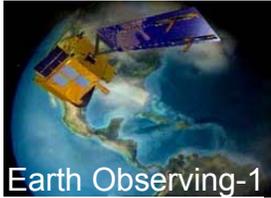


Section 11

ALI Technology Summary

This work was sponsored by NASA Goddard Space flight Center under U.S. Air Force Contract number F19628-00-C-0002. Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the United States Government.





New Technology Validation (1 of 2)



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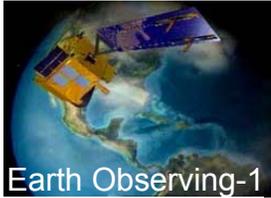
◆ **Instrument**

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

◆ **Telescope**

- **Wide field-of-view ($1.25^\circ \times 15^\circ$), all reflective design.**
 - Covers the full 185 km Landsat swath width.
 - Broad spectral coverage.
- **SiC mirrors offer low mass, high stiffness, thermal stability.**





New Technology Validation (2 of 2)



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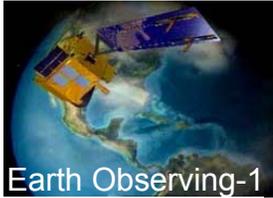
◆ **Focal plane**

- *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



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- ◆ ***ALI has validated three New Millennium Program Category 1 technologies on-orbit.***
- ◆ ***A new solar calibration scheme has also been validated.***

