

# Passive Seismic

NSSDCA ID: 1969-059C-03

**Mission Name:** Apollo 11 Lunar Module / EASEP

**Principal Investigator:**Dr. Gary V. Latham

## Description

The purpose of the passive seismograph experiment (PSE) (S-031) was to monitor lunar seismic activity and to detect meteoroid impacts and free oscillations of the moon. Lunar crustal tidal deformations could also be detected. The experiment consisted of two seismic assemblies -- (1) a long-period (LP) seismometer (triaxial orthogonal) with a seismic frequency response of 0.004 to 3 Hz (80 db dynamic range) and (2) a short-period (SP) seismometer (uniaxial, vertical motion) with a seismic frequency response of 0.05 to 20 Hz (80 db dynamic range). The minimum detectable signals of the PSE were 10 microns for the SP and all LP seismic signals, 0.4 arc-sec for the LP horizontal tidal output signal, and 320 microgals for the LP vertical tidal output signal. The PSE electronics package, located in the central station, was connected by cable to the seismometers.

## Alternate Names

- Apollo11EASEP/PassiveSeismic
- S031

## Discipline

- Planetary Science: Geology and Geophysics

## Additional Information

- Apollo 11 Lunar Module / EASEP
- Data collections from this experiment

Questions and comments about this experiment can be directed to: Dr. David R. Williams

## Personnel

Name	Role	Original Affiliation	E-mail
Dr. Gary V. Latham	Principal Investigator	University of Texas, Galveston	

## Selected References

- Nakamura, Y., *et al.*, Apollo Lunar Seismic Experiment - final summary, *J. Geophys. Res.*, 87, Suppl., A117-A123, Nov. 1982.
- Latham, G. V., *et al.*, Passive Seismic Experiment, in *Apollo 11 Prelim. Sci. Rept.*, NASA SP-214, Wash., DC, 1969.

