

I reported to you last year that Ambassador Cleveland proposed to NATO a program similar to the United Kingdom program, financed by NATO, to provide operational satellite communications for that organization. NATO has recently accepted this offer and work is now underway to procure two SKYNET-type satellites for NATO use. The first launch is planned for late 1969. As in the United Kingdom program, NATO nations will provide their own terminals. In this case, however, the United States will control the satellite. In each of these cases two satellites are being procured to provide a high assurance that one will be successfully placed in a fixed position above the equator.

Our third international effort is the cooperative R. & D. program on tactical applications of satellite communications. I reported last year that we were negotiating with six NATO countries to establish a joint program. I am pleased to report that the United States and the six countries signed a memorandum of understanding last November, establishing a joint testing program utilizing the LES-5 experimental satellite. This program is progressing smoothly.

I would like to turn now to our plans for the next phase of the Defense Satellite Communications System. We have recently decided that we will, after consultation with the Congress, procure several advanced satellites and place some of these in synchronous equatorial orbits several new satellites by late 1970 or early 1971. These satellites are to be equipped with so-called earth coverage antennas which direct most of their radiated power toward the earth so as to cover fairly uniformly that portion of the earth visible to the satellite. They are further to be equipped with narrow-beam antennas which direct most of their radiated energy into a very narrow beam which illuminates an area of the earth's surface 1 to 2,000 miles in diameter, and these antennas are to be steerable, so that the beams may be directed toward any selected area of the earth's surface which is visible to the satellite. The satellites are to be positioned above the equator so that most of the earth's surface will be visible to at least one of the satellites at all times. Each satellite will be capable of providing hundreds of voice channels over the portion of the earth that is visible to it, and additional hundreds of channels within the much smaller area illuminated by the narrow beams.

In addition we have decided to program for roughly twice as many terminals, and to initiate development of certain new types of terminals. We have left for later decision the possibility of still more extensive terminal procurements.

Procurement of the new synchronous satellites and development of the new terminal types will be initiated in fiscal year 1969: All other major expenditures will take place in fiscal year 1970 or later.

This next phase of the Defense Satellite Communications System will enable us to provide many times as many channels for unique and vital military needs as are provided by the IDCSP. The concentration of radiated power provided by the narrow beams will enable us to establish these channels to the terminals with smaller antennas which are highly transportable.

Thus we will have the capability, should the urgent need arise, to deploy terminals quickly into a new theater of operations and establish vital communication links into the theater and within the