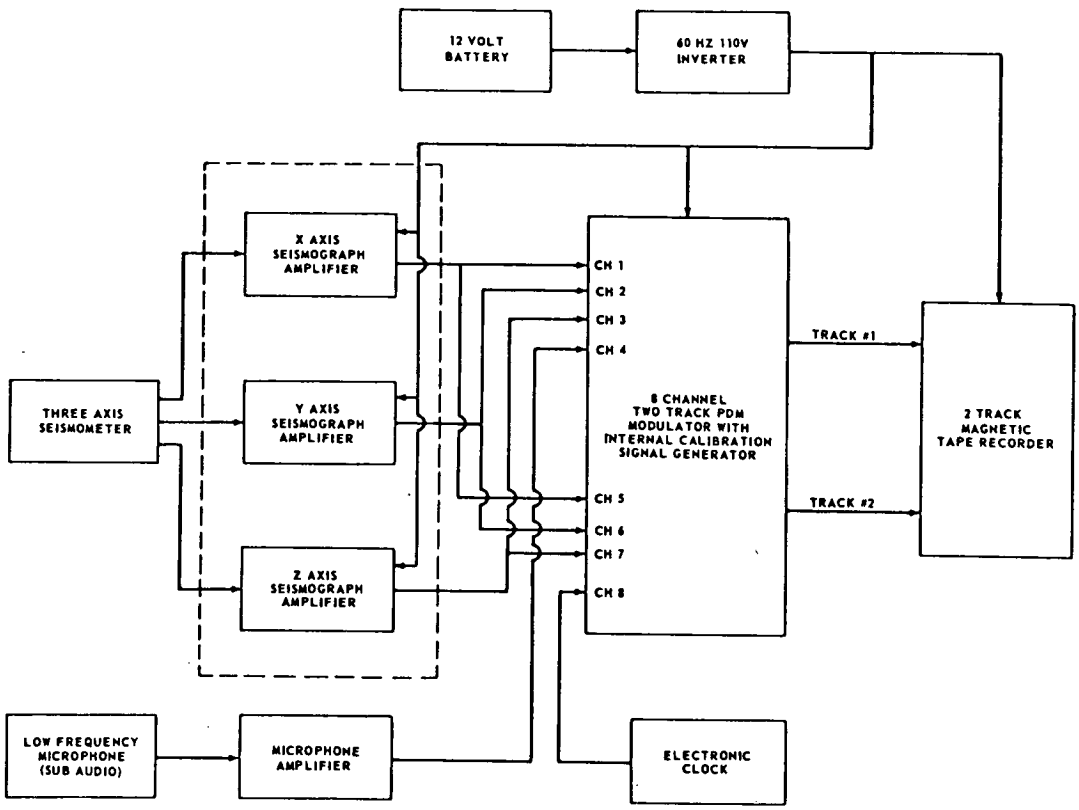
December 1969

Brief 69-10756

NASA TECH BRIEF

Seismographic Recording of Large Rocket Engine Operation



Block Diagram of the Seismograph System

Although the recording equipment described in this Tech Brief was used for recording rocket engine vibration and acoustic data, it could be adapted easily to such purposes as determining the structural strength of building materials. This information should be of interest to designers of industrial test equipment.

The seismograph system described in this report is a portable system capable of measuring displacements in the direction of three mutually perpendicular axes. The major components of the system are a three-axis seismometer, three seismograph amplifiers, a dual four-channel PDM signal modulator and multiplexer, and a dual-track commercial high fidelity tape recorder.

(continued overleaf)

The mathematical basis for the design of these seismometers, the hermetically sealed enclosure, and the associated amplifier system are discussed in detail.

Note:

Requests for further information may be directed to:

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Reference: TSP69-10756

Patent status:

No patent action is contemplated by NSA.

Source: Ilmars Dalins and
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(MFS-20545)