



MINISTERIO
DE FOMENTO

DIRECCIÓN GENERAL DE LA
MARINA MERCANTE



Salvamento Marítimo

“Castillo de Salas” 1986-2003

SPANISH MARITIME
SAFETY AGENCY
(SASEMAR)



Gloria López Gamallo



“Castillo de Salas” 1986-2003

Spanish Maritime Safety Agency (SASEMAR)

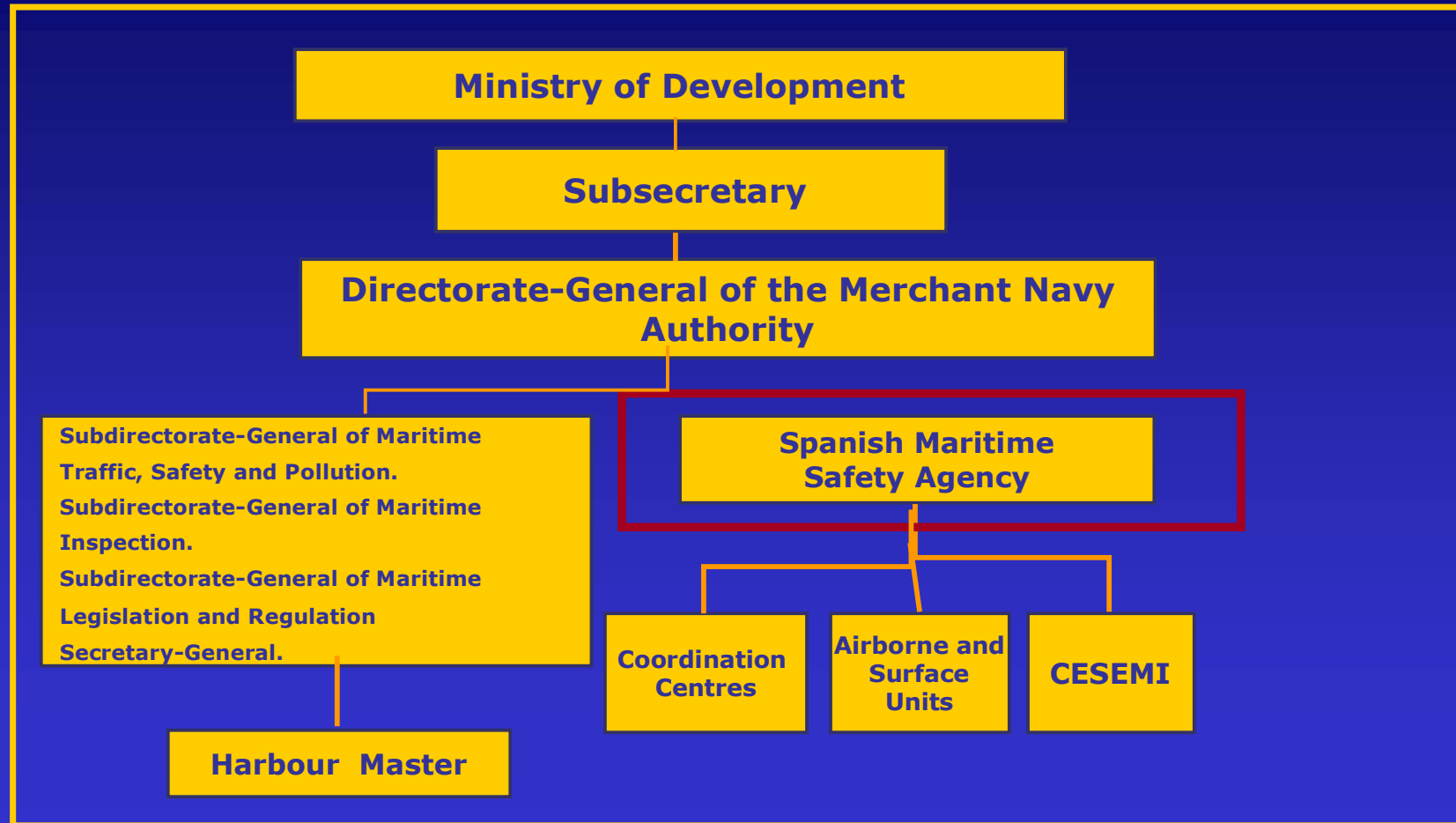
- It is a Public Body under the Ministry of Development
- Set up in **1992** under the Ports and Merchant Navy Act.
 - **Scope of action is to provide services in:**
 - Search and Rescue
 - Vessel Traffic Service
 - Protection of the Marine Environment



Introduction



“Castillo de Salas” 1986-2003



Introduction



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“Castillo de Salas” 1986-2003

1986



2003



17 Years After



“Castillo de Salas” 1986-2003

For a proper understanding of the “*Castillo de Salas*” Operations we shall consider in three phases:

1986 THE ACCIDENT

2001 FUELOIL RECOVERY

2003 WRECK REMOVAL





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“Castillo de Salas” 1986-2003

THE ACCIDENT 1986





“Castillo de Salas” 1986-2003

“Castillo de Salas” Bulkcarrier Technical Data

Name: *Castillo de Salas*

Length: 261 mts.

Beam: 40 mts.

Draft: 14,5 mts.

Cargo: 99.277 tn. of coal

Shipowner: Empresa Nacional Elcano



The Accident



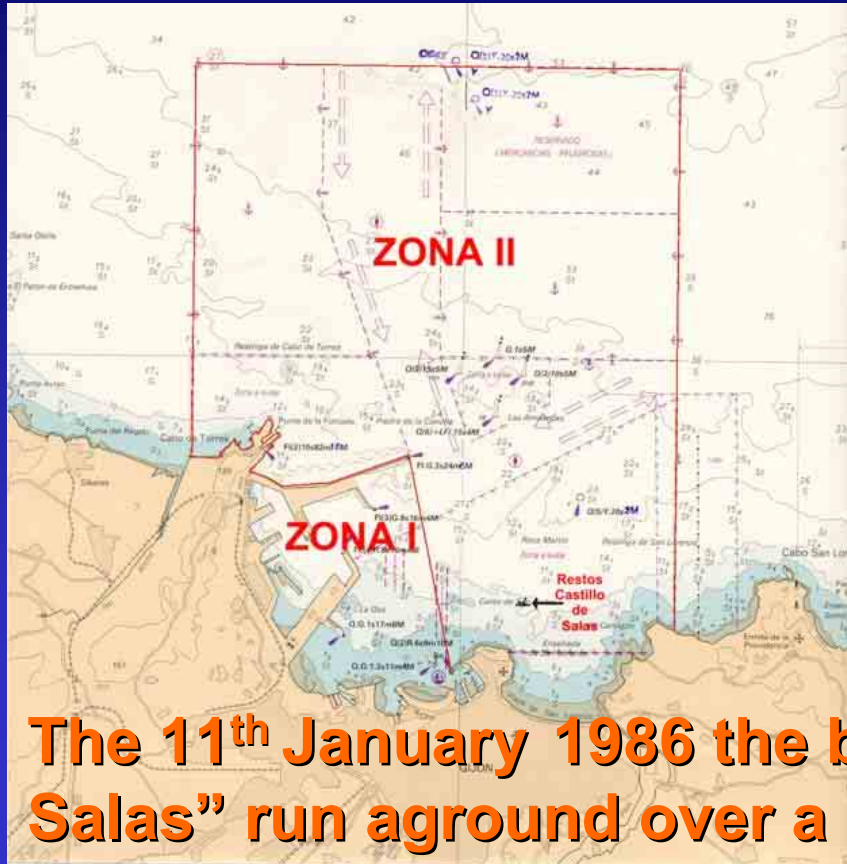
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The 11th January 1986 the bulkcarrier “Castillo de Salas” run aground over a rocky bottom.

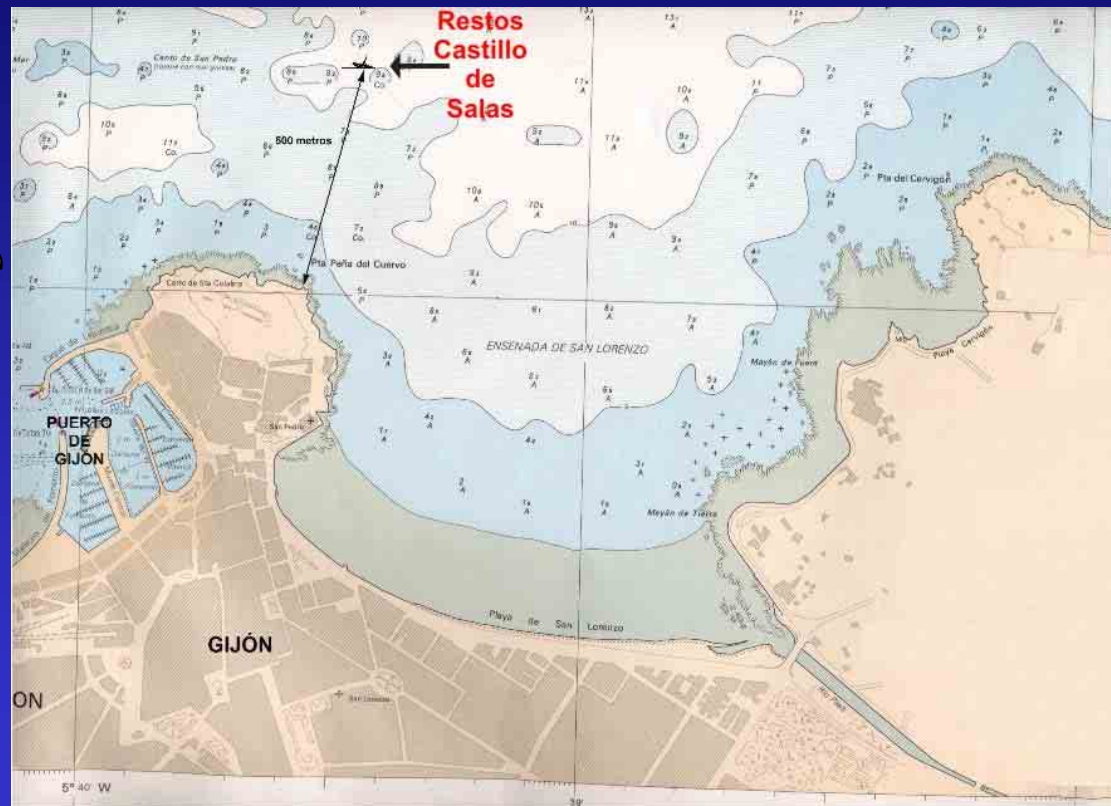


The Accident



“Castillo de Salas” 1986-2003

By the end of January 1986, the “*Castillo de Salas*” parted in two pieces and sunk in Bay of Gijón.

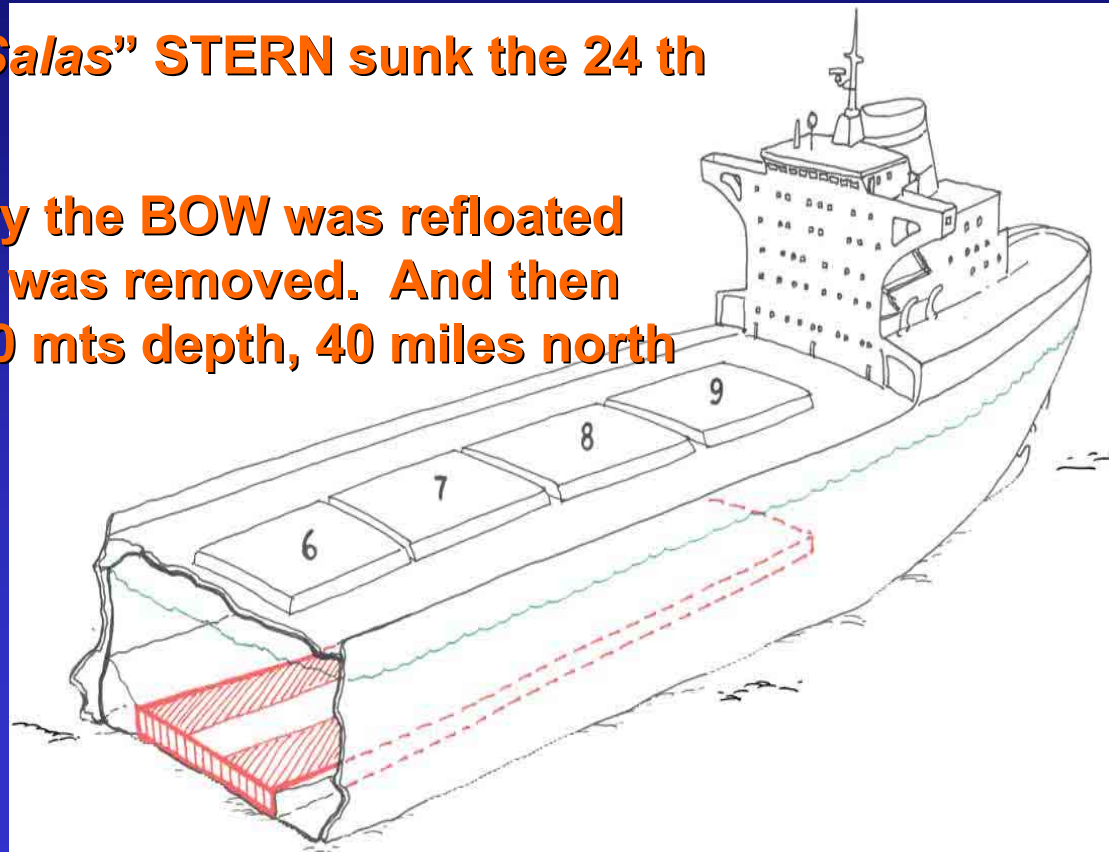


The Accident



“Castillo de Salas” 1986-2003

- The “*Castillo de Salas*” STERN sunk the 24 th January.
- The 22 th February the BOW was refloated after the coal cargo was removed. And then foundered in a 4.000 mts depth, 40 miles north Cape Peñas.

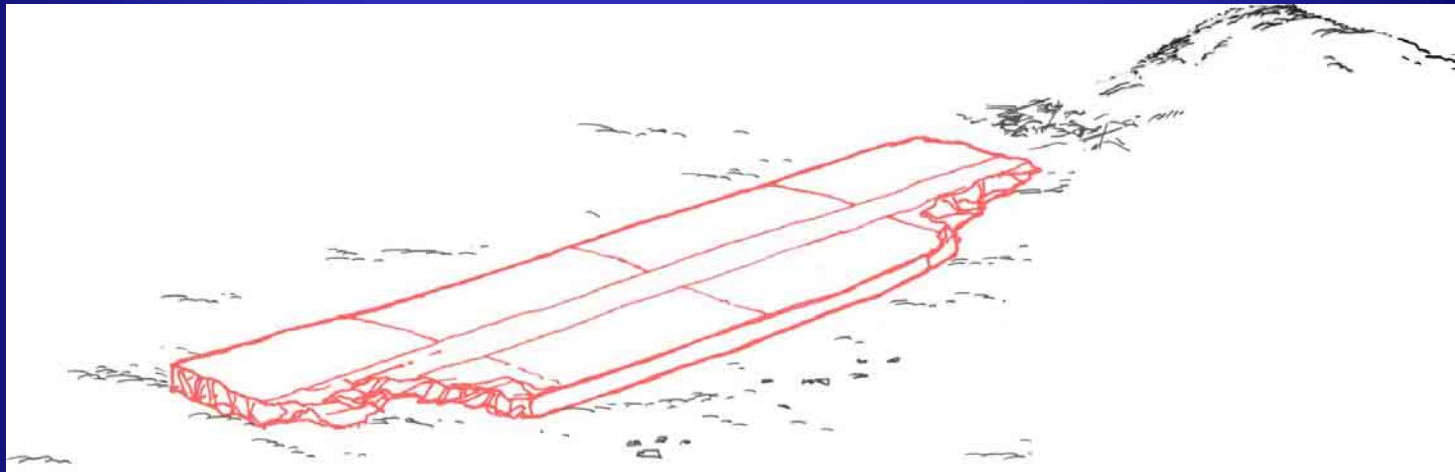


The Accident



“Castillo de Salas” 1986-2003

- 6th November 1986; The Authorities announced that the fuel oil extraction and the scraping operations were concluded satisfactorily.



- Although the stern was broken up, it was agreed to leave the double bottom tanks remainings on the sea bed as a biotope.



The Accident



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FUELOIL RECOVERY

2001





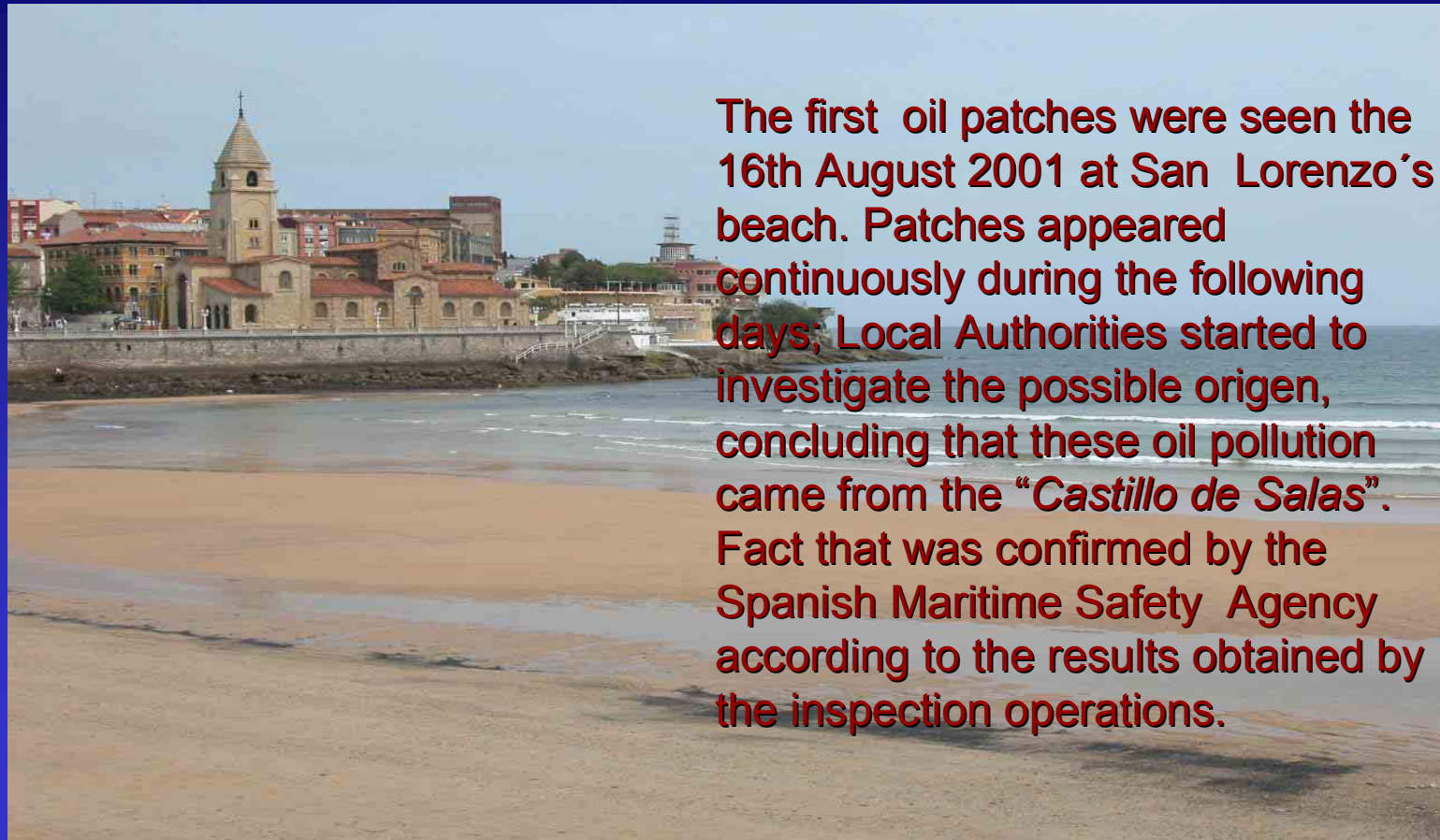
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The first oil patches were seen the 16th August 2001 at San Lorenzo's beach. Patches appeared continuously during the following days; Local Authorities started to investigate the possible origin, concluding that these oil pollution came from the “Castillo de Salas”. Fact that was confirmed by the Spanish Maritime Safety Agency according to the results obtained by the inspection operations.

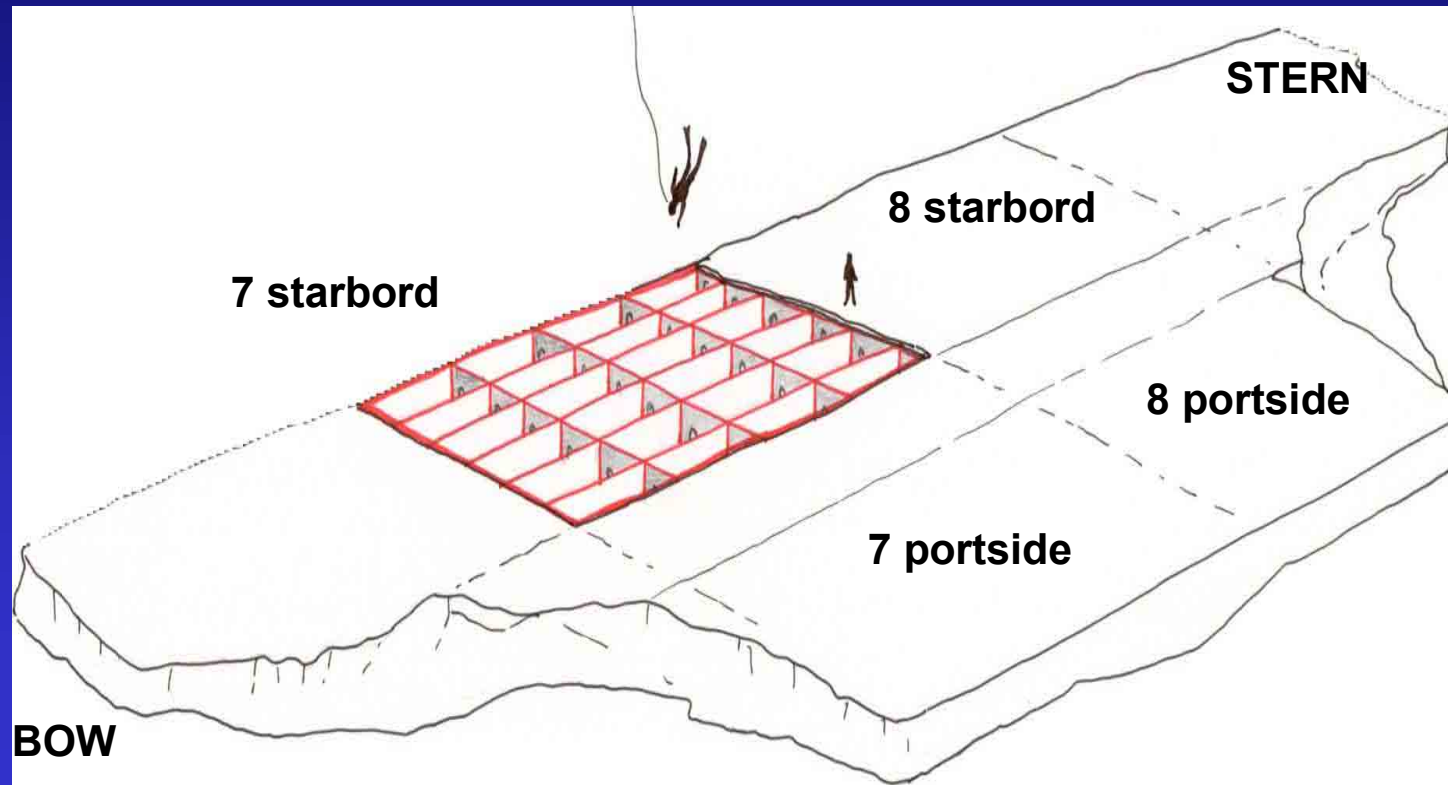


Fueloil Recovery



“Castillo de Salas” 1986-2003

Appearance of the structure after the inspection.



Fueloil Recovery



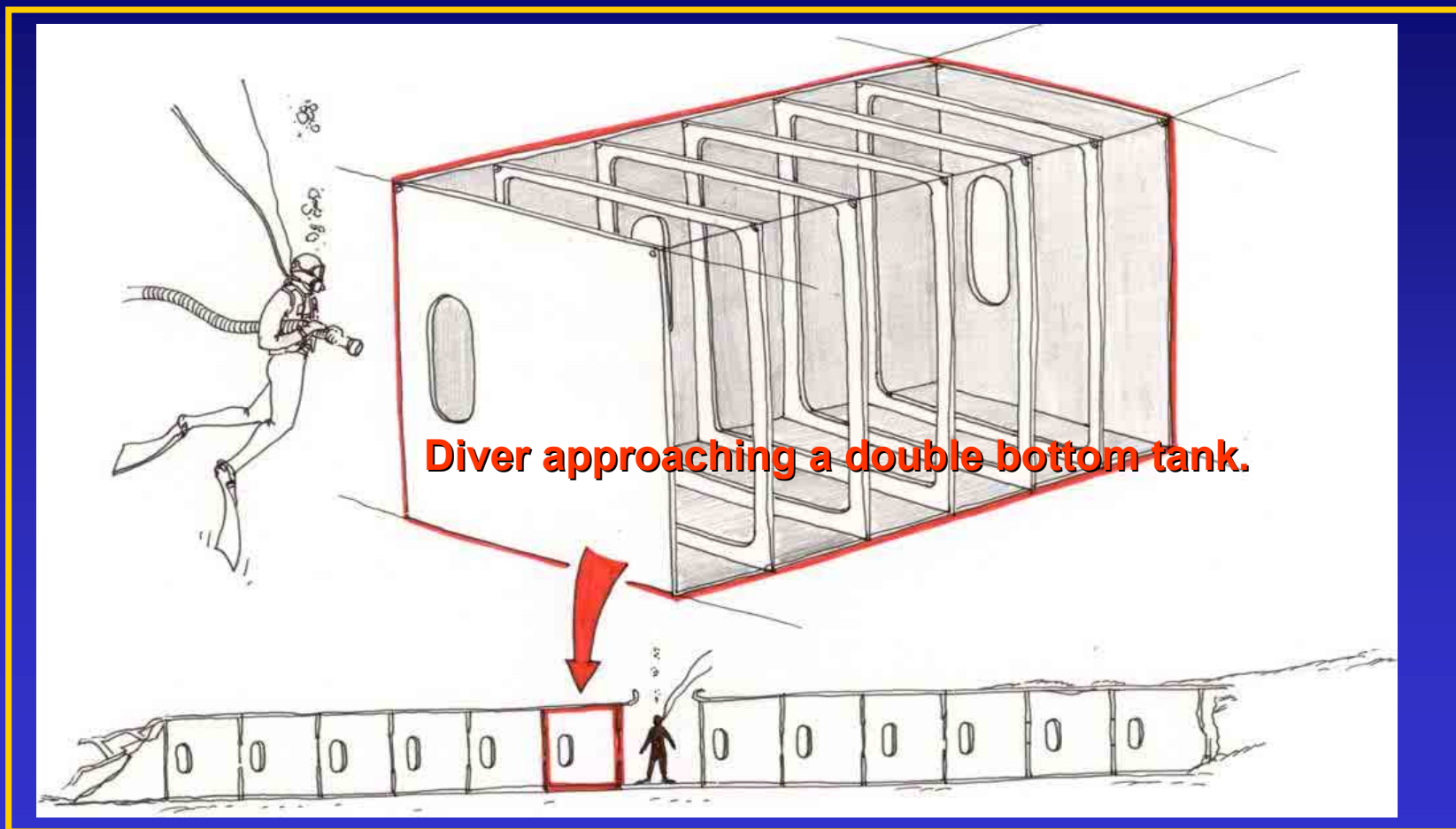
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Fueloil Recovery



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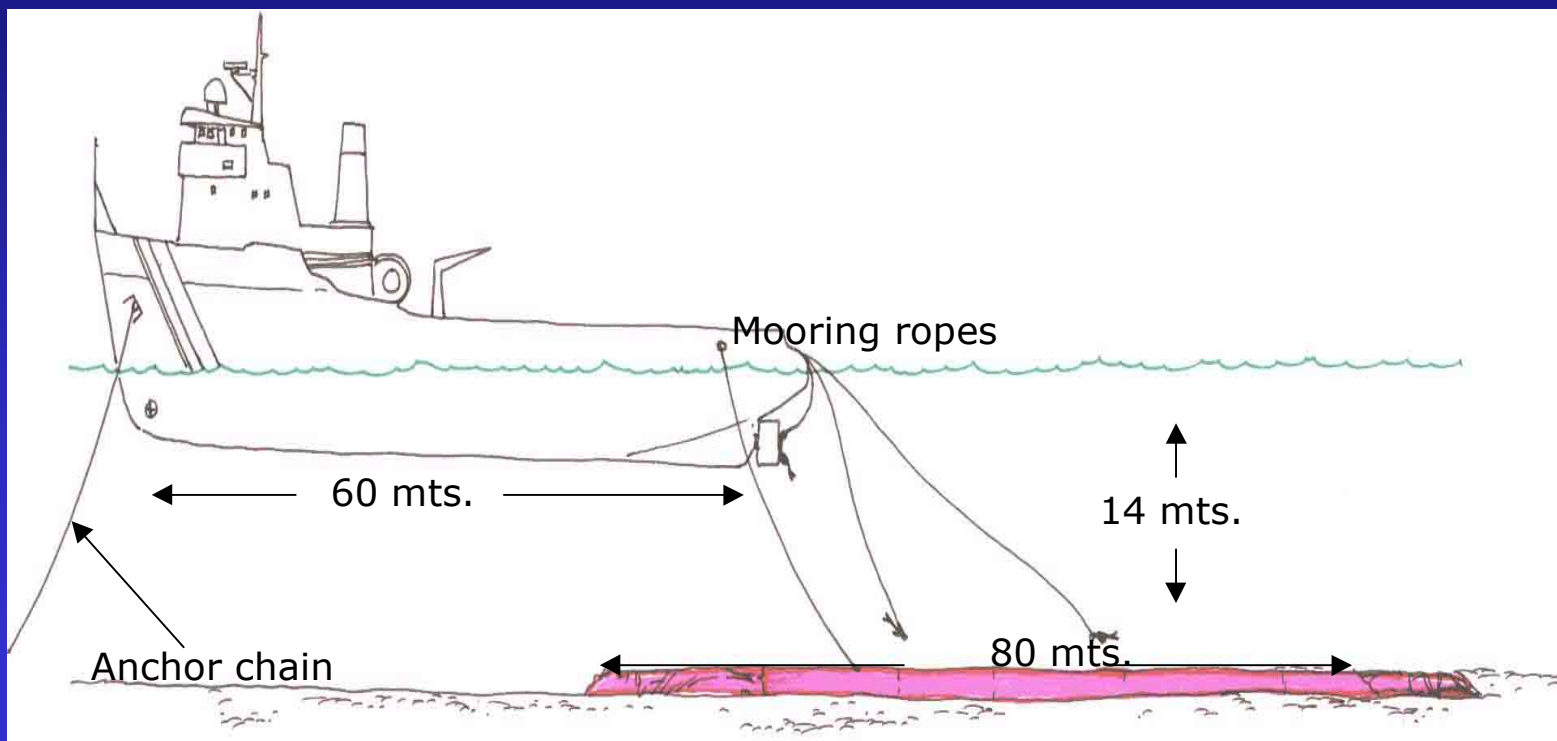
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Rescue vessel position in relation to the wreck.



Fueloil Recovery



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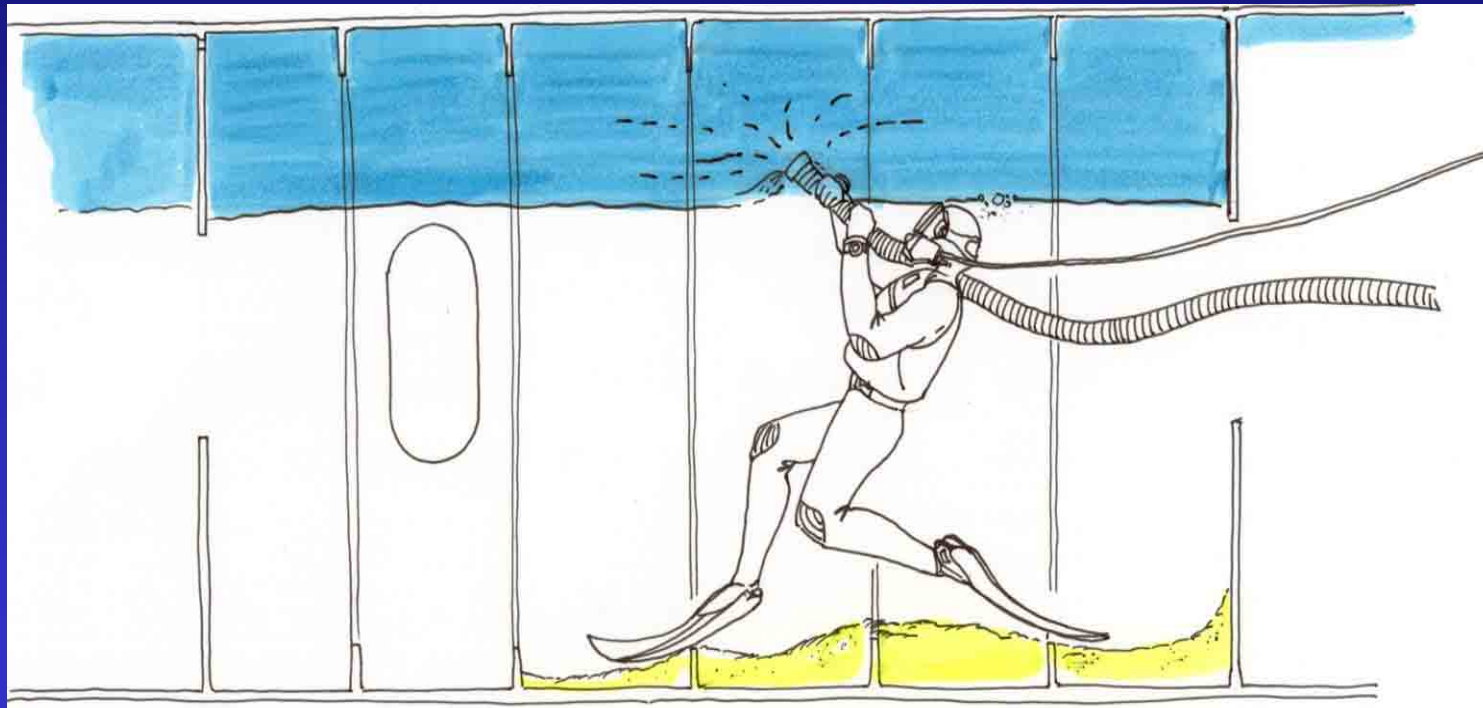
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Fueloil Pumping Recovery.



Fueloil Recovery



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Rescue Vessel deck during the operations



Fueloil Recovery



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The operations for
the Fueloil Pumping
out started the 1st of
September 2001.

Fueloil was poured into
the fast tank placed on
the Vessel deck.



Fueloil Recovery



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Flap Pumps



Screw Pumps



Fuel Oil Recovery



“Castillo de Salas” 1986-2003

- **Oil Pumping Out Operations 1st Stage ended the 23 October 2001.**

Total fueloil recovered 256.600 Kg

- **The 2nd stage started on May 2002 and ended the 19 June 2002.**

The operations were hampered by the weather conditions.

Total fueloil recoverd 148.720 Kg

- **With these oil pumping out works, the operation was concluded. Although the Surveillance program was still activated.**



Fueloil Recovery



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WRECK REMOVAL

May-July

2003





“Castillo de Salas” 1986-2003

- 2002 The Ministry of Development issued a public tender to remove “*Castillo de Salas*” wreck.
- Technical specifications established two possible options:
 - 1- Removal of the wreckage and sinking in deep water.
 - 2- Cut, remove and shore transfer of the wreckage.
- Tender was awarded to “Titan Maritime UK Ltd”.

At the end the selected option was the second one.



Wreck Removal



“Castillo de Salas” 1986-2003

**Extraction and removal of the
wreckage works started in May 2003.
Operations planning was:**

- **Cutting Wreck**
- **Removal of cut pieces.**
- **Shore Transfer.**



Wreck Removal



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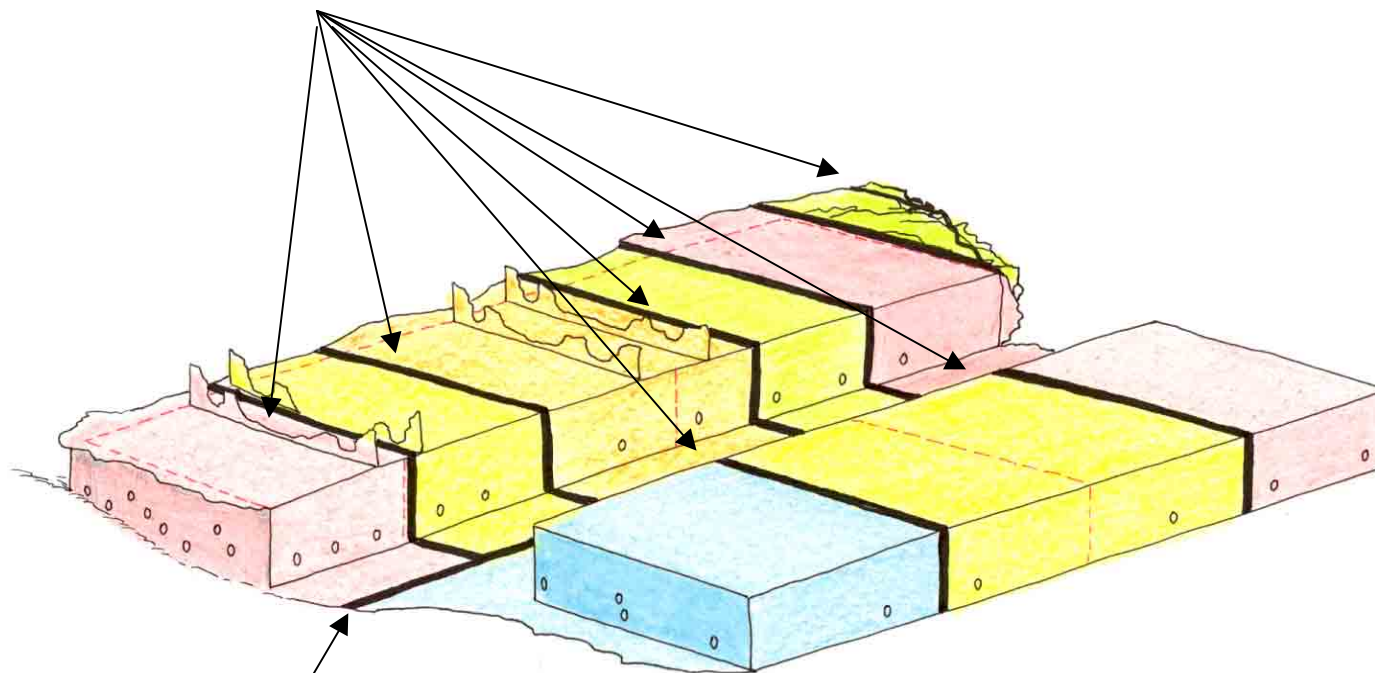
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Transversal Cuttings



Longitudinal Cuttings



Wreck Removal



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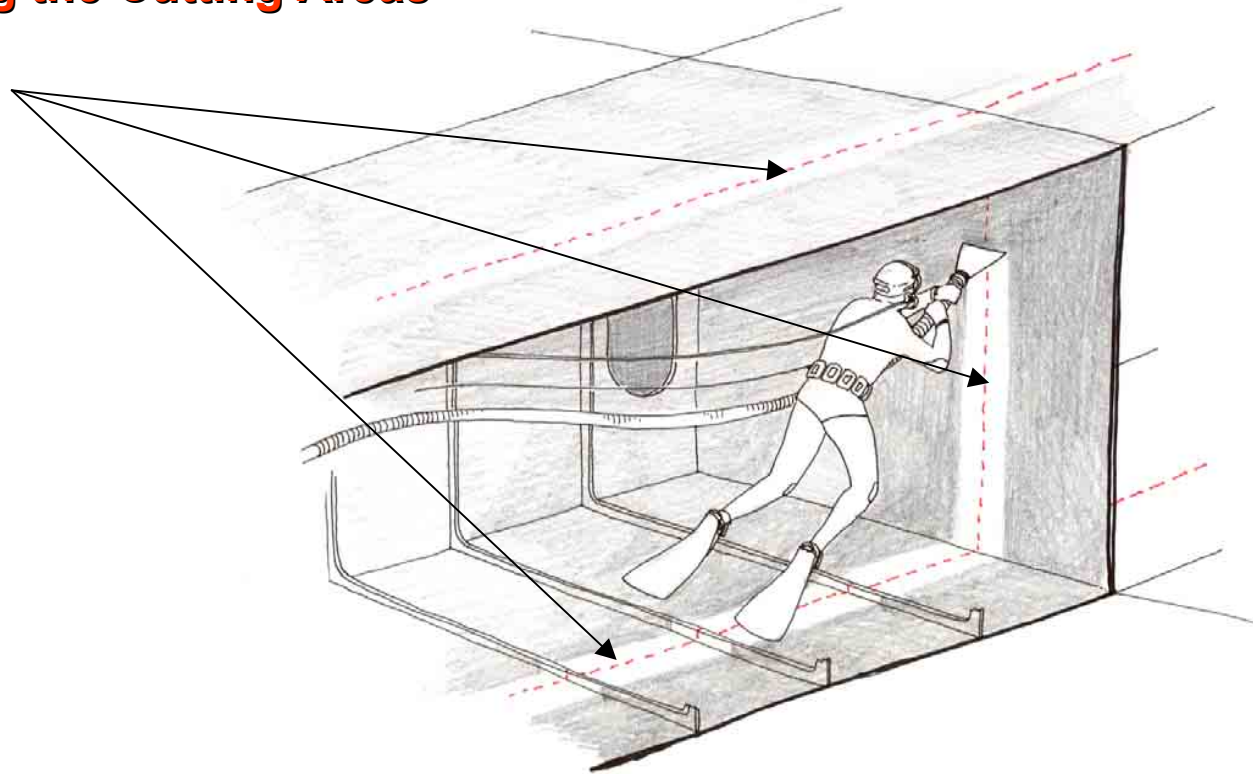
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Salvamento Marítimo

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Cleaning the Cutting Areas



Wreck Removal



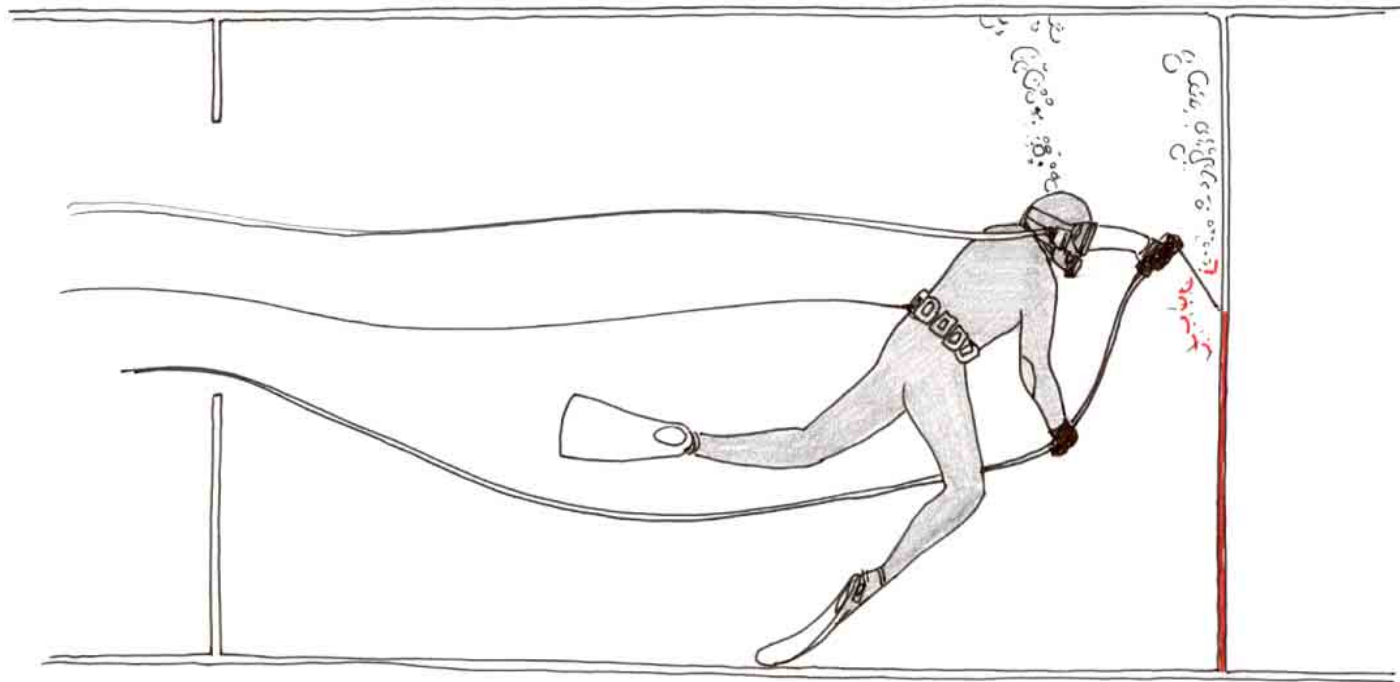
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Cutting with submarine electrodes



Wreck Removal



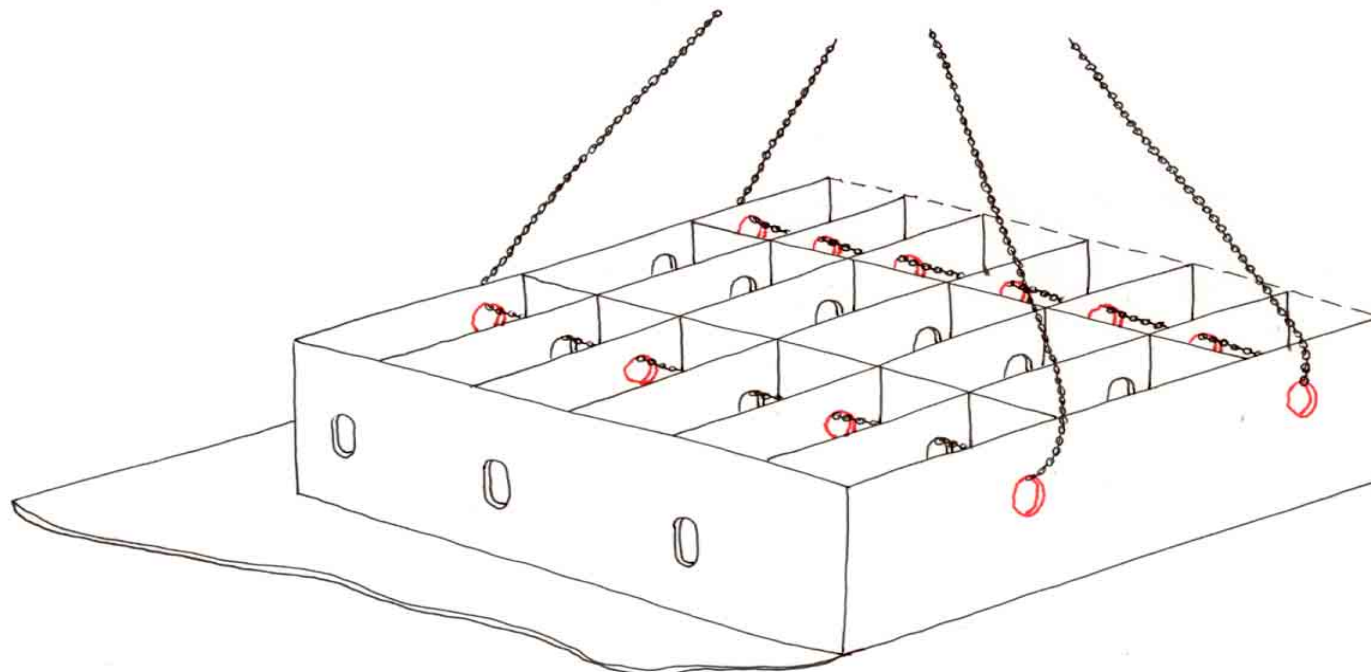
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Section ready to be hoisted



Wreck Removal



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**National Contingency Plan was
activated to prevent and control any
spill or incident caused during the
works.**



Wreck Removal



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Spanish Maritime Safety
Agency Rescue Vessels and
1.800 mts boom were
supporting all the operation.



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May 2003

“Cormorant” Floating Crane was positioned in the operations area since the 13th May 2003.



Wreck Removal



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Barge

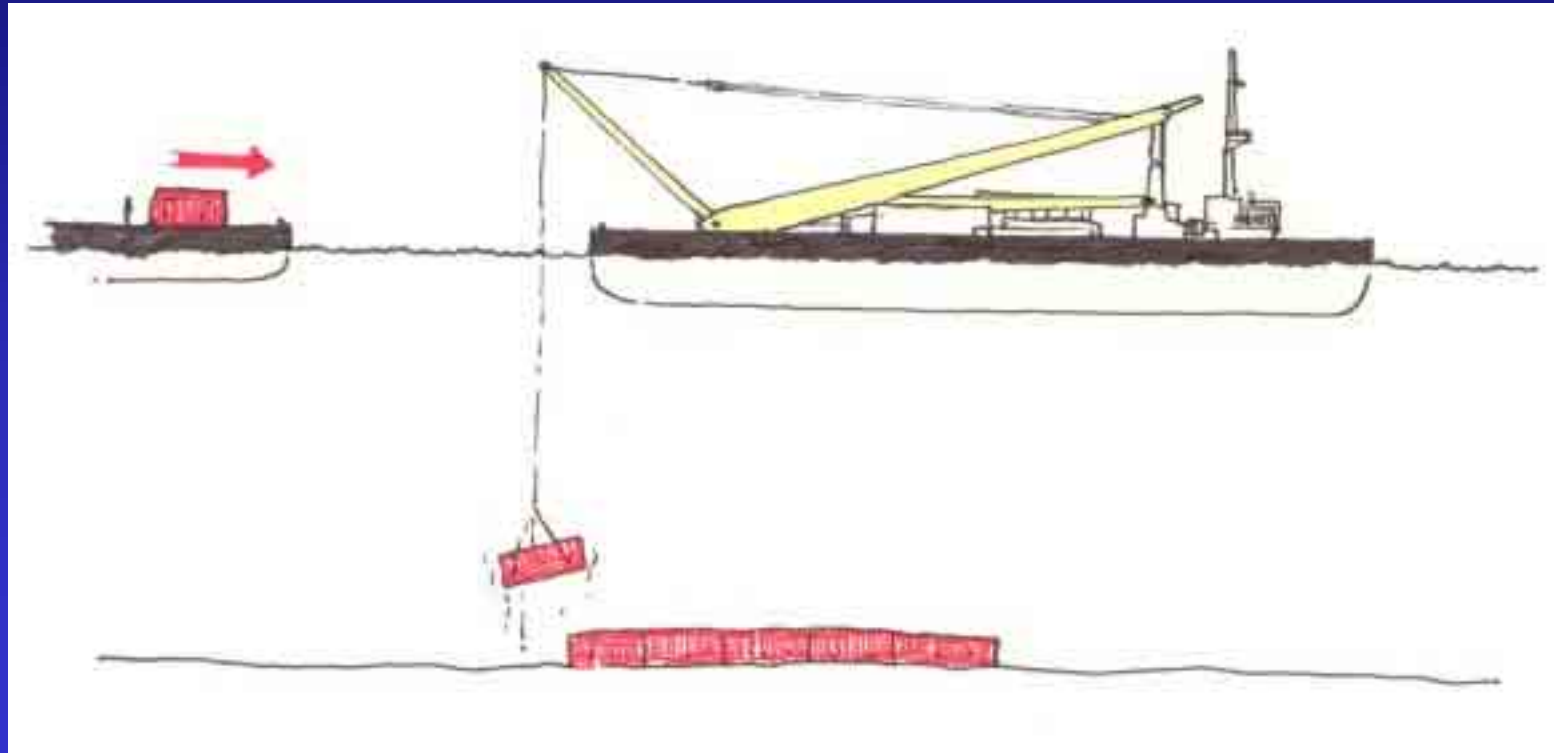


Wreck Removal



“Castillo de Salas” 1986-2003

The floating crane raise the blocks to place them over the barge.



Wreck Removal



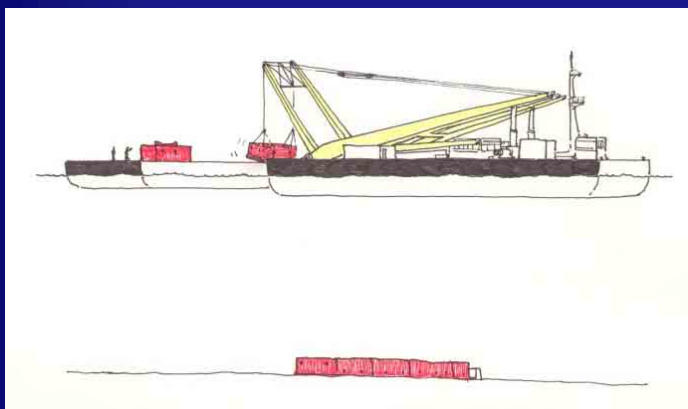
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Barge approaching to load the cut pieces



Wreck Removal



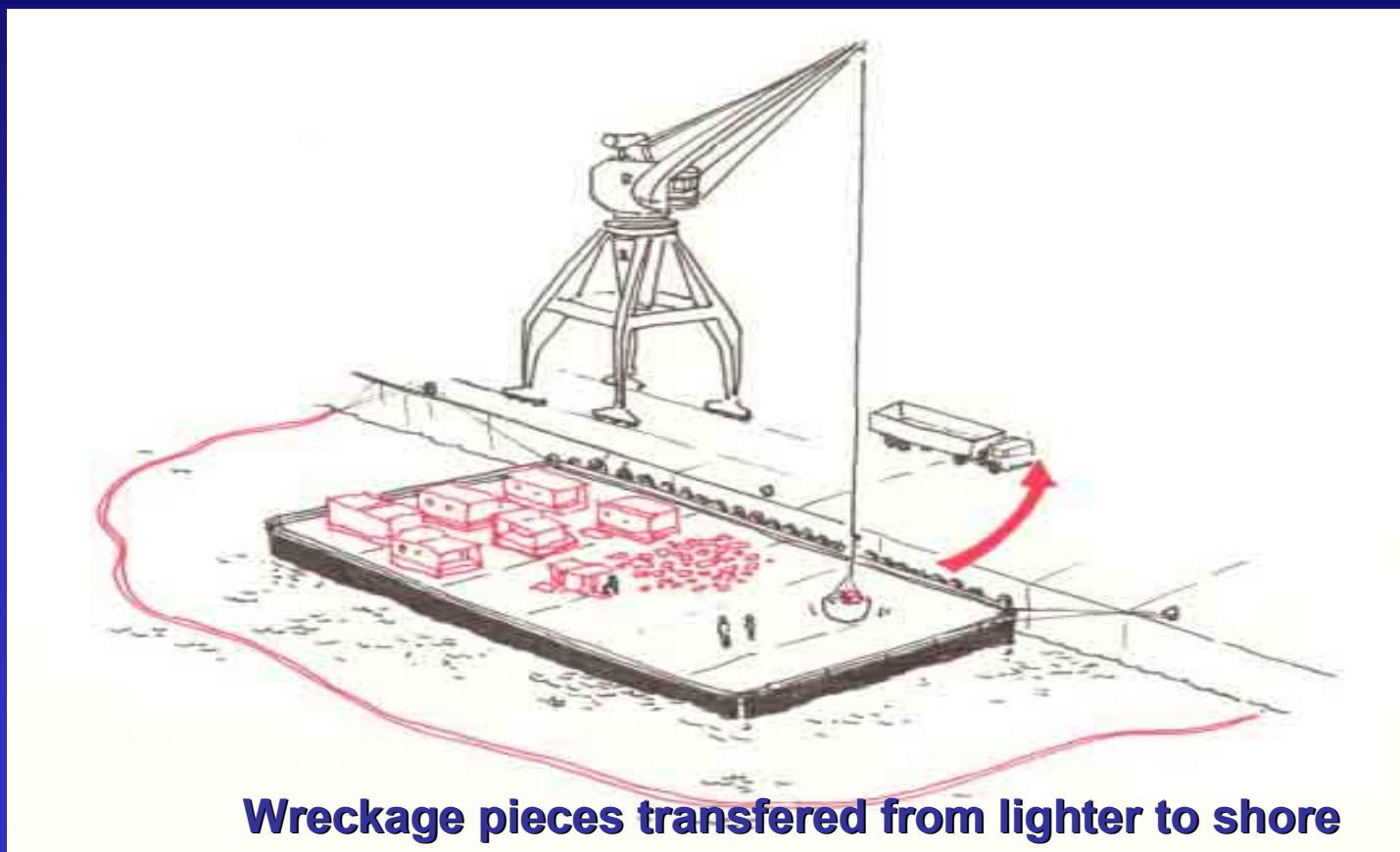
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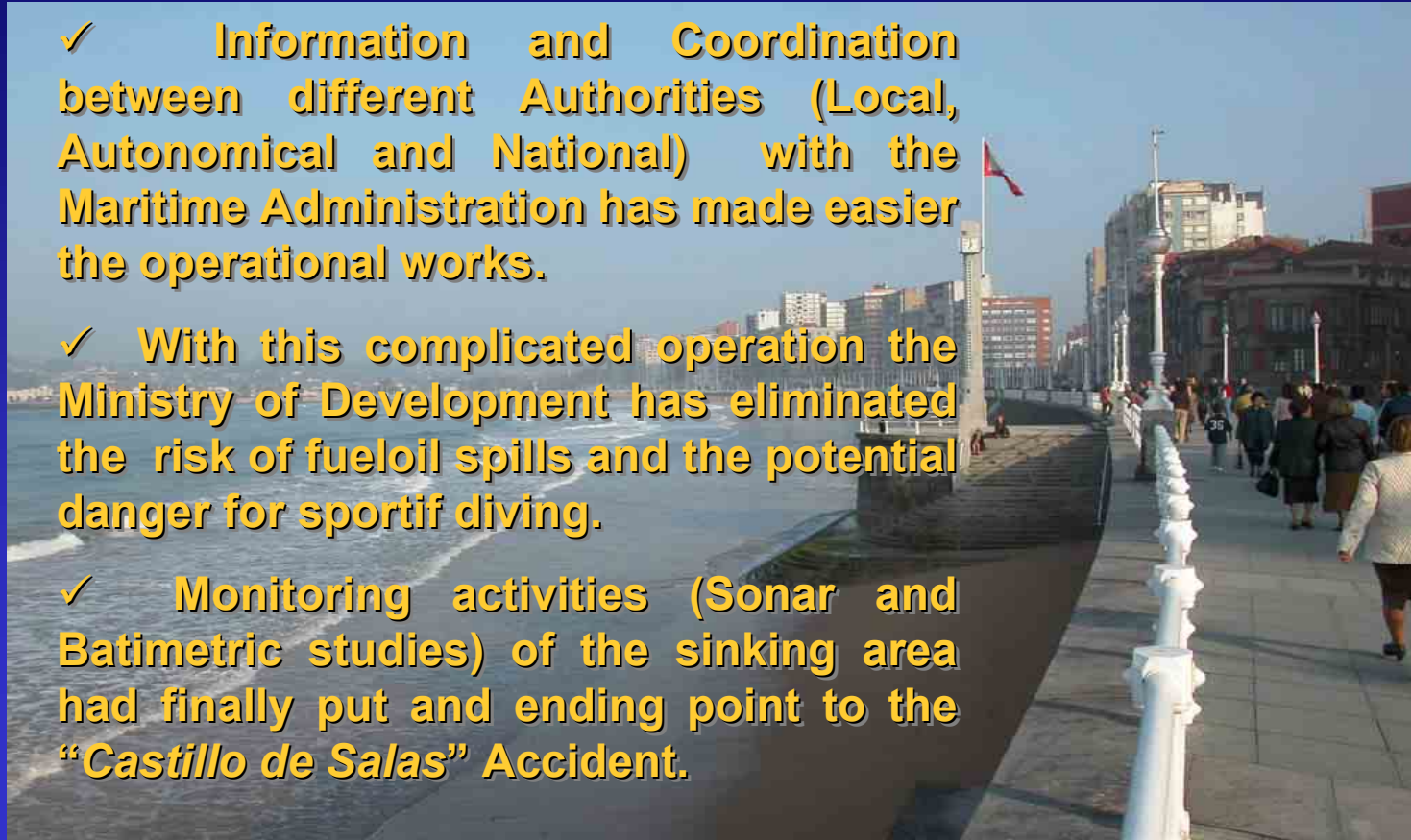


Wreck Removal



“Castillo de Salas” 1986-2003

- ✓ Information and Coordination between different Authorities (Local, Autonomical and National) with the Maritime Administration has made easier the operational works.
- ✓ With this complicated operation the Ministry of Development has eliminated the risk of fueloil spills and the potential danger for sportif diving.
- ✓ Monitoring activities (Sonar and Batimetric studies) of the sinking area had finally put and ending point to the “Castillo de Salas” Accident.



The Ending of the Operation



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**Thank you
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Gloria López Gamallo