

Oceyon MUL Application Survey Program and Duration

Summary

The aim is to inspect ten wreck locations off the South Coast of Ireland (counties Cork, Waterford and Wexford). It is expected that each wreck would take 1 day including transit. On occasions it might require two days per wreck. Therefore, the entire project should take 10-14 days but including weather could take up to 3 weeks. The start date is unknown due to seasons, personnel and equipment availability which is why the request is for a 2 year window for the operation.

Methodology

The equipment and personnel will be mobilised onto the vessel in port. This port would most likely be a major port like Cork or Wexford. The equipment would be tested and shown to be working before the vessel departs port. Since we are only working in daylight hours then the vessel will most likely depart the port early in the morning and head for the wreck location.

On arrival at location the MMO will check for marine mammal activity and when they have given the "all clear" the vessel can set up and prepare for launching the ROV / AUV and deploying the USBL underwater positioning system. A full set of dive checks will be performed prior to deploying the ROV or AUV into the water. These dive checks can be conducted at the same time as the check for marine mammals providing there is no additional acoustic noise generated during these checks.

The ROV / AUV is launched and further checks conducted in the water before diving. The ROV dives and approaches the seabed – it doesn't land on the seabed but instead remains at a standoff altitude. The sonar is used to search the area and locate the wreck. When the wreck is found the ROV will approach but remain vigilant to any hazards especially close to the wreck.

The ROV will conduct a reconnaissance fly over or around the wreck at a safe distance to avoid a risk of entanglement or collision. Once the ROV pilot is familiar with the environment around the wreck then they will conduct the visual survey of the wreck. The survey usually involves a series of circuits of the vertical sections of the wreck (hull) and lines across the top of the wreck (decks). These are intended to give full coverage with overlaps between consecutive circuits or lines. Once the survey is deemed as complete the data will be checked and the ROV recovered to deck. If the wreck survey is not completed but it is obvious that the amount of daylight is not sufficient to complete then a suitable point would be chosen to suspend the survey to recover the ROV.

Once the ROV is on deck (and secured), the vessel will prepare to transit back to port. The data will be checked overnight to determine if the wreck needs additional data. If it does need more data then the vessel will return to the wreck and resume the survey in the same manner as described above. If that wreck is considered as completed then the vessel will proceed to the next wreck and the process outlined above will be repeated.

Once the entire campaign is completed the data will be checked again and if all is considered satisfactory then the demobilisation will be commenced to remove all project equipment and personnel from the vessel.