

## ECA and CSIP exhibit a range of advanced robotics at Rio Oil and Gas

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ECA will exhibit a powerful hybrid ROV/crawler, the Roving Bat, at Rio Oil and Gas Expo and Conference, alongside their UK subsidiary, CSIP. ECA and CSIP, specialists in advanced robotics and intelligent solutions for defence and civil security, will introduce the Roving Bat, a time-saving, cost efficient and life saving system that inspects the hulls of ships, FPSOs, underwater structures and hydraulic dams. It is also used for security applications, to search and dispose of limpet mines and other explosive, suspect devices attached on ships hulls, harbour walls or piers.

The Roving Bat features 6 built-in thrusters, 2 longitudinal and 4 vertical, making it very powerful and capable of withstanding the strongest of currents for stable and reliable inspection. The ROV reaches its target in free-flying mode and sticks to any vertical or inclined surface. It can then move along this surface in crawling mode for close inspection achieving coverage of up to 20 metres per minute.

Since launching the Roving Bat last year and exhibiting it at a number of exhibitions worldwide, the ROV has caught the attention of the defence and civil security community. Managing Director of CSIP, Simon Gilligan said: "The first company to purchase the Roving Bat was Brazilian oil and gas giant, Petrobras, to discover whether there may be corrosion or lesions on the hull of Floating Production, Storage and Offloading vessels. The Roving Bat has since been upgraded and the new high performance vehicle has recently been released. We are receiving a great number of enquiries from interested parties.

"Rio Oil and Gas is a great opportunity to introduce the Roving Bat to an even wider audience and with CSIP's experts available to talk through the benefits of the Roving Bat, I am sure it will gain great interest at the exhibition."

CSIP will also exhibit the latest generation of the 5 Function Electric Underwater Manipulator Arm, ARM 5 E, featuring new software for 2010. The electric five-function arm performs to the same level as a hydraulic arm, but offers a number of advantages, which include the removal of a pump and valve pack, reducing the weight of the arm. Another main benefit is the improved safety of an electronic arm as it removes the possibility of hydraulic fluid leaking out. The electric motors are brushless and will operate in oil, all the actuator and junction box voids are therefore oil-filled and pressure compensated to 0.4 Bar above ambient, with 7500 metre rated seals.

A keynote of the design is its modularity, allowing new applications to be added easily. Rated for use at depths down to 3000 metres, the new electric arm has a radius of 1.044m reach and a slew of 120° and is constructed of HE30 hard anodised aluminium, 316 stainless steel and nickel aluminium bronze.

ARM 7 H, a seven-function hydraulic manipulator arm will also be exhibited and has recently

been re-designed to enable additional lift power and controllability. Withstanding depths of 7,500 meters, a much deeper rating than any other standard manipulator, and with its flexibility due to the precise pincer device and rotation, the re-engineered ARM 7 H offers its user the precision needed to undertake a number of tasks.

Both the ARM 5 E and ARM 7 H will be in working order at the exhibition, allowing visitors to see the arm's ability and precision.

With the ability to design and manufacture machines that are specific to the needs of its clients, CSIP's experts will be available to discuss bespoke requirements, visit ECA and CSIP at Rio Oil and Gas Expo and Conference.

<http://www.rovworld.com/modules.php?name=News&file=article&sid=4647>