

*** The Intent to Compete (500 euro refundable deposit) is due Feb. 26. We must have this as a firm deadline so we can arrange for subsidized accommodations in the vicinity of NURC's facilities. As soon as the number of competitors is known the organizers will arrange for subsidized accommodations and inform the competitors.***

Sent Intent to Compete: ENSIETA

Expressed interest: Universität zu Lübeck, HW, Girona, University of Bath, UWE Bristol, Uni. Southampton, Cambridge AUV, University of Zagreb

Nenad Trifunovic

What about wall survey and 2m> ? Can you elaborate that? What kind of wall survey are we talking about ? Tnx

--- We are talking about the ability of the AUV to maintain a constant stand-off distance from a target that is on its side, for example, a vertical wall that encloses the basin on three sides. The task will be to follow (i.e. maintain a constant standoff of 2 m or less) one and then the other wall of the basin as depicted in Fig. 1. The AUV can use feedback from forward-looking sonar, altimeter, ADCP, video camera, to name just a few sensors.

Francesco Maurelli - We have a few questions about the rules and procedures:

- is the position of the validation gate and of the wall to be followed known and fixed in the map?

--- The approximate location can be found using the GPS coordinates provided.

- we plan to mount a GPS on our new vehicle , as it will be also used for other research projects in the lab. Looking at the rules, it seems it is forbidden. We'd like to point out that a GPS system is useless underwater, as the information doesn't propagate in the water and, if the vehicle surfaces, there is the end of the mission, according to the rules. Would you prefer that we disconnect the device totally? If necessary, we can probably do it before leaving the lab, but we would rather avoid opening the hulls during the competition.... See More

--- The GPS sensor can be used at the beginning of the mission. Once the mission has initiated the vehicle MUST remain fully submerged. Surfacing at any time will result in termination of that mission.

- new vehicle: we are building a completely new vehicle, while in the last two years our entry was a (significant) upgrade of the previous year's vehicles. A new vehicle brings naturally uncertainty on reliability and increase of risk. Can we have the old vehicle as a "spare" vehicle, to be used just in emergency, or should we come with only one vehicle?

--- Sure.

- refundable deposit of 500 EUR: does it mean that we will get the money back when coming at the competition? Can we send a cheque in £ (British Pound)? If you plan to give back the money, would you give us directly the cheque back?

--- The refundable deposit will be paid back to each team by electronic transfer or bankers cheque providing the team arrive to compete in the event with their hardware, as scheduled Hope to see you at the competition. See the Intent to Compete form. Yes, you can send a cheque in £ (British Pound).

- replicating the competition conditions: would be possible to prepare a kind of "kit" for the teams, with all the necessary bits to replicate similar conditions as in the competition (eg the emitting source, the ball with a piece of rope. a piece of pipe...)? The kit could be given to the teams when the deposit arrives and when the team brings back all the stuff, they get their deposit back. We can probably buy/find in the lab whatever we need to replicate similar conditions, but it would be probably more fair with respect to all the teams with different available budgets, to provide a set of standard tools to test with.

--- See the new rules. The equipment deployed is simple, COTS, and inexpensive. The competitors can buy that equipment and practice. You can buy a 2 m long (instead of 20 m), 0.5 m diameter pipe, fishing line, etc. and practice under the realistic conditions. The organizers will not provide these to each team.

- preparation: last year four teams have used a pool in Somerton (UK) for the week before the competition, to test everything and be focused on it. Would be possible for the interested teams to be at NURC also for the week before the official dates for testing purposes or should each team find its own testing place, if needed?

--- The prep time is included since there is a 5 day period prior to the competition this year.

Dear Competition Organisers: I am e-mailing on behalf of the Cambridge AUV team. We plan to enter the SAUC-E competition again this year and are just sorting out the details of the intent to compete form so we will be submitting that within the next week. We have been studying the rules and there a couple of questions about the rules and organisation of the competition that we have and I would be very grateful if you would be able to help us with them.

1) For the log file, how important is the accuracy of the location that the vehicle calculates for itself throughout the mission? Is this critical to get any points from the log file or will we still be able to use it to demonstrating attempting tasks even if our idea of our global location is wrong?

--- The log file and its generation are important for pre-mission and post-mission analysis and its validity is scored. If you have more questions about the log file please contact Yvan Petillot at Y.R.Petillot@hw.ac.uk.

2) How is the edge of the competition area going to be marked if visibility is limited to only 1-2 meters (we won't be able to see any markers on the bottom unless the vehicle is very close to the sea floor)?

--- True. This is the part of the challenge since the competition is held for the first time in salt water with limited visibility.

3) What are the specifications of the rope that will need to be cut to release the buoy? (e.g. will it be nylon/steel/... rope?)

--- Nylon fishing line. Exact diameter will be provided soon.

4) What signal will the pinger transmit (pulse duration and is it a constant frequency output or swept frequency)? If you have a model number or datasheet for the pinger that we could use that would be very useful.

--- Will be provided soon. In a day or two.

5) How strict are the limits on the team size? In previous years many teams have brought more than the stated 10 people and it hasn't caused problems, will it be possible to bring more than 10 people again this year?

--- 10 is the limit for subsidized accommodations that NURC will find. More than that can still come but find accommodations on their own.

6) On the website you mention that information about accommodation will be coming soon. Does this mean you are trying to provide accommodation for us as was done at the SAUC-E '07 and '08 competitions or just that you will advise us of places it would be possible for us to stay at?

--- Subsidized accommodations (i.e. military housing, camp site) but not free.

Thank you very much for all your help and I look forward to receiving your response.

Kind Regards, Simon Calcutt, Cambridge AUV Project Manager

I am Frederic DEVIE from GESMA.

I got in touch by a team that want to compete for the first time: ESIEA at Paris.

They asked me several questions about :

- accommodation

+ will there have any financial participation of the organisation team? --- No

+ will there have a common rest area (camping, hotel, university rest room) not too expensive?

--- Yes. We will find something of that kind. First choice is military housing 5 min from NURC.

+ when will be accommodation paper available?

--- Soon after Feb. 26 as soon as we all interested competitors Intent to Compete.

- environnement;

+ is it possible to have video and sonar data from the test area?

--- NURC will perform the bottom survey and it will be available in March 2010.

+ is there small particles that could disturbed video when vehicle is near the ground?

--- Yes! It is a muddy bottom!

+ what is the bathymetry of the area ?

--- NURC will provide it to the competitors.

- Mission

+ What is the height of the wall, does it touch the ground and sumerge?

--- 5 m. It closed the Bay. It touches the ground.

+ For the circular search what is the pinger for? Will teams have to use it for the circular survey? Can the teams made the survey without the help of the pinger (video,odometry)?

--- Pinger signal is used as the input to the AUV controller for generation of the reference circular trajectory to be followed. The teams can do the survey without the help of the pinger; however, the tracking performance will be better if the pinger signal is used than if the survey is done without aiding of the pinger's signal.

+ do you plan to add some security system above the small boat to avoid damage vehicle when it surfaces?

--- NURC will provide a safety boat with a safety diver.

+ surface above the small boat is dangerous for the vehicle, Why not use a small gate as previously?

--- The idea of this competition was to introduce the concept of two autonomous systems working together in the maritime environment, for example, the AUV and ASV. For the following years the organizers might decide to add the autonomous surface vessel component and, for instance, AUV and ASV working in conjunction.

+ will the vehicle be recovered ot is it necessary to move it back to START1? Can teams uses WIFI to remotly operate the vehicle for recovery?

--- The AUV can be recovered; however, the organizers would prefer if the AUV can be driven to the START 1 and then picked up. Yes, the teams can use WIFI to remotly operate the vehicle for recovery.