

Hot, cold, dirty, wet, ruggedised laptops

ndura Rugged in the high seas

Sailing a fishing boat from Newlyn in North Cornwall to Melbourne in Australia is no easy feat. Doing it in a 37ft Cornish Lugger built from scratch that must contend with some of the harshest weather conditions on the planet is harder still. This though is exactly what high-seas adventurer Pete Goss MBE has been doing, and he's been updating his daily blog onboard, all thanks to Blazepoint and its ndura Rugged Laptop.

Dubbed by the avid sailor as the "heart of all communications" with the outside world, the ndura Rugged laptop has been with Pete since he began his journey back in October 2008, alongside his 14 year-old son Eliot, his younger brother Andy Goss and brother-in-law Mark Maidment, until they completed their epic journey on March 9.

Goss has been able to update the world on the boat's progress, without fear of the laptop being damaged by salt water, vibration, humidity, harsh temperature or accidental drops, explains James Munger-Styles, Head of Marketing for Blazepoint, who offer rugged mobile computing: "It was a great honour to be in a position to sponsor Pete in yet another voyage. The ndura Rugged laptop is a highly sophisticated piece of equipment that can turn into a tablet if required and has a touch screen. The laptop is also rugged and water resistant, something that we believe was



put to the test during the earlier days of the voyage when the deck opened up above the chart table and dripped salt water on the rugged laptop all night, to no effect."

Although Blazepoint historically provide hardware solutions into the military sector it has recently moved into commercial markets, including the emergency services market with four main products that offer ultra rugged protection from arduous field use.

Adventurer Goss is, naturally, grateful for the high-tech kit, "We are especially grateful to all at Blazepoint for their sponsorship of the Mystery's hull and for providing a rugged laptop. A standard laptop just wouldn't be able to survive in the harsh environments on board, whereas the ndura Rugged laptop will give us crucial access to communications so that the public will be able to share our journey."

Docking station with JLT's new tablet PC

"The key thing about ruggedised tools is they are designed to be rugged from the ground up, not built first and then adapted afterwards."

▶ Mark Muslek, Managing Director, JLT.

Mobile computing company JLT recently launched a new rugged portable tablet PC with an in-vehicle docking station that allows use both in and out of the vehicle. The JLT8404 comes with integrated wireless communications – Bluetooth, WLAN, 3G/GPRS – and GPS for tracking and mapping applications. The latest upgrade of the tablet device from JLT underlines the continued evolution of products in this sector, as Managing Director Mark Muslek explains, "Our products are used regularly by both the police and fire services, both in and out of the vehicles. Generally the fire service use the device in their vehicles while the police like to use it both in and out. By offering a device

that can be fitted in-vehicle – and be removed – so we can offer the best of both for everyone."

The products from JLT have IP67 protection against dust and water, making them as tough as possible. Muslek notes, "The key thing about ruggedised tools is they are designed to be rugged from the ground up, not built first then adapted afterwards."

A key element of rugged tools is the battery life. The trade-off comes between the weight of the battery against its charge life as the larger the battery the more weight it adds to the device. However, continued developments in battery weight and computer-processing efficiency means Muslek believes there will continue to



be improvements in this area too: "By the end of the year I wouldn't be surprised if we have managed to remove almost 300-400g of weight from products by using small batteries on more efficient machines. This could bring the weight down to as low as 1.5 kilos." The batteries used on JLT products are also "hot-swappable", so if the battery is about to expire it will alert the user and allow them to replace it with a new one.

Getac's extra long battery life

Getac is a company who provide a range of products designed for use in the most extreme environments – from the heat and sunlight of the Middle East to the cold of the South Pole. As Julian Willis, Getac Sales Manager explains, rugged tools are now very much the norm for a variety of end-users. "Users like the military, police, coastguards and so on have fast come to realise that normal, commercial products can't cope with the conditions in which they needed them to work. For example, salt-water corrosion is a major issue for the Coastguard, while the military and police need screens that can be seen in bright sunlight and have long battery life. As a result the demand for ruggedised products like ours has gone up significantly. The challenge now is working on improving the ability of these products to make them even more beneficial."

Because the users of these products are often far from a source of instant power increasing the battery life of products like laptops and tablet notebooks is a key concern. Getac has worked to improve battery power in their products, now providing a life of 15 hours, with a view to 18 hours by the end of 2009, and also provide a laptop that can withstand salt-water corrosion. "The B300 has salt/fog resistance that means it can be used anywhere on a ship, by the Coastguard for example, and there is no risk of it being damaged" explains Willis. Indeed the B300 was subjected to rigorous testing on the BBC's The Weather Show where the device was sprayed with salt water on the deck of a ship in rough seas, and still worked perfectly after the ordeal.



The rise of the use of PDAs by the emergency services means there is a growing need for ruggedised versions of these tools too. Getac has launched a new product, the PS535F which is a GPS PDA for use in tough conditions and with relevant in-the-field functions like GPS, an altimeter and an e-compass, as well as safeguards to protect it against frequent drops and exposure to water, dust and extreme temperatures. This has many potential benefits, as Willis notes: "Forest patrols reporting the location and fire hazard conditions to a fire centre is good example of the application for the PS535F as it can provide accurate time and location information and still work in tough conditions."

Getac have also provided the means of setting up night-vision screen or decreasing sun glare effects with a simple switch function.

The B300 Getac laptop with salt/fog resistance and the new PS535 PDA with built-in GPS functionality.

Motorola's three-piece configuration for maximum flexibility

Motorola offer a wide range of rugged tools that are used by a number of emergency service users – including the Fire & Rescue services – to meet the need for in-vehicle terminals that can withstand the rigours of the conditions they will be used in. One of these is the MW810 Mobile Workstation that offers wireless connectivity and computing

for mission-critical applications.

The device is designed with a three-piece configuration – CPU, keyboard, display – that allows mixing and matching of options to suit the user. The CPU (central processing unit) can be mounted inside a vehicle to reduce wiring – or in the trunk to save space. In order to ensure it can withstand tough

working conditions the display is made from tempered glass for safety and durability. As well as this all components are tested in accordance with US Military Standard 810F and other standards for resisting temperature extremes, vibration, shock, humidity, dust, and other hazards of use in harsh conditions.



Dell's first rugged EMEA offering

Dell is to launch a brand new fully rugged laptop, the Latitude E6400 XFR, which has been engineered to meet the needs of customers in the harshest environments. This includes a higher drop specification and dust and moisture protection than any fully-rugged laptop in its class.

It was designed for the military, first responders, oil and gas environments, manufacturing floors, field technicians and homeland security and was

independently tested to more than 13 military standards for operation in challenging environments. The laptop also shares common images and components with the Dell Latitude E6400 laptop for easy integration into existing environments. Lionel Bohar, Head of Notebooks, Dell EMEA said, "Rugged customers have unique needs beyond mainstream business notebooks. With the Latitude E6400 XFR, which marks our first fully rugged laptop offering for the EMEA market, we incorporated innovations on behalf of our customers to create a one-of-a-kind system that offers advanced security, more durability, and exceptional ease-of-use."