



Homeland
Security

U.S. COAST GUARD



Mass Rescue Operations (MRO) Awareness: What & Why



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Mass Rescue Operation

- Mass Rescue Operation: *A civil search and rescue activity characterized by the need for immediate assistance to a large number of persons in distress, such that the capabilities normally available to search and rescue authorities are inadequate (IAMSAR).*
- *MRO's are low-probability, high-consequence events.*
 - *Risk = Threat x Probability x Consequence x Vulnerability*
- **NO SINGLE AGENCY CAN SOLVE MRO ALONE!**



Vessel Casualty





Air Casualty





Natural Casualty





Man Made Casualty





MRO Phases

- #1 Water Rescue – “**on-water**” establishing communications between OSC, MRCC, DMCC, Cruiseship/Airline and IC, obtaining crew/passenger list, evacuation, identifying a landing site/reception area, assign an Incident Commander to prepare to receive survivors.
- #2 Land-side Recovery - “Feet Dry” at **Landing Site** for Triage, Decon and transport to Family Assistance Center as “**Place of Safety**” which provides basic needs: medical, shelter, clothes, blankets, water and food.
- #3 Remediation/Restoration - repatriating survivors, salvage, oil cleanup, demob & decon and **return to normal**.



Functional Activities

Response
Accountability
Info Mgt
Safety/Medical

Ship/Aircraft:
Tier 1

SAR Actions
Safety/Medical
Accountability
MEP
Transport to Shore
(Common Landing Site)
Information Mgt

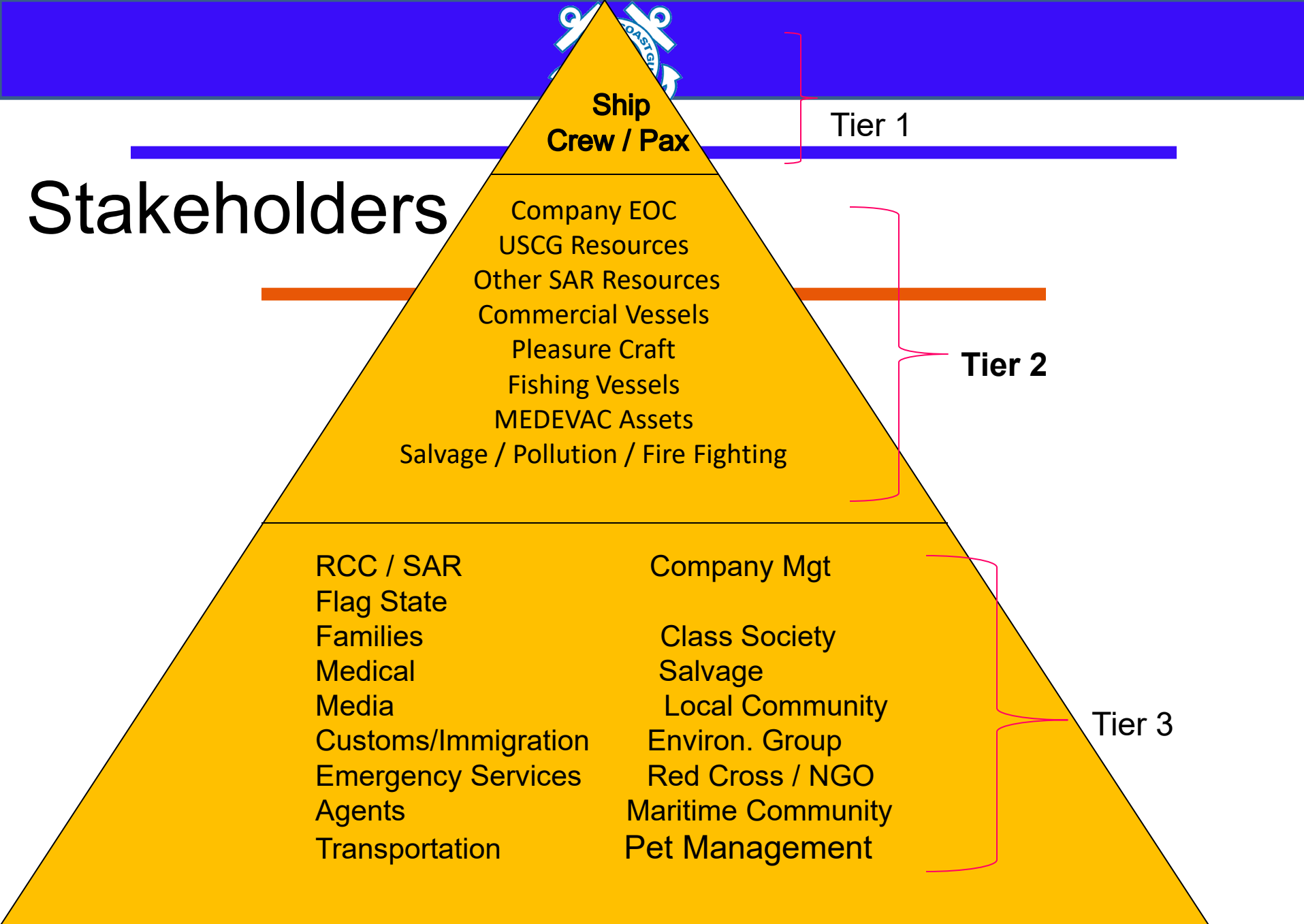
On Scene:
Tier 2

Safety
Crowd Control
Medical and EMS
Accountability
Human Needs Support
(Shelter, food, water)
Special Needs Support
Security

Landing Site Mgt
Customs
Site Security / LE
Transportation
Information Mgt
Volunteer Mgt.

On Shore:
Tier 3

Stakeholders





3 Types of an MRO

- Near Shore/Coastal: Caused by flooding, Tsunami, Hurricane, Grounding. Survivors spread out on shore, saved by multiple assets, include self-rescue. Challenge to track survivors.
- Off Shore: At sea rescue, includes Search and Rescue, may involve helicopters, may only require support and not recovery. Can control landing site and survivor processing better.
- High Seas: Typically international relations involving Military and large commercial vessels. Out of Helicopter range, nearest landing site may be remote island, multi-day rescue.



MRO Challenges

Types/Phases	On-water rescue	Land-side recovery	Restoration
<u>Near Shore</u> (flood, hurricane, tsunami, grounding)	No time to organize Self Help Inland SAR/Maritime SAR coordination	Accountability High ground landing sites Medical/transport	Debris Removal Pollution Flooding Long term shelters
<u>Off-Shore</u> (ferry vsl, airplane, lg fishing vsl, oil rig)	Direct SRUs/OSC ICS Organized	ID'd Landing site Medical, transport, shelter, food, water, clothes Accountability	Vsl Salvage Firefighting Investigation Pollution Return Passengers
<u>High Seas</u> (cruise ship, merchant vsl)	AMVER C-130 Multi-day rescue	International Multiple Landing sites	Vsl Salvage Charter Planes Multi-national survivors



MRO Biggest Challenges

- ❑ Remote Locations
- ❑ Limited Assets & Communications
- ❑ Limited Infrastructure
- ❑ **Survivor Accountability**





MROs vs SAR

- Multiple missions in addition to SAR
- New unfamiliar partners
- Innovative and creative actions or measures required.
- Intense interest and scrutiny by the media and general public.
- Sometimes multi-national survivors

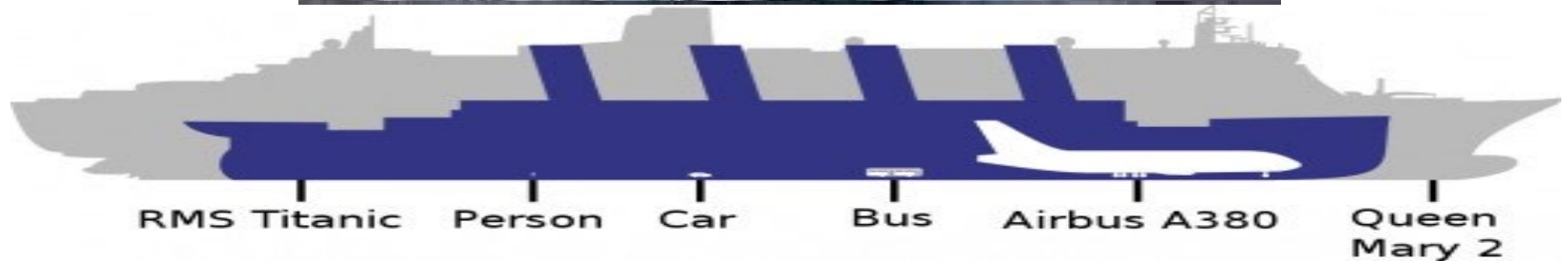


4 Response Questions

- **Authority**: Who has the authority and responsibility to respond and oversee the response.
- **Capability**: Does this organization have the capability to perform the needed tasks.
- **Capacity**: Does the response organization have the capacity to effectively conduct the response of this magnitude.
- **Partnerships**: Who and what agencies/organizations public and private, can we partner with to address the gaps.



MRO Prep: Why?



Cruise Ship Evolution

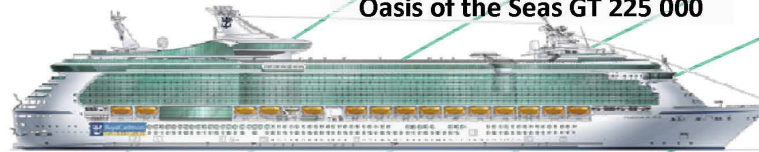
2009, Oasis of the Seas –
6,296 Passengers



Oasis of the Seas GT 225 000

2009

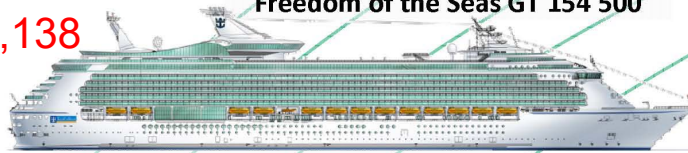
2006, Freedom – 4,515
passengers



Freedom of the Seas GT 154 500

2006

2000, Voyager – 3,138
passengers



Voyager of the Seas GT 137 300

1999



Grandeur of the Seas GT 74 000

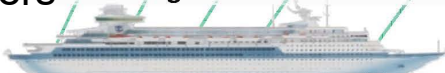
1996

1990,
Sovereign
– 2,850
passengers



Sovereign of the Seas GT 73 192

1987



Song of America GT 37 600

1982



Song of Norway GT 18 400

1970

1970, Song of Norway – 744 Passengers

“As the size increases so
does the volume of
passengers and the risk”

The image displays a vertical sequence of Boeing aircraft models, illustrating the company's product line. The models are arranged from top to bottom as follows:

- 747-400
- 777-300
- 777-200
- 767-400
- 767-300
- 767-200
- 757-300
- 757-200
- 737-900
- 737-800
- 737-700
- 737-600
- 717-200





MRO's Still Happen





Chinese Cruise Ship Capsizes – 435 People lost – June 2015







GOLDEN RAY & CONCEPTION September of 2019





Air Niugini Sep 2018







MRO Prep: Why?



Mass Rescue Operations

RABAUL

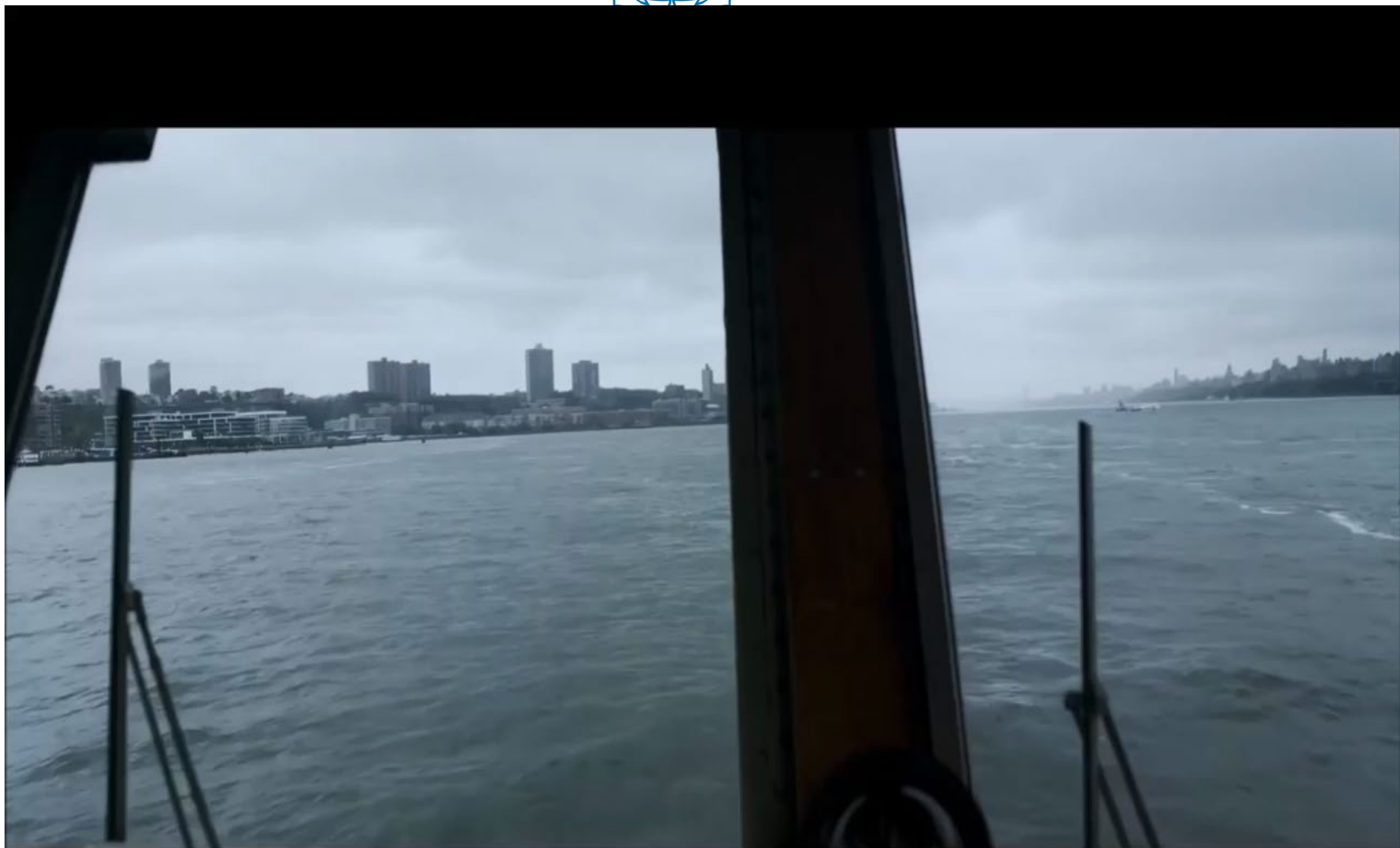
QUEEN

31 January 2012

**246 Recovered/161
missing off Papua New
Guinea**









MRO Prep: Why?

Reduce Vulnerability

- ❑ Risk = Threat x Probability x Consequence x Vulnerability
- ❑ Reduce vulnerability & Consequence with increased Preparedness





10 Common Elements of an MRO





#1: Every MRO incident on the high seas will require every available resource.





#2: Victim accounting is very difficult.

Passenger List

Passenger List
Passenger Name
Passenger Address
Passenger City/State

Page 1 Date 04/04/2000

From TLM To ATK Report On 04/04/2000 04/04/2000 Flight No. 0000

No.	Passenger's Name	Date of Birth	Remarks	P.F. No.	Remarks	Ticket No.	Destination	Agent Details
1	Mr. BROWN		Agent	0001		00010001	New York, NY	Agent
2	Mr. BROWN	00/00/00		0002		00010002	New York, NY	Agent
3	Mr. BROWN	00/00/00		0003		00010003	New York, NY	Agent
4	Mr. BROWN	00/00/00		0004		00010004	New York, NY	Agent
5	Mr. BROWN	00/00/00		0005		00010005	New York, NY	Agent
6	Mr. BROWN	00/00/00		0006		00010006	New York, NY	Agent
7	Mr. BROWN	00/00/00		0007		00010007	New York, NY	Agent
8	Mr. BROWN	00/00/00		0008		00010008	New York, NY	Agent
9	Mr. BROWN	00/00/00		0009		00010009	New York, NY	Agent
10	Mr. BROWN	00/00/00		0010		00010010	New York, NY	Agent
11	Mr. BROWN	00/00/00		0011		00010011	New York, NY	Agent
12	Mr. BROWN	00/00/00		0012		00010012	New York, NY	Agent
13	Mr. BROWN	00/00/00		0013		00010013	New York, NY	Agent
14	Mr. BROWN	00/00/00		0014		00010014	New York, NY	Agent
15	Mr. BROWN	00/00/00		0015		00010015	New York, NY	Agent
16	Mr. BROWN	00/00/00		0016		00010016	New York, NY	Agent
17	Mr. BROWN	00/00/00		0017		00010017	New York, NY	Agent
18	Mr. BROWN	00/00/00		0018		00010018	New York, NY	Agent
19	Mr. BROWN	00/00/00		0019		00010019	New York, NY	Agent
20	Mr. BROWN	00/00/00		0020		00010020	New York, NY	Agent
21	Mr. BROWN	00/00/00		0021		00010021	New York, NY	Agent
22	Mr. BROWN	00/00/00		0022		00010022	New York, NY	Agent
23	Mr. BROWN	00/00/00		0023		00010023	New York, NY	Agent
24	Mr. BROWN	00/00/00		0024		00010024	New York, NY	Agent
25	Mr. BROWN	00/00/00		0025		00010025	New York, NY	Agent

Page 1 of 1





#3: There will be a delay between accounting and rescuing victims.





#4: Media will demand information.





#5: Limited resources and will rely on "good Samaritans."





#6: Insufficient training in Mass Rescue Operations.



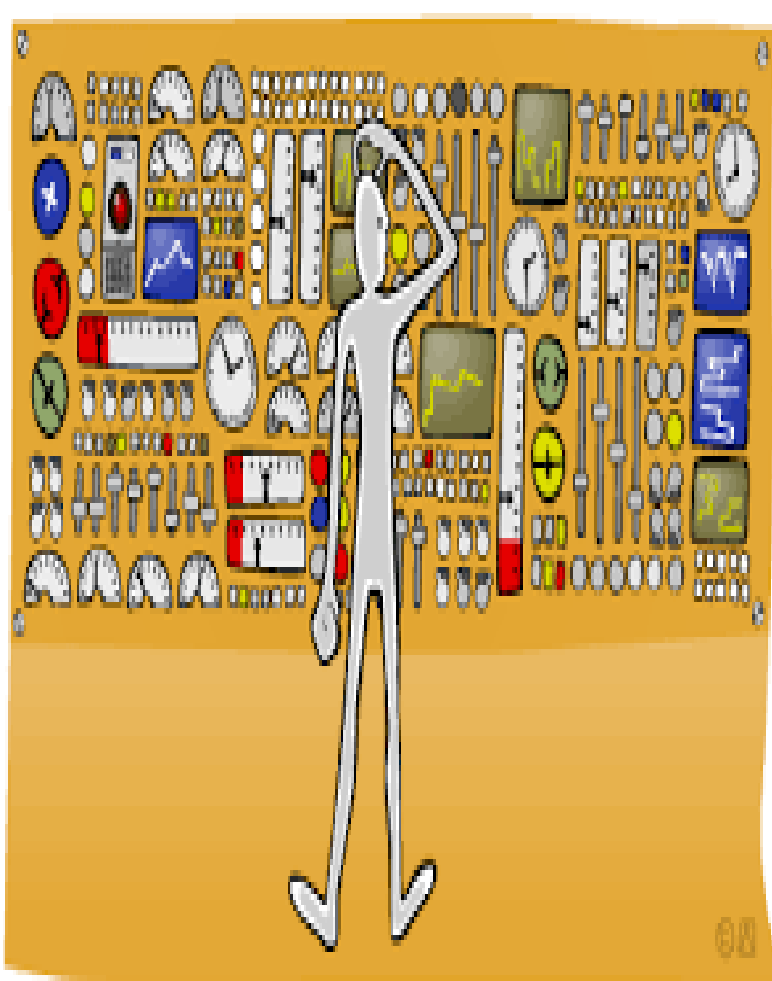


#7: Victims' physical and emotional conditions will prevent them from saving themselves or helping others.





#8: Rescuers have little or no resources, training, and are unaware of their roles and responsibilities.





#9: Victims need proper and specific care.





#10: Past success does not guarantee future results.





Summary

- An MRO can be caused by many different types of casualties, but typically fall into a Water phase, Land phase and Restoration phase, and can occur Near shore, Off Shore or High Seas and each has unique challenges.
- We need to prepare as MROs still happen, and even if they are low probability, the consequence of many people dying make them a high risk scenario and one to prepare for.
- All Agency Response – Partnering is essential
- The increase in cruising, tourism and "over-water" transportation adds to the probability of an MRO.



Mahalo



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