Section 11

ALI Technology Summary

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New Technology Validation (1 of 2)

- **Instrument**
  - **Push broom data collection mode eliminates scan mirror.**
    - Results in a smaller, lighter instrument that requires less power.

- **Telescope**
  - **Wide field-of-view (1.25° x 15°), all reflective design.**
    - Covers the full 185 km Landsat swath width.
    - Broad spectral coverage.
  - **SiC mirrors offer low mass, high stiffness, thermal stability.**
Focal plane

- Highly integrated, with ten VNIR/SWIR bands on a common read-out integrated circuit.
- HgCdTe SWIR detectors optimized for operation at 220° K.
  - Passive cooling is adequate to maintain temperature.

Calibration

- Innovative in-flight calibration.
  - Solar calibration over sensor dynamic range.
  - Lunar calibration.
  - Internal reference sources for daily stability checks.
Summary

- ALI has validated three New Millennium Program Category 1 technologies on-orbit.

- A new solar calibration scheme has also been validated.