Glider Operational Risk Management Programme

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Programme

- To devise and implement a risk management process tailored to the operation of gliders in a multi-risk deployment
  - The implementation of which will require data gathering and formal risk assessment

- Data used for statistical analysis will consist of the operation history of gliders since January 2010

- An online survey will be sent to all partners

- A risk assessment workshop will gather a selected number of experts to assess the risk of potential hazards
Online survey

- Data will be collected for all operational missions for all gliders of the research institution.
- Mission characteristics will include: mission number, mission travelled time, environment conditions (coastal shelf or deep ocean operation), whether or not the mission ended due to failure.
- Failure data will consist of:
  - Collision with vessel, sea bed, nets (or other)
  - Communications failure
  - Leak
  - Buoyancy pump failure
  - Navigation sensor failure (GPS, Campus, other)
  - Attitude control failure
  - Science sensor failure
  - Battery failure
  - Command/control software failure (includes basestation)
  - Onboard software failure
  - Data logging failure
- Bottom profiler status at the time of fault
GROOM - Glider Operational Risk Survey

The aim of this survey is to collect operational data of glider use since January 2010.

Welcome to the GROOM survey on glider operational risk. GROOM is an EU FP7 funded project. The aim of this survey is to collect data to support analysis of glider operational risk as part of WP5. Throughout this survey you will be asked to provide information concerning your glider usage since January 2010. The time taken to complete this survey will depend on the number of missions that you have undertaken. You will be asked to complete one survey for each mission.

There are 11 questions in this survey.
Please choose...
UNIVERSITE PIERRE ET MARIE CURIE – PARIS 6 (UPMC)
UNIVERSITY OF CYPRUS (OC-UCY)
LEIBNIZ-INSTITUT FUER MEERESWISSENSCHAFTEN AN DER (IFM-GEOMAR)
HELMHOLTZ-ZENTRUM GEESTHACHT ZENTRUM FUR MATERIALUND KUSTENFORSCHUNG GMBH (HZG)
ALFRED-WEGENER-INSTITUT FUER POLARUND MEERESFORSCHUNG (AWI)
UNIVERSITAET TRIER (UT)
ILMATIETEEN LAITOS (FMI)
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)
INSTITUT FRANCAIS DE RECHERCHE POUR L’EXPLOITATION DE LA MER (IFREMER)
HELLENIC CENTRE FOR MARINE RESEARCH (HCMR)
NATO UNDERSEA RESEARCH CENTRE (NURC)
ISTITUTO NAZIONALE DI OCEANOGRAFIA E DI GEOFISICA SPERIMENTALE OGS (OGS)
UNIVERSITETET I BERGEN (UBJ)
STIFTELSEN NANSEN CENTER FOR FJERNMAALING (NERSC)
AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)
CONSORCIO PARA EL DISENO, CONSTRUCCION, EQUIPAMIENTO Y EXPLOTACION DE LA PLATAFORMA OCEANICA DE CANARIAS (PLOCAN)
THE SCOTTISH ASSOCIATION FOR MARINE SCIENCE (SAMS)
UNIVERSITY OF EAST ANGLIA (UEA)

NATURAL ENVIRONMENT RESEARCH COUNCIL (NERC)

This question stores the name of the institution running the survey.
1. Insert vehicle identifier

2. Insert the mission number.

3. Insert type of vehicle
   Choose one of the following answers

   Please choose...
   - Slocum G1 shallow
   - Slocum G1 deep
   - Slocum G2 shallow
   - Slocum G2 deep
   - Seaglider 1000m
   - No answer
4. Insert mission type?

Choose one of the following answers

- Please choose...
- Shelf deployment
- Shelf edge deployment
- Deep ocean deployment

5. How long was the mission in days?

Only numbers may be entered in this field

Please enter the mission travelled time. Use failure time into the mission if the mission was aborted.

6. What was the mission maximum depth in metres?

Only numbers may be entered in this field
4. Insert mission type?

Choose one of the following answers

Please choose...

5. What was the length of the mission in days?

Only numbers may be entered in this field

Please enter the mission travelled time. Use failure time into the mission if the mission was aborted.

6. What was the mission maximum depth in metres?

Only numbers may be entered in this field
7. Did the mission end in failure?

- Yes
- No
- No answer

Please select 'yes' if the mission was aborted, select 'no' if the mission was successful.

10. Did the glider fail initial test dive?

- Yes
- No
- No answer

Please specify whether or not the glider has failed initial test dive.
8. What is the primary cause for the end of mission?
Choose one of the following answers

- 1. Collision with a vessel
- 2. Collision with the seabed
- 3. Collision with nets or other obstacle
- 4. Collision with the seabed
- 5. Leak
- 6. Buoyancy pump failure
- 7. Power/Battery failure
- 8. Command/Control software failure (includes basestation)
- 9. Onboard software failure
- 10. Data logging failure
- 11. Navigation sensor failure - GPS
- 12. Navigation sensor failure - Campass
- 13. Science sensor failure
- 14. Attitude control failure
- 15. Other technical failure
- No answer

Please insert the primary reason for mission failure.
9. Use of acoustic altimeter
Choose one of the following answers

- The bottom was within range of acoustic altimeter
- The bottom was outside range of acoustic altimeter
- No answer

10. Did the glider fail initial test dive?

- Yes
- No
- No answer

Please specify whether or not the glider has failed initial test dive.