

## **RESPONDING TO A MAJOR MARINE CASUALTY**

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Salvage encompasses a great number of services rendered to save lives, property from the marine peril and to mitigate damage to the environment

Common salvage situations and responses are:

- Rescue lives
- Rescue towing of a disabled vessel to a safe haven.
- Re floating a vessel after a grounding
- Fire-fighting
- Offloading cargo or water to prevent foundering, or recovering sound cargo from imminent peril.
- Often In conjunction with preventing the pollution.
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Such salvage operations are often time-critical, success depends on timely action by experienced personnel and organizations.

### **CHANGE OF WAY TO TACKLE THE PROCESS OF SALVAGE DECISION MAKING**

Salvage decision making aims at being more and more complex, as you will recall:

- At the start of the salvage we have a truncated picture of the casualty's situation, the picture is improved as the operation proceeds (in some cases it is never complete)
- Preliminary salvage plans and decisions are made with limited information and are regularly modified as new information comes to be available
- Casualties are in a continuous timely process of deterioration, delaying decisions increases the risks on the vessel with side consequences as pollution

In final, the situation is dynamic, and one of the most influential dynamic factors is the sea itself which makes evolving the situation beyond the control of the responders.

Nowadays, the growth in public awareness of environmental matters, and increased liability for environmental damages, have stimulated among ship owners in seeing successful salvage carried out, and, in parallel have conducted some of the States to emphasize environmental response and legislation in a not equally manner.

This contributes to modify the decision-making process by incorporating the interests of additional parties and may slow down and confuse the response needed. (Even though, the demand for instant action when there is a threat of pollution is particularly noteworthy.)

Facing a major marine casualty will be emphasized for those reasons not only because it's just a matter of scale: a responder will be confronted to the fact that he must provide sufficient and adequate resources as soon as possible to mitigate the consequences of a major marine casualty, but bearing in mind that the salvage is no more limited to only physical aspects.

In consequence, we have to admit that the new priorities are in order of weighting: **saving life, environment and property.** (Even if, most of the time the best way to protect the environment is to save the property in danger)

## **CHALLENGING THE MAJOR MARINE CASUALTIES**

This is not a new challenge: with the advent of the large tankers in the 1970s years and the major marine casualties that occurred during the 70s, the tanker shipping industry, the governments have worked together to minimize the consequences of those accidents.

The salvage industry responded with effectiveness to cope with these problems. The experience acquired with casualties in the field have improved the expertise in salvage decisions and in cooperation with owners, insurers, governments, the salvage industry have contributed to develop new materials: on one hand legal matters- salvage convention, guidelines for safe haven etc.- on the other hand, practical matters – chartering by some governments of specially dedicated powerful stand-by salvage tugs, fly away equipments for fire-fighting and pumping, on top transfer pumps etc.

Meanwhile an effort was made from all the parties to introduce the concept of “salvage friendly” vessel – emergency towing arrangements- and salvage readiness of the crew of the tanker to handle emergency situations.

These trends focused initially on the emergency towing have been extended to other aspects as the transfer piping between cargo tanks and empty spaces on board tankers, the emergence of fast oil recovery systems, the monitoring of the hull...all of these contributing to the Marine Passive Safety.

The will of facing major marine casualties for the tankers does not give with certitude a guarantee of success and must not hide the fact that the unthinkable can occur.

The unthinkable reaches also other segments of the shipping industry with the advent of ultra large container and passenger's vessels.

Recent cases involving “baby” ships when compared to the new generation have pointed up some issues which can contribute to hamper the salvage operation:

- Physical with the specificity of the task to be achieved, huge amount of cooling water and close-quarters fire-fighting in the case of a fire occurring on a container ship or a passenger ship, the discharging of containers from a heavy listed ship, the exposure of the location to the weather, the hull’s resistance during a long-time salvage or cargo recovery.
- Logistical with availability of suitable cranes and lighters for the recovery of a container cargo offshore, a sufficient storage capacity to handle ashore the containers discharged or the bunker’s storage capacity and eventually its disposal.
- Legal with the recurrent customs problems, some few shore Authorities which are still reluctant to cooperate to solve the problem
- Financial with the difficulties of recovering security from some of the cargo owners, huge costs of chartering scarce equipment when available, legal costs which still have sometimes to be debated during the salvage process

Some of these issues are yet taken in account and partially solved by the stakeholders involved with a casualty, but these problems will be emphasized when facing a major marine casualty.

The efforts made to grasp the problems of a VLCC or ULCC’s tankers can be transferred to the whole industry.

In terms of salvage the concept of Marine Passive safety must be extended to the whole fleet of large vessels to promote new “salvage friendly vessel” designs.

For instance most of the large vessels are not fitted with emergency towing arrangements during the emergency response of a container ship (which was the world’s largest container ship when launched) there was no suitable fixed mooring point available (only standard bollards) and during her beaching, heaving her as close as possible to the coast, the central fairlead was broken by the towline.

Some passenger’s ships or ferries (which can be quite large) are not fitted with such towing arrangements and what is worse, fast passenger’s ship made of aluminium have no possibility to be towed under severe conditions due to the structural weakness of their bow.

Generalisation of systems which can help the salvage response have to be identified in terms of saving lives and environmental mitigation and adopted by the shipping industry in cooperation with the Authorities

## **ECONOMIC LIMITS**

Concerning the salvage industry the limits are not technical but economic, for that reason even the large international companies forms consortia with others operators to fulfil their obligations. It is not solely to provide salvage vessels or equipment but a sufficient number of experienced and skilled personnel who are the essential key of the salvage industry.

The availability of suitable discharging cranes able to work properly in the recovery of containers on board ships with very high freeboard and eventually heavily listed.

Those equipments have to be pre positioned as oil recovery vessels or stand-by salvage tugs in order to speedily fulfil the salvages services.

The difficulty of maintaining available such heavy dedicated equipments is only an economic matter and must be treated in a long term view may be by promoting pre event response agreements between Salvors, major groups and regional Authorities.

## **CONCLUSIONS**

What ever the case, salvage services must rely on a comprehensive guidance with a key role played by the Salvors; it is a matter of importance not to relegate the Salvors to a consulting position, with no direct input into decision making.

For instance the integration of professionals Salvors in “a prevention is better than cure” concept of response under the control of Authorities has proven the benefits of such measures for the whole shipping industry and the environmental sensitivity (Stand by of emergency towing vessels)

With the advent of mega vessels the sharp need for a fully integrated response taking in account the complexity of modern salvage grows in influence.

Some of the answers can be:

- Promotion of “friendly salvage vessel” design and training of their crew
- Promotion of pre event response agreements
- Incentive measures to enhance the capacity of response of the salvage industry

To resume I can't resist quoting from Hendrik Land, the general commercial manager of an international salvage company:

**“HELP US TO HELP YOU!”**

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Captain of ETV ABEILLE BOURBON

Senior Salvage Master



# Common salvage situations and response

**Disabled ship**



# Common salvage situations and response

## Emergency towing





# Common salvage situations and response

## Grounding





# Common salvage situations and response

## Refloating



# Common salvage situations and response

Fire





# Common salvage situations and response

## Fire-fighting



# Common salvage situations and response

## Cargo interests





# Common salvage situations and response

## Cargo recovery - lighthening



# Response to major casualties

- New weighting of priorities:  
saving lives, environment and property
- Not a new challenge





# « Babies » casualties



# one major issue to solve

Towing Fairlead broken





# Economic limits



# Help us to help You!





# LE RENDEZ-VOUS DE L'ASSURANCE TRANSPORTS

*Cannes*  
*28<sup>th</sup> and 29<sup>th</sup> April 2009*



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15