us
 - Meg Kenagy 503-947-6021
 - Caren Braby 541-867-4741
 - Roy Elicker 503-947-6044

Oregon Marine Debris Team

Keeping Oregon's Shore Free From Debris



SOLVE
IT'S OUR NATURE TO
— VOLUNTEER —



OREGON SHORES
CONSERVATION COALITION

————— *the* —————
Washed Ashore
OCEAN AWARENESS THROUGH ART
————— *project* —————

omdt.org

CoastWatch



OREGON SHORES
CONSERVATION COALITION

- Project of Oregon Shores Conservation Coalition
- Serves to engage Oregonians in caring for our public shoreline
- Nearly 18 years old with nearly 1,300 volunteers
- CoastWatch volunteers are organized geographically, with each watching over a particular mile
- Network designed to identify problems and turn out cleanup volunteers for beaches the entire length of the Oregon coast

Oregon Sea Grant



- As a part of OSU, Sea Grant has an interest in public education and engagement around marine debris and tsunami debris
- Sea Grant supports research on marine debris and tsunami debris

SOLVE



- Coordinate two coast-wide cleanups in the spring (Mar 30, 2013) and fall
- Support several community lead cleanups year-round
- Working with Japan-related organizations and Japanese NGOs to address the global issue of marine debris

Surfrider Foundation



- Maintains a dedicated and trained network of volunteers and chapters engaging in coastal cleanups, stewardship and various monitoring activities.
- Currently serving as primary liaison with OPRD beach rangers for needed cleanups and response.
- In 2012, SF volunteers and chapters have organized 53 coastal cleanups, 12 in response to OPRD requests and 11 in partnership with OMDT.
- Seeks to build upon OMDT partnership and funding opportunities to better empower local communities for organizing, monitoring and response.

Washed Ashore



- A project of Artula Institute for Arts and Environmental Education - a non-profit that uses the power of the arts to change consumer habits and heal the ocean.
- Supports volunteer and OMDT efforts in cleaning up Oregon beaches by accepting the debris collected from cleanups.
- Debris is then processed into art supplies which are used by hundreds of volunteers to build giant sculptures of the marine life that's affected by plastic pollution.
- These sculptures raise awareness by traveling around the country and educating the masses about the marine debris problem and about how they can be part of the solution.

Japanese Tsunami Marine Debris

At-Sea Subcommittee



Subcommittee Members



- Nir Barnea – NOAA
- Caren Braby – ODFW
- Scott Brewen – OSMB – Chair
- Jean Cameron – Retired Coordinator Pacific States/BC Oil Spill Task Force
- Claude Crocker – State Parks
- Terry Egan – WA Emergency Management
- Gabriela Goldfarb – Governor’s Office
- Bridgette Lohrman – EPA
- Ashley Massey - OSMB
- Steve Rumrill – ODFW
- LCDR Kelly Thorkilson – USCG
- Mike Zollitsch – DEQ

Purpose

- Establish a coordinated approach among state and federal agencies to determine response options, required resources, and necessary approvals to respond to large debris at sea.



Actions

- Four meetings were held by conference call
- Reviewed and documented agency authorities and responsibilities
- Established reporting criteria and points of contact
- Identified initial actions for significant debris reported within 50 NM
- Identified potential removal strategies and hindrances
- Addressed opportunities and restrictions surrounding sinking debris at sea



Reporting Criteria



- Any agency that receives the first report of debris of interest (size, type, location) will conduct the following notifications:
 - NOAA Disaster Debris email (DisasterDebris@noaa.gov) and by phone at 206-369-5015 or NOAA Emergency Response Division emergency line: 206-526-4911.
 - U.S. Coast Guard Sector Columbia River for debris that will potentially pose a hazard to navigation or pollution/HAZMAT threat: 503-861-6211
 - State of Oregon for debris that will potentially impact OR Waters or shore: OERS at 800-452-0311 or contact 211 or 800-SAFENET (800-723-3638)
 - State of Washington for debris that will potentially impact WA Waters or shore: 855-WACOAST (800-922-6283)
 - USACE for debris that will potentially impact designated navigable channels: 360-546-0162

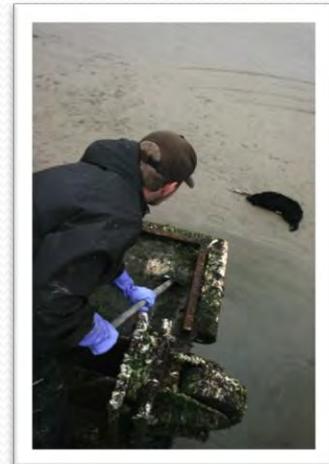
Reporting Criteria



- Verified significant debris reported within 50nm of Oregon or Washington Coast:
 - Notify OERS – OERS will arranged phone conference for impacted federal, state and local partners within one hour of notification
 - Continuing method of communication and timeline will be determined during initial call

Initial Actions

- NOAA will provide a trajectory model
- The Coast Guard will issue a Broadcast Notice to Mariners advising of a potential hazard to navigation
- The Coast Guard will determine asset availability to validate the report as operations and missions permit
- NOAA and the Coast Guard will provide a brief to federal, state, and local partners on findings from trajectory and verification of report



Removal Strategies



- Allow to drift and make landfall
- Remove from the water
- Tow ashore (either into a harbor of refuge or beach)
- Sink at sea (Coast Guard)
- Tow and sink (destroy) at sea (Coast Guard and EPA)
- Ocean dumping (Requires EPA permit)

Strategies will be limited by weather, sea state, size, type of debris, hazards or contamination present

Next Steps

- Identify contractors for towing/removing debris
- Identify particularly hazardous zones for large debris to land
- Identify preferable areas for large debris to land
- Identify ports to bring netted debris



Questions?



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Governor's Office



Welcome – Gabriela Goldfarb,
Natural Resources Advisor

Japanese Funding

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Oregon Emergency Management



Welcome – Kim Lippert,
Public Information Officer
Oregon Emergency Management

Public Affairs Update

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Questions & Answers Roundtable Discussion

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Governor's Office



Welcome – Governor John Kitzhaber,

Comments

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