Indratel Australia Pty Limited
Unit 6, 7 Friesian Close,
Sandgate. NSW 2304
Ph. 02 4967 5955

Indratel Australia has supplied storm warning systems to all major Australian airports, with details of these systems as follows.

The initial systems were supplied to QANTAS for implementation at Sydney, Brisbane, Adelaide & Darwin airports, and at the QANTAS Melbourne Airport maintenance facility (in 2007); and later supplied to Cairns (2011), Gold Coast (2013) & Perth Airports (2016).

Systems typically consist of a Red Lion HMI (touch screen) controlling and monitoring the airports storm warning system from a central location, with Elpro radio telemetry units linking the central location to remote sites.

Other control systems can also be used.
For example, at Perth Airport, the airport PLC & SCADA network controls the storm warning system – with the "central" radio for the storm warning system at a PLC location (airfield lighting control building) communicating to remote siren/strobe location radios.

The storm warning system central control & monitoring unit communicates with Elpro radios installed at multiple remote siren and strobe locations around the airport, to continuously monitor the status of these outstations, and control the sirens & strobes as required.
Note that the storm warning system is designed as a safety warning system (to warn airport staff of approaching thunderstorms and lightning activity); and does not detect lightning.
The storm warning system is typically activated by airport staff (generally at the airport terminal operations centre) based on advice from Bureau of Meteorology (BOM).

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Typical system operating philosophy (and stages) are as follows:

i) "Storm watch" – on days where the BOM has advised the airport of the high probability of thunderstorms, the airport will advise airlines and airport ground staff (through "toolbox" meetings, staff briefings, emails, etc) of the likelihood of operation of the storm warning system that day.

ii) "Storm warning" – if a thunderstorm encroaches within a 10Nm radius of the airport the storm warning system "Storm Warning" phase is activated from the central control & monitoring unit. This will activate a short duration audible alarm (siren) and operation of a white (clear) strobe at all storm warning siren/strobe panel locations around the airport. The white (clear) strobe) will continue to operate until the storm warning system "All clear" or "Cease Operations" is activated.

The storm warning phase is intended as an alert to airport staff (particularly those engaged in close contact with aircraft) to prepare for the possibility of a "Cease operations" if the storm continues to approach airport.
This preparation might include expediting loading or unloading of aircraft (passengers, baggage & freight), fuelling, engineering, catering and other aircraft servicing e.g. water and waste.

iii) "Cease operations" - if the thunderstorm continues to approach, and encroaches within a 5Nm radius of the airport the storm warning system "Cease Operations" phase is activated from the central control & monitoring unit. This will activate continuous operation of the audible alarm (siren) and operation of a blue strobe at all storm warning siren/strobe panel locations around the airport. These will continue to operate until the storm warning system "All clear" or "Storm warning" is activated.
During this phase all activities associated with close contact with aircraft are ceased.

iv) "All clear" – after the thunderstorm starts to recede from the airport vicinity, the storm warning system is selected to "storm warning" as the storm moves beyond the 5Nm radius, and then to "all clear" as the storm moves beyond the 10Nm radius.
When the "All clear" is selected all storm warning system sirens & strobes will cease operation.

Note that it is not unusual for several phases of the storm warning system operation to be activated on days of severe thunderstorm activity i.e. being cycled between "Storm warning" & "Cease operations" as storm cells move in & out of the 10Nm & 5Nm radius of the airport.

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Storm warning system control & monitoring units

The storm warning system central control & monitoring unit not only controls the remote siren and strobes, but also monitors the operating and condition status of these – allowing for appropriate proactive preventative maintenance and for alarm warning of failures, to maximise reliability of system.
SMS alarms can also be generated to warn remote staff of system operation and/or failures.

Typical remote siren strobe panel installations

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Airport	Date supplied	Number of locations	Major equipment used
Sydney	2007	Initially 60 (for QANTAS) then added 40+ (for SACL)	Red Lion G306 HMI – for system control & monitoring Elpro 105U radio telemetry units (on licensed frequency of ~450MHz with 500mW RF output)
Adelaide	2007	25	Red Lion G306 HMI – for system control & monitoring Elpro 105U radio telemetry units (on licensed frequency of ~450MHz with 500mW RF output)
Darwin	2007	4	Red Lion G306 HMI – for system control & monitoring Elpro 105U radio telemetry units (on licensed frequency of ~450MHz with 500mW RF output)
Melbourne	2007	4 (at QANTAS maintenance facility only)	Red Lion G306 HMI – for system control & monitoring Elpro 105U radio telemetry units (on licensed frequency of ~450MHz with 500mW RF output)
Brisbane	2007	Initially 10 (at QANTAS facilities only) then added 20+ (for BACL)	Red Lion G306 HMI – for system control & monitoring Elpro 105U radio telemetry units (on licensed frequency of ~450MHz with 500mW RF output)
Cairns	2011	10	Red Lion G306 HMI – for system control & monitoring Elpro 915U-2 radio telemetry units (in license free 915-928MHz frequency band with 1W RF output)
Gold Coast	2013	11	Red Lion G306 HMI – for system control & monitoring Elpro 915U-2 radio telemetry units (in license free 915-928MHz frequency band with 1W RF output)
Perth	2016	80	Interfaced into airport PLC/SCADA system for control & monitoring, with Red Lion DSP HMI – for remote monitoring. Elpro 915U-2 radio telemetry units (in license free 915-928MHz frequency band with 1W RF output)

In addition to the above storm warning systems, Elpro radio units have been used on other airport infrastructure also e.g. remote pumpstation control and monitoring, high voltage substation monitoring, etc.