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November/December 1980
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The Journal of the Radio Amateur Space Program



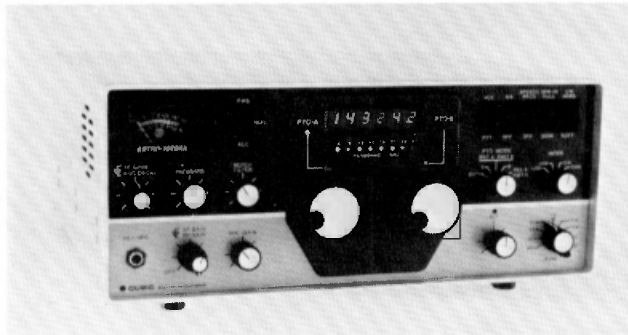
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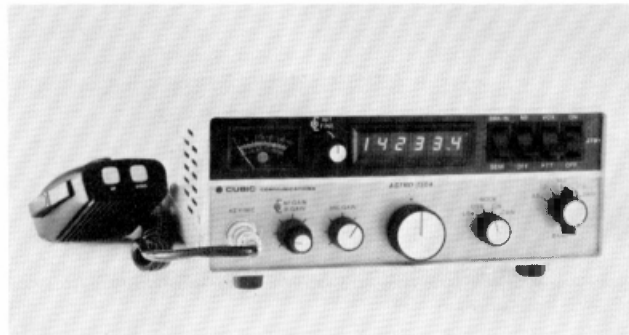
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Volume 1 Number 4

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Editorial Office: 850 Sligo Ave., Silver Spring, MD 20910.

Telephone: 301 589-6062

Advertising Office: 221 Long Swamp Road, Wolcott, CT 06716

AMSAT: P.O. Box 27, Washington, DC 20044.

*Chairman

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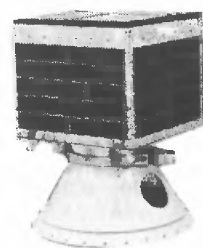
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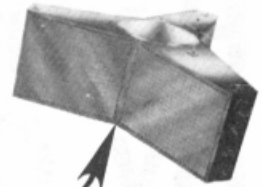
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OFF THE PAD

An Editorial By Joe Kasser, G3ZCZ *



Computerizing Amateur Radio:

This issue of *ORBIT* includes a number of articles featuring microcomputers and digital techniques. For the last few years, AMSAT has been pioneering the applications of microcomputers to Amateur Radio. The Phase III spacecraft is itself designed around a microcomputer and automated telemetry tracking and command stations have been in use since the 8008 first became available five years ago. A full blown microcomputer project 'the AMSAT-GOLEM-80' was developed to allow anyone to build an S-100 system suitable for use in the amateur radio station and in the Phase III environment. UOSAT, to be launched later next year will also carry an on-board microcomputer and will send back data in digital format, designed for computer processing. Automated ground stations using AMSAT-GOLEM-80 project developed hardware and software can make your regular operating (conventional and satellite) much easier. Computers perform dull repetitive chores with the same degree of enthusiasm as they perform a highly sophisticated interesting project. Thus, passing satellites can be tracked automatically or RTTY QSO's can be held almost automatically. The computer can call CQ, establish a QSO and send your brag tape even before it alerts you to the fact that a QSO is in progress. The day is not too far away when contests will be worked automatically.

Digital and Packet radio networks are ideal for use in the satellite environment. A message can be input to the network and will be delivered with the minimum amount of delay. WA2LQQ wrote an interesting piece about it in *ORBIT* #1. His article is fiction this year but will be fact before too long.

In the general area of Amateur Radio microprocessors are appearing built into transceivers both at hf and at vhf. Their usefulness and low cost ensures that they are here to stay. Their uses are limited only by the imagination of their owners. At vhf, openings can be detected by programming the scanning receiver to tune for different beacons. At hf, remote control, and other techniques become simple.

Just as the NASA space program would not have been able to land men on the moon without computers, there is no future in the Radio Amateur Space Program without microcomputers, and as *ORBIT* Magazine is the Journal of the Radio Amateur Space Program, it will cover all its aspects, including microcomputers. *ORBIT* however will not become a computer magazine. Computers are only one facet of the Radio Amateur Space Program and will be treated as such in these pages.

A New Amateur Band:

Do you know that the AMSAT Phase III Program is designed to bring you a new world wide DX/local amateur band via communications satellite. This new band will be scarcely affected by the ionosphere, so that unlike the current hf bands or the three new bands we gained at WARC-79, propagation via this band will be 100 per cent predictable. For the first time, the technology used to provide the reliability, predictability and ease of use of a two-meter repeater will be applied to provide world wide coverage. The AMSAT Phase IIIB satellite will be capable of providing repeater quality contacts to all stations within its range, be they local to you, or DX ..up to half way around the world. There will be no skip zones in this new satellite communications band: for example, stations in New York, New Jersey, London, Paris, Tel Aviv, Moscow and Tokyo will be able to hold a round table QSO. The potential for nets, Jamboree-on-the-air, RTTY and computer, emergency and public service communications is tremendous.

You owe it to yourself to be informed about this new band. The new band almost 'happened' last May but the launch vehicle malfunctioned and the Phase IIIA satellite did not achieve orbit. Our replacement Phase IIIB satellite is a million dollar undertaking. We are going full steam ahead secure in the knowledge that we can do our part to make the new band happen following the successful launch of Phase IIIB. If you are not already a member of AMSAT why don't you join and receive regular news as to the status of the Phase III Program and AMSAT's other projects right here in *ORBIT* Magazine. We still have two working communications satellites in orbit (AMSAT-OSCAR's 7 and 8) and are building 'a satellite for Science,' UOSAT, due for launch in the fall of 1981. At this time it is planned that it will carry scientific experiments as well as a slow-scan television (SSTV) camera. This satellite will be ideal for use in classrooms all over the world for live demonstrations of various aspects of space research.

*Editor, *ORBIT* Magazine