Emergency Communications Console

NASA has applied its communications equipment expertise to development of a communications console that provides, in a compact package only slightly larger than an electric typewriter, all the emergency medical services communications functions needed for a regional hospital. A prototype unit, built by Johnson Space Center, has been installed in the Odessa (Texas) Medical Center Hospital. The hospital is the medical control center for the 17-county Permian Basin Emergency Medical System in west Texas.

The console project originated in response to a request to NASA from the Texas governor's office, which sought a better way of providing emergency medical care in rural areas. Because ambulance travel time is frequently long in remote areas of west Texas, it is important that treatment begin at the scene of the emergency rather than at the hospital emergency room. A radio and telephone system linking ambulance emergency technicians and hospital staff makes this possible. But earlier equipment was complex, requiring specialized operators. A highly reliable system was needed to minimize breakdowns and provide controls of utmost simplicity, so that the system could be operated by physicians and nurses rather than by communications specialists.

The resulting console has both radio and telephone sections. With the radio equipment, hospital personnel can communicate with ambulance drivers and paramedics, receive incoming electrocardiagrams, consult with other hospitals, page hospital staff and set up a radio-to-telephone "patch." The telephone portion of the system includes a hotline from the Permian Basin Emergency Medical Service's resource control center, an automatic dialer for contacting special care facilities in the Permian Basin network, a hospital intercom terminal and a means of relaying cardioscope displays and other data between hospitals. The integrated system also provides links with local disaster and civil defense organizations and with emergency "Dial 911" control points.