

that will be required by the DCS across the Atlantic. However, our future planning is directed toward meeting about one-third of the DCS needs by military and two-thirds by lease of circuits in the commercial cable and satellite systems. To this end, we view with interest the recent FCC decision to authorize the new TAT-V submarine cable from North America to Spain and Italy, and will take advantage of the increased diversification by the system.

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PROGRESS IN IDCSP

Mr. ROBACK. Continue.

General KLOCKO. When General Starbird appeared before this committee last July he described the status of the IDCSP and the planning for the follow-on system. I shall update you on progress made during the past year while trying to avoid repeating information already presented to the committee. I shall cover briefly the following subjects:

(a) First, the status of the satellites and ground terminals of the IDCSP.

(b) Second, the operational experience gained during the past year, and

(c) Third, our planning for the future.

At the time of our appearance last year, we had just completed the third successful launch and had 17 functioning IDCSP satellites in orbit. I am pleased to be able to report that all of those satellites are still functioning. In fact the only satellite that was indicated last year as not operating satisfactorily after launch came back to life and provided some operational capability until May of this year. At that time it was once again listed as unstable. During this period, four satellites have switched to the redundant traveling wave-tube amplifiers. There are now five satellites operating on the backup amplifiers.

Mr. HOLIFIELD. What does that mean?

Mr. COHEN. We have two traveling wave-tube amplifiers in the final output power stage of the satellite. They are redundant. We use one at a time.

Mr. HOLIFIELD. These are the secondary or reserve that ordinarily were used if the first ones go out?

Mr. COHEN. That is right; there is a one-time switch. When it senses a failure in the system it switches to the backup traveling-wave-tube amplifier and will never switch back. We don't know whether the failures were traveling-wave-tube amplifiers or failures someplace in the redundant switching. We feel that most of these amplifiers switched because the one time switch failed and not the traveling wave tube.

Mr. ROBACK. These might limit the life of the satellite conceivably?

Mr. COHEN. Conceivably they could.

General KLOCKO. Once again we come to this committee immediately after a successful launch. On last Thursday, June 13, another payload of eight IDCSP satellites was successfully launched and placed into orbit by the Air Force aboard a Titan IIIC. These satellites are now gradually separating in space and will soon begin to take up some of the load from the older satellites. We, therefore, now have a total of 25 functioning satellites in orbit.