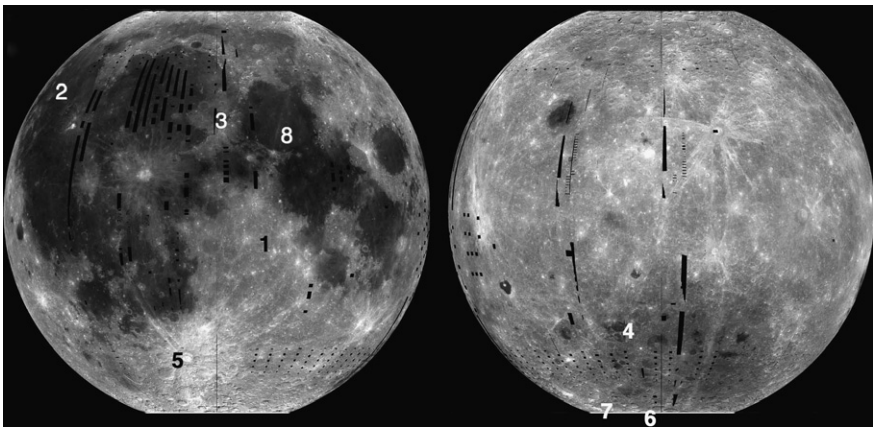

Fig. 1. Clementine albedo map of the Moon with the eight recommended ISCT areas indicated by number.

Table 2
Center coordinates of the eight L-ISCT sites

L-ISCT	Longitude (*E*)	Latitude (N+, S−)
1. Apollo 16 Highlands	15.5	−9.0
2. Lichtenberg rim	293.0	31.5
3. Apollo 15 (Hadley Rille)	3.7	26.1
4. SPA		
NW-N	175.5	−30.5
NW-S	165.0	−41.0
5. Tycho	348.8	−43.3
6. Polar shadows	118.0	−84.0
7. N. Schrödinger	135.0	−72.4
8. Mare Serenitatis (MS2)	21.4	18.7

as the series of serious lunar exploration missions are implemented.

2.1. Recommended coordination

Within the science plan of each individual mission, these eight target areas merit special study by the wide range of international sensors being flown to the Moon. Not all L-ISCT sites are ideal for all instrument calibration or validation applications. Due to different field of view or inherent measurement parameters, some L-ISCT sites are better suited for one type of measurement while other sites are better for others. Suggested categories of L-ISCT areas are presented for different instrument classes in Table 3. These categories are intended as guidelines for establishing a priority of L-ISCT measurements. A small number of targets are identified that are best suited to the specific instrument application, but the broader categories also allow cross-calibration of different classes of instruments among missions of the international community.

For mutual benefit, it is recommended that data for these targets be publicly released as soon as possible after measurement. L-ISCT data should first pass initial calibration by mission teams and then be released for coordinated validation among other teams. Cross validation is likely to be an iterative process, but when L-ISCT data from different instruments are in agreement, confidence in the measurements is high and all teams benefit. If data are not in agreement, possible sources of error can be sought and resolved. Teams of scientists are also encouraged to establish communication ties with similar teams on different missions to allow early comparisons (and improvement) of lunar data using these L-ISCT.

Table 3
Presented here are suggested categories of L-ISCT for different instrument classes – A: Best, most valuable; B: Good, quite useful; C: Supplemental

	1. Apollo 16	2. Lictenberg	3. Apollo 15	4. SPA-Th anomaly	5. Tycho	6. Polar shadows	7. North Schrodinger	8. Mare Serenitatis
Orbital imaging ($\leqslant$100 m/pixel)	A	B	A	B	B	A	A	C
UV–Vis–NIR spectroscopy	A	B	B	B	A	A	A	B
Altimetry & stereo	B	A	A	B	A	A	A	B
Thermal & radar imaging	A	B	B	B	A	A	A	C
Gamma-ray & neutron spectroscopy	A	B	C	A	B	A	B	A
X-ray spectroscopy	A	A	B	B	B	C	C	A
Particles, plasma, magnetometer	A	B	C	B	B	B	C	A
Micro-wave, sounder	B	A	B	A	B	B	A	A
Outreach	B	A	A	B	A	A	B	B

Since different instruments have inherently different calibration requirements, the optimal targets for cross-calibration will vary.