

## Summary of In-Development Instruments

NASA Instruments - Developmental	PI	Type of Instrument	Objective/ Description	Airborne Platforms	Status	Funding Sources	Decadal Survey Tier
<b>A-SMLS</b> (Scanning Microwave Limb Sounder)	PI: Stek, Paul	Limb Sounder	Takes three-dimensional measurements of upper tropospheric and stratospheric trace gases, water, water isotopes, and cloud ice and maps the composition with 50x50x1 km spatial sampling.	WB-57 is the baseline	* In development, first flight planned for 2010. * Further flights planned for FY 2011.	Proposed to IIP	3-GACM
<b>AirSWOT</b> (KaSPAR - Ka-Band SWOT Phenomenology Airborne Radar)	PI: Rodriguez, Ernesto	Ka-Band, single pass interferometer synthetic aperture radar		B-200 (DFRC)			
<b>AirMSPI-2</b> (Air Multiangle SpectroPolarimetric Imager, 2-band )	PI: Diner, Dave 4-6319	Camera	AirMSPI is a spectropolarimetric camera that uses moderately high resolution imagery at nine view angles, in four bands ranging from the infrared to the ultraviolet to measure aerosol and cloud microphysical properties.	ER-2	* Under development, funded by AITT * On schedule for instrument delivery at end of 2009	ROSES AITT funding FY08:\$454K, FY09: \$400K FY10: \$150	2-ACE
<b>GLISTIN-A</b> (Glacier and Land Ice Surface Topography Interferometer)	PI: Moller, Delwyn (RSS)	Ka-Band Radar utilizing the UAVSAR instrument pod	Ka-band (35 GHz) interferometric SAR for mapping the surface topography of glaciers and ice sheets at high spatial resolution, high vertical accuracy, independent of cloud cover, with a swath-width of 70km.	G-III (JSC)	* Operational capability scheduled for winter 2008 * Greenland campaign planned May '09.	IIP funding: FY08: \$200K, IPY funding: FY08:\$450 FY09:\$450, also proposing to IIP to enhance performance (swath and accuracy) and develop an operational sensor utilizing digital beam-forming for ICESAT cal/val and mapping capability in dynamic glacial regions.	1-ICESat-2, 2-SWOT
<b>HyTES</b> (Hyperspectral Thermal Emission Spectrometer)	PI: Hook, Simon	Spectrometer	HyTES is a thermal infrared imaging spectrometer (7.5-12 $\mu$ m) with high spatial and spectral resolution which addresses science questions related to the Solid Earth and Carbon Cycle and Ecosystems focus areas .	DHC-6 Twin Otter	* Recently won IIP proposal	IIP funding starting in late FY08 for 3 years, flights start in FY10	