PHILIPPINES’ TSUNAMI WARNING SYSTEM

On 26 December 2004 the Indian Ocean Tsunami killed 230,000 people in fourteen countries, and swamped coastal communities with waves up to 30 metres in height. Following this tragic event, the UN set up the Indian Ocean Tsunami Warning System, and although not directly affected by the 2004 disaster, the Philippines have since set up a similar early warning arrangement. Areas on the west coast of the islands, which face the Manila Trench located between The Philippines and Vietnam, are at particular risk and the project is being progressively rolled out from the densely populated coastal towns and cities to the rest of the region, it has been reported.

E2S Warning Signals is a major independent signalling manufacturer based in West London. It designs and manufactures a range of products for industrial, marine and hazardous area environments and on 27 April the company announced its tsunami warning system. This includes detectors, GSM data communications, and relative data programmes for local tsunami emergency warning including the final public-facing element of the system, the widely distributed local tsunami warning stations shown in the accompanying illustration.

These solar powered local tsunami warning stations rely on the E2S Warning Signals, type A121AX Appello, 126 dB(A) output user-recordable alarm horns, which have a 300 metre effective range, to generate the audible alarms to alert the population to an impending emergency. Three units per station, spaced at 120° intervals, ensure all-round audibility, it is understood, and the units are capable of generating warning alert tones followed by recorded messages to ensure that the warning is easily understood. Furthermore, it is understood that in the event of an emergency, people living in the affected coastal areas are given sufficient time to flee their homes and follow designated evacuation paths leading to higher ground.

The A121AX unit can store, in non-volatile permanent memory, up to four minutes (4 x 30 seconds) of user messages, with independent volume controls for the 45 embedded alarm tones and the recorded messages. It operates from a 24 V DC supply and is environmentally sealed to NEMA 4/4X/3R/13 and IP66 electrical manufacturing standards.