

REMARKS BY
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SATELLITE PRESENTATION CEREMONY
TRANSFERRING SCORE AND COURIER SATELLITES
TO THE
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Over the past century the U. S. Army has established a proud pioneering record in science and technology. Its energetic and imaginative drive for progress has resulted in numerous significant achievements. Primarily, and properly, the Army's efforts have been aimed at strengthening our defense posture, but they also have made many contributions that bettered civilian life and enhanced our world prestige.

Today we are here to commemorate two major technological achievements that were important, scientific milestones, and to present to the Smithsonian Institution the historic equipment that will preserve them for posterity. The pioneering achievements are projects SCORE and COURIER, with which the United States Army first demonstrated to the world the feasibility and practicability of global communications via artificial satellites.

Ten years ago the Army was fully aware of the developing space age, and its unique rocket and missile capability placed it in the forefront of efforts to launch globe-girdling satellites. And at that time the Army was already giving much thought to the practical uses - - both military and civilian -- of space vehicles once they became available.

A multitude of scientific uses were foreseen for satellites and many of these have already been implemented, contributing much to our geophysical and space knowledge. Some practical applications were obvious, among them meteorology, mapping, navigational aids and communications. Of these only communications did not, at that point in time, require development of new and controversial concepts and disciplines. Some other uses are still the subject of controversy, even though many aims have been achieved. But with communications it was a clear-cut-case--either they would work or they would not. If they did, satellites could be of tremendous importance in global communications. We all know they worked, and I might add parenthetically that we had suspected they would ever since the Army at Fort Monmouth had bounced radar signals off the moon in January of 1946. We knew then that space communications were feasible.

For these reasons the Army made space communications its first target in satellite use.

Early plans for satellite communications had already been worked out in 1955, but launching difficulties and weight limitations prohibited their implementation. Then, early in 1958, the Commanding General of the Electronics Laboratories at Fort Monmouth -- at that time it was Brigadier General Earle F. Cook -- received a telephone call from the Defense Department's Advanced Research Projects Agency in the Pentagon.

The call was a simple question: "What could you do for a satellite communications equipment if we gave you 40 pounds on the satellite and allowed you 60 days to build it?"

General Cook's answer for the Army Labs was that it could be done, and while they got a little more time because of slippage in the launching vehicle schedule, the job was finished in a timely manner. The Laboratories did this in secrecy so great that some Division Directors were not sure what their own men were actually doing on this special detail. On December 18, 1958 Project SCORE -- Signal Communications via Orbiting Relay Equipment -- was successfully launched, giving the world its first communications satellite.

SCORE carried to the world President Eisenhower's Christmas message, and through the 13 days of its battery life it proved through 78 tests of voice and teletypewriter communications the great potential of satellite communications.

I am proud on behalf of the U. S. Army, to transfer to the Smithsonian Institution at this time an exact duplicate of the SCORE satellite-borne electronics equipment, built by the Fort Monmouth Laboratories, with assistance from Radio Corporation of America. This particular equipment was made as a backup should one of the original sets have failed before the missile left the launching pad.

A little less than two years later, on October 4, 1960, COURIER 1B, representing the next generation of Army communications satellites, was successfully placed into orbit by the U. S. Air Force. Compared with SCORE, COURIER was a communications giant. Both were able to communicate between appropriate stations in real time -- the way we talk over the telephone -- and also in "store and forward". That is, information received at one station was stored on tape and then released at another station.

While SCORE was able to deliver only 2800 stored words to a ground station, the giant memory of COURIER could handle more than 360,000 words, the contents of a good-sized novel. It could also relay excellent quality facsimile copy. Tests conducted over a life period of several weeks with this remarkable bit of electronics achievement provided invaluable experience for the future of satellite communications.

The backup model of the COURIER satellite built in 1960 for the Army by Philco Corporation under the technical guidance and supervision of the Army's Electronics Laboratories at Fort Monmouth is with the same pride turned over to the Smithsonian collection.

Since the time of SCORE and COURIER, satellite communications have made great strides. NASA's Echo and Relay satellites, Telstar, and particularly the amazing performance of the NASA Syncom satellite have demonstrated that worldwide communications of every mode - voice, teletype, facsimile and television - for both military and civilian uses are within technological and economic reach. The U. S. Government has made bold and rapid steps to implement these capabilities through the combined efforts of private enterprise - the Communications Satellite Corporation, NASA and military communications agencies.

We in the Army are proud to have provided the pioneering groundwork for this technological marvel and to have the historical evidence displayed in this, one of the nations' most distinguished archives.