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# Electronics Newsletter

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with individual power amplifiers, and diode-switching would key the proper feeds. Gain would be about 34 db.

NASA spokesmen say there's room in the fiscal 1970 budget request for pertinent study contracts and add that while the system would be an inexpensive phased-array simulator for future communications satellite programs, **the three-feed dish could be cost-effective in commercial applications.**

## Response heavy to ATC satellite study request

Plenty of industry interest is being stirred up in air traffic control satellites. The latest evidence: NASA's Electronics Research Center got more than 40 letters of interest in response to word of a "very modestly funded" study on satellite techniques for air traffic control. And 38 requests for proposals have been sent out, with responses due Oct. 25. Contracts are to be awarded late next month.

The single six-month study is slated to investigate the concept and implementation of satellite-controlled traffic. "There's still a question about satellite ATC in domestic environments, and we want this study to provide a rationale for either pushing or dropping the effort," says a NASA spokesman. Another spokesman says industry may envision a significant commitment to satellite ATC in the 1975-1985 period and wants an early position in the planning stage. Unfortunately, he adds, there's no such commitment yet.

## Hall keyboards having problems

Honeywell-Micro Switch's Hall-effect keyboards [*Electronics*, Sept. 16, 1968, p. 169] are disappointing some users. "We got our first six, and all failed," says one customer. The failures seem to center on the temperature sensitivity of Hall-effect devices, he says, and other circuits like the IC strobe control—sometimes strobing stops without warning. **Also, simple workmanship errors and intermittent open or short circuits appear, only to defy troubleshooting.**

Some trouble seems associated with flexible flat cables connecting the keyboards circuit boards; other users say the circuit boards themselves don't hold up—an allegation Honeywell denies, saying the p-c boards are of mil-spec quality fiberglass. **Honeywell lays other errors, such as improper coding, to improper customer specification—but customers say the keyboards encode properly on delivery and fail soon afterward.**

Meanwhile, perhaps to solve some of these problems, **Honeywell is changing to redesigned MOS IC's**, and also expects to save users an estimated \$20-per-keyboard worth of coding electronics by packing more circuit functions on the MOS Hall-effect chip.

## Comsat gripe cuts off cable talks

The Communications Satellite Corp. has won a battle from AT&T in the satellite vs. cable war. **The victory: an FCC order to AT&T to stop negotiating for new undersea cables.**

A strong, though diplomatic, letter from Comsat chairman James McCormack triggered the order. **McCormack pointed out that the FCC's cable-satellite inquiry was being prejudiced by AT&T talks with French and Hawaiian phone companies for 720-circuit cables, and with the British for an 1,800-circuit link.** Furthermore, wrote the Comsat chairman, new international cable negotiations are a form of leverage for AT&T, and they could embarrass the U.S. if terminated.