IED HAS THE RIGHT STUFF
FOR THE KENNEDY SPACE CENTER

From Alan Shepard's liftoff in the Freedom 7 Mercury space capsule four decades ago to the most recent launch of one of the Space Shuttles, the John F. Kennedy Space Center (KSC) has been America's link to space. It has hosted the numerous triumphs – and, sadly, the tragedies as well – that were among the technological and explorative hallmarks of the last century, and will continue to be the nation's most noted launch pad well into the new one.

A single launch requires months of planning and preparation, not to mention the massive task of moving the readied vehicle to the launch pad. As the technicians prepare the vehicle for its journey, clear audio communication – whether it is a page or an announcement or emergency notification – is essential. Keeping that communications system working is an absolute must. That's why, when the Kennedy Space Center needed a clear and powerful audio system to communicate to the launch pads, they chose a system from the world leader in audio communications management: Innovative Electronic Designs, Inc.

THE FACILITY

"America's gateway to the universe," as the KSC is known, is located on about 140,000 acres of land between Jacksonville and Melbourne on the Atlantic Coast of Florida. It is 35 miles long from north to south and spans 10 miles at its widest point. There are 10 launch pads (two for Space Shuttles, the rest for expendable launch vehicles), 19 buildings, forty miles of railroad track, and several miles of roadway connecting all of it. It also contains the Cape Canaveral Air Force Station, home base of the 45th Space Wing division of the U.S. Air Force Space Command.

THE SYSTEM

Currently in use at Launch Pads 39A and 39B, clear public address and emergency communication comes from three products from Innovative Electronic Designs, Inc.: the 8000 Series Totally Integrated Processing System (TIPS), the 5000 Series audio processing system, and the 6000 Series power amplifiers. Each of the components has its individual functions: the 8000 TIPS are for announcement routing and system diagnostic, the 5000 acts as an interface to the audio network, and the 6000 provide amplification.

The IED equipment at KSC is used in a dual redundant audio network system that provides paging and broadcasting of emergency tones. The dual redundancy is obviously important so that if one system malfunctions, the other can continue working. But because the system gets its most use while the shuttle is being fueled on the launch pad, that redundancy helps ensure the safety of pad technicians.

Another portion of the system also makes sure announcements and emergency notifications always get through clearly. IED's Monitor/Test system is a software package that allows you to thoroughly test the integrity of an entire audio system, from microphone stations to, and including, the speakers. It also allows you to listen to all tested parts of the system. Residing on the 8000 Series mainframe, Monitor/Test for the KSC checks the integrity of all components and adds a further level of operational insurance for the entire system.

Since the audio signals need to be heard clearly in such a large outdoor facility that is spread over several acres, and up to speakers that are mounted nearly 300 feet above the ground, there needs to be power behind them. IED's 6000 Series Power Amplifiers provide that power. Known for its compact design, efficiency (through its Class D design), and reliability, the 6000 Series also embodies a speaker protection circuit that provides peak signal limiting to prevent overvoltage spikes. It is yet another feature that keeps the entire system functional "from speaker to speaker."

The technicians and engineers at the KSC have a mission to maintain a safe environment so they can prepare America's manned launch vehicles. IED's system helps them in that mssion with clear audio communication that is always available.

IED'S CONTROL SYSTEM AT THE KENNEDY SPACE CENTER:

- Three state-of-the-art IED systems in a double-redundant network

- Continuous system diagnostics through IED's Monitor/Test System

- Powerful amplifiers with limiters to prevent signal spiking

- Quality sound from the leader in audio systems management