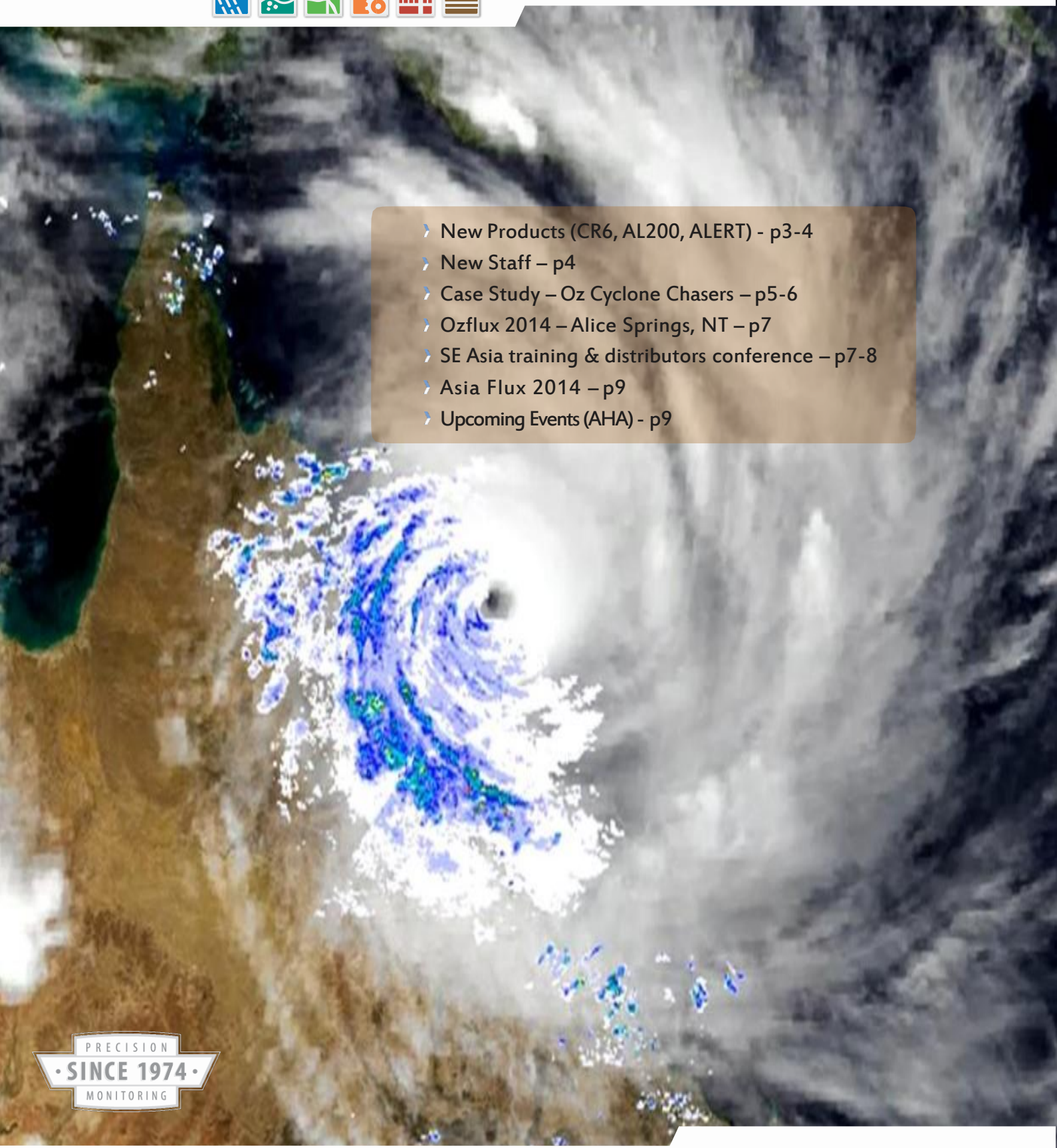
CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

UPDATE

Issue 38
Oct-Dec 2014



PRECISION · SINCE 1974 · MONITORING

Cover Image – Cyclone Yasi Queensland

www.campbellsci.com.au/onlinearchive

Message From Rob

I am pleased to be writing this column as we relaunch our Newsletter.

The Campbell Scientific group has been busy developing a range of products to assist our customers in their measurement needs. This edition highlights several of these products including the latest general purpose datalogger, the CR6.

The CR6 compliments' our existing range and provides significant capability at a competitive price. Over the coming months details regarding training courses and application notes will be made available. Take a minute to visit our website for current detailed CR6 information and specifications already available. We are now accepting orders for delivery to customers in December.

For those of you active in South East Asia we continue to strengthen our distributor network and overall customer support capability in the region. If you require assistance with support for the region please contact Corinne Malot, our CSA application engineer.

Finally Steve Bailey, Gavin Hewitt and myself will be attending the AHA Conference in Sydney from the 28th to 30th October. As Gold sponsors, CSA have been exhibiting for many years now and it's been proven to be a great way to touch base with other key groups working in hydrology applications throughout Australasia. If you're attending please drop by and say hello. This year we will have the latest products on the stand including our flood warning ALERT1/ALERT2 solutions and also a CR6 datalogger to test drive. You'll find us at Stand 3.

Regards

Robert Kurz

Managing Director

Training Course Update

CSA UPCOMING SYDNEY TRAINING COURSES – Last chance for 2014

Need Logger Training?

- **Field Operators Training** – November 17
- **Programming Training Course** – November 18-19
- ~~**Communications Training Course** – November 20-21~~ ***(FULL)***

Register now at : www.campbellsci.com.au to avoid disappointment.

Adding to the CS product family…

New Products

CR6

The multipurpose CR6 is versatile enough for use in many different applications, and is flexible to meet changing requirements. The flexibility comes from Campbell Scientific's new **universal terminals**.

Traditional terminals have been limited to a single sensor-output type; the 12 universal terminals on the CR6 are software configurable for connection to sensors with various output types.

The CR6 provides further flexibility with its ability to perform static vibrating-wire measurements without any additional peripheral.

In addition to flexibility, the CR6 offers high-quality measurements, fast processing speed, and easy wiring, all in a compact size. It also features integrated communication options, onboard microSD memory card storage, internal power management for reduced power consumption, and surge and overvoltage protection.

Typical of Campbell Scientific dataloggers, the CR6 is rugged, for reliable and accurate measurement data—even in harsh, remote environments.

Campbell Scientific's history of developing innovative products began in the 1970s, as one of the first to offer low-power, high-precision dataloggers for use in the field. The company has developed increasingly powerful dataloggers to satisfy customers' measurement needs. To date, Campbell Scientific has manufactured more than 250,000 dataloggers.

Campbell Scientific has a reputation as a worldwide leader in dataloggers, data-acquisition systems, and measurement and control products. To learn more about Campbell Scientific, Inc., or to ask questions of the company's highly trained technical and sales support team, please visit www.campbellsci.com.au.

Learn More Here
campbellsci.com.au/dataloggers

ALERT

Campbell Scientific designs and manufactures ALERT and ALERT2 components. These components can be purchased individually or prewired into a range of station designs. Stations can range from simple ALERT river level monitoring through to hybrid ALERT/ALERT2 stations for customized flood-warning systems.
This includes a turn-key station packaged into traditional ALERT-style canister for standpipe installation. The data loggers at the core of our measurement solutions have been proven over decades in the harshest, most remote conditions. You may install these solutions to complement your existing network of stations, or we can customize a solution for your specific application.

ALERT *(continued…)*

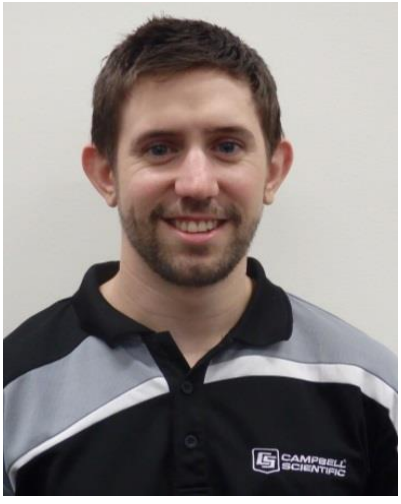
AL200

The AL200 product is a developed by Campbell Scientific to be an ALERT2 encoder and modulator that provides ALERT2 and ALERT concentration services. Due to the continuing popularity of the ALERT protocol in Australia, Campbell Scientific has developed an ALERT firmware option for the AL200.
The AL200 generates the tones, and requires a radio to modulate those tones onto a carrier frequency and transmit them. The CR800/1000 data logger can connect to the AL200 via the CS I/O port, or it can be used as standalone device with a limited number of sensors connected to it.

RDP121A Canister / Enclosure

Campbell Scientific supplies a canister (RDP121A) to Australian specifications. The canister is based on existing canisters (RDP120) currently deployed in the USA, the main differences being pin-outs, and wiring connections to match existing commercially available ALERT systems requiring extra inputs.
In addition to the traditional canister we are able to offer a standard prewired enclosure option. It will contain identical components, and connectors mounted to the bottom of the enclosure.
Requests for custom pin-outs can be accommodated, as can additional equipment, various enclosure sizes and other customised solutions.

New staff – Kahill Mitchell



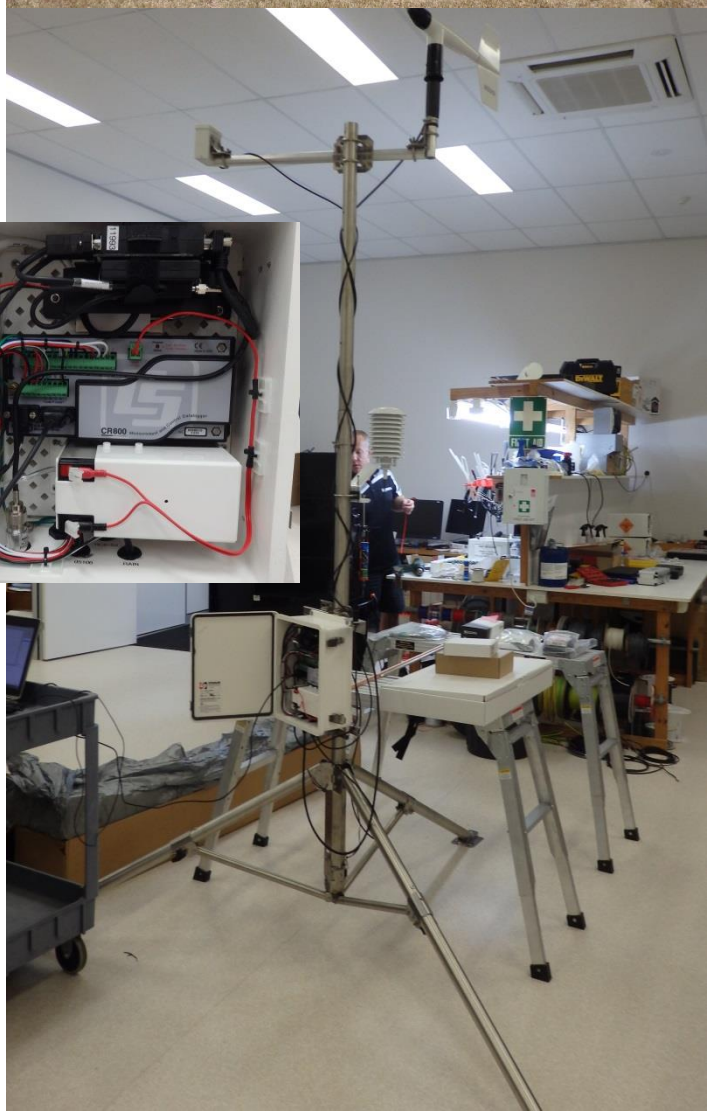
Hailing from a Central West Queensland sheep and cattle station, Kahill Mitchell joined the Application Engineer team at CSA in 2013.

As a graduate Electrical and Electronic Engineer from James Cook University he brings a valuable set of skills and experiences to the team and to our customers.

His area of specialty at CSA is in Hydrology and is able to quickly provide solutions to water quality measurements and sampling with an understanding of applications in the harshest remote Australian environments.

Campbell Scientific Weather Station goes Into the Storm !

Case Study



Campbell Scientific are pleased to announce we are supplying Oz Cyclone Chasers with a quick deploy state-of-the-art weather station with remote communications that aims to provide followers of Oz Cyclone Chasers and severe weather enthusiasts around the world with real-time measurements of wind speed and direction, air temperature, relative humidity, dew point, rainfall and barometric pressure during land falling tropical cyclones in Australia.

During cyclone events, the plan is to have real-time weather data available to view live via the Oz Cyclone Chasers website. The intention is that the data collected from these severe weather events will have real benefits to the wider community, educating people on the dangers posed by severe tropical cyclones and providing valuable data within areas where typically weather observations are very sparse. Dr David Hammond, Application Engineering Manager at Campbell Scientific Australia, said “the ability to collect high quality meteorological measurements from within the most destructive parts of a tropical cyclone provides invaluable data that, when used correctly, will be beneficial to understanding the extreme forces that buildings can be subjected to during these extreme weather events.

Over the past two years Campbell Scientific Australia has worked with the Cyclone Testing Station at James Cook University to develop and supply meteorological stations for the Surface Weather Information Relay and Logging Network (SWIRLNet) project. The station we are supplying to Oz Cyclone Chasers compliments the work we have already been involved with, whilst providing commercial opportunities for both parties.”

<<Quote from Chris Nitso from Oz Cyclone Chasers >>

"*We are very excited to be working with Campbell Scientific Australia to assist our project goals. To date our equipment has struggled to withstand the fury of previous cyclones, and although we have gotten some data from each system we have 'chased'. The data has been unreliable with large sections missing, or obvious errors present.*

Documenting Tropical Cyclones from the surface in real-time is one of the last pieces of the Australian meteorological puzzle. At the moment we rely on these systems to cross over AWS's which in the northern half of the country are few and far between. The key advantage of this new Campbell Scientific system, will be its strength and portability.

The system can be loaded onto a plane and/or vehicle and transported directly into the path of the storm anywhere with road or flight access in Northern Australia. It can then be deployed very quickly and monitored from a safe structural location while it relays real-time data. The system can withstand a sustained wind load of 160km/hr (at the base) without modification and with some modifications we hope it can withstand even higher wind velocities.

Meteorological Data acquisition is only part of the project's aims though, we want to match up the meteorological data with visual data and so to do that we will set up cameras on location to match up the wind velocity data with what is actually happening to man-made structures and the natural environment. This important visual analysis is often missing when the meteorological data is post-analysed. We will share this information and footage with any organisations who could benefit from it.

We aim to also work closely in our future data sharing with the James Cook University's SWIRLNet project. We would like to thank Campbell Scientific Australia, and RM Young for their generous support this coming season and we hope it will be the start of a long-term partnership. "

Rob Kurz, Managing Director at Campbell Scientific Australia, said "being based in Townsville, North Queensland, Campbell Scientific Australia is well aware of the dangers posed by severe tropical cyclones on an annual basis. We recognise the wide reach that Oz Cyclone Chasers have within social media not just within Australia but internationally, and we fully support the work they are doing to enhance research within this field of meteorology."

The system being provided to Oz Cyclone Chasers includes a Campbell Scientific CR800 datalogger, CS106 Barometric Pressure Sensor and CM110 Tripod, an 05106 Wind Monitor kindly donated by RM Young USA, a Rotronics HC2-S3 Air Temperature and Relative Humidity Probe, and a Pronamic rain gauge kindly donated by Pronamic ApS in Denmark.

For further information on the range of meteorological stations available from Campbell Scientific Australia, visit our website www.campbellsci.com.au/meteorology

OzFluz 2014

Alice Springs, Northern Territory Australia

Gavin Hewitt represented CSA at the annual Oz Flux Conference. Oz Flux 2014 was held at the Alice Springs Desert Park. It provided a great location to discuss all things eddy covariance and to hear results of the attendees hard work and research coming to fruition.

Helen Cleugh, the TERN Oz Flux Director stood down from her role at the close of the conference. A long-time member of the Oz Flux community, Helen has played a significant role in the development of flux measurements, research and systems in Australia. She will be missed and CSA wishes her the very best.

SE Asia distributor conference and training

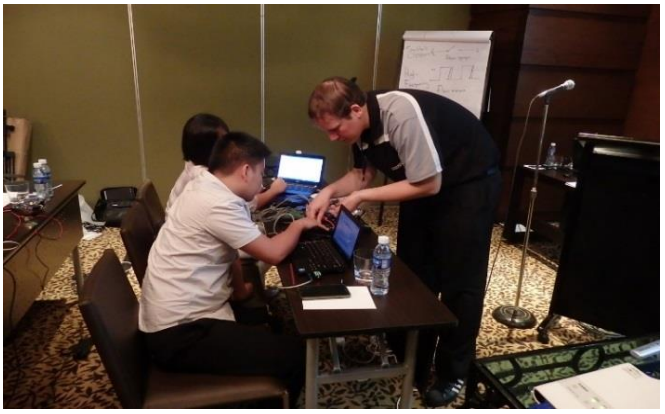
Products training – Gavin Hewitt, CSA with our SE Asian distributors

In August 2014, CSA delivered their first ever SE Asian Conference and Training event in Manila, Philippines.

In the face of our SE Asian region business growing and our number of representatives in the region increasing over the last couple of years, a conference giving the opportunity to discuss business and marketing strategies for the region as well as strengthening the sales and technical knowledge of our distributors was the right step forward to make this region even more successful.

SE Asia distributor conference and training *(continued…)*

Our partners from Indonesia (PT Gistec), Singapore (Wetec), Malaysia (Surechem, GDS Instruments), Thailand (Hua Hong Seng, STS Instruments) and the Philippines (PT Cerna) all attended this week with our Application Engineer head trainer Gavin Hewitt and our SE Asian Coordinator-Application Engineer Manager Corinne Malot.



Hands on technical training for our SE Asian distributors

The content focused on training about Campbell Scientific products, services and programming and shared information on the weaknesses and strengths that each business were encountering for their region aiming at setting strategies to conquer business and strengthen current relationships with the same quality framework that Campbell Scientific has delivered in the past 20 years.

Thanks to the excellent and generous collaboration and contribution of our Philippine distributor hosts PT Cerna, this event has been a real success and all parties involved learned a lot from the experience and from each other. We look forward to organising our next SE Asia distributor conference in the future.

Our SE Asian technical trainees with Gavin Hewitt.

Distributor conference with our SE Asian distributors (L-R) PT Cerna (Allan Pino, Japheth T Achay, Boyet Cruz), Wetec (Lim Mooi Bee, Lim Meng Chieh), PT Gistec (Hari Soepangkat), STS Instruments (Anan Orprayoon), Hua Hong Seng (Jeep Chindavijak) and GDS Instruments (Ang Koh An) and CSA (Gavin Hewitt and Corinne Malot).

AsiaFlux 2014

Los Baños, Philippines

While in the Philippines for our SE Asian Conference and Training, CSA also attended AsiaFlux 2014 at the International Rice Research Institute (IRRI) in Los Baños, Manila, Philippines.

CSA employees Gavin Hewitt and Dr. David Hammond were lucky to be joined by Eddy Covariance expert Sasha Ivans from Campbell Scientific, Inc for this annual event.

CSA organised an Eddy Covariance and Loggernet training course for local IRRI flux students and then attended the 3-day AsiaFlux conference, where they got to meet with flux researchers from SE Asia and Northern Asia.

(L-R) Gavin Hewitt (CSA), Sasha Ivans (CSI) and Dr. David Hammond (CSA) at the AsiaFlux 2014 Conference – August 2014. Philippines.

This was a great opportunity to discuss all the latest research in flux and Eddy Covariance systems for the region and the importance of flux studies for Asian countries.

AHA 2014, Sydney

Upcoming Events

Staff from CSA will be attending the 2014 Australian Hydrographers Association (AHA) conference during the week of 27th October. The conference is to be held at the ANZ stadium in Sydney. If you are in the area, come down and say hello to us at Booth 3 and take a look through all the exhibits.

Gavin Hewitt, Jordan Marano, Rob Kurz and Steve Bailey will be attending and demonstrating new equipment such as the new CR6 datalogger and ALERT 2 hardware.