

ATI Systems Provides a DSL/IP Based Public Address System for Lajes Field Air Base Wing in Portugal

November 9, 2012

Lajes Field Air Base Wing in Portugal has a new Public Address System designed and configured by ATI Systems. It provides audible alerting throughout the base with the security of redundant control stations and using existing copper wiring networks. The system consists of two Control Stations, and 22 Indoor Speaker Units (ISU) controlling over 290 low voltage speakers and 70 strobes. ATI worked in conjunction with Globaleda, Portugal, to install the project.

The new IP-based public address system covers the indoor areas of the base. The system includes visual strobe alerts, audio tone alerts plus live public address. The system has two control stations, each of which monitors and controls the whole system.

ATI's design solution uses a modern architecture with distributed decentralized amplifiers built into IP addressable remote field units that can be activated individually, in groups, or all at once. The solution uses ATI's Control Stations for system control, monitoring, live PA, diagnostics and reporting for the entire system.

Overall Design Concept is using two ATI Central Control Stations and 24 of our Indoor Speaker Units, all connected through a DSL-based IP backbone to a central DSL switch (DSLAM) using existing copper wiring, and a number of wired speakers connected to each ISU. Each Control Station and ISU has a built-in DSL modem that connects to its internal controller via Ethernet. Future upgradeability to fiber exists because each unit has a standard Ethernet RJ45 connector, and can use fiber with the addition of a fiber converter at each unit once a fiber backbone is in place.

For indoor speaker coverage, the ISU is equipped with a 400 watt (peak) amplifier that is used to drive multiple low-powered speakers, plus a local control panel.



ATI Systems' ISU installed at Lajes Field AFB

Security and redundancy were designed into the public address system at every level. For system control, there are two [ATI Control Stations](#). The two control stations are functionally identical so that if there is a problem at either one of them the other can take over and control the entire public address system. Each can communicate with all of the remote units of the system, as well as each other, to conduct polling, silent tests, alarm tone activations, pre-recorded messages, and live voice broadcasts. The status of the plant communication system is continuously monitored and includes: backup battery and AC power status, cabinet intrusion, speaker status as well as success or failure of the latest activation or test. Each control station includes an [ATI Communication Control Unit](#), a computer running ATI's MassAlert® software and a noise-cancelling microphone for live public address announcements.

ATI's proprietary [MassAlert®](#) software provides a user friendly interface which is simple, intuitive and easy to use even in the most stressful emergency situations. It includes both menu driven functions and a Graphical User Interface (GUI) based on refinery specific customized maps with icons to show the location and status of the individual components of the outdoor and indoor warning system. System activation can be easily controlled from the MassAlert® software. Activations can consist of tones and pre-recorded messages, or live audio messages delivered through the noise cancelling microphone. During and after an activation, the software receives and displays the success or failure code from each remote unit being activated.



One of the two Control Stations installed at the base

The 65th Air Base Wing is the American unit stationed at Lajes Field, Azores, Portugal. This United States Air Forces in Europe unit is the largest U.S. military organization in the Azores. The 65th Air Base Wing enables the expeditionary movement of warfighters, warplanes, and global communications to combatant commanders; supports joint, Coalition, and NATO operations; and promotes regional partnerships.

The wing provides base and en route support for Department of Defense, allied nations and other authorized aircraft transiting the installation. Aircraft supported by the wing come from various nations, including the Netherlands, Belgium, Canada, France, Italy, Colombia, Germany, Venezuela and Great Britain. In addition to the wing, other units at Lajes Field include U.S. Army Military Traffic Management Command's 1324th Military Port Command, Air Mobility Command's 729th Air Mobility Support Squadron, Detachment 6 of the Air Force News Agency, Det. 250 Air Force Office of Special Investigations, Defense Reutilization and Marketing Office and the Defense Commissary Agency.

About ATI Systems

Founded in 1981, ATI Systems (Acoustic Technology, Inc.) designs, manufactures, and installs dependable emergency warning and notification systems. ATI's advanced technology is currently protecting military bases, industrial facilities, campuses, and communities worldwide, with an innovative and flexible wireless or wired system that reliably provides audible and visual warning messages. The systems utilize a compact hardware design, user-friendly software, and the latest advances in communication methods, including radio frequency, IP Ethernet, and satellite technology. Through product design enhanced by years of experience in acoustic modeling, ATI Systems' products provide exceptional sound coverage and voice intelligibility in both outdoor and indoor settings. Their systems can be found throughout North America, Europe, the Middle East, and Asia. To learn more about ATI Systems, visit <http://atisystem.com>.