### Atmospheric Composition and Chemistry

Title	Fit Hours	BS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
1) Atmospheric Composition and Chemistry											
<ul> <li>1.1) Lake Michigan Ozone study</li> </ul>	130	Lefer, Al-Saadi				UC O	-12				
<ul> <li>1.2) AJAX</li> </ul>	70	Jucks	OCO-2			<b>A</b>	Ipha Jet				
<ul> <li>1.3) California Methane Survey</li> </ul>	130	JPL				Ot Ot	her B-200				
1.4) TropOMI validation (piggyback)	20	Maring/Lefer/ Margolis	Sentinel-5			● E	R-2				
<ul> <li>1.5) SHOW / ASMLS</li> </ul>	20	Jucks/IIP				0 E	R-2				
<ul> <li>1.6) ASCENDS 2017</li> </ul>	40	Jucks	OCO-2, ASCENDS			0 0	DC-8				
<ul> <li>1.7) Polarimeter/Lidar experiment</li> </ul>	30?	Maring	PACE, ACE				ER-2				
<ul> <li>1.8) CAMPEx</li> </ul>	120	Maring	A-Train, ACE					P-3; WB-57			
<ul> <li>1.9) FIRE-CHEM</li> </ul>	150	Lefer	A-Train, ISS					DC-8; UC-1	2; NASA G	/; ER-2	
<ul> <li>1.10) ARISE II</li> </ul>		Maring						O C-1	30; P-3		
<ul> <li>1.11) Chemistry Mission-in- development / South East Asia Outflow</li> </ul>	30	Jucks						UWB	-57		
<ul> <li>1.12) FASME Pre-scribed burn</li> </ul>	25	Lefer							Sherpa		
<ul> <li>1.13) FASME Pre-scribed burn</li> </ul>	25	Lefer							(	Sherpa	

# Cryosphere

Title	e	Fit Hours	PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
3) Cry	yospheric Science					•						
<ul> <li>3.1)</li> </ul>	OIB Arctic 2017	300	Wagner, Tagg	ICESat 2			💭 Р-3					
3.2)	Arctic melt 2017 (OIB)	100	Wagner				Falc	on				
3.3)	OIB Antarctica 2017	250	Wagner, Tagg	ICESat 2				P-3				
3.4)	OIB Arctic 2018	300	Wagner, Tagg	ICESat 2				P-3				
3.5)	Arctic melt 2018 (OIB)	100	Wagner					NAS	A GV			
3.6)	OIB Antarctica 2018	250	Wagner, Tagg	ICESat 2					NASA GV	; TBD		
3.7)	ICESat-2 cal/val	100	Thorston Markus	ICESat 2				0	ER-2; B-20	0 L		
3.8)	UAS mission in development		Wagner					0				
3.9)	OIB Arctic 2019	250	Wagner, Tagg	ICESat 2					D P-3			
3.10)	Arctic melt 2019 (OIB)	100	Wagner						NAS/	A GV		
3.11)	OIB Antarctica 2019	250	Wagner, Tagg	ICESat 2						NASA GV		
3.12)	ICESat-2 cal/val	100	Thorston Markus	ICESat 2						ER-2; P-3		
3.13)	OIB Arctic 2020	250	Wagner, Tagg	ICESat 2						P-3		
3.14)	Arctic melt 2020 (OIB)	100	Wagner							NASA	GV	
3.15)	ICESat-2 cal/val	100	Thorston Markus	ICESat 2							R-2; P-3	
3.16)	Sea ice lines - mission in development		Wagner								0 TBD	
3.17)	Snow-over-ice - mission in development		Wagner								Glob	al Hawk

# Carbon Cycle and Ecosystem Science

Title	Fit Hours	B PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	20
2) Carbon Cycle & Ecosystems Science											
<ul> <li>2.1) HyspIRI prep Hawaii</li> </ul>	40	Turner	HyspIRI / ECOSTRESS			ER-2;	DragonEye				
<ul> <li>2.2) HyspIRI prep California/SARP</li> </ul>	35	Turner/Tagg	HyspIRI			0 ER	-2				
2.3) ABoVE Field Campaign	150	Margolis	HyspIRI, NISAR, OCO-2, ICESat 2				G-III; G-III (2	)			
<ul> <li>2.4) AVIRIS budget-17</li> </ul>	100	Margolis				ER	-2; TBD				
2.5) Carbon Monitoring System	30	Hibbard/Jucks/ Margolis	OCO-2			Q	TBD				
<ul> <li>2.6) AVIRIS budget-18</li> </ul>	100	Margolis					ER-2;	Other B-2	00		
<ul> <li>2.7) South Asia LCLUC (placeholder)</li> </ul>		Gutman	Landsat, NISAR				🔵 тво	)			
<ul> <li>2.8) UAVSAR - TE budget-18</li> </ul>	20	Dobson/Margolis	NISAR				🔵 G-II	I			
<ul> <li>2.9) ABoVE-related Snow mission</li> </ul>		Margolis						TBD			
<ul> <li>2.10) AVIRIS budget-19</li> </ul>	100	Margolis						ER-2	Other B-20	00	
<ul> <li>2.11) GEDI cal/val</li> </ul>		GEDI	GEDI					Oth	er B-200; F	-3	
• 2.12) UAVSAR - TE budget-19	20	Dobson/Margolis	NISAR					🔵 G-I	I		
<ul> <li>2.13) ABoVE Field Campaign</li> </ul>	150	Margolis	HyspIRI, NISAR, OCO-2, ICESat 2					0	3-III; G-III (2)	)	
<ul> <li>2.14) Potential Biodiversity campaign</li> </ul>		Turner						(	ER-2		
<ul> <li>2.15) Potential Aerobiology campaign</li> </ul>		Turner						C	TBD		
• 2.16) UAVSAR-TE budget-20	20	Dobson/Margolis							🔵 G-III		
<ul> <li>2.17) NISAR pre-launch cal/val</li> </ul>		CCE	NISAR						0	3-III	
<ul> <li>2.18) Arctic COLORS (placeholder)-21</li> </ul>		Bontempi								TBD	
<ul> <li>2.19) NISAR post-launch cal/val</li> </ul>		CCE	NISAR								G-III
<ul> <li>2.20) PACE Cal/Val</li> </ul>		Bontempi									твс

## Earth Surface and Interior Weather

Title	Fit Hours	PS/PE/PM	Related Satellite/Sensor	2015	2016	2017 2018 2019 2020 2021 2022
5) Earth Surface & Interior					•	
<ul> <li>5.1) UAVSAR / EIS - 17</li> </ul>	290	Dobson; Tagg	NISAR		C	G-III
<ul> <li>5.2) Volcanoes and Corals (GLISTIN)</li> </ul>	40	Turner	HyspIRI			G-III (2)
<ul> <li>5.3) Volcanoes and Corals</li> </ul>	20	Turner	HyspIRI, NI-SAR, Terra. EO-1			DragonEye
<ul> <li>5.4) Salton Sea mud pots</li> </ul>	10	Phillips	HyspIRI / ASTER			DragonEye
<ul> <li>5.5) UAVSAR / EIS - 18</li> </ul>	290	Dobson; Tagg	NISAR			G-III
<ul> <li>5.6) UAVSAR / EIS - 19</li> </ul>	290	Dobson; Tagg	NISAR			G-III
<ul> <li>5.7) India mission-in-development</li> </ul>		Dobson	NISAR			0 G-111
<ul> <li>5.8) UAVSAR / EIS - 20</li> </ul>	290	Dobson; Tagg	NISAR			G-111
• 5.9) NISAR cal/val	100	Dobson	NISAR			
6) Weather						
<ul> <li>6.1) GOES-R cal/val</li> </ul>	100	Kakar	GOES-R			ER-2
<ul> <li>6.2) CPEX</li> </ul>	100	Kakar	ADM / GPM			DC-8
<ul> <li>6.3) EPOCH</li> </ul>	24	Pierce	CYGNESS, GPM			Global Hawk
<ul> <li>6.4) NOAA SHOUT-17</li> </ul>	268	Hood				Global Hawk
<ul> <li>6.5) HIWC-II</li> </ul>	100	Harrah	GOES-N-P			Falcon
<ul> <li>6.6) GPM cal/val</li> </ul>		Schwaller	GPM			DC-8; UND Citation; ER-2; NASA GV
6.7) GH mission in development		Kakar				Global Hawk
<ul> <li>6.8) Relampago (lightning mission)</li> </ul>		Kakar				ER-2
<ul> <li>6.9) Severe storm campaign/VORTEX- SE</li> </ul>	80	Kakar	GOES-R, GMP			● ER-2
<ul> <li>6.10) Severe storm campaign/VORTEX- SE</li> </ul>	80	Kakar	GOES-R, GMP			ER-2

## Water and Energy Cycle

Title	Fit Hours	B PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
4) Water and Energy Cycle					•					J	
<ul> <li>4.1) SnowEX - 17</li> </ul>	150	Entin	GCOM-W1, GPM, SCLP			0 Othe	er P3				
<ul> <li>4.2) Airborne Snow Observatory</li> </ul>	75	Entin/Doorn				A9	0				
<ul> <li>4.3) AirMOSS Alaska (ABoVE)</li> </ul>	20	Entin	SMAP			G-II	I (2)				
<ul> <li>4.4) SnowEX GLISTIN (OMG?)</li> </ul>		Entin	SMAP, SWOT			🚺 G-I					
<ul> <li>4.5) AirSWOT Alaska</li> </ul>	20	Margolis?	SWOT			0 E	3-200 D				
<ul> <li>4.6) Airborne Snow Observatory</li> </ul>	50	Entin/Doorn				(	A90				
<ul> <li>4.7) SNOW-SAR (ESA)</li> </ul>		Entin				(	Any Twin C	Otter			
<ul> <li>4.8) SnowEX - 18</li> </ul>	150	Entin	GCOM-W1, GPM, SCLP				Other	P3			
<ul> <li>4.9) RZSM - ESA Collaboration</li> </ul>	30	Entin	ESA BIOMASS				0 0	G-III (2)			
<ul> <li>4.10) Airborne Snow Observatory</li> </ul>	50	Entin/Doorn						A90			
<ul> <li>4.11) SWOT cal/val over the ocean - mission in development</li> </ul>		Lindstrom	SWOT					🛛 TBD			
<ul> <li>4.12) SnowEX - 19</li> </ul>	50	Entin	GCOM-W1, GPM, SCLP					Other I	P3		
<ul> <li>4.13) Water quality experiment</li> </ul>		Entin						🚺 TBD			
• 4.14) SMAPVEX - 19 / SLAPEX	100	Entin	SMAP					0 D	C-3		
<ul> <li>4.15) SnowEX - 20</li> </ul>	75	Entin	GCOM-W1, GPM, SCLP						Other P	3	
<ul> <li>4.16) SnowEX - 21</li> </ul>	50	Entin	GCOM-W1, GPM, SCLP							Other F	3

# Applied Science

### Education

Title	Fit Hours	B PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
10) Applied Science					-(						
<ul> <li>10.1) Airborne Snow Observatory</li> </ul>	50	Entin/Doorn				🔵 A90					
<ul> <li>10.2) SacDeltaLevees-CDWR</li> </ul>	32	Dobson				🕴 G-III					
<ul> <li>10.3) SacDeltaLevees-CDWR</li> </ul>	45	Dobson				(	G-III				
<ul> <li>10.4) Airborne Snow Observatory</li> </ul>	50	Entin/Doorn					🔵 A90				
<ul> <li>10.5) SacDeltaLevees-CDWR</li> </ul>	32	Dobson						🛛 G-III			
<ul> <li>10.6) Airborne Snow Observatory</li> </ul>	50	Entin/Doorn						A90			
11) Education						•			_		
<ul> <li>11.1) SARP 2017</li> </ul>	14	Kaye; Tagg				🚺 Sł	erpa; ER-2;	UC-12			
<ul> <li>11.2) SARP 2018</li> </ul>	14	Kaye; Tagg					C DC	-8			
<ul> <li>11.3) SARP 2019</li> </ul>	14	Kaye, Tagg						🚺 DC	-8		
<ul> <li>11.4) SARP 2020</li> </ul>	14	Kaye, Tagg							🚺 DC	-8	

### Earth Venture Suborbital - 2

Title	Fit Hours	B PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
7) EVS-2					•						
<ul> <li>7.1) NAAMES-2017</li> </ul>	70	Bontempi					C-130				
<ul> <li>7.2) NAAMES-2018</li> </ul>	70	Bontempi					C-13	0			
<ul> <li>7.3) ORACLES-2017</li> </ul>	120	Maring	ACE			🔵 F	-3				
<ul> <li>7.4) ORACLES-2018</li> </ul>	120	Maring	ACE					P-3			
<ul> <li>7.5) ACT-America-2017</li> </ul>	620	Jucks	OCO-2			🔵 C-130					
<ul> <li>7.6) ACT-America-2017</li> </ul>	113	Jucks	OCO-2			🔵 в-200	L				
<ul> <li>7.7) ACT-America-2017</li> </ul>	620	Jucks	OCO-2				C-130				
<ul> <li>7.8) ACT-America-2017</li> </ul>	113	Jucks	OCO-2				B-200 L				
<ul> <li>7.9) ACT-America-2018</li> </ul>	620	Jucks	OCO-2				00	-130			
<ul> <li>7.10) ACT-America-2018</li> </ul>	113	Jucks	OCO-2				🔵 E	3-200 L			
• 7.11) ATom-2	120	Maring	OCO-2			🔘 DC-8					
• 7.12) ATom-3	120	Maring	OCO-2				DC-8				
• 7.13) ATom-4	120	Maring	OCO-2				DC-	-8			
<ul> <li>7.14) OMG-17-Glistin</li> </ul>	84	Dobson, Wagner				🔋 G-III	(2)				
<ul> <li>7.15) OMG-17-Sondes</li> </ul>	66	Dobson, Wagner					G-III (2)				
<ul> <li>7.16) OMG-18-Glistin</li> </ul>	84	Dobson, Wagner					G-III	(2)			
<ul> <li>7.17) OMG-18-Sondes</li> </ul>	66	Dobson, Wagner					0	G-III (2)			
<ul> <li>7.18) OMG-19-Glistin</li> </ul>	84	Dobson, Wagner						G-III	(2)		
<ul> <li>7.19) OMG-19-Sondes</li> </ul>	66	Dobson, Wagner							G-III (2)		
• 7.20) OMG-20-AXCTD	75	Maring							_	G-III (2)	
• 7.21) CORAL -17	90	Tagg, Bontempi	PACE			Othe	er				

## New Technology

Title	Fit Hours	BS/PE/PM	Related Satellite/Sensor	2015	2016	2	017	2018	2019	2020	2021	2022
8) New Techology					• [	_						
<ul> <li>8.1) HyTES-16</li> </ul>	10	AITT				ER	-2					
<ul> <li>8.2) AVIRIS-ng on ER-2</li> </ul>	6	Kaye				ER	-2					
<ul> <li>8.3) MISTIC Winds</li> </ul>	8	IIP				0 C	ther					
<ul> <li>8.4) WISM</li> </ul>	12	IIP				Q A	ny Twi	n Otter				
<ul> <li>8.5) ECOSAR/Rincon</li> </ul>	18	IIP					TBD					
<ul> <li>8.6) Thermal IR Climate sensor</li> </ul>							ER-2	2				
<ul> <li>8.7) HAWK-OAWL</li> </ul>	50	IIP	3-D Winds				DC-	8				
<ul> <li>8.8) Compact Limb Sounder / SHOW</li> </ul>	12	IIP					ER	-2				
<ul> <li>8.9) UAVSAR / Global Hawk</li> </ul>	17	ESTO ACT	SMAP, NISAR				(	Global Ha	awk			
<ul> <li>8.10) Multi-wavelength LIDAR</li> </ul>		IIP						B-200	L			
<ul> <li>8.11) Triple-pulsed LIDAR</li> </ul>		IIP						🛛 B-20	ΟL			
• 8.12) SLI-T		ESTO	Landsat					C	TBD			
<ul> <li>8.13) Deferred technology tests</li> </ul>									(	P-3		
<ul> <li>8.14) 4-star radiometer</li> </ul>	4	AITT	ACE, NPP, GEO-CAPE						0	P-3		
<ul> <li>8.15) IIP-2016</li> </ul>		ESTO							(		TBD	
• 8.16) AITT-2016											TBD	
9) EVS-3 (approximate)					6							]
<ul> <li>9.1) Solicitation released</li> </ul>						Ó.						
<ul> <li>9.2) Proposals due</li> </ul>							0					
<ul> <li>9.3) Awards</li> </ul>								C				
9.4) Estimated EVS-3 schedule									(			TBD
					-				1			i -

### Maintenance

Title	Fit Hours E PS/PE/PM	Related Satellite/Sensor	2015	2016	2017	2018	2019	2020	2021	2022
2) Maintenance schedules / platform unavailable				t						
<ul> <li>12.1) C-130 maintenance</li> </ul>	WFF				C-130					
<ul> <li>12.2) C-130 maintenance</li> </ul>	WFF				(	C-130				
12.3) C-130 maintenance	WFF					• c-	130			
<ul> <li>12.4) C-130 maintenance</li> </ul>	WFF						C-130			
<ul> <li>12.5) GH phase inspection</li> </ul>	AFRC				Global Ha	awk				
<ul> <li>12.6) GH Inmarsat check</li> </ul>	AFRC				Glo	bal Hawk				
12.7) DC-8 C-check	AFRC				DC-8					
12.8) DC-8 A-check	AFRC					DC-8				
12.9) DC-8 maintenance	AFRC						DC-8			
12.10) DC-8 A-check, C-check	AFRC							DC-8		
12.11) ER-2 upgrades	AFRC					ER-	2			
12.12) other ER-2 upgrade	AFRC						ER-2			
12.13) P-3 maintenance	WFF				P-3					
12.14) P-3 maintenance	WFF				🕴 P-3					
12.15) P-3 maintenance	WFF					🖲 P-3				
12.16) P-3 maintenance	WFF					€ P-3	3			
12.17) P-3 maintenance	WFF						P-3			
12.18) P-3 maintenance	WFF						🖡 P-3			
12.19) C-20A maintenance	AFRC				G-III					
12.20) C-20A maintenance	AFRC				🖡 G-	iu -				
12.21) JSC G-III maintenance	JSC				G-III (2)					
12.22) JSC G-III next gen upgrade	JSC				(	G-III (2)				