

Science Budget Request Summary – PresBud FY14

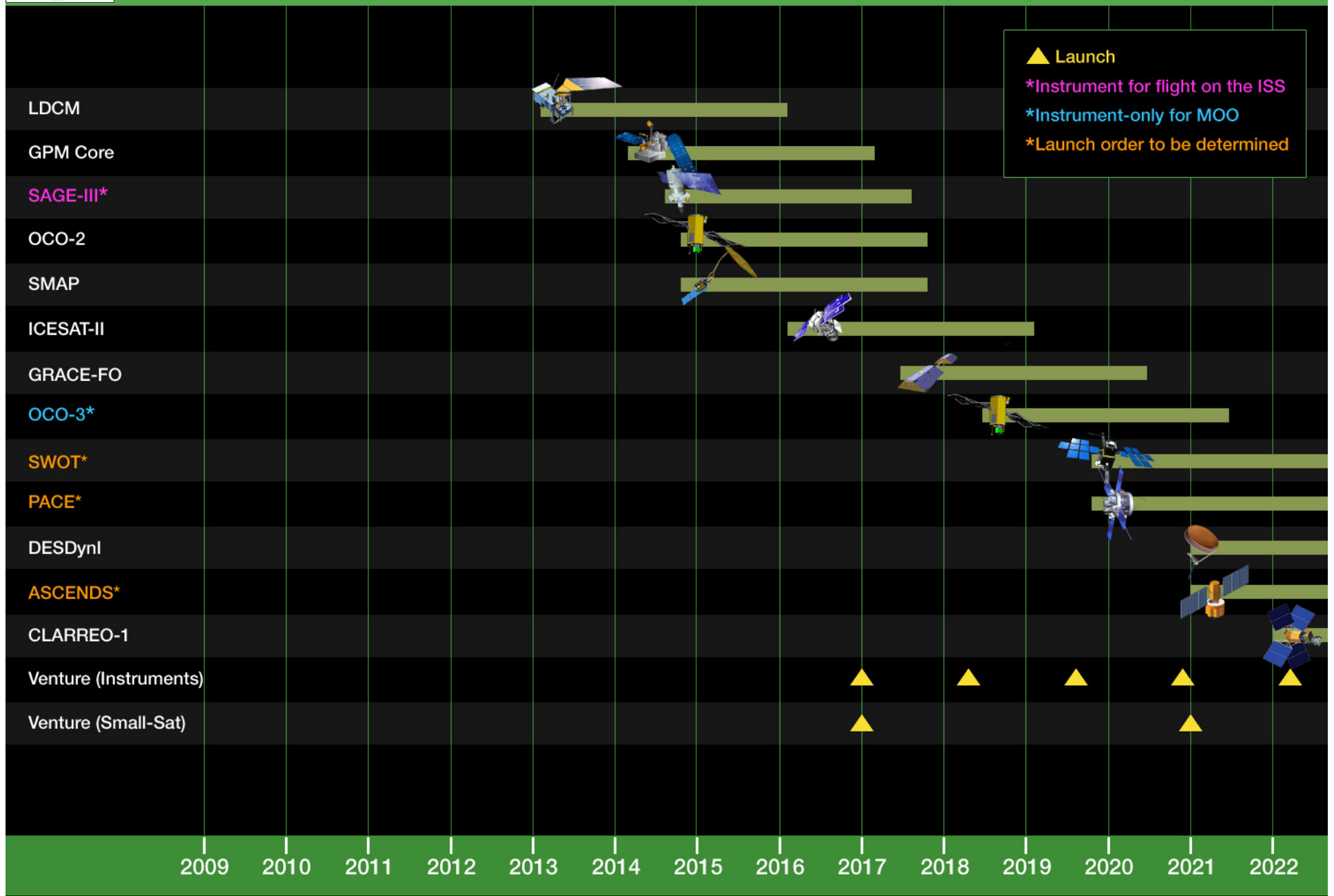
	FY2012	* FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
Science Total	5073.7	5115.9	5017.8	5017.8	5017.8	5017.8	5017.8
<u>Earth Science</u>	<u>1760.5</u>		<u>1846.1</u>	<u>1854.6</u>	<u>1848.9</u>	<u>1836.9</u>	<u>1838.1</u>
Earth Science Research	441.1		443.3	483.1	483.4	485.1	476.5
Earth Systematic Missions	879.9		787.5	811.2	861.9	839.1	833.3
Earth System Science Pathfinder	183.3		353.6	293.1	232.2	237.4	250.0
Earth Science Multi-Mission Operations	168.6		171.7	174.3	177.9	179.0	182.0
Earth Science Technology	51.2		55.1	56.2	55.1	56.1	56.1
Applied Sciences	36.4		35.0	36.7	38.4	40.1	40.1

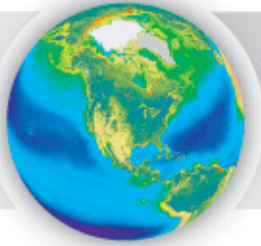
FY 2015-FY 2018
estimates
are notional

FY13 numbers are
not shown, and not
fully determined at
this time



Future Orbital Flight Missions 2011-2022

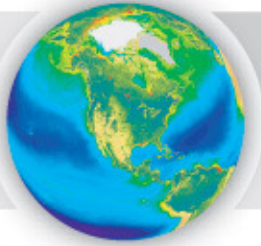




NASA OB&B Research – Research Opportunities in Space and Earth Sciences

- **ROSES 2012** - <http://nspires.nasaprs.com/> - Released 14 February 2012
 - **Interdisciplinary Research in Earth Science** –\$12M/yr, 145 proposals, under review
 - **Understanding Earth System Vulnerabilities to Climate Extremes (62)**
 - **Impacts of Changing Polar Ice Cover (26)**
 - **Water and Energy Cycle Impacts of Biomass Burning (29)**
 - **Impacts of Population growth on watersheds and coastal ecology (15)**
 - **Role of Permafrost in a Changing Climate (13)**
- **ROSES 2013** - <http://nspires.nasaprs.com/> - Released 14 February 2013
 - **Carbon Cycle Science** - 4 federal agencies, \$12M/yr – **386 Step 1 proposals [31 July 2013]**
 - **Carbon Research in Critical Regions (NASA, DOE, USDA) (126)**
 - **Carbon Dynamics in Tropical Terrestrial Ecosystems (moist forests and woodlands/savannas)**
 - **Carbon Dynamics in Arctic/Boreal Terrestrial Ecosystems**
 - **Carbon Cycling and Ecosystem Dynamics in High Latitude Oceans**
 - **Carbon Dynamics along Terrestrial-Aquatic Interfaces (NASA, DOE, USDA) (72)**
 - **Belowground Carbon Processes and Soil Carbon (USDA, DOE) (91)**
 - **Carbon Dynamics within Urban-Suburban-Forested-Agricultural Landscapes (56) (NOAA, USDA, DOE, NASA)**
 - **The Impact of Rising CO₂ on Aquatic Ecology (NASA) (10)**
 - **Carbon Cycle Science Synthesis Research (NASA, USDA, DOE) (31)**





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 - **NASA Data for Operation and Assessment** – \$2M/yr - 2 yrs – 45 Proposals [under review]
 - **Operational short-term weather prediction**
 - **Joint Center for Satellite Data Assimilation**
 - **Data and Methodology for climate projection assessment**
 - **Ecological forecasting (2)**
 - **The Science of Terra and Aqua** ~\$11.5M/yr – 214 proposals [under review]
 - **Science Data Analysis**
 - **Multiplatform and sensor data fusion**
 - **Algorithms – New Data Products**
 - **Real- or Near-Real-Time Data Algorithms**
 - **Ocean Biology and Biogeochemistry** ~ \$500K/yr – 12 proposals [under review]
 - **Scoping proposals for field campaigns (e.g., ICESCAPE)**
 - **EXPORTS (COOPEX) selected in ROSES 2012, talk by Dave Siegel 7.22**
 - **The Science of Terra and Aqua – Algorithms – Existing Data Products** ~\$2.5M/yr 39 proposals [under review]
 - **Suomi NPP Science Team for Climate Data Records** ~ \$5.5M/yr – target release Aug 2013
 - **PACE Science Team** – ~\$3.0M/yr - target release for Autumn 2013
 - **Ocean Color “Vicarious” Calibration** – \$4-6M/yr - target release 2014
 - **PACE AO** – target release Q2 FY14





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- **ROSES 2013** - <http://nspires.nasaprs.com/> - Released 14 February 2013
 - **Rapid Response and Novel Research in Earth Science – A.26** – (Diane Wickland, POC) [rolling deadline]
 - **2.1 Targets of Opportunity: Rapid Response to Earth System Events and Opportunities to Collaborate (Rapid Response)** - Research proposals having great urgency for action 1) involving quick-response research on natural or anthropogenic extreme events, disasters, and/or similar unanticipated or unpredictable events, and 2) requiring a quick funding decision to take advantage of an opportunity for research collaboration that is only available for a short time.
 - **2.2 First-Time Development of Innovative, Novel Ideas in Earth Remote Sensing (Novel Earth Science)** - proposals to conduct highly novel scientific research that cannot be considered as relevant under any other NASA solicitations. Research that is new and different: initial exploration of a novel idea or a first demonstration of new scientific use of remote sensing data or technology
 - **Topical Workshops, Symposia, Conferences – E.2** – (Max Bernstein, POC) – [rolling deadline]
 - Proposals for topical workshops, symposia, conferences, other scientific/technical meetings that advance the goals and objectives of only the following SMD Divisions: Earth Science, Heliophysics, and Planetary Science.
 - up to three year duration, can be multiple workshops in one proposal





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• **NEW (EARLY CAREER) INVESTIGATOR PROGRAM IN EARTH SCIENCE-A.34 – \$1.0M/yr [30 August 2013]**

- **Focus on research in Earth Science + disciplines, EPO removed May 2013 –**
- **Eligibility** - Must be a U.S. citizen or have lawful status of permanent residency; must be a recent Ph.D. recipient, defined as having graduated on or after January 1 of the year that is no more than five years
- Competed about every 2 years, 80-90K/yr per award

• **NASA EARTH AND SPACE SCIENCE FELLOWSHIP (NESSF) PROGRAM 2013/2014 ACADEMIC YEAR – [annual deadline]**

- **SMD Divisions: Earth Science, Heliophysics, Astrophysics, and Planetary Science**
- **NESSF awards are made initially for one year and may be renewed for no more than two additional years, \$30K/yr**
- **accredited U.S. universities on behalf of individuals pursuing Masters or Ph.D. degrees in Earth and space sciences; students may enter the fellowship program at any time during their graduate work; students may also apply in their senior year prior to receiving their baccalaureate degree, but must be admitted and enrolled in a Masters and/or Ph.D. program at a U.S. university at the time of the award; NESSF Program is open to all students enrolled full-time at accredited U.S. institutions**





Issues



- **Uncosted carryover** – Carryover of funds from one fiscal year to next
 - **Budget Control Act of 2010** – assessment of agency uncosted carryover and a rescission applied to the current agency budget as a result. Funds taken from each program were based on their uncosted carryover amounts.
 - **Obligation and costing problem for NASA linked to invoicing from institutions, POP**
 - **In the early spring of 2014 the government will look at each agency's uncosted again, and calculate a budget reduction accordingly.**
- **Sequestration** – travel on grants and cooperative agreements are not affected, but NASA centers/PIs are affected
- **E/PO** – FY13 guidance is that grants/cooperative agreements not affected, only NASA center staff and projects (can apply for a waiver). FY14 and out is TBD – many budgets zeroed out
- **In accordance with Public Law 112-55, Section 539(a)** - proposals must not include bilateral participation, collaboration, or coordination with China or any Chinese-owned organization.

