

Japanese Polar Lander Study

Japan Aerospace Exploration Agency (JAXA)

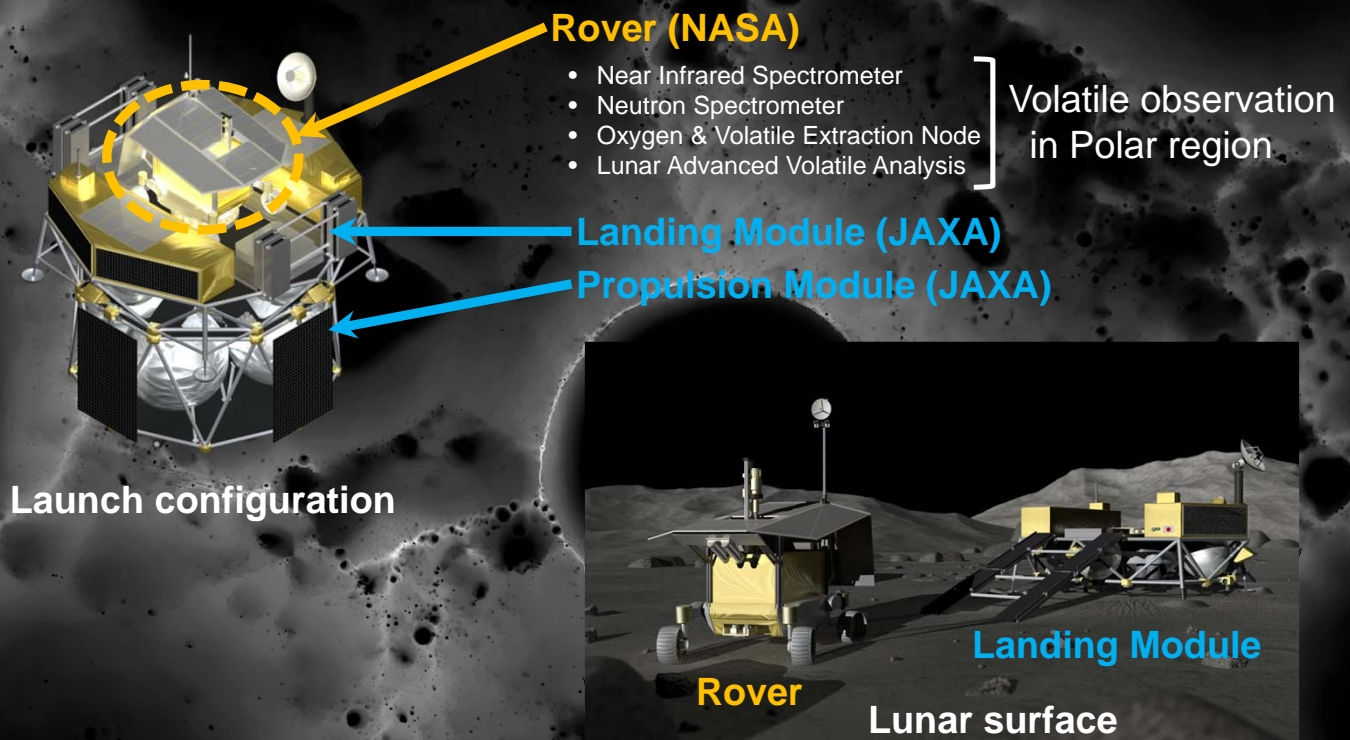
Purpose of moon surface exploration

JAXA considers objectives of moon surface exploration as follows:

- ✓ Development and demonstration of technologies. Safe and accurate landing, surface mobility, and night survival technologies without radio isotope.
- ✓ In-situ observation and investigation for science and future lunar utilization. Detailed and sub-surface geological observation, geophysics to know interior structure of the moon, and measure lunar environment for future human exploration.
- ✓ Contribution to international space exploration activity and meet public interest.

Joint study with NASA Resource Prospector mission

As a candidate of moon exploration mission, JAXA plans a lunar polar lander collaborated with international partners.



JAXA instrument candidates (example)

(1) Radiation monitor

- Investigate radiation environment at the lunar surface for future manned mission.

(2) Seismometer

- Combination of broad band (VBB) and short period (SP) seismometers.

(3) Heat flow measurement

- In-situ temperature and thermal conductivity measurement.

(4) Spectro-microscope camera

- Mineral identification by texture and spectral analysis.

(5) Active X-ray spectrometer

- Chemical analysis of rocks with a pyroelectric crystal X-ray generator and SDD.