



Australian Government

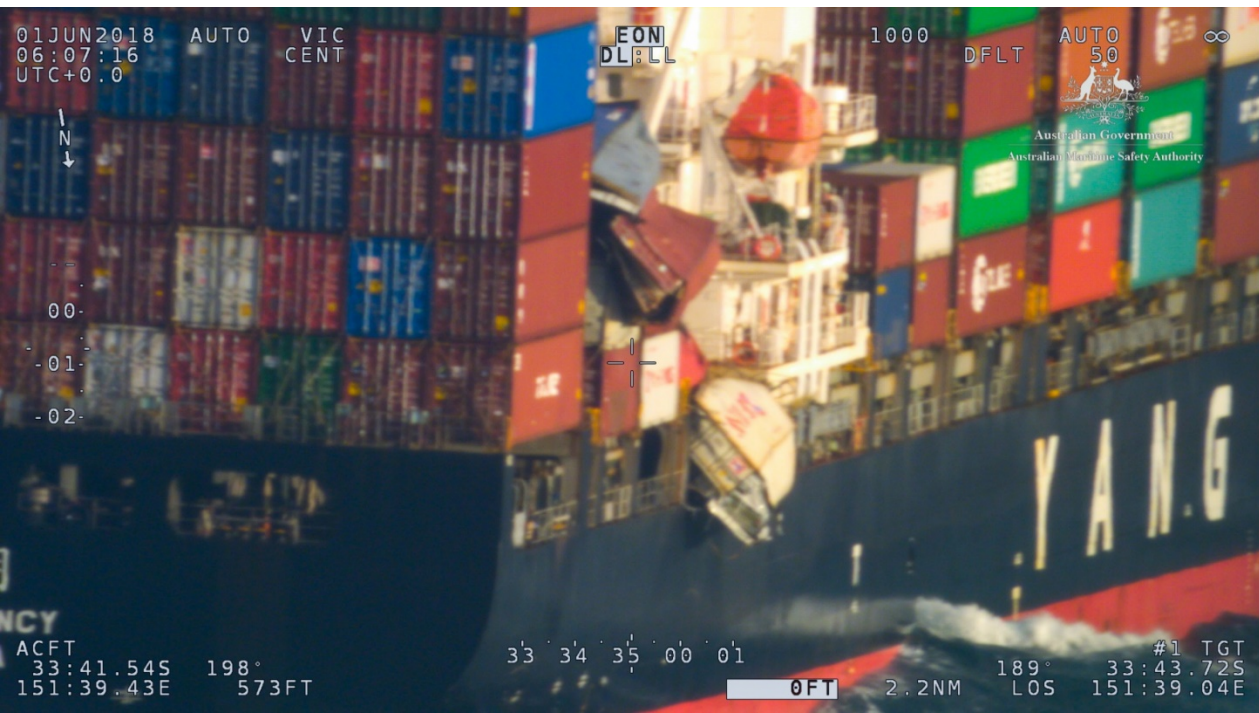
Australian Maritime Safety Authority

# *YM Efficiency* salvage operation



# Agenda

- Introductions
- Background
- Response to date – NSW Roads and Maritime Services, AMSA
- Operations – overview of salvage operations
- How to contact us

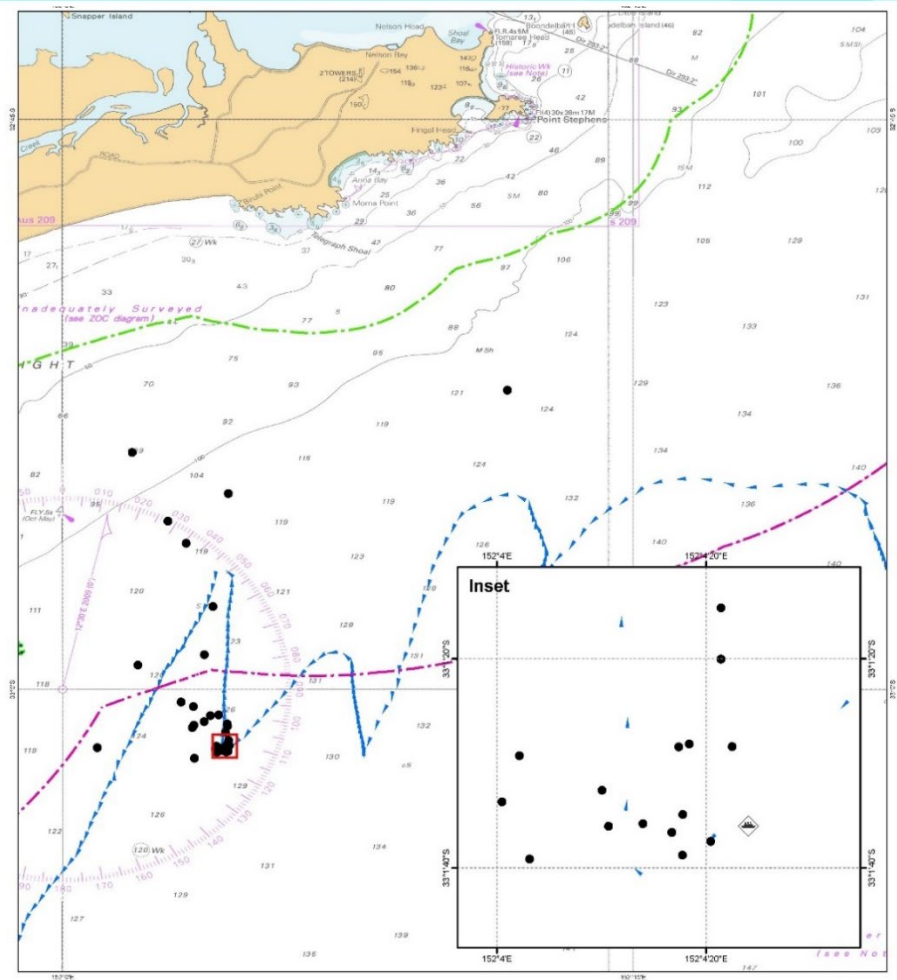


# Background

- On Friday 01 June 2018 the YM Efficiency reported the loss of 81 containers overboard.
- Initial response
  - Impacted area
  - Wildlife
  - Waste
  - Ongoing monitoring
- Seabed survey
  - Area

# AMSA response

- Contracted Remote Operated Underwater Vehicle services
- Feasibility study
- Established a project
- Procurement
  - Open tender
  - Industry briefing
  - Evaluation
  - Contract signature
- Salvage operations to commence in March 2020



<ul style="list-style-type: none"> <li> YM Efficiency track</li> <li> Territorial Sea (12nm)</li> <li> Coastal Waters (3nm)</li> <li> Container confirmed by ROUV</li> </ul>	<p>Background chart courtesy of Australian Hydrographic Service          Coordinate System: GCS WGS 1984          Datum: WGS 1984          Units: Degree</p> <p><b>WARNING:</b> Potential containers on the sea floor which have been identified in the search to date and are depicted in this map are yet to be verified. This map not to be used for navigation or measurement purposes.</p>	<p>0 0.5 1 2 3 4 Nautical Miles</p> <p>0 1 2 4 6 8 Kilometers</p>	<p>Sydn © Sources: Eri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, CMBASE, IGN</p>
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# Who's involved in the operations

- AMSA
- Ardent (salvage experts)
- Local suppliers
- Port of Newcastle
- Transport for NSW





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# Operations

Drew Shannon - Ardent



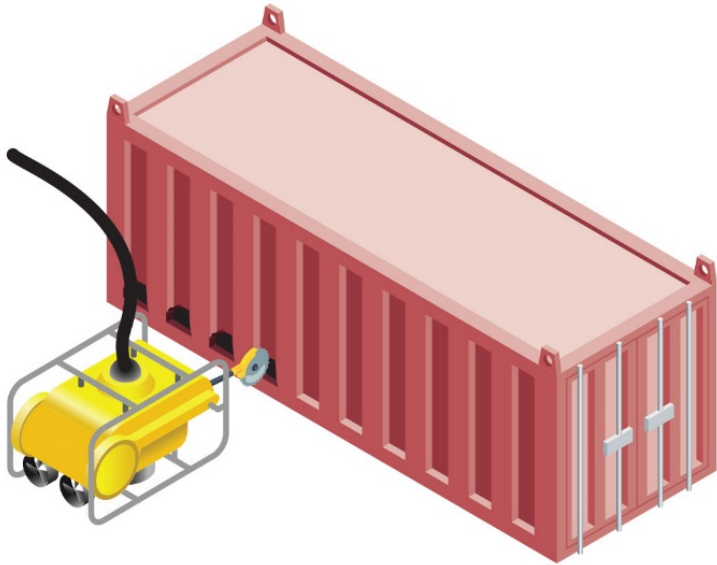
ARDENT



Step

1

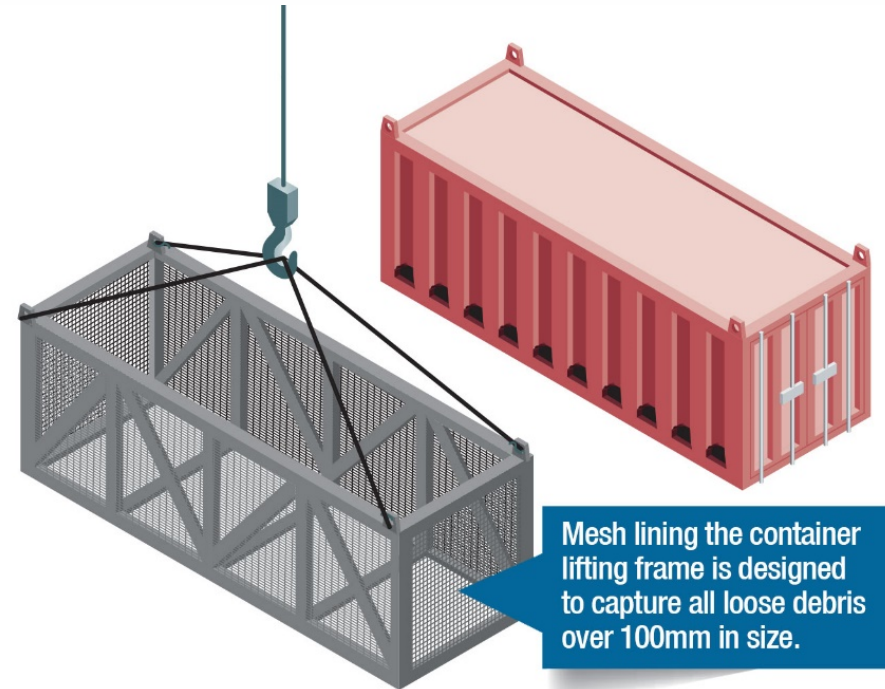
ROUV guides hydraulic saw to cut drainage holes in containers



Step

2

A specially constructed metal frame connected to the main crane is lowered next to a container.

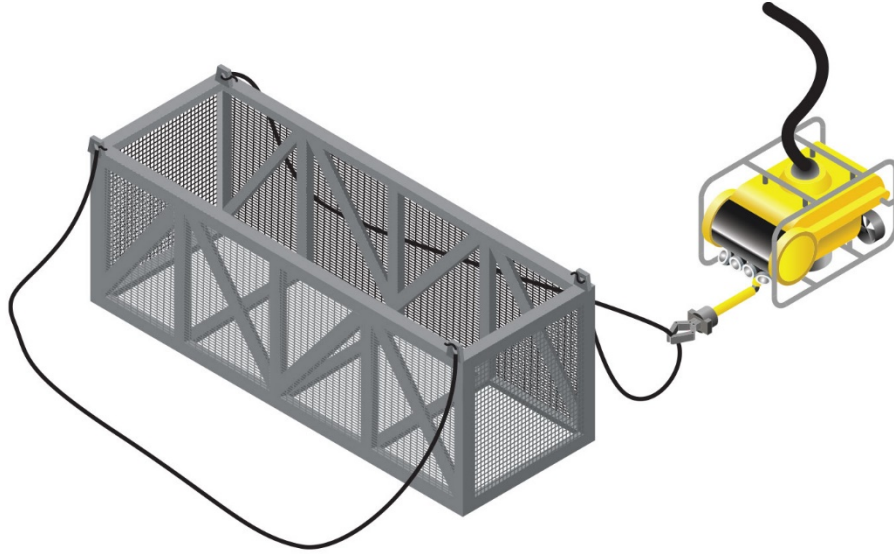


Mesh lining the container lifting frame is designed to capture all loose debris over 100mm in size.

Step

3

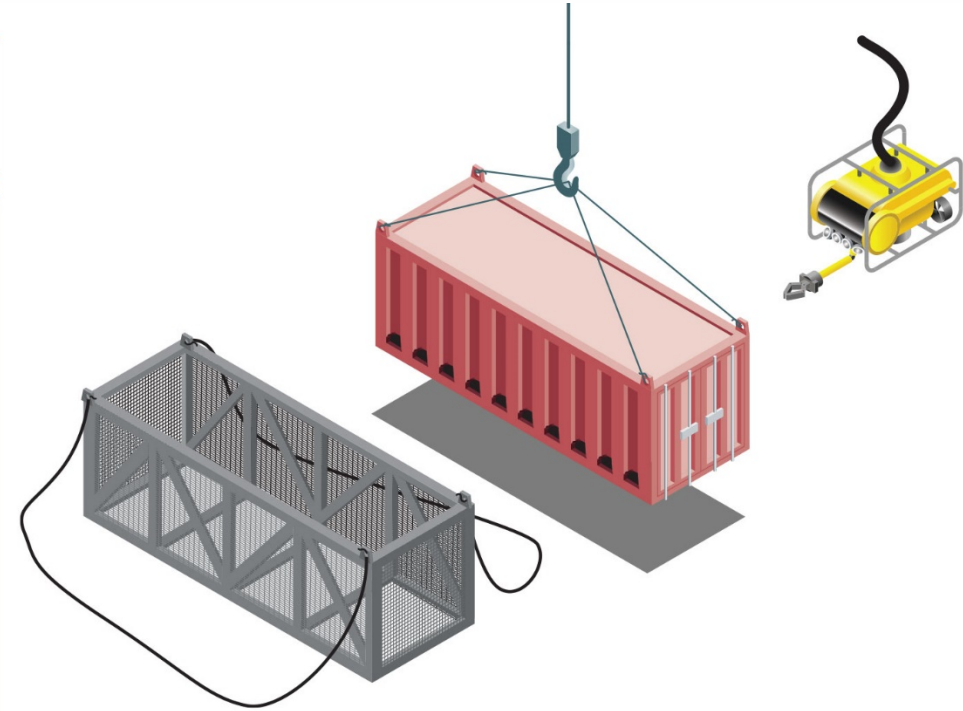
ROUV aids disconnection of frame rigging and creates clearance by draping it away from the frame. Crane is raised to the surface.



Step

4

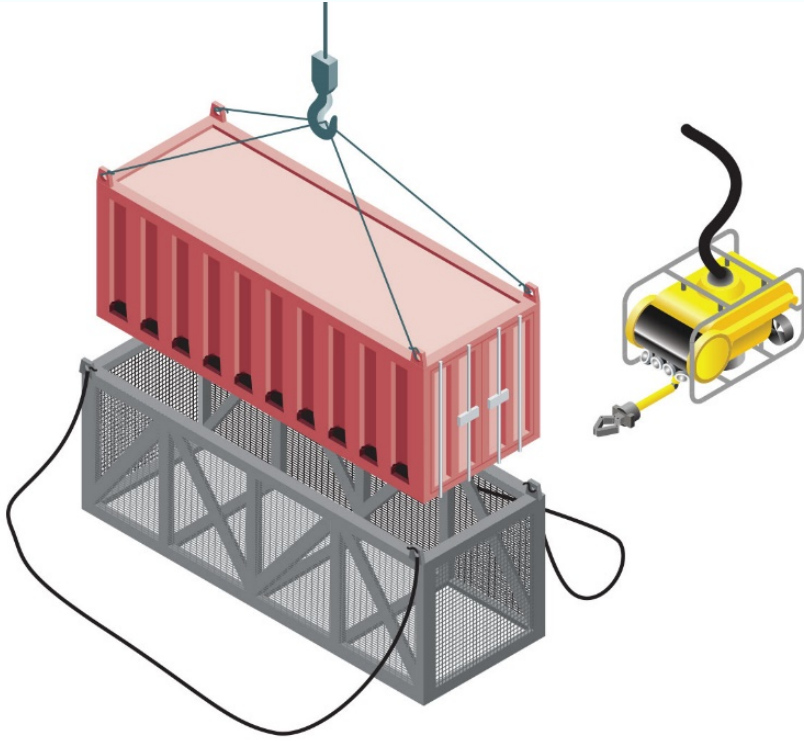
Container lifted from seabed by crane, while ROUV monitors integrity and exposed debris.



Step

5

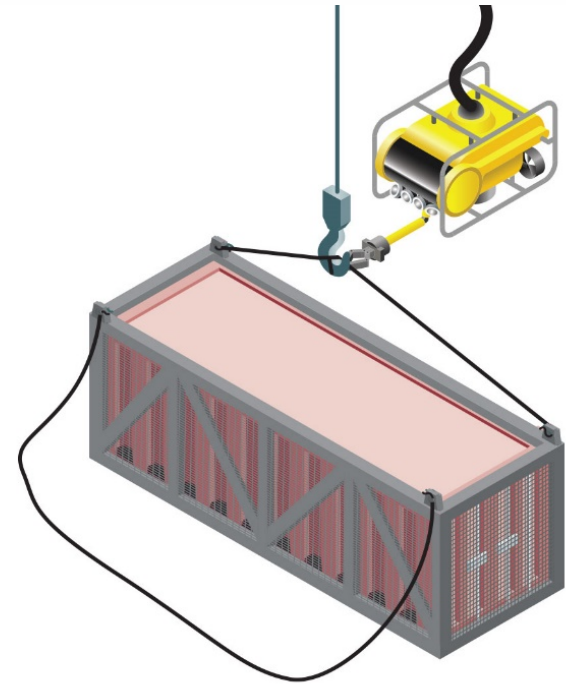
Crane positions and lowers container into frame, ROUV monitors and reports on position.



Step

6

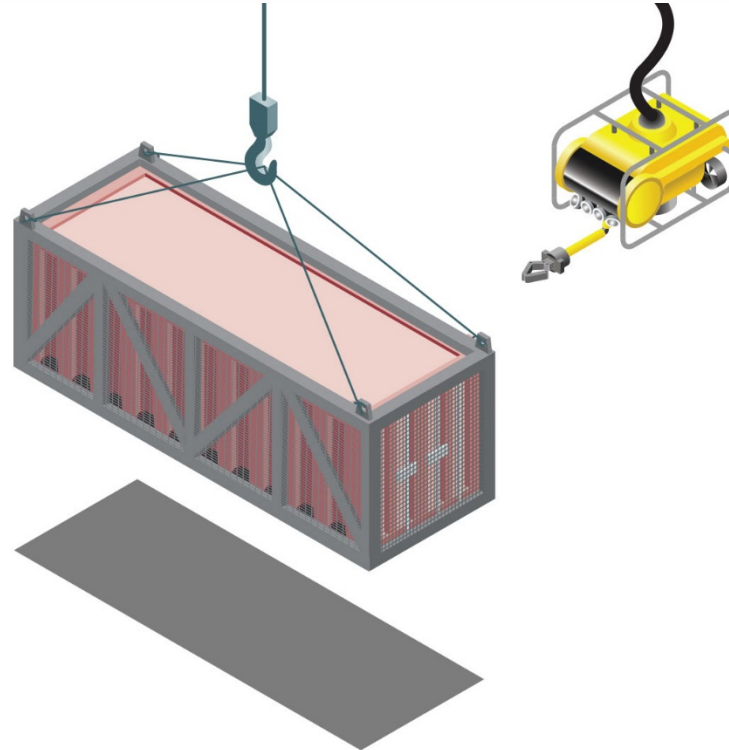
Rigging is lowered for connection to metal frame with container.



Step

7

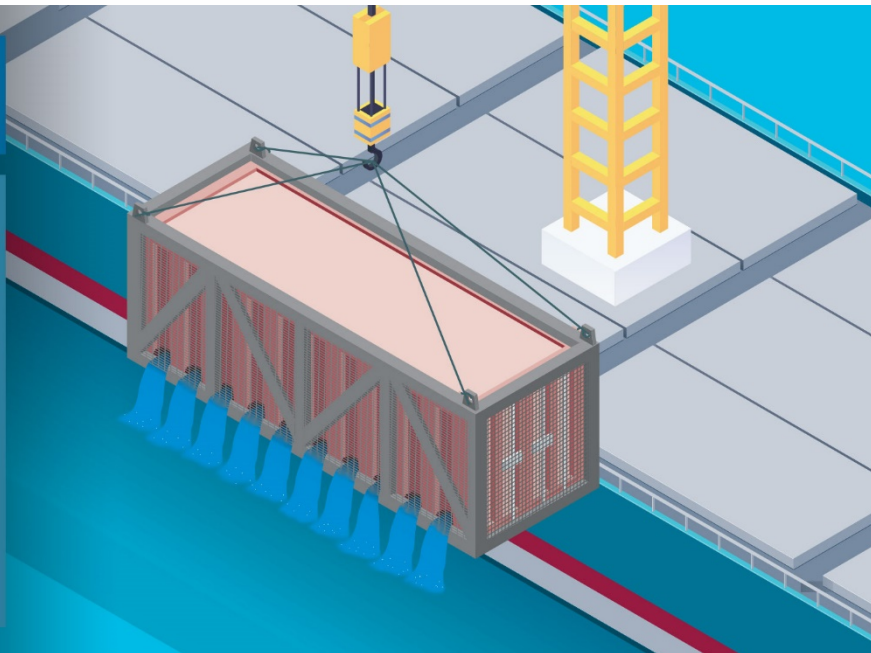
Rigging is pulled taut. ROUV monitors ascent to surface and reports on progress and snagging incidents.



Step

8

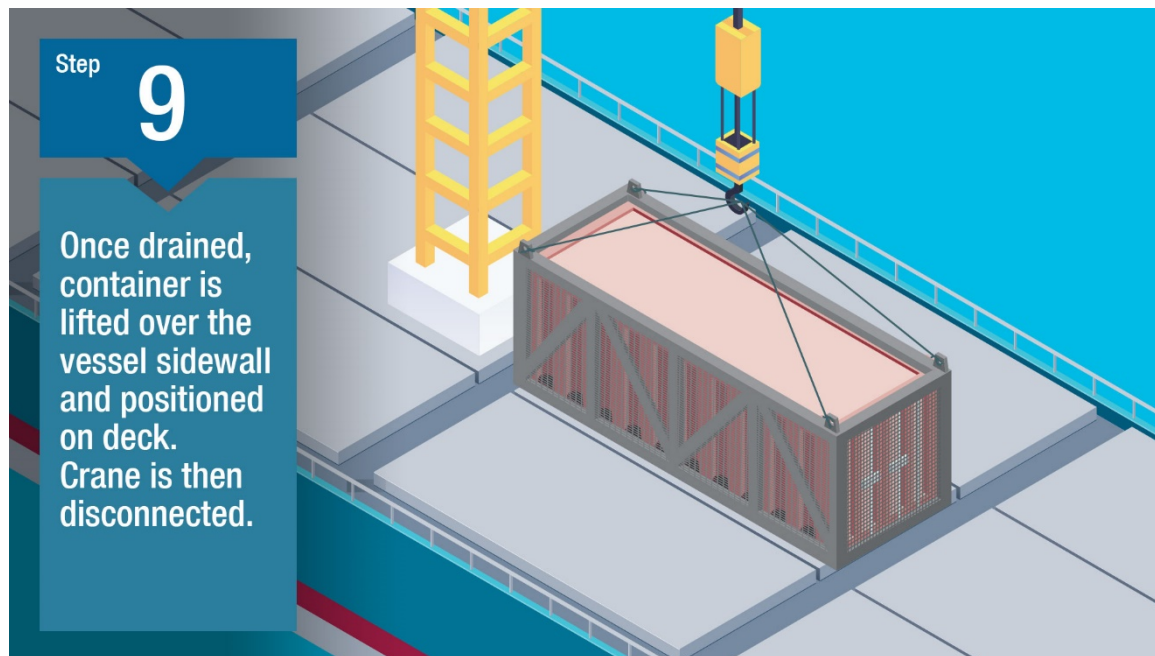
Frame and container lifted out of splash zone and held in position while water drains from egress holes.



Step

9

Once drained, container is lifted over the vessel sidewall and positioned on deck. Crane is then disconnected.



# Storage and disposal of waste

- Disposal
- Containers to be cut up and recycled
- All contents to be assessed for reuse and/or recycle before being designated for disposal



## Staying in touch

Visit our website - [www.amsa.gov.au/yme](http://www.amsa.gov.au/yme)

Email our project team [OperationRecovery@amsa.gov.au](mailto:OperationRecovery@amsa.gov.au)

Phone our contact centre **1800 324 861**

**Report debris** to the RMS hotline **13 12 36**