

Rapid Response Damage Assessment

24/7 Casualty Response



Our Mission

The mission of ABS is to serve the public interest as well as the needs of our clients by promoting the security of life, property and the natural environment primarily through the development and verification of standards for the design, construction and operational maintenance of marine-related facilities.

Quality & Environmental Policy

It is the policy of ABS to be responsive to the individual and collective needs of our clients as well as those of the public at large, to provide quality services in support of our mission, and to provide our services consistent with international standards developed to avoid, reduce or control pollution to the environment.

All of our client commitments, supporting actions, and services delivered must be recognized as expressions of Quality. We pledge to monitor our performance as an on-going activity and to strive for continuous improvement.

We commit to operate consistent with applicable environmental legislation and regulations and to provide a framework for establishing and reviewing environmental objectives and targets.





ABS Rapid Response Damage Assessment

Enrollment in the ABS Rapid Response Damage Assessment (RRDA) program provides the shipowner and operator with the essential technical support needed in the critical hours after a vessel is involved in a casualty.

Activating the ABS RRDA team of naval architects, marine engineers, master mariners and support staff gives the shipowner access to the professional resources needed to conduct the essential structural and stability calculations in the event of an incident that could result in the loss of the vessel, loss of all or part of its cargo or lead to pollution of the marine environment.

The ABS RRDA service goes even further. Once the vessel has been stabilized, the response team, working with the full technical resources of ABS, can analyze the hull ultimate strength and, using the comprehensive ABS global wave database, provide the necessary guidance for the selection of the routing to the owner's preferred repair location.

Classification with ABS is not a requirement for entry into the ABS RRDA program but it can make the enrollment process faster and easier as the ship files and information needed for the creation of the electronic model of the vessel will already be held by ABS.

Although tanker operators are required to enter their vessel in a damage response service, owners of other vessel types have also realized the benefits that accrue from enrolling in the ABS RRDA program. Enrollment is straightforward and provides the owner with an invaluable resource that can be swiftly mobilized with a simple telephone call whenever the unexpected occurs.



Regulatory Compliance

Established in 1991 in response to United States Regulations for oil spill prevention, the ABS RRDA program complies with the following regulations:

- MARPOL Regulation I/37(4), as circulated by Resolution MEPC.117(52), oil tankers of 5,000 dwt or more require access to shore-based damage stability and residual structural strength calculations.
- MARPOL 73/78 Annex I, Regulation 26 requires a Shipboard Oil Pollution Emergency Plan (SOPEP) for all tankers of 150 gross tons or more and all other vessels of 400 gross tons or more. While it does not require, it strongly suggests that, when there is excessive damage, consultation with shore-based technical assistance is appropriate before taking any action that may jeopardize the vessel.
- US Coast Guard requirements of OPA 90 in 33 CFR 155.240 for oil tankers and offshore oil barges. Owners are required to have “prearranged, prompt access to computerized, shore-based damage stability and residual structural strength calculation programs.”
- The ISM Code, Section 8, requires the company to establish procedures to respond to potential emergency shipboard situations, including the use of drills and exercises to prepare for those emergencies. The ABS RRDA program can be a valuable resource augmenting a company’s emergency preparedness program.

Proactive Preparation

Although compulsory for tankers, many non-tanker operators are now incorporating the RRDA program into their risk management system. Even though not prescriptively identified by regulation, there is significant value in having an electronic model, specifically prepared to analyze damage conditions, available to a vessel owner in the event of an incident.

Free Enrollment

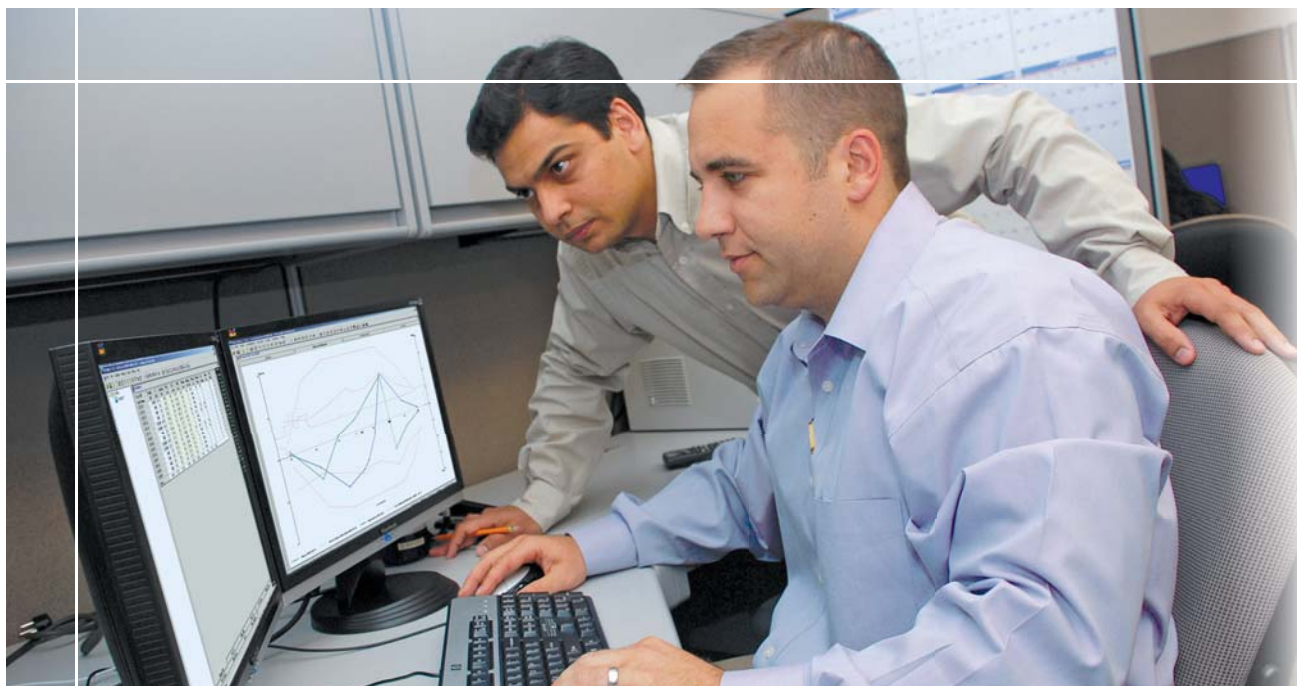
Effective 1 July 2010, owners of all new ABS-classed tankers, bulk carriers, large gas carriers, container-ships and tank barges will be offered free enrollment of these vessels in the program and fee-free service for the first year after delivery of the vessel. The normal charge for developing the electronic model of the vessel that is used for conducting the damage stability calculations will be waived.

In addition, those vessels that elect to enter the program will be offered the new ABS voluntary class notation RRDA, which will provide evidence to port State authorities and other interested parties that the vessel meets the requirement to have access to a shore-based damage stability capability.

Key Elements

- A database of pertinent aspects of the vessel's structure, materials, machinery and equipment
- A computer model of the vessel that will allow for damage stability and residual strength analysis
- Evaluation of salvor's or owner's or owner's representatives' plans for off-loading, ballasting or cargo transfer sequences to improve residual stability and reduce hull girder stresses and ground force reaction
- Extensive calculation routines include:
 - Bending and shear stresses caused by pinnacle loads from grounding or stranding
 - Residual hull girder strength based on the reported extent of damage
 - Residual stability when the vessel's compartments are breached
 - Hull girder strength in damaged condition with wave loading
 - Hull girder ultimate strength
 - Local strength in the damaged area
 - Local buckling and ultimate strength





ABS RRDA Program at a Glance

The electronic model of the vessel is prepared using data available in-house for ABS-classed vessels or using data provided by the client if the vessel is not classed by ABS. If a similar vessel design already exists in the program, the model will be reviewed for applicability. When the model is completed, the owner is provided an ABS RRDA Enrollment Certificate which is valid for one year together with a bridge instruction card and the ABS RRDA Users Manual.

Activation

ABS RRDA participants are given a telephone number that will activate the service. The number is monitored 24 hours a day and will be answered by personnel trained in gathering incident details and instructing engineering personnel. The response room at ABS Headquarters will be attended directly during office hours (7:30 a.m. to 5:30 p.m.) and will be manned within one hour at other times.

Response

During response, the model of the ship will be adjusted for actual load distribution, drafts and damage using data reported by the client. The model then facilitates rapid analysis of hull girder stress, changes in stability, ground reaction and oil or other fluid exchanges. In short, the program provides emergency management staff a systematic tool to measure the effect of damage on a vessel's capacity to resist capsize or structural collapse, provide an accurate account of oil (cargo or bunkers) lost to the sea and then decide what options exist to minimize consequences.

In a grounding incident, the program is most useful for determining ground reaction with tide and for identifying early actions that may be taken by the ship's crew to mitigate the condition. Reports are generated for review and may be used by the client for presentation to authorities and other parties. Where an incident requires a professional salvor to attend, RRDA will provide additional analysis or review to the extent required by the client.

For ABS-classed ships, RRDA will promptly notify the appropriate ABS survey office responsible for the area in which the incident has occurred so that arrangements can be made for prompt attendance and issuance of a certificate of fitness to proceed. The ABS engineering office that completed the ship's class review will also be contacted to facilitate additional engineering processes as needed.



To Enroll or For More Information

Contact ABS at rrda@eagle.org or call 1-281-877-6405



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