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NASA TECH BRIEF

Automatic Telemetry Checkout System

Telemetry checkout has been conventionally performed by manually operated ground stations in the past. However, with the increasingly large number of measurements that must be made on space vehicles, it has become necessary to automate these tests.

A telemetry checkout station has been designed to automatically perform many measurements on the vehicle telemetry links. Its unique features include real-time digitizing and computer controlled station setup, data processing, and self-check.

Standard telemetry equipment is used to receive, demodulate, and process the various signals. Continuous and time-multiplexed signals from discriminators are automatically digitized and assembled into a predetermined time slot. Each word of the constructed wavetrain is scaled and calibrated using stored calibration values. The data is outputted to the launch vehicle checkout equipment for final evaluation.

The telemetry checkout station can handle a wide variety of automatic tests merely by changing its computer programs.

Note:

Inquiries concerning this innovation may be directed to:

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Reference: B67-10402

Patent status:

No patent action is contemplated by NASA.

Source: Wendell V. George
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