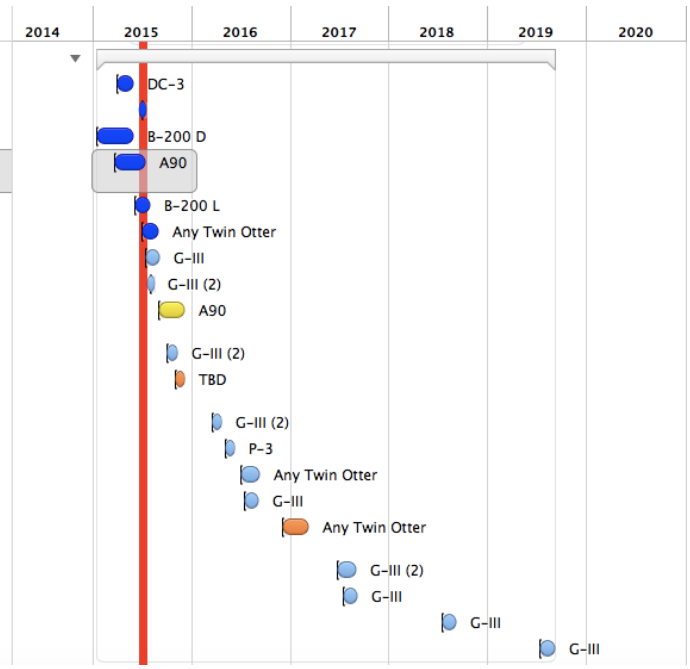
Airborne Science 5-yr plan – by science area

Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor	2014–2020
1) Atmospheric Composition and Chemistry				
1.1) AJAX (Iraci)	60	Jucks	OCO-2, ASCENDS	Alpha Jet
1.2) Methane sounder	15	Chief technologist		DC-8
1.3) EXRAD	100	Maring	ACE	ER-2
1.4) ASCENDS 2016	30	Jucks	OCO-2, ASCENDS	DC-8
1.5) SHOW	20	Jucks		ER-2
1.6) CARAFE	10	GSFC	OCO-2	Sherpa
1.7) KORUS-AQ	120	Pszenny	Geo-Cape, A-Train, SNPP, TEMPO	DC-8
1.8) Chemistry Mission-in-development	30	Jucks	GEo-Cape	WB-57
1.9) CAMPEx	120	Maring	A-Train, ACE	P-3

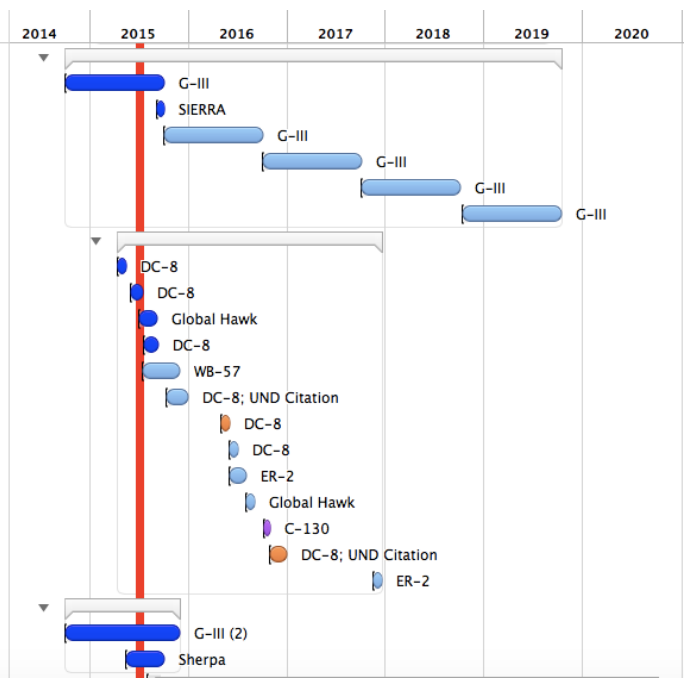
Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor	2014–2020
2) Carbon Cycle & Ecosystems Science				
2.1) AVIRIS & MASTER HyspIRI prep	100	Turner/Neeck	HyspIRI	ER-2
2.2) AVIRIS-ng (various)	146	Turner	HyspIRI	Any Twin Otter
2.3) Carbon Monitoring System		CCE		Any Twin Otter
2.4) HyspIRI prep tropical mission		Turner	HyspIRI	ER-2
2.5) UAVSAR - Terrestrial Ecology	20	CCE	NISAR	G-III
2.6) EXPORT (placeholder)		Bontempi		TBD
2.7) LIDAR / P-band SAR (mission in development)		CCE		ER-2; G-III (2)
2.8) CCE Field Campaign ABoVE	100	Kasischke		TBD
2.9) UAVSAR - Terrestrial Ecology	20	CCE	NISAR	G-III
2.10) South Asia LCLUC (placeholder)		Gutman	Landsat	TBD
2.11) UAVSAR - Terrestrial Ecology	20	CCE	NISAR	G-III
2.12) Arctic COLORS (placeholder)		Bontempi		TBD
2.13) UAVSAR - Terrestrial Ecology	20	CCE	NISAR	G-III
2.14) NISAR cal/val		CCE	NISAR	G-III

Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor	2014–2020
3) Cryospheric Science				
3.1) OIB Iceland 2015	60	Wagner	ICESat 2	G-III
3.2) MABEL 2015(?)			ICESat 2	UC-12
3.3) OIB Arctic 2016	300	Wagner; Tagg	ICESAT 2	C-130
3.4) OIB Alaska 2016		Wagner	ICESat 2	Single Otter
3.5) OIB	250	Wagner; Tagg	ICESat 2	C-130
3.6) OIB Antarctica 2016	250	Wagner; Tagg	ICESat 2	P-3
3.7) OIB Arctic 2017	300	Wagner, Tagg	ICESat 2	P-3
3.8) OIB Antarctica 2017	250	Wagner, Tagg	ICESat 2	P-3
3.9) OIB Arctic 2018	300	Wagner, Tagg	ICESat 2	P-3
3.10) OIB Antarctica	250	Wagner, Tagg	ICESat 2	DC-8
3.11) OIB Arctic 2019	250	Wagner, Tagg	ICESat 2	P-3

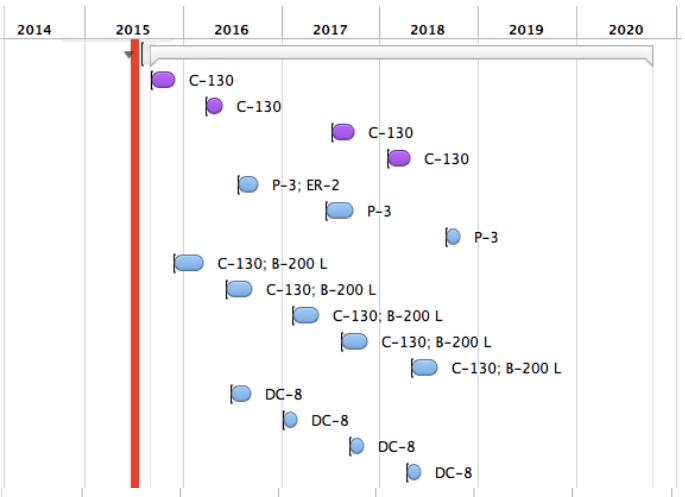
Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor
4) Water and Energy Cycle			
4.1) Rotating PALS Demo	4	SMAP program	SMAP
4.2) SMAPVEX w rotating PALS	50	SMAP program	SMAP
4.3) AIRSWOT	75	Entin, Lindstrom	SWOT
4.4) Airborne Snow Observatory	50	Entin	
4.5) SLAP	11	Entin	SMAP
4.6) SMAPVEX-15-PALS	50	Entin	SMAP
4.7) SMAP UAVSAR-15	30	SMAP program	SMAP
4.8) AirMOSS Alaska	20	Entin	SMAP
4.9) Airborne Snow Observatory	50	Entin	
4.10) AirMOSS Alaska	20	Entin	SMAP
4.11) Snow transects (in development)		Entin	SMAP
4.12) AirMOSS Alaska	20	Entin	SMAP
4.13) SMAPVEX-16-RPALS	70	SMAP program	SMAP
4.14) SMAPVEX-16	60	SMAP program	SMAP
4.15) SMAP UAVSAR-16	30	SMAP program	SMAP
4.16) Snow field campaign (CLPX-like)		Entin	
4.17) RZSM - ESA Collaboration	30	Entin	ESA BIOMASS
4.18) SMAP UAVSAR-17	30	SMAP program	SMAP
4.19) SMAP UAVSAR-18	30	SMAP program	SMAP
4.20) SMAP UAVSAR-19	30	SMAP program	SMAP



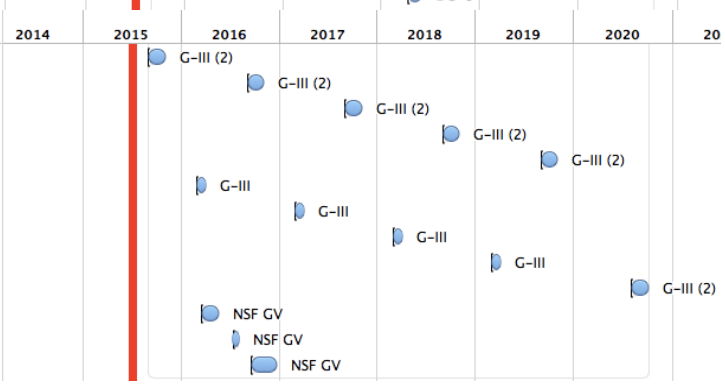
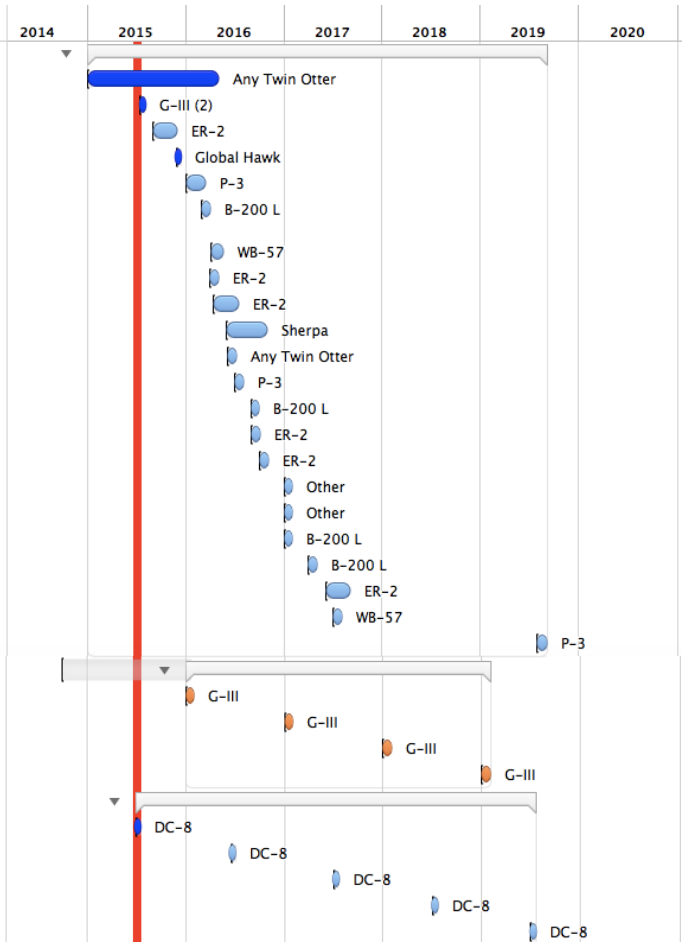
Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor
5) Earth Surface & Interior			
5.1) UAVSAR - 15	290	Dobson; Tagg	NISAR
5.2) Salton Sea mud pots	10	Phillips	HyspIRI / ASTER
5.3) UAVSAR - 16	290	Dobson; Tagg	NISAR
5.4) UAVSAR - 17	290	Dobson; Tagg	NISAR
5.5) UAVSAR - 18	290	Dobson; Tagg	NISARI
5.6) UAVSAR - 19	290	Dobson; Tagg	NISAR
6) Weather			
6.1) Polar Winds	67	Kakar	CALIPSO, GPM, ADM
6.2) PECAN	50	Kaye	NPP, AQUA
6.3) NOAA SHOUT	268	Hood	
6.4) HIWC	50	Kakar	GOES I-M, GOES N-P
6.5) Tropical Cyclone Intensity	60	Tsui	TRMM, GPM
6.6) OLYMPEX (GPM c/v)	100	Kakar, Neeck	GPM
6.7) Polar Winds repeat	67	Kakar	ADM / GPM
6.8) APR-3 (Durden)	10	AITT	GPM
6.9) GOES-R cal/val		Kakar	GOES-R
6.10) NOAA SHOUT-16	268	Hood	
6.11) Cloud Experiment	10	Phillips	GPM
6.12) GPM cal/val		Phillips	GPM
6.13) GOES-R cal/val		Kakar	GOES-R
7) Earth Venture 1			
7.1) AirMOSS - 15	300	Entin; Tagg	SMAP
7.2) CARVE - 15	336	CCE; Tagg	OCO-2



Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor
8) EVS-2			
8.1) NAAMES-2015			
8.2) NAAMES-2016			
8.3) NAAMES-2017			
8.4) NAAMES-2018			
8.5) ORACLES-2016	120	Maring	ACE
8.6) ORACLES-2017	120	Maring	ACE
8.7) ORACLES-2018	120	Maring	ACE
8.8) ACT-America-2015	620	Jucks	OCO-2
8.9) ACT-America-2016	620	Jucks	OCO-2
8.10) ACT-America-2017	620	Jucks	OCO-2
8.11) ACT-America-2017	620	Jucks	OCO-2
8.12) ACT-America-2018	620	Jucks	OCO-2
8.13) ATom-1	120	Maring	OCO-2
8.14) ATom-2	120	Maring	OCO-2
8.15) ATom-3	120	Maring	OCO-2
8.16) ATom-4	120	Maring	OCO-2



Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor
8.17) OMG-15-Sondes	66	Dobson, Wagner	
8.18) OMG-16-Sondes	66	Dobson, Wagner	
8.19) OMG-17-Sondes	66	Dobson, Wagner	
8.20) OMG-18-Sondes	66	Dobson, Wagner	
8.21) OMG-19-Sondes	66	Dobson, Wagner	
8.22) OMG-16-SAR		Dobson, Wagner	
8.23) OMG-17-SAR		Dobson, Wagner	
8.24) OMG-18-SAR		Dobson, Wagner	
8.25) OMG-19-SAR		Dobson, Wagner	
8.26) OMG-20-AXCTD		Maring	
8.27) CORAL		Tagg, Bontempi	PACE
8.28) CORAL-2		Tagg, Bontempi	PACE
8.29) CORAL-3		Tagg, Bontempi	PACE



Task	Flt Hours	PS/PE/PM	Related Satellite/Sensor
9) New Techology			
9.1) WISM (3 periods)	12	IIP	
9.2) GISTIN-A-2015	10	Wagner	ICESat 2
9.3) PRISM, PRISM & AVIRISng	25	AITT	HyspIRI
9.4) UAVSAR / Global Hawk	17	ESTO ACT	SMAP, NISAR
9.5) ECOSAR/Rincon	18	IIP	
9.6) HSRL-Ozone GOLD (check flight)	15	AITT	
9.7) ATHENA-OAWL	30	IIP	
9.8) HyTES-16	10	AITT	
9.9) Formaldayde sensor	10	AITT	
9.10) FARMS	58	ISS	ISS
9.11) UWBRAD		IIP	
9.12) AESMIR test	5	Kim	Aquarius
9.13) Multi-wavelength LIDAR		IIP	
9.14) WiSCR	18	IIP	
9.15) HSRL-Ozone GOLD	15	AITT	
9.16) MISTIC Winds		IIP	
9.17) DopplerScatt		IIP	
9.18) SoOp-AD		IIP	
9.19) Triple-pulsed LIDAR		IIP	
9.20) HSRL-2		AITT	
9.21) Compact Limb Sounder		IIP	
9.22) 4-star radiometer	4	AITT	ACE, NPP, GEO-CAPE
10) Applications			
10.1) SacDeltaLevees-CDWR	32	Dobson	
10.2) SacDeltaLevees-CDWR	32	Dobson	
10.3) SacDeltaLevees-CDWR	32	Dobson	
10.4) SacDeltaLevees-CDWR	32	Dobson	
11) Education			
11.1) SARP 2015	14	Kaye; Tagg	
11.2) SARP 2016	14	Kaye; Tagg	
11.3) SARP 2017	14	Kaye; Tagg	
11.4) SARP 2018	14	Kaye; Tagg	
11.5) SARP 2019	14	Kaye, Tagg