

Cruise Vessels: Security, Crime & Safety Issues, Threats and Responses

Stephen L. Caldwell

- Member, National Maritime Security Advisory Committee
- Former Director, Maritime Security Issues, at the US Government Accountability Office

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AGENDA

- Background
 - Security Issues
 - Crime Issues
 - Safety Issues
 - Questions & Contact Information
-
- NOTE: While the issues of security, crime, and safety have been separated in this presentation, it is recognized that all three of these issues can and do overlap, depending on the circumstances.
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- Presentation based on
 - GAO-10-400
 - GAO-14-32
 - GAO-14-43
 - Other updated sources



BACKGROUND

National Maritime Security Advisory Committee (NMSAC)

- NMSAC created by Maritime Transportation Security Act.
- NMSAC members are appointed by the Secretary of the Department of Homeland Security (DHS).
- NMSAC may advise, consult, and make recommendations to the Secretary (DHS) and Commandant (USCG) on security matters.
- NMSAC may also make such recommendations as appropriate to the Congress.
- NMSAC is intended to represent a broad array of maritime stakeholders such as ports, terminals, vessels, labor, state and local government, and academia.
- Stephen L. Caldwell was appointed to the NMSAC by DHS Secretary Jeh Johnson in June 2015 (for a 3 year term).



BACKGROUND

US Government Accountability Office (GAO)

- GAO is an independent, nonpartisan audit and evaluation agency that works for the US Congress, and the American people.
- The GAO mission is to support the Congress in meeting its oversight responsibilities and to help improve the performance and ensure the accountability of the federal government.
- GAO evaluates how the federal government manages programs and spends funds.
- Regarding maritime issues, since 9/11, GAO has issued about 100 reports on maritime and supply chain security.
- Stephen L. Caldwell was the director in charge of the maritime and supply chain security portfolio from 2006-2015.

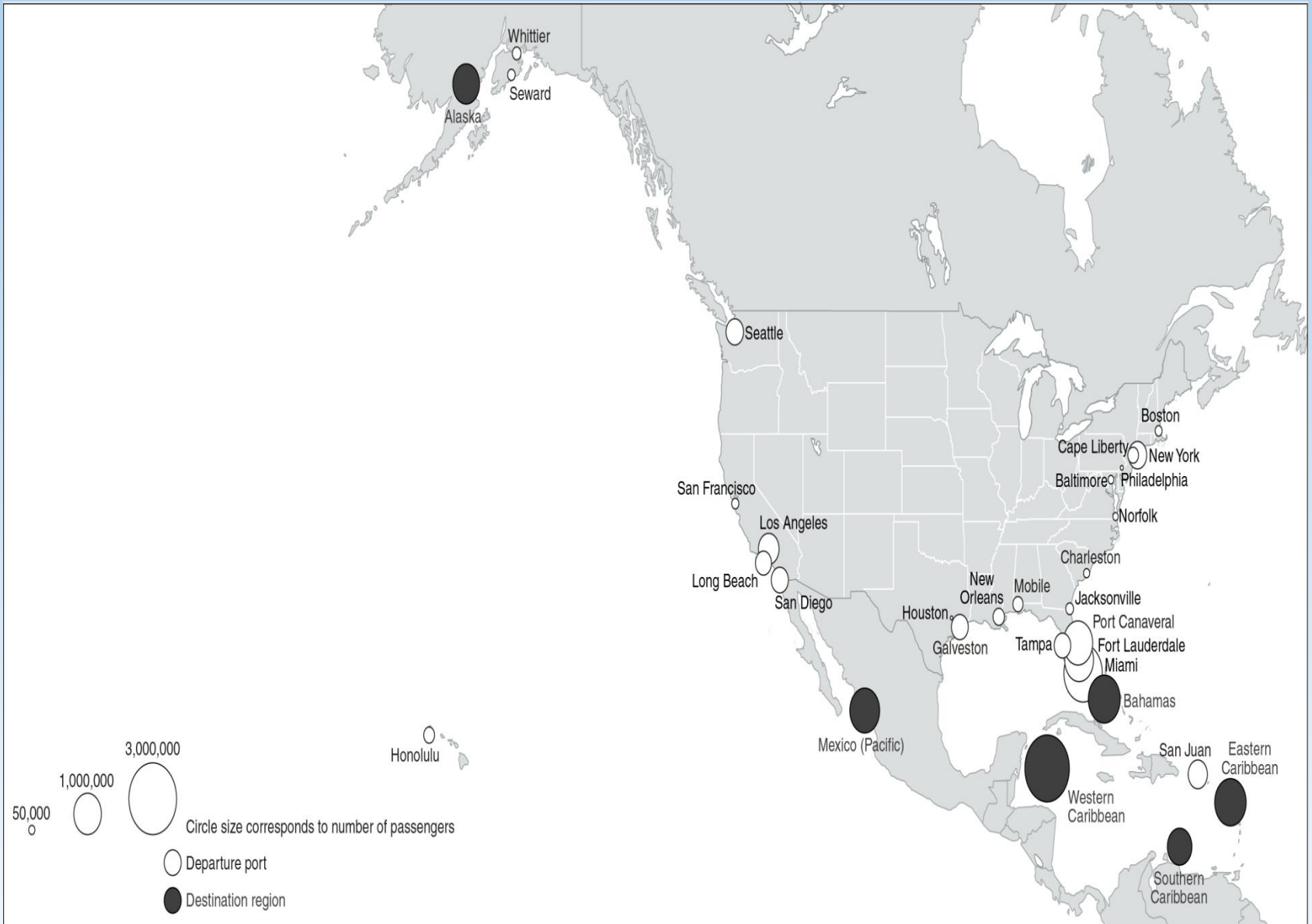


BACKGROUND

Cruise Popularity, Routes, and Regulatory Structure

- Cruising continues to gain popularity, with demand for cruising up 68% in the last decade.
- Cruise ships are getting bigger; the *Oasis of the Seas* class carries 8,000 passengers & crew.
- Passengers in 2015 were 23 million worldwide (with 11 million coming from the US).
- Economic value in 2015 (direct plus indirect) was \$119 billion worldwide (about \$22 billion in US).
- Cruises represent a huge economic windfall to ports of call, particularly in developing countries in the Caribbean; some ports host 5-6 cruise ships a day during high season.
- The regulatory structure involves multiple organizations and jurisdictions.
- For an expanded view of the next 2 slides, see GAO-10-400, page 6, and GAO-14-43, page 7.





Sources: GAO analysis of US Customs and Border Patrol data; cruise line data; and the Official Steamship Guide International. | GAO-10-400

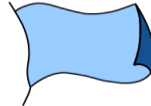
Regulatory structure

International Maritime Organization (IMO)



IMO is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by vessels. IMO is responsible for creating international regulations for maritime safety.

Flag state



A cruise vessel must be registered to a country. However, the country of registration is at the discretion of the owner of the vessel. Once a country, or flag state, is chosen, the vessel is bound to that country's jurisdiction and control in administrative and technical matters over vessels flying its flag.

Classification society



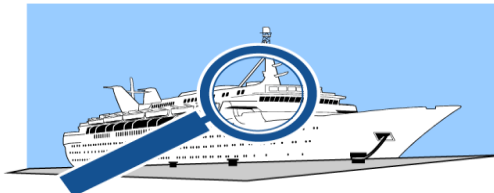
Classification societies are private, third-party organizations whose main function is to inspect the vessel at regular intervals to ensure its seaworthiness. They verify that the vessel's structure and machinery are being maintained as required by classification societies' rules. Classification societies may, if authorized by the vessel's flag state, also conduct safety audits for compliance with international regulations.

Owner



The vessel owner has the overall responsibility for the safety and integrity of a vessel, including the manner in which it is operated and maintained. As required by the International Safety Management Code, the vessel owner is to carry out annual internal safety audits.

U.S. Coast Guard port state control



The Coast Guard conducts preconstruction concept review, midconstruction inspections, and an initial operating inspection for foreign-flagged vessels that plan to visit U.S. ports. Once the cruise vessel is in service, Coast Guard inspectors board the vessel (at least annually) to check that the vessel's major systems are in compliance with applicable international standards and domestic requirements, and that the crew possesses sufficient proficiency to safely operate the vessel.

Source: GAO analysis of regulatory entities affecting cruise vessels; Art Explosion (clip art).

SECURITY ISSUES

Threat Scenarios

- October 2015 was the 30th Anniversary of the hijacking of the MS Achille Lauro, in Egypt (October 7, 1985).
- Since then, cruise ships have been considered highly attractive to terrorist, as they can represent high-visibility symbolic targets.
- Officials currently see no known, credible security threats to cruise ships at US ports; but the situation can change quickly and several possible attack scenarios have been identified.
- Potential scenarios include both waterside or landside attacks (see following slides).



SECURITY ISSUES

Waterside, The Small Vessel Threat

- One of the biggest concerns is the “small vessel threat” (where a small boat with explosives will ram a ship and detonate).
- US Coast Guard (USCG) local regulations establish restrictions for main shipping channels, and for security zones around transiting vessels (e.g. cruise ships).
- However, small vessels can and often do violate these rules to traverse or even congregate in main shipping channels, or violate transit zones.
- USCG officials note that they lack the resources to constantly enforce such restrictions.



SECURITY ISSUES

Waterside, Chokepoint Threats

- Due to the configuration of many ports and waterways, there are restricted areas where navigation is constrained by a narrow channel, a canal or lock, or other chokepoint.
- In such locations, cruise ships may have to navigate in proximity to small vessels.
- At such areas, cruise ships are vulnerable to small vessel attacks that might block passage of all ship traffic.
- Also at such points, operating close to shore, cruise ships are vulnerable to landside threats.



SECURITY ISSUES

Landside, Vehicle Threats









- While the small vessel threat is one of the most challenging threats on the water, overall the vehicle threat (e.g., truck bombs) is still the terrorist preferred method worldwide.
- Between 1997 and 2008 there were 510 terrorist truck and bus bombings worldwide leading to over 6,000 deaths.
- Large vehicles are frequently in close vicinity of cruise ships to replenish stores and refuel.
- For more on the commercial vehicle threat, see GAO-09-85.



SECURITY ISSUES

Landside, Stand-Off Distance for Bomb Threats

- Chart shows the potential distance for blast damage and evacuation.
- Even small vehicles (compacts and sedans) can carry 500-1000 lbs. of TNT equivalent explosives.
- A delivery truck can carry 10,000 lbs. of TNT, causing damage to buildings within 860 ft. & damage to people within 3,750 ft.
- Chart also can be used to extrapolate damage from a small vessel with a given payload of explosives.
- Chart Source: National Counter Terrorism Center.

Threat Description		Explosives Capacity ¹ (TNT Equivalent)	Building Evacuation Distance ²	Outdoor Evacuation Distance ³
	Pipe Bomb	5 LBS/ 2.3 KG	70 FT/ 21 M	850 FT/ 259 M
	Briefcase/ Suitcase Bomb	50 LBS/ 23 KG	150 FT/ 46 M	1,850 FT/ 564 M
	Compact Sedan	500 LBS/ 227 KG	320 FT/ 98 M	1,500 FT/ 457 M
	Sedan	1,000 LBS/ 454 KG	400 FT/ 122 M	1,750 FT/ 534 M
	Passenger/ Cargo Van	4,000 LBS/ 1,814 KG	640 FT/ 195 M	2,750 FT/ 838 M
	Small Moving Van/ Delivery Truck	10,000 LBS/ 4,536 KG	860 FT/ 263 M	3,750 FT/ 1,143 M
	Moving Van/ Water Truck	30,000 LBS/ 13,608 KG	1,240 FT/ 375 M	6,500 FT/ 1,982 M
	Semi-Trailer	60,000 LBS/ 27,216 KG	1,500 FT/ 457 M	7,000 FT/ 2,134 M

SECURITY ISSUES

Landside, Active Shooter Threats

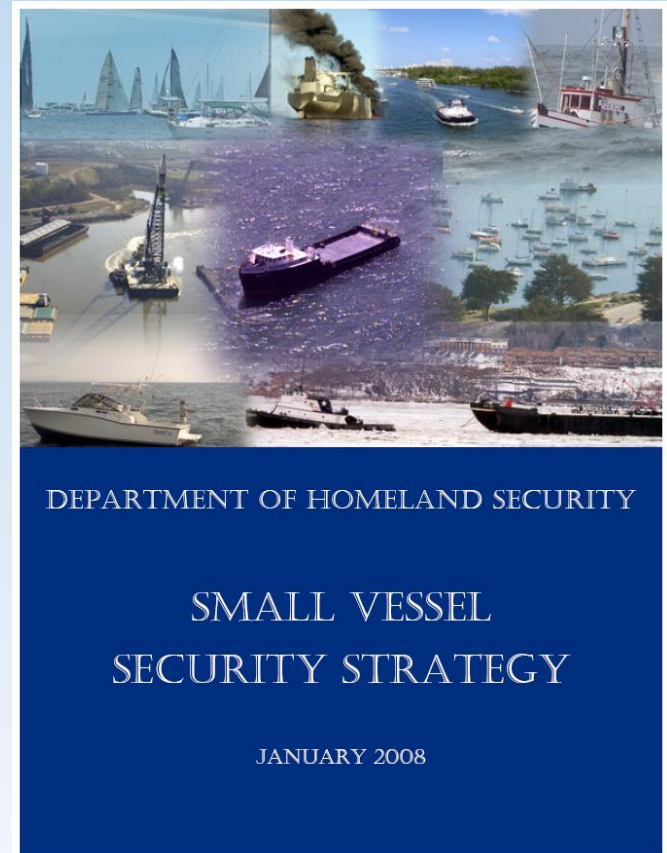
- Another threat comes from the “active shooter” scenario where one or more terrorists attack with automatic weapons.
- March 2015, terrorists attacked the Bardo Museum in Tunisia; of 23 killed, 17 were cruise passengers from cruise ships *MSC Splendida* and *Costa Fascinosa*.
- So even if the vessel & terminal are protected, passengers may not be when on land.
- This puts extra obligations on host authorities to provide security off-port.
- As happened in Tunis, and more recently in Istanbul, cruise lines will avoid ports where attacks (or just the threat of attacks) occur.



SECURITY ISSUES

Response, DHS Small Vessel Security Strategy

- In response to the waterside threat, DHS issued a 2008 Small Vessel Security Strategy, and 2011 Implementation Plan.
- The strategy and plan called for a number of action items to deal with the small vessel security threat.
- The following slides cover some of the actions conducted under the auspices of the strategy and plan.
- GAO reviewed such actions and recommended that DHS better track its progress in implementing the strategy.
- Reference: GAO-14-32.



SECURITY ISSUES

Response, Maritime Patrols and Escorts

- USCG Maritime Security Response Operations set requirements for security activities to include patrols and escorts.
- However, USCG by itself lacks resources to meet these requirements in many ports, such as escort boat staff fully trained on use of automatic weapons.
- State and local law enforcement also contribute with patrols and escorts, but the rules of force can be cumbersome.
- USCG has developed formal mutual assistance agreements with state and local law enforcement in many port locations.



SECURITY ISSUES

Response, Security Zones and Closing Channels

- USCG can declare security zones and close channels near sensitive facilities and vessels (such as cruise ships).
- If present, waterborne patrols can intercept intruders and “shoulder” them away.
- As noted in previous slides, small vessel operators are not always cognizant of, or compliant with, security zones and closures.
- Some closed areas are still in close proximity to port areas still open with busy small vessel traffic.



SECURITY ISSUES

Response, Waterway Watch Programs

- According to the Small Vessel Security Strategy, the small vessel community itself is the single largest asset in addressing the threat from small vessel attacks.
- USCG “America’s Waterway Watch” is an outreach effort with the small vessel community in the port (including landside businesses catering to boaters) to encourage them to report suspicious activity.
- Some state governments have similar programs (e.g., New Jersey State Police has its “Maritime Security Initiative” which includes regular visits to marinas, boat ramps and waterfront properties.

The Department of Homeland Security and U.S. Coast Guard ask you to take part in

AMERICA'S WATERWAY WATCH

Help Keep America's Waterways Safe and Secure

Law Enforcement Needs Your Help to Protect New Jersey

New Jersey State Police

Maritime Security

Addressing Changing Trends in Terrorism and Criminal Activity

STATE POLICE NJ

NEW JERSEY STATE POLICE

MSI

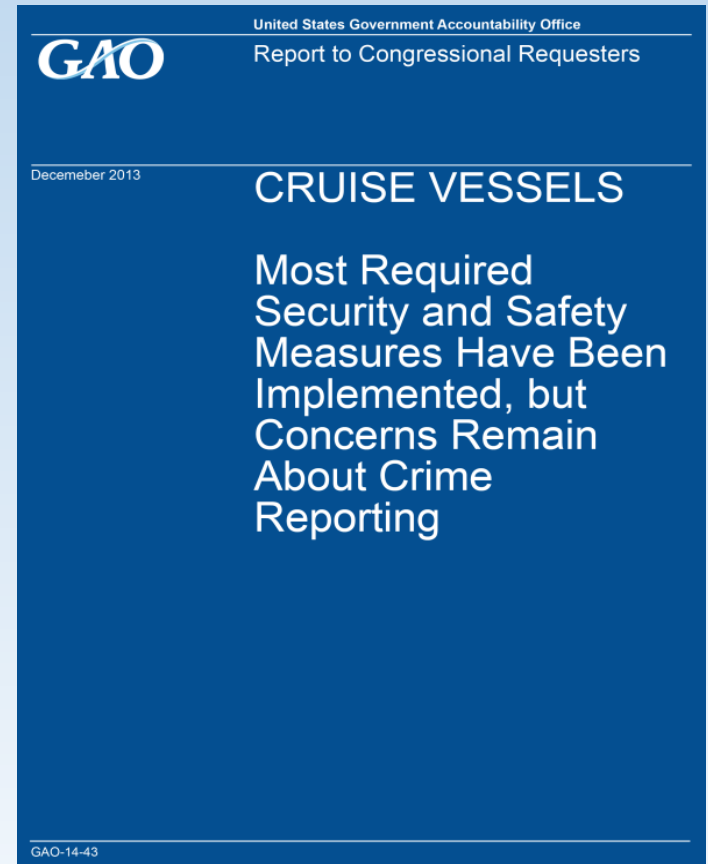
MARITIME SECURITY INITIATIVE

Source: New Jersey State Police; U.S.Coast Guard.

CRIME ISSUES

Threat of Crime on Cruise Vessels

- Crimes, such as sexual assault and murder, have occurred; some perpetrated by crew.
- The significance of these crimes to the victims and families is clear, their significance in relation to the millions of safe cruise passengers is less clear.
- Travel through international waters and multiple countries complicates criminal reports, investigation, and prosecution; frustrating both victims and authorities.
- Victims have organized (e.g., International Crime Victims Association or ICV).
- Blogs (e.g., Cruise Law News), frequently report crime stories related to cruise ships and their ports of call.
- Results have been calls to Congress and industry to make passengers more secure, improve the treatment of victims, and provide crime information to consumers.



CRIME ISSUES

Response, Cruise Vessel Security & Safety Act

Congress passed the Cruise Vessel Security & Safety Act (CVSSA), which was enacted in July 2010. At least 12 of its 15 provisions are related to crime:

1. Minimum rail heights
2. Peepholes in staterooms
3. Security latches & keys
4. Crew access to staterooms
5. Availability of safety information
6. Access to info/communications for sexual assault victims
7. Medical treatment for sexual assault victims
8. Confidentiality of sexual assault exam information
9. Logbook details and requirement to report alleged crime
10. Crew training on crime scene preservation
11. Capture of images/detection of overboard passengers
12. Video recording requirements
13. Acoustical hailing/warning devices
14. Crime data on USCG website and link to cruise line websites
15. MARAD certification of crew training on crime scene preservation

CRIME ISSUES

Response, CVSSA Crime Reporting Requirements

- Until recently, the Federal Bureau of Investigation (FBI) and USCG had primary government responsibility for implementing this requirement.
- GAO found that FBI and USCG crime reporting is consistent with CVSSA, in that “cases no longer under investigation” were published on website.
- Cruise lines operating ships visiting U.S. ports must also:
 - Implement specific personal security measures.
 - Provide passengers with key information.
 - Report to FBI and USCG 8 specific crimes:
 1. Homicide
 2. Suspicious death
 3. Kidnapping
 4. Missing US national
 5. Assault with serious bodily injury
 6. Firing/tampering w/vessel
 7. Theft of \$/property >\$10K
 8. Certain sexual assault offenses

CRIME ISSUES

Response, Crime Reporting Limitations & Process

- But GAO found limitations exist with case data that was reported:
 - Allegations—where case investigations are not opened—were not published (e.g. due to lack of, or tainted evidence, etc.).
 - Reported case data were not timely (not reported until “closed”).
 - Reported case data had no comparison context (that is, there is no denominator to show a crime rate, nor any comparison to crime rates such as the crime rate for the nation, or for a city).
- Crime victim advocates are concerned about the process:
 - Ship response is not independent; victim cannot call 911; even more critical if cruise line employee is alleged perpetrator.
 - Delays in legal investigation affect evidence preservation.
 - Foreign jurisdictions may investigate; confusing victims.
- For an expanded view of the next slide, see GAO-14-43, page 21.

FBI "preopening" period

Crime occurs

Cruise line security officials respond

If Cruise Vessel Security and Safety Act (CVSSA) crime, reported by telephone and by written report to FBI and U.S. Coast Guard (to occur as soon as possible)

or

If not CVSSA crime, cruise line does not have to report it to FBI

FBI analyzes information received from cruise line; meets cruise line at next U.S. port to

- collect evidence
- interview witnesses

Does not meet the standard for opening an investigation

or

Investigation conducted by appropriate state, local, or foreign law enforcement entities

or

FBI determines that the allegations meet the standards to open an official investigation

Active investigation period

Cases no longer under investigation

Case is fully adjudicated (all trials and appeals are over)

or

Statute of limitations has run out

or

U.S. Attorney's Office declines prosecution

Legend

-
 Crimes that are alleged but not publicly reported
-
 Crimes that are publicly reported

Source: GAO analysis of FBI interviews.

CRIME ISSUES

Response, CVSSA Implementation by Cruise Industry

- By July 2010, (before CVSSA was enacted) cruise lines had implemented most CVSSA crime and safety measures.
- In August 2013, six cruise lines (which carry 90% of North American passengers) began voluntarily reporting crime data on their respective websites.
- These websites went beyond CVSSA requirements—they include all alleged crimes and those outside of FBI jurisdiction.
- This cruise line data has limitations too in that crime data have no comparison context (i.e., Uniform Crime Reporting data is not directly comparable).



CRIME ISSUES

Response, Legislation to Amend CVSSA

- Limitations in reported crime data, among other concerns, have resulted in members of Congress introducing new legislation to amend CVSSA.
- Several bills (e.g., S. 1340, S.2444 and H.R. 2800) were introduced with provisions on:
 - FBI crime-reporting
 - Video technology
 - Victim support services
- Public Law 113-281, Section 321 required that
 - ALL allegations be reported (not just FBI cases no longer under investigation), and
 - Department of Transportation take over the role from USCG of maintaining the data on a public website.



CRIME ISSUES

Perspective, Cruise Industry Study on Crime Rates

- CLIA contracted criminologist Dr. James Alan Fox of Northeastern University to adjust data to make it comparable to FBI national statistics.
- Comparing annualized cruise population to a US city of comparable size allowed him to determine rates of crime per 100,000 people.
- Cruise v. city crime rates were favorable (homicide 0.0 v. 11.1; rape 8.6 v. 36.2; assaults 3.4 v. 401.0).
- Conclusion of Dr. Fox... “the rate of crime (and thus the risk) aboard cruise ships is appreciably lower than corresponding rate on land.”
- This despite crime risk factors such as... high density of passengers, many areas with closed quarters, and the consumption of alcohol.



SAFETY ISSUES

Threats, Cruise Vessel Fires and Shipwrecks

- Fires are one risk—according to 5-years of data collected by the USCG Cruise Ship National Center of Expertise.
 - Almost half of deficiencies USCG found on cruise vessels were fire related.
 - Recent fires include *Carnival Spendor* (2010), *Carnival Triumph* (2013) and *Grandeur of the Seas* (2013).
- Infamous shipwrecks are still remembered even if occurring more than 100 years ago.
 - Older shipwrecks include *Empress of Ireland*, *Titanic*, *Lusitania*, and *Andrea Doria*. Some with loss of 1000+ lives.
 - Recent shipwrecks include the *MV Explorer* (off Antarctica) and *Costa Concordia* (off Italy) see next slide.



SAFETY ISSUES

Threats, The Costa Concordia Accident

- According to the Italian Ministry of Infrastructure and Transports, report on the safety technical investigation:
 - the Costa Concordia accident occurred on January 13, 2012 with 4,229 persons on board,
 - in favorable conditions, the ship sailed too close to the coastline and collided with the rocks off Giglio Island,
 - the main cause of the shipwreck was the human element in general, and the master's behavior specifically.
- Total casualties included 34 dead, 157 injured, total loss of the ship, removal and salvage costs, with insurance loss over \$1.2 billion.



SAFETY ISSUES

Response, Measures by Industry

- Immediately after Costa Concordia accident, industry reviewed safety practices, and implemented 10 new measures including:
 - Passenger muster prior to port departure,
 - Common elements in musters and emergency instructions,
 - Limiting bridge access,
 - Recording passenger nationality, and
 - Number of PFDs increased; stowage in public spaces.
- Actions aligned with the IMO muster regulation and 18 interim voluntary recommendations.
- For an expanded view of the next slide, see GAO-14-43, page 31.



Costa Concordia accident

January 13, 2012

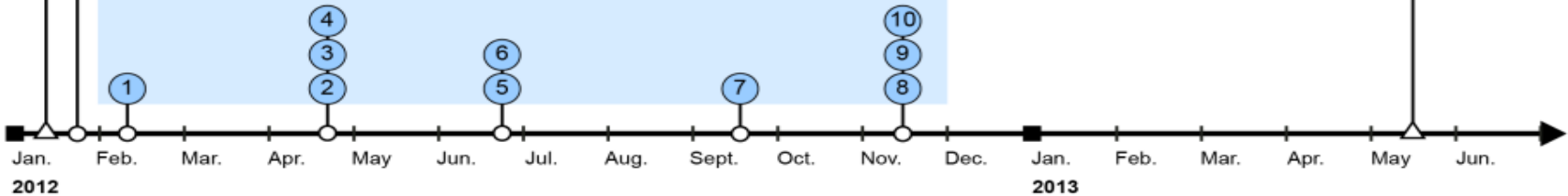
Italy makes Costa Concordia safety technical investigation available to the International Maritime Organization (IMO)

May 14, 2013

CLIA announces operational safety review

January 27, 2012

CLIA announces policies



Cruise Lines International Association (CLIA) policies and date announced since Costa Concordia accident

Date announced	Policy	Brief description
February 9, 2012	1 Passenger muster	Embarking passengers are to muster prior to departure from port.
	2 Passage planning	Makes IMO and industry bridge team management standards mandatory for cruise vessels; specifies certain passage plan briefing requirements and encourages bridge team members to raise operational concerns without fear of retribution.
April 24, 2012	3 Bridge access	To prevent distractions and disruptions, access to the bridge is to be limited to persons having operationally related functions during certain defined periods, such as when the vessel is arriving at and departing from port.
	4 Excess life jackets	Additional life jackets are to be stored in public spaces readily accessible in an emergency.
June 26, 2012	5 Recording nationality of passengers	Along with names and other relevant details, the nationality of passengers is to be recorded, kept ashore, and be made readily available to search and rescue services.
	6 Common elements of musters and emergency instructions	Twelve common elements are to be communicated to passengers in musters and emergency instructions.
September 20, 2012	7 Lifeboat loading for training purposes	Every 6 months, one or more lifeboats are operated in the water while filled to capacity with crew members wearing life jackets to facilitate training of lifeboat and embarkation/boarding station crew.
	8 Harmonizing of bridge procedures	Bridge procedures are to be harmonized within companies.
November 15, 2012	9 Securing heavy objects	Heavy objects are to be secured (restricted from movement so as not to cause injury) either permanently, when not in use, or during severe weather, as appropriate.
	10 Location of life jacket stowage	Life jackets equal to or greater than the number required are to be stowed in proximity to either muster stations or lifeboat embarkation points on newly constructed vessels.

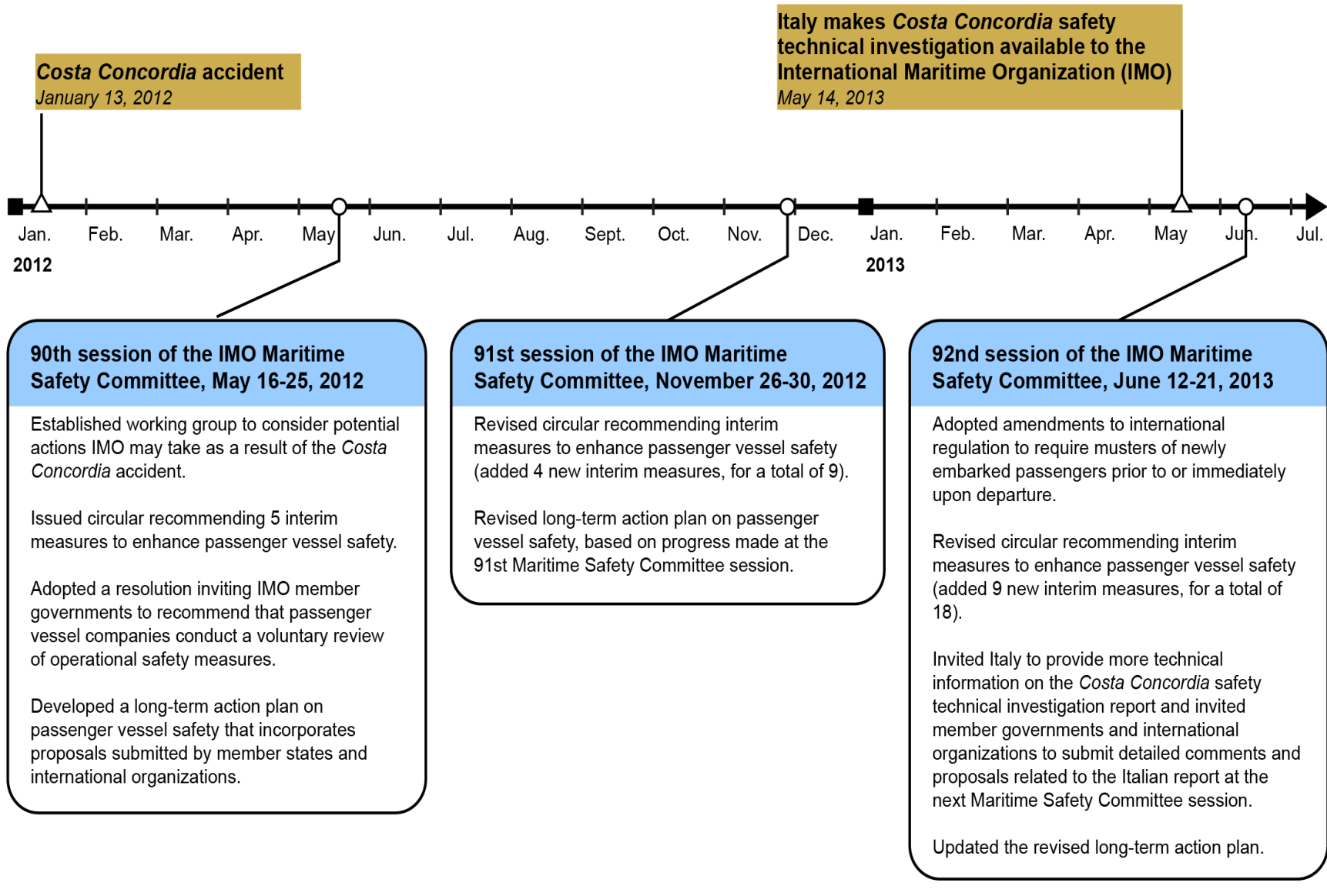
Source: GAO analysis of CLIA policies.

SAFETY ISSUES

Response, Measures by IMO

- The International Maritime Organization (IMO) has a Maritime Safety Committee that meets periodically to consider safety issues.
- The committee met several times since the Costa Concordia accident, including just after IMO received the Italian government's report on the safety technical investigation.
- IMO adopted a new mandatory regulation requiring that new passengers muster before or soon after departure.
- Additionally, IMO made 18 interim voluntary safety recommendations for the member states and cruise lines to consider.
- For an expanded view of the next slide, see GAO-14-43, page 37.



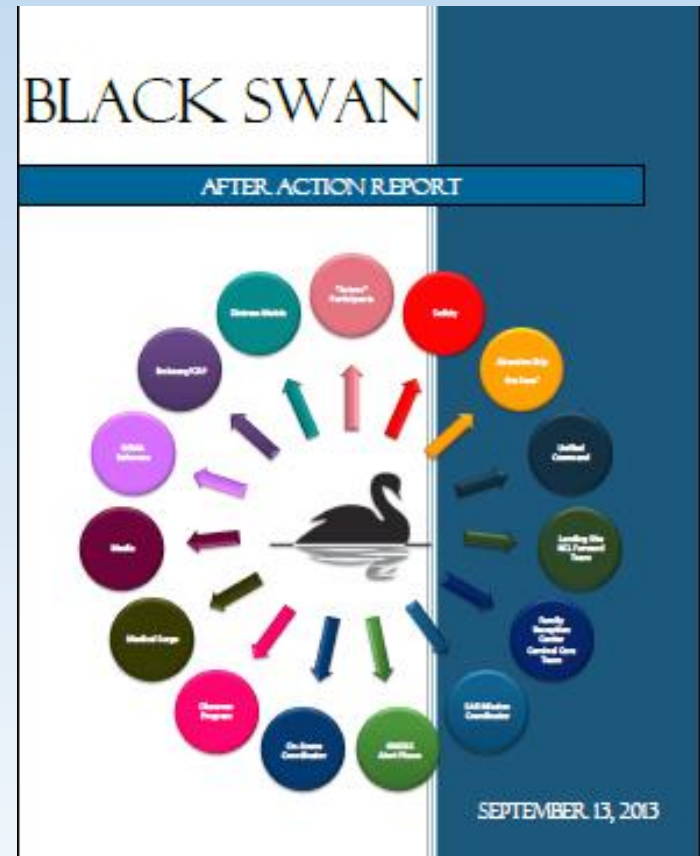


Source: GAO analysis of IMO actions.

SAFETY ISSUES

Response, Measures by USCG

- USCG has some limits on its authority as most cruise ships are not US-flagged.
- However, USCG monitored the new measures taken by industry and IMO, and it may make additional policy changes.
- USCG changed its inspection policy to now witness passenger pre-departure musters.
- USCG also conducts exercises (sometimes with other nations, CLIA and IMO) related to cruise vessel evacuation and rescue.
- Exercise “Black Swan” in April 2013 was the largest in scale and complexity in the history of the international maritime community.
- Mass Rescue Operations could also be relevant in security scenarios, if a vessel was disabled or sinking due to a terrorist attack.



SAFETY ISSUES

Perspective, Cruise Industry Study on Safety Rates

- Safety risks are relative, not absolute, so rates provide additional context.
- CLIA contracted GP Wild International to do a comparative study on safety.
- GP Wild does annual “Cruise Industry Statistical Review” from variety of sources.
- GP Wild *Report on Operational Incidents 2009 to 2013*, showed:



- Cruise lines had average of 5.2 fires per year, 2 were minor and 3.2 were significant.
- Fatalities per billion passenger miles: cruise ships 0.08 compared to airlines (also 0.08), US rail (11.0), cars (3.3), trucks (37.1), and motorcycles (231.4).

QUESTIONS AND CONTACT INFO

Questions?

Stephen L. Caldwell

Contact Info: +1 (301) 602-0794, email: stephencaldwell1000@gmail.com

For access to referenced GAO reports, see GAO website: www.gao.gov

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