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26 June 2018

Maintaining and upgrading your ERRTS Network

Due to recent changes with Event Reporting Radio Telemetry System (ERRTS) solution providers, Campbell Scientific Australia felt it necessary to reaffirm our commitment to providing solutions for the Australian Flood Warning industry. ERRTS network owners and operators can rest assured Campbell Scientific Australia remains committed to delivering high quality solutions for all your ERRTS needs now and into the future.

We have made a long term commitment to providing and developing solutions for the Australian flood warning sector, including the transition to the ALERT2™ protocol in Australia.

For over 25 years, Campbell Scientific Australia has continued to be the trusted system provider of choice for critical measurements. Our systems consistently prove capable of delivering reliable, high-quality measurements in some of the harshest conditions in the world. The trusted measurement experts around the world, Campbell Scientific Australia offers quality and reliable products, expert Australian based engineering support and local repairs.

Campbell Scientific's reputation for delivering reliable, high quality systems extends to our Flood Warning solutions. Whether you are maintaining an existing ERRTS / ALERT Network, upgrading the capability of your network, or transitioning your network from ALERT to ALERT2™ – our expert engineers can assist.

The ALERT121A is the foundation of Campbell Scientific's Flood Warning solutions, offering world-renowned quality and reliability. The ALERT121A Field Station features the following benefits:

- Rugged ERRTS-style canister
- Connector pinouts match the de-facto Australian standard making them a drop-in upgrade for existing stations
- Easier upgradeability, repair and maintenance thanks to the simple modular design
- Simple transition from ALERT (Legacy) to ALERT2™ with a simple in-field firmware and program change
- High reliability and quality measurements for your critical data

In addition to the ALERT121A Field Stations, we can provide ALERT (Legacy) and soon to be released ALERT2™ base and repeaters.

Please see attached Frequently Asked Questions and ALERT to ALERT2™ Infographic for more information on our Flood Warning Solutions, or follow the [link](#) to submit an inquiry.

For more information, please contact:

info@campbellsci.com.au | +61 (0)7 4401 7700 | www.campbellsci.com.au

Frequently Asked Questions

What is the difference between ALERT (legacy) and ALERT2™?

In the same way as ALERT (Legacy), ALERT2™ provides critical data during extreme weather events. The advantage of upgrading to ALERT2™ is the ability to have larger networks and greatly reduce data loss. Other key differences include:

- ALERT2™ has faster data rates meaning more efficient use of radio bandwidth
- Flexible payload – supports any data type (not just rain, battery and water level) and allows for future expansion
- Error checking – confirmed delivery and collision avoidance techniques available
- Robust transmission range
- Designed to include migration path from ALERT (Legacy)
- Higher rate of successful data throughput compared to ALERT (Legacy) – see our [Hurricane Harvey](#) case study

What field stations do you currently offer?

Campbell Scientific Australia currently offers three different drop-in replacements for existing flood warning systems, see below. These three variations of the ALERT121A Field Station are the Basic, Standard and Advanced.

1. ALERT121A Basic

The Basic system uses the AL200 modulator and sensor interface, as well as an industry-standard radio. It includes standard circular connectors for sensor and power inputs, as well as a cable gland for additional inputs.

For more information on the ALERT121A Basic follow this link:
<https://www.campbellsci.com.au/alert121a-basic>

2. ALERT121A Standard

The Standard system uses the AL200 modulator and sensor interface, as well as an industry-standard radio like the ALERT121A Basic but also utilises the powerful CR800-Series data logger for more sensors.

For more information on the ALERT121A Standard follow this link:
<https://www.campbellsci.com.au/alert121a-standard>

3. ALERT121A Advanced

The Advanced system uses the AL200 modulator and sensor interface, as well as an industry-standard radio, CR800-Series data logger and also includes a cellular modem.

For more information on the ALERT121A Standard follow this link:
<https://www.campbellsci.com.au/alert121a-advanced>

Find the following comparison of our ALERT121A Field Stations in the table below:

	ALERT121A BASIC	ALERT121A STANDARD	ALERT121A ADVANCED
System Components			
AL200 ALERT2™ Encoder, Modulator, & Sensor Interface	X	X	X
CR800 Measurement & Control Datalogger		X	X
Cellular Modem			X
Measurements			
Precipitation (Rainfall)	X	X	X
Water Level	X	X	X
Temperature	X	X	X
Relative Humidity		X	X
Wind Speed and Direction		X	X
Barometric Pressure		X	X
Solar Radiation		X	X
Other		X	X
Communications			
ALERT Capable	X	X	X
ALERT2™ Capable	X	X	X
Other (e.g. Cellular, Secondary Radio)			X
Other Features			

Field Upgradeable from ALERT to ALERT2™	X	X	X
Connectors Match ELPRO Canister	X	X	X
Up to 26Ahr Battery	X	X	X
Built-in Datalogging		X	X
External Control Functionality		X	X

Custom systems are available. Please contact Campbell Scientific Australia for more details.

Field Repeaters

In addition to our three principal systems we also offer two Field Repeaters. These Field Repeaters are ALERT (Legacy) to ALERT (Legacy) capable repeaters. They utilise a CRBasic implementation of the ALERT (Legacy) and are not field upgradeable to ALERT2™.

	ALERT121A FIELD REPEATER STANDARD	ALERT121A FIELD REPEATER ADVANCED
System Components		
AL200 ALERT2™ Encoder, Modulator, & Sensor Interface		
CR800 Measurement & Control Datalogger	X	X
Cellular Modem		X
Measurements		
Precipitation (Rainfall)	X	X
Water Level	X	X
Temperature	X	X
Relative Humidity	X	X
Wind Speed and Direction	X	X
Barometric Pressure	X	X

Solar Radiation	X	X
Other	X	X
Communications		
ALERT Capable	X	X
ALERT2™ Capable		
Other (e.g. Cellular, Secondary Radio)		X
Other Features		
Field Upgradeable from ALERT to ALERT2™		
Connectors Match ELPRO Canister	X	X
Up to 26Ahr Battery	X	X
Built-in Datalogging	X	X
External Control Functionality	X	X

What Base Station and Repeater do you currently offer?

Currently, Campbell Scientific can provide ALERT (Legacy) repeater and bases for your network. Moving forward, with the anticipated shift to ALERT2™ over time, Campbell Scientific will soon offer ALERT2™ repeater and base. Though uptake of these is likely to be slow at first we anticipate demand to increase. We therefore recommend you discuss in advance your ALERT2™ plans with our application engineers so we can provide a timely solution that best meets your needs and timeframes.

What is your current price list?

Please contact Campbell Scientific Australia on info@campbellsci.com.au or phone +61 (0)7 4401 7700 and one of our application engineers will be happy to assist. It is important to us to understand your needs and match the best available solution.

If I want to replace an existing ERRTS / ALERT (Legacy) canister with a new one, what is the process?

1. Selecting the canister solution you would like from Campbell Scientific Australia. We can help guide you through the selection process for your specific applications.

2. Set the Site ID's, transmission specifications and measurements (these are user configurable settings, which can be pre-configured by Campbell Scientific Australia upon request).
3. If the site sensors uses the de-facto standard pin-outs, the canister can be seamlessly swapped in.

Why should I be thinking about having an upgradeable transmitter for the future?

- Moving forward, base stations and repeaters will begin to support ALERT2™
- Having a network of ALERT (Legacy) devices that are field upgradable will allow an immediate and cost effective approach to taking advantage of the modern ALERT2™ protocol.

How easy is it to upgrade to ALERT2™?

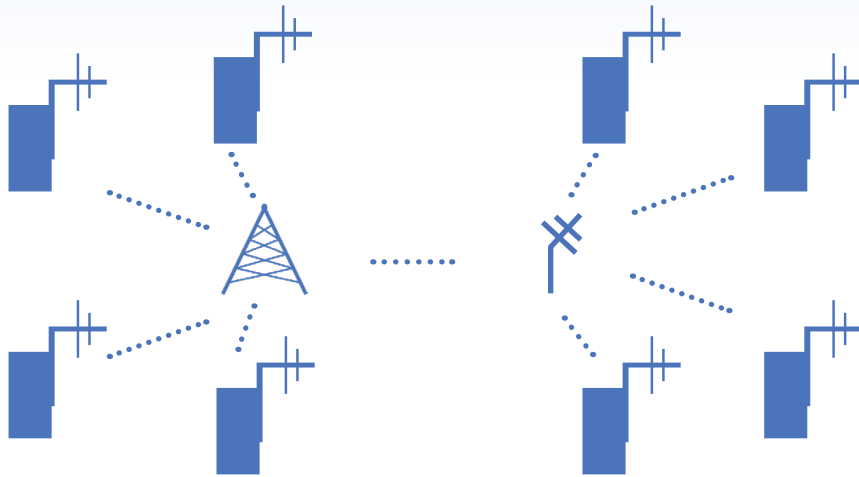
- For our field stations the process generally involves:
 - Upgrading the AL200 from ALERT to ALERT2™ via a simple firmware change
 - Configuring the AL200 for your ALERT2™ network
 - Systems which incorporate a datalogger may require some function changes
- For an entire network please find on the following pages or follow the link for the steps to transitioning to ALERT (Legacy) to ALERT2™ -
<https://s.campbellsci.com/documents/au/miscellaneous/ALERT-Legacy-to-ALERT2.pdf>

Relevant Links:

- [Case Study: Hurricane Harvey Storm-Monitoring Network](#)
- [Case Study: Texas Transitioning to ALERT2™](#)
- [Campbell Scientific Flood Warning Solutions](#)

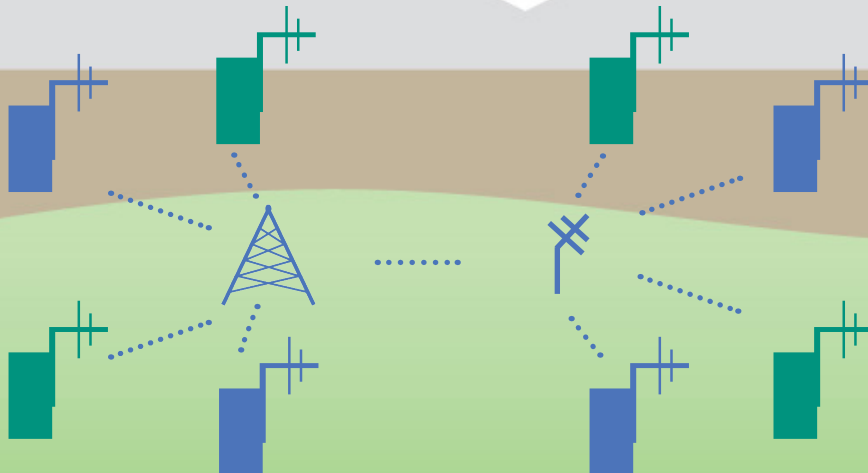
1 Existing ALERT (Legacy) Network

This is what a typical existing flood warning network looks like.












2 ALERT (Legacy) with Option to Upgrade

Our upgradeable field stations can seamlessly fit into your existing network with an easy drop-in replacement system.

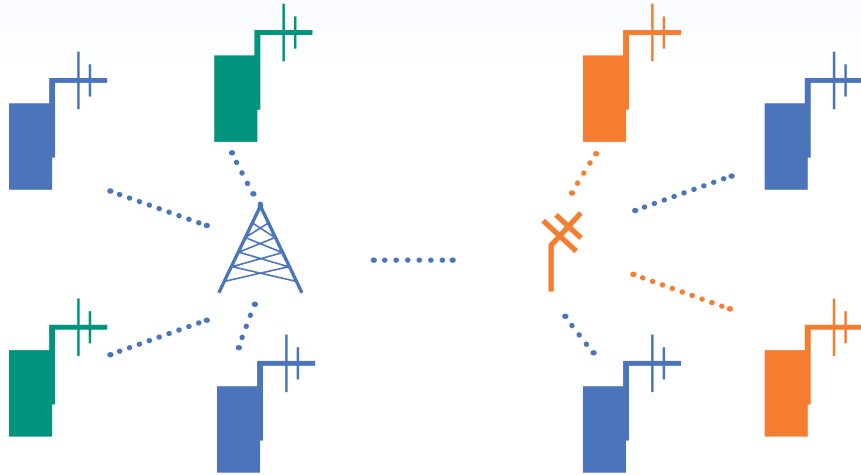


KEY

-  ALERT Field Station
-  ALERT Base Station
-  ALERT Repeater
-  ALERT Path
-  ALERT Field Station (Upgradeable)
-  ALERT2™ Field Station
-  ALERT2™ Base Station
-  ALERT2™ Repeater
-  ALERT2™ Path

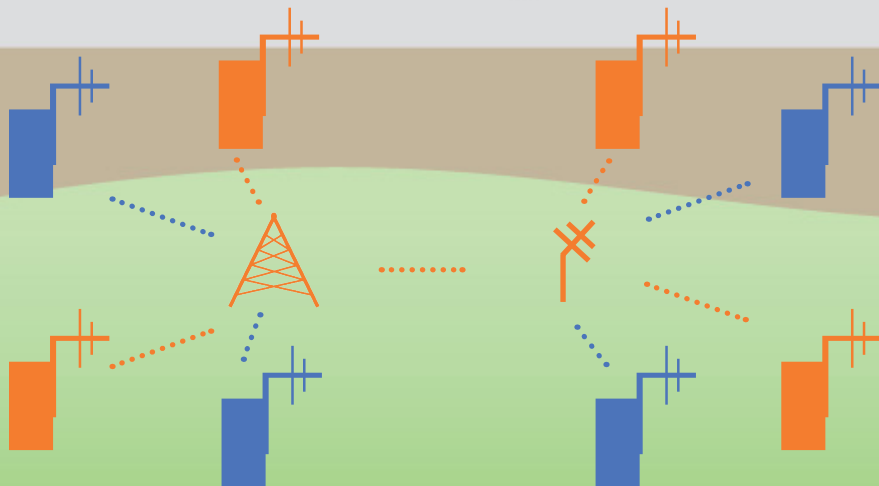
3 Transitioning to ALERT2™

The first stages of transitioning to ALERT2™ is to upgrade the Base station. The Base can still receive ALERT (legacy) and upgradeable field stations that transmit to the base can now utilise ALERT2™.












4 ALERT2™ System

Moving to the second phase of transitioning to ALERT2™ you can upgrade the Repeater. The Repeater can now transmit to the Base using ALERT2™. The Base and Repeater can still receive ALERT (legacy) however all upgradeable field stations can now utilise ALERT2™



KEY

-  ALERT Field Station
-  ALERT Base Station
-  ALERT Repeater
-  ALERT Path
-  ALERT Field Station (Upgradeable)
-  ALERT2™ Field Station
-  ALERT2™ Base Station
-  ALERT2™ Repeater
-  ALERT2™ Path