

Salvage Plan & Information Sheet

This document allows the On Scene Coordinator (OSC) or Captain of the Port (COTP) to formulate and evaluate the impact of a Salvage Plan. Specifically, this document allows the OSC or COTP to:

1. Quickly gather all information needed during the response to a marine casualty,
2. Provide the Responsible Party (RP) with a guide for preparing and submitting a salvage plan,
3. Develop quick action response plans specific to their unit,
4. Evaluate Salvage Plans for their impact on: a) personnel safety, b) the environment, c) waterways and shipping, d) commercial facilities, e) recreational areas, and f) the overall response effort.

All sections of this document are not applicable to every salvage evolution. As a result, only those sections applicable to the current evolution should be used in preparing the Salvage Plan. The amount of information required within this document is lengthy; however, this information is required to ensure the safety of all persons working in the salvage evolution.

The symbols listed below indicate the relative importance of each particular piece of information requested for technical analysis.

(*)- VITAL: Minimum information needed for technical analysis.

WARNING: This checklist is not intended to replace the expertise of a qualified Salvage Master, Salvage Engineer, or Naval Architect. In addition, this document is not intended to incorporate all safety issues for a salvage operation. This list is only offered as guidance for gathering information commonly requested by the Coast Guard when overseeing a salvage operation. The OSC or COTP may require additional information due to particular circumstances. Lastly, there may be marine casualties which do not allow for long surveys or extensive considerations for alternative plans of action. For such rapid casualty responses, we suggest using our **Rapid Salvage Survey** for data collection.

The Salvage Plan and Information Sheet can be found at www.uscg.mil/hq/msc/salvinfo.pdf

The Rapid Salvage Survey can be found at www.uscg.mil/hq/msc/casinfo.pdf

Sources: Jamestown Marine Services Survey Form, U.S. Navy Salvage Manual,
Modern Marine Salvage (Milwee), USCG MSC Salvage Engineering Response Team

Please send comments and suggestions about this sheet to the MSC SERT: salvage@msc.uscg.mil

Table of Contents

- A. General Salvage Survey
- B. Site Conditions Survey
- C. Casualty Information Surveys
 - C.1. Fire/Explosion
 - C.2. Stranding (Grounding)
 - C.3. Collision/Allision
 - C.4. Structural Failure/Damage
 - C.5. Flooding/Breach of Watertight Integrity
 - C.6. Sinking
 - C.7. Capsizing
 - C.8. Oil Spill/Hazardous Material Release
- D. Salvage Response Operations Surveys
 - D.1. Lightering/Internal Transfer
 - D.2. Pulling/Beach Gear
 - D.3. Pumping
 - D.4. Blowing/Compressed Air
 - D.5. Lifting
 - D.6. Patching/Temporary Hull Repair
 - D.7. Afloat Towing

A. General Salvage Survey

Vessel Name: _____ O.N. / Class ID: _____

Dimensions: *L: _____ *B: _____ *D: _____

Vessel Specifics: *Full Load Draft: _____ *Service Speed: _____

- *Vessel Type: Barge Carrier Barge w/o rake Barge w/rake
 Tank Ship Bulk Carrier Break Bulk
 Containership RO/RO LPG/LNG Carrier
 OBO Other: _____

*Type of Casualty: (Check all that apply)

- Fire Explosion Grounding Collision/Allision
 Flooding Sinking Capsizing Oil/HAZMAT spill
 Structural Damage Other: _____

Date/Time of Casualty: _____ Position: Lat. _____
Long. _____

*Drafts

Pre-Casualty Date/Time Taken: _____			Post-Casualty Date/Time Taken: _____	
Port	Starboard		Port	Starboard
		Forward		
		Midships		
		Aft		

Is the Vessel visibly in Hog/Sag: Hog Sag N/A

*Bottom Type

- Silt/mud Sand Coral Rock N/A

*Reported Damage/Pollution

***Description of Cargo by Tank**

Pre-Casualty Loading: : Available and Attached Not Available

Post-Casualty Loading: Available and Attached Not Available

A loading description should be provided and include the following information for all fuel oil, lube oil, feed water, potable water, ballast water, and cargo tanks: (1) Tank Name, (2) Type of Cargo, (3) Current Tank Capacity, (4) API/Temp, (5) Inerted, and (5) Specific Vol.

Water Depth Around Vessel

Location	Port	Starboard
Forward		
Midships		
Aft		

Status of Vessel

Secured? Yes No

How Secured? Beach Gear Ballasted Down Other_____

Lively? Yes No

Description of Lively Condition: _____

Additional Surveys Completed

Topside Survey Completed? Available and Attached Not Available

Interior Hull Survey Completed? Available and Attached Not Available

Dive Survey Completed? Available and Attached Not Available

Status of Vessel Systems

Main Propulsion and Steering: _____

Fire Fighting Equipment: _____

Cargo Transfer Pumps: _____

Additional Vessel Particulars

Flag _____ Year Built: _____

Builder & Hull No. _____

Class Society _____ Class ID No. _____

Stern Type: Transom Cruiser

No. of Screws _____

Lightship: Displacement _____ (Long Tons)

Full Load: Displacement _____ (Long Tons)

Deadweight: _____ (Long Tons)

TPI _____ (at normal displacement)

MT1 _____ (at normal displacement)

House Location: Aft, ¾ Aft, MS, FWD

Engine Room: Aft, ¾ Aft, MS

Structural and Stability Information Available: (Check all that apply)

C – Casualty Information Surveys

These survey forms should only be used to obtain information specific to following marine casualties. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

- Fire / Explosion (See Section C.1)
- Stranding / Grounding (See Section C.2)
- Collision / Allision (See Section C.3)
- Structural Failure / Damage (See Section C.4)
- Flooding / Breach (See Section C.5)
- Sinking (See Section C.6)
- Capsizing (See Section C.7)
- Oil Spill / HAZMAT Release (See Section C.8)

C.1 – Fire/Explosion Survey

This survey form should be only used to obtain information specific to marine casualties involving a fire or an explosion. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

Type of Fire*(check all that apply)*

- | | |
|---|---|
| <input type="checkbox"/> Class A – Combustibles | <input type="checkbox"/> Class B - Liquid |
| <input type="checkbox"/> Class C – Electrical | <input type="checkbox"/> Class D – Metals |

Fire Fighting Agent Used*(check all that apply)*

- | | |
|--------------------------------|-------------------------------------|
| <input type="checkbox"/> Water | <input type="checkbox"/> AFFF |
| <input type="checkbox"/> PKP | <input type="checkbox"/> Other_____ |

How long has the repair party been fighting the fire? _____

Where is the fire?

Location: Deck(s), Compartment(s), etc. Compartment dimensions?

Estimate amount of fire fighting pumped onto the vessel? _____

# Pumps	X	Discharge Rate (GPM)	X	minutes in use	=	Gallons
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____
_____	X	_____	X	_____	=	_____

TOTAL: _____ Gallons

C.2 – Stranding/Grounding Survey

This survey form should only be used to obtain information specific to marine casualties involving a stranding or grounding. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

(*) Availability of Stability and Structural Analysis at LOW TIDE / HIGH TIDE / FREE FLOATING:

Available and Attached Not Available

Post Grounding Tank & Void Soundings or Capacities.

Available and Attached Not Available

Speed prior to stranding: _____ KTS

Course at time of stranding: _____ ° True / Magnetic

Position of rudder at time of stranding: _____

Bottom:

Slope: _____

Topography: _____

Current Effects:

Scouring: _____

Silting/sand buildup: _____

C.4 – Structural Failure/Damage Survey

This survey form should only be used to obtain information specific to marine casualties involving a structural failure or damage. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

- (*) General description of damage - attach drawing or written description. For written description provide general position/attitude of damage with respect to significant features of ship (particular bulkheads, tanks, draft marks, coamings, etc.) If cracks are present provide their location, length, and if the cracks are physically propagating?
- (*) Availability of structural analysis based upon residual hull strength:

Available and Attached

Not Available

C.5 – Flooding/Breach of Watertight Integrity Survey

This survey form should only be used to obtain information specific to marine casualties involving flooding or a breach of watertight integrity. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

Please provide a description of the flooding source: _____

(*) Is the flooding progressive? YES NO

(*) Please provide a summary of all flooded compartments:

Tank/Void/Compartment Name	% Flooded	Increasing (Yes / No)	Open to Sea? (Yes/No/Unk.)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(*) Oil in water? YES NO

(*) Availability of stability analysis with consideration of flooding & for each phase of dewatering:

Available and Attached Not Available

Cargo accounted for? YES NO

Method(s) to be used to dewater:

- Pumping
- Blowing
- Other: _____

C.6 – Sinking Survey

This survey form should only be used to obtain information specific to marine casualties involving a sinking. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

(*) Is the vessel a possible source of pollution from oil or hazardous materials?

YES

NO

(*) If **Yes**, where is the oil or hazardous material located and how is it stored: (attach list/dwg.)

(e.g.: 1000 bbl. bunker tank, starboard side of E/R in integral tank.)

(*) Please provide a description of the measures that will be taken to mitigate the threat of pollution.

(*) Availability of stability and structural analysis for vessels while submerged.

Available and Attached

Not Available

(*) Availability of stability and structural analysis for vessels during raising (including slicing prevention):

Available and Attached

Not Available

C.8 – Oil Spill/Hazardous Material Release Survey

This survey form should only be used to obtain information specific to marine casualties involving an oil spill or hazardous material release. It should be used to augment the information obtained from the General Salvage Survey and Site Conditions Survey.

(*) Is source of pollution (oil spill/release) under control?

YES

NO

(*) Provide description of pollution source(Attach drawing or picture):

(*) Provide description of measures taken to reduce or eliminate source of pollution from vessel.

(*) Availability of Stability and Structural analysis for impact of action taken to control the source of pollution:

D – Salvage Methods & Operations Survey

These survey forms should only be used to obtain information specific to marine casualties involving the following salvage methods and operations. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

- Lightering /Transfer (See Section D.1)
- Pulling/Beach Gear (See Section D.2)
- Pumping (See Section D.3)
- Blowing/Compressed Air (See Section D.4)
- Lifting (See Section D.5)
- Patching/Temporary Repairs (See Section D.6)
- Afloat Towing (See Section D.7)
- Transit (See Section D.8)

D.1 – Lightering/Internal Transfer Survey

These survey forms should only be used to obtain information specific to marine casualties involving lightering or internal transfers. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

(*) Lightering plan. This plan should include stability and structural analysis for each phase of the lightering or transfer:

Available and Attached Not Available

Describe mooring arrangements of vessels involved in lightering arrangement (attach)

Is there a possibility that the ship may rise and uncover hidden damage?

YES NO

If **YES**, provide documentation on measures to control possible pollution.

<h2 style="text-align: center;">D.2 – Pulling/Beach Gear Survey</h2>
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These survey forms should only be used to obtain information specific to marine casualties involving pulling or beach gear. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

(* Provide available towing capacity:

Towing Vessel Name	SHP	Bollard Pull
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

(* Provide tow wire information (type, size, safe working load).

Attach diagram of operation: (Vessel locations, anchor points, etc.)

D.3 – Pumping Survey

These survey forms should only be used to obtain information specific to marine casualties involving pumping operations. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

Plans utilizing pumping operations should include the following items of concern:

Type of pumps to be used: (submersible electric, reciprocating air, centrifugal, etc.)

Pump Access: (through butterworth openings, tank dome, etc.)

Tanks to be inerted during pumping? YES NO

Is cargo a static accumulator? YES NO

If **YES** then discuss measures to prevent static discharge:

Installed pumps or piping system to be used to move cargo?

YES NO

If **YES** then discuss measures taken to ensure system is still operating safely.

Are the pumproom bilges free of large accumulations of flammable/combustible liquids?

YES NO

Is the pumproom ventilation system operating properly?

YES NO

D.4 – Blowing/Compressed Air Survey

These survey forms should only be used to obtain information specific to marine casualties involving blowing or compressed air. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

Plans utilizing blowing or compressed air should include the following items of concern:

- (*) Maximum pressure to be used(Provide quantitative analysis for pressures above 5 psi.)
- (*) Means to control air pressure.
- (*) Measures taken to accommodate air expansion as vessel is raised:
- (*) Availability of Structural and Stability analysis for vessel while compartment is pressed up.

Available and attached

Not Available

- (*) Contingency Planning in the event air pressure in compartment is lost:

Provide location of space to be pressed up, including vertical dimensions.

Height of water in space WRT waterline.

D.5 – Lifting Operations Survey

These survey forms should only be used to obtain information specific to marine casualties involving lifting. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

Lifting Operations Involving Straps or Wire Ropes

Plans utilizing straps or wire ropes should include the following items of concern:

- (*) Hull form in way of straps:
- Bilge Radius _____
 - Use of bolsters, protection of bilge keels, keelsons etc. (attach drawings/description)
- (*) Availability of Structural analysis to consider lifting forces (including slicing prevention):
- Available and Attached Not Available

Provide a description of Straps/Wire ropes:

Number of straps to be used?

Location of straps with respect to vessels length. (attach drawing)

Lifting Operations Involving External Floatation

- (*) Is external floatation to be used (pontoons, air bags, etc.)
- YES NO
- (*) Availability of Structural analysis to consider lifting forces (including slicing prevention):
- Available and Attached Not Available

D.6 – Patching/Temporary Hull Repairs Survey

These survey forms should only be used to obtain information specific to marine casualties involving patching or temporary hull repairs. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

(* Purpose of patch/repair(*check all that apply*):

- Restore watertight integrity
- Structural continuity
- Prevent damage from spreading (i.e. stop crack propagation)
- Contain pollution threat
- Permit Gas Freeing Operations
- Other: _____

(* Qualitative analysis to show that patch/repair is adequate for intended purpose and vessel route & service:

- Available and attached Not Available

D.7 – Afloat Towing Survey

These survey forms should only be used to obtain information specific to marine casualties involving afloat towing. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

(*) Quantitative analysis to show towing vessel has adequate pulling capacity for anticipated weather, seaway, & distance:

Available and attached

Not Available

D.8 – Transit Survey

These survey forms should only be used to obtain information specific to marine casualties involving transit. It should be used to augment the information obtained from the General Salvage Survey, Site Conditions Survey, and Casualty Information Surveys.

Destination: _____

Route _____

Estimated Time/Date of arrival: _____

Maximum/Minimum Speed: _____

Forecasted Weather: _____

Purpose of Transit (Offload, Repair, etc.) _____