



## STREAMER HANDLING EMERGENCY PROCEDURES

Document related to recommendations and guidelines for emergency situations with deployed seismic multichannel streamer.

These procedures provide some guidelines for taking appropriate decisions under an emergency incident with the seismic streamer in sea.

### **Deck operations & maneuvers**

Stick to guidelines and safety protocols implemented by the UTM on board the CSIC vessels.

### **Cranes and winches operations & maneuvers**

Stick to guidelines and safety protocols implemented by the UTM on board the CSIC vessels.

### **Emergency instructions to apply with in sea deployed seismic streamer**

The technical staff and ship's crew should know their functions and will be equipped with all the personal protection equipment required. Maneuvers will be discussed with all personnel involved prior any decision. Deck operations will always be consensually agreed to the technical staff and ship's crew.

Strictly the bridge indications will be obeyed and a fluent communication will be established. Operations must be conducted by the personnel responsible for the equipment agreed to the management of the vessel.

### **Guidelines to carry out:**

1. Kept informed to the vessel management of any incident or emergency.
2. Tool box meeting to the involved technicians and crew.
3. Request permission and hydraulics to bridge officer in charge.
4. Request to take the vessel over shallow waters (less than 200 m of water column).
5. Reduce vessel speed up to 3 knots.
6. Start to recovery the streamer.
7. Unless it is not completely necessary, the bird will never be disconnected.



8. The wings and keels of the birds will be dissembled and the protection will be placed immediately.
9. The compasses should be quickly dissembled. The collar protections could be cancelled in case of time reducing.
10. The recovery speed will be as faster as main deck operations enable.
11. Inform continuously to the bridge of the recovery operation advancing.
12. In case that the vessel is over shallow waters, the option of sinking the streamer should be considered by party chief and captain.

The streamer operating and birds floating system will be always monitored by the control laboratory. Having constant continuity and depth control of the sections deployed. Never exceed the collapse depth, as it may cause serious breakdown. Streamer collapsed depth both on operation and turned off should be borne in mind.

Fair lead and power blocks must be all times used.

In case you need to unscrew / assemble streamer sections, electrical current should always be disconnected. Failure to do this can cause electrical shock and damage the electronics.

Don't make abrupt turns or vessel manoeuvres.

Never reduce speed over sea below 3 knots. At this speed or less, birds won't be effective, causing the sinking of the streamer, with the risk that this entails.

If the vessel propulsion stops (block out), it should instantly start collecting the streamer as quickly as possible, as it will begin its progressive sinking. All sections recovered before reaching collapse depth, can be saved. Below 40 meters, switch off the streamer power in any case and proceed with the recovery.