



FY 2015 Report on NASA Large Conferences

NASA Sponsored and Non Sponsored Conferences with Agency Spend of \$100,000 or More

October 1, 2014 – September 30, 2015

FY 2015 Report on NASA Sponsored Large Conferences

Overview: In accordance with Office of Management and Budget (OMB) Memorandum M-12-12, Section 2 – Conferences, the National Aeronautics and Space Administration (NASA) is providing this report on conferences. This report provides a summary of conference activities by NASA in Fiscal Year (FY) 2015. It includes a brief overview of each conference’s purpose to highlight the valuable role that conferences play in NASA’s mission, such as in key dissemination and exchange of cutting edge scientific and technological knowledge.

The Space Act of 1958 requires NASA to “provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof.” Conferences provide an important vehicle for accomplishing this mandate. NASA scientists, engineers and leaders present scientific and technical papers and participate in interchanges on leading-edge research and technology with peers in the Federal Government, academia, the science community, the aeronautics and aerospace industries and international partners. NASA attended and sponsored conferences address a broad and diverse range of scientific and engineering challenges faced in carrying out its missions, including Earth science research, advanced aeronautics and the cutting-edge technologies needed for both current and planned robotic and human space flight programs.

In addition to facilitating the dissemination and advancement of scientific research, conferences also serve as a cost-effective way for NASA to carry out other mission-related purposes, such as educational outreach and program development, planning and information gathering. For example, conferences on program management provide opportunities for examination of current trends in aerospace project and engineering management; offering forums for the exchange and dissemination of best practices, new ideas, and training for managers across NASA to help the Agency cost-effectively meet the toughest challenges in space exploration today.

FY 2015 Conferences: NASA participated in 44 large conferences in FY 2015 for which it spent more than \$100,000. Net conference expenses for the 2015 fiscal year, for conferences costing the Agency more than \$100,000, totaled \$14.6 million. Detailed information on the events approved under the justification and approval process under OMB M-12-12 follows.

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
American Society for Gravitational and Space Research (ASGSR)	Pasadena, CA	10/21/2014	10/26/2014	\$271,917	125
Web site Link: https://www.asgsr.org/ Purpose: ASGSR brings together a diverse group of scientists and engineers to encourage an exchange of ideas bridging basic and applied biological and physical science research and technology in space and gravitational sciences. The members represent academia, government and industry interests bonded by a common issue - how living organisms and physical systems respond to gravity.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
46 th Annual Meeting of the Division for Planetary Science (DPS)	Tucson, AZ	11/9/2014	11/14/2014	\$218,702	45
Web site Link: http://aas.org/meetings/dps46/registration Purpose: The 46th Annual DPS event advances the investigation of the solar system and other planetary systems. The big questions of NASA's Planetary Science Division include the following: 1. How did planets originate? 2. How did the solar system evolve? 3. How has life evolved elsewhere in the solar system? The Annual DPS brings together a group of Scientists to explore the answers to these pressing questions.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Supercomputing 2014 (SC14)	New Orleans, LA	11/16/2014	11/21/2014	\$286,413	64
Web site Link: http://sc14.supercomputing.org/ Purpose: SC14 brings together the most respected minds in High Performance Computing (HPC), networking, storage and analysis to debut the research and innovation that will open the door to new scientific and economic opportunities. SC14 spotlights the most original and fascinating scientific and technical applications from around the world. SC14 will once again bring together the HPC community – an unprecedented array of scientists, engineers, researchers, educators, students, programmers, system administrators and developers – for an exceptional program of technical papers, tutorials, timely research posters and Birds-of-a-Feather sessions.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Joint Army-Navy-NASA-Air Force (JANNAF) Conference	Albuquerque, NM	12/8/2014	12/11/2014	\$129,073	50
<p>Web site Link: https://www.jannaf.org/mtgs/Dec2014/pages/index.html</p> <p>Purpose: The JANNAF Interagency Propulsion Committee coordinates fundamental research, exploratory development, and advanced development programs; standardize procedures and nomenclature; promote and facilitate the exchange of technical information; and accomplish problem solving in areas of joint agency interest on propulsion systems used in missiles, rockets, boosters, space planes, spacecraft, satellites and guns. JANNAF subcommittees focus their resources on technical issues of interest to the JANNAF agencies.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
2014 Fall American Geophysical Union (AGU)	San Francisco, CA	12/15/2014	12/19/2014	\$2,201,747	880
<p>Web site Link: http://fallmeeting.agu.org/2014/</p> <p>Purpose: AGU is the largest worldwide meeting in the geophysical sciences. AGU's activities focus on the organization and dissemination of scientific information in the interdisciplinary and international field of geophysics. The geophysical sciences involve four fundamental areas: atmospheric and ocean sciences; solid-Earth sciences, hydrologic sciences and space sciences. Participation in the annual AGU meeting addresses NASA's mission to "drive advances in science, technology and exploration to enhance knowledge, education innovation, economic vitality and stewardship of Earth" and enables broad and deep interaction with the worldwide community of researchers in Earth and space science.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
225 th American Astronomical Society (AAS)	Seattle, WA	1/4/2015	1/9/2015	\$417,735	176
<p>Web site Link: https://aas.org/meetings/aas225</p> <p>Purpose: The AAS conference fosters research, education and professional development in the multidisciplinary fields of astronomy, astrophysics, planetary science and solar physics. AAS brings together a diverse group of scientists and technologists to engage in an exchange of ideas bridging space science, research and technology development.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
2015 American Meteorological Society (AMS)	Phoenix, AZ	1/4/2015	1/8/2015	\$286,275	129
<p>Web site Link: https://annual.ametsoc.org/2015/</p> <p>Purpose: AMS attracts thousands of Earth and space scientists, policy makers, educators, students and news media. Participation in the AMS meetings is critical to NASA's mission to "drive advances in science, technology and exploration to enhance knowledge, education, innovation, economic vitality and stewardship of Earth" by enabling broad and deep interaction throughout the worldwide community of researchers in the Earth and space sciences. For scientists, the aforementioned interactions are integral to the process of science and often grow into proposals for NASA research announcements.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
American Institute of Aeronautics and Astronautics (AIAA) SciTech	Kissimmee, FL	1/5/2015	1/9/2015	\$864,924	349
<p>Web site Link: https://www.aiaa-scitech.org/</p> <p>Purpose: AIAA SciTech organizes conferences to serve the aerospace profession as part of its core mission. Spanning over 70 technical discipline areas, AIAA's conferences provide scientists, engineers and technologists the opportunity to present and disseminate their work in structured technical paper and poster sessions, learn about new technologies and advances from other presenters, further their professional development and expand their professional networks that furthers their work.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Earth Science Information Partners (ESIP) Federation Winter Meeting 2015	Washington, DC	1/7/2015	1/9/2015	\$109,822	74
<p>Web site Link: http://commons.esipfed.org/2015WinterMeeting</p> <p>Purpose: The ESIP Federation meetings align with and are crucial to the goals and activities of NASA's Earth Science Data Systems (ESDS) Program at NASA HQ, as well as the Earth Science Data and Information System (ESDIS) at NASA Goddard Space Flight Center (GSFC). ESIP is the primary venue for bringing together Earth science data users and information technology experts.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Human Research Program (HRP) Investigators Workshop	Galveston, TX	1/11/2015	1/16/2015	\$204,204	59
<p>Web site link: http://download.cnet.com/2015-NASA-Human-Research-Program-Investigators-Workshop/3000-2064_4-76217574.html</p> <p>Purpose: HRP Workshops provide human health and performance countermeasures, knowledge, technologies, and tools for safe, reliable and productive human space exploration. It is a requirement of all HRP research projects to attend the annual workshop to share the status their research. Since inception, HRP uses the annual Investigators Workshop to assess research progress and facilitate communication between researchers, management, headquarters, other programs that HRP supports and stakeholders in Medical Operations and the Astronaut Office.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Chinese Academy of Sciences (CAS)/NASA Glacier Workshop	Kathmandu, Nepal	1/20/2015	1/23/2015	\$193,800	20
<p>Web site Link: http://www.irdrinternational.org/2015/02/06/cas-nasa-workshop/</p> <p>Purpose: CAS/NASA Glacier Workshop is important to NASA in that the Himalayas are a rapidly changing and important component of the Earth system. NASA-supported researchers study ice loss, water resources and other aspects of Himalayan change using remote sensing tools, but lack access to data from in situ networks to validate results and inform process studies. This workshop offers new collaborations that foster access and improvement of NASA's knowledge of the region.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Nuclear and Emerging Technologies (NET)	Albuquerque, NM	2/23/2015	2/26/2015	\$117,390	59
<p>Web site Link: http://www.lenr-forum.com/forum/index.php/Thread/1289-NETS-2015-Nuclear-and-Emerging-Technologies-for-Space-Sponsored-by-ANS-USRA-NASA/</p> <p>Purpose: NET serves as a major communications network and forum for professional and students working in the area of space nuclear technology. While NASA is considering capabilities for robotic and crewed missions to the Moon, Mars and beyond, strategies that implement advanced power and propulsion technologies, as well as radiation protection, will be important in accomplishing these missions in the future. Each year NETs facilitates the exchange of information among research and management personnel from international government, industry, academia and the national laboratory systems.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Institute of Electrical and Electronics Engineers (IEEE) Aerospace Conference	Big Sky, MT	3/7/2015	3/14/2015	\$389,141	101
Web site Link: https://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=33705					
Purpose: The International IEEE Aerospace Conference promotes the interdisciplinary understanding of aerospace systems, their underlying science and technology and their application to government and commercial endeavors, by providing a working environment that encourages collaboration and interaction. This conference has a long-standing reputation for identifying, promoting and facilitating collaborations across NASA, Department of Defense (DOD) and international communities and has enhanced value by broad participation across all NASA Centers.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
South by Southwest (SxSW)	Austin, TX	3/15/2015	3/18/2015	\$294,805	57
Web site Link: http://sxsw.com/					
Purpose: SXSW provides an opportunity to meet NASA's Office of Communications goal to share NASA with the public, educators and students to provide opportunities to participate in the mission to foster innovation and contribute to a strong national economy. Additionally, participation in this event allows the Office of Communications to meet the following goals to 1.) Participate in events that attract large numbers of the general public; and 2.) Target venues and events to reach beyond space enthusiasts and the science-attentive public.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
46 th Lunar and Planetary Science Conference	The Woodlands, TX	3/16/2015	3/20/2015	\$764,002	320
Web site Link: http://www.hou.usra.edu/meetings/lpsc2015/					
Purpose: LPSC is the primary conference where researchers from around the world present results from a variety of topic areas of specific interest to NASA's Planetary Science Division. Each year, special sessions are chosen to highlight timely issues, such as results from new planetary missions and emerging new fields of study. This conference began as the forum for presenting results from the Apollo program and continues as the major forum for first results from most of NASA's planetary missions.					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
European Geosciences Union (EGU)	Vienna, Austria	4/12/2015	4/17/2015	\$246,333	48
<p>Web site Link: http://www.egu2015.eu/</p> <p>Purpose: EGU brings together NASA employees and contractors working on various Earth science missions and projects, such as the Earth Observing System (EOS) Mission, the Global Precipitation Mission (GPM), the Suomi-NPP (National Polar-orbiting Partnership), Ice, Cloud and land Elevation and Satellite-2 (ICESAT-2) and Soil Moisture Active Passive (SMAP) among others, to interact with international colleagues from various space agencies such as European Space Agency (ESA) and Japan Aerospace Exploration Agency (JAXA).</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
International Academy of Astronautics (IAA) Planetary Defense Conference	Rome, Italy	4/13/2015	4/17/2015	\$152,432	36
<p>Web site Link: https://iaaweb.org/content/view/599/785/</p> <p>Purpose: IAA Planetary Defense Conference is one in a series of events where the best minds in the nation and the international community work on testing hardware and software to prepare for these categories of events. This conference presents the most recent progress and results regarding planetary defense. The subjects include: Planetary Defense - Recent Progress & Plans; NASA Earth Observations (NEO) Discovery; NEO Characterization; Mitigation Techniques & Missions; Impact Effects that Inform Warning, Mitigation & Costs, Consequence Management & Education.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
31 st Space Symposium	Colorado Springs, CO	4/13/2015	4/16/2015	\$184,566	57
<p>Web site Link: https://www.spacefoundation.org/events/upcoming-events/31st-space-symposium</p> <p>Purpose: The Space Symposium is one of the single most important events for government organizations and other industries focused on space research objectives and expectations. NASA plays a unique role in both the national and commercial space. This conference presents a distinct opportunity to identify potential government and industry partners in one setting to support a broad range of space research and technology needs and opportunities for NASA to collaborate. Participants will be there to help facilitate various meetings on partnerships as well as share information on NASA technology portfolio that align with current and future public and private space technology development opportunities.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Carbon Cycle and Ecosystems Workshop	Hyattsville, MD	4/20/2015	4/24/2015	\$218,356	28
<p>Web site Link: http://cce.nasa.gov/meeting_2015/</p> <p>Purpose: A science team meeting for Principal Investigators, Co-Investigators, Collaborators and Students funded through NASA's Carbon Cycle and Ecosystems Focus Area programs that provide an opportunity to share scientific research results and foster interdisciplinary interactions. This workshop includes subjects such as Ocean Biology and Biogeochemistry, Terrestrial Ecology, Land Cover and Land Use Change, Biodiversity, Ecological Forecasting, Carbon Monitoring System and Agriculture.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Measurement Techniques in Solar and Space Physics (MTSSP)	Boulder, CO	4/20/2015	4/24/2015	\$113,314	52
<p>Web site Link: https://mtssp.msfc.nasa.gov/</p> <p>Purpose: The MTSSP conference addresses the following fundamental questions put forth in NASA's 2014 Science Plan: (1) What drives variations in the Sun and how do these changes impact the solar system and drive space weather? (2) How did our solar system originate and change over time? New measurement techniques and technologies must be identified to successfully advance the understanding of how the chemical and physical process in our Sun, in GeoSpace and throughout the solar system operate, interact and evolve.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Triennial Earth-Sun Summit (TESS)	Indianapolis, IN	4/26/2015	5/1/2015	\$138,642	71
<p>Web site Link: https://aas.org/meetings/tess2015</p> <p>Purpose: The primary motivation for TESS is to unify the Heliophysics Division by promoting greater interaction and cooperation among the four science disciplines under the Heliophysics umbrella: solar, heliospheric, magnetospheric and ionospheric physics. Promoting greater interaction directly supports the Agency's efforts to better understand the connected Sun-Earth system. This event also contributes to the success of the annual Living with a Star Program.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Annual General Counsel's Conference	New Orleans, LA	5/5/2015	5/7/2015	\$119,850	91
<p>Web site Link: http://www.cvent.com/events/27th-annual-general-counsel-conference-2015/archived-d8a52181dcd042208eb1aa45fea781f4.aspx</p> <p>Purpose: The annual NASA General Counsel's Conference provides an indispensable forum for NASA attorneys to grapple with key legal and policy issues facing the Agency. It is an essential tool to foster consistent, efficient and effective application of the law across the Agency, as well as providing a venue for discussion and resolution of legal issues. The Conference provides an opportunity for knowledge transfers among the attorneys and thus both formal and informal training. Further, it enables attorneys from across the agency to forge and strengthen relationships that foster ongoing collaboration in support of NASA's mission.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
86 th Aerospace Medical Association Conference (AsMA)	Lake Buena Vista, FL	5/10/2015	5/14/2015	\$124,756	61
<p>Web site Link: https://www.asma.org/annual-meetings/registration</p> <p>Purpose: The AsMA is the major domestic conference for exchange of space-related medical and scientific information between NASA, Department of Defense (DoD), Federal Aviation Administration (FAA) and other international aerospace medicine organizations. This exchange of medical and scientific data and opinion is vital for keeping NASA physicians and scientists abreast of the state of the art in aerospace medicine and provides an opportunity for NASA personnel to submit their work to critique by their peers. Specialty sessions permit the engagement of NASA and International Space Station (ISS) partners to exchange medical and scientific findings regarding long-duration space flight, and for NASA and FAA counterparts to participate in issues important to commercial space flight.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
62 nd Joint Army-Navy-NASA-Air Force (JANNAF) Propulsion Meeting	Nashville, TN	6/1/2015	6/4/2015	\$145,211	73
<p>Web site Link: https://www.jannaf.org/mtgs/June2015/pages/index.html</p> <p>Purpose: The JANNAF conference provides a forum for all, if not most, of the United States' capability in the area of propulsion and propulsion systems. This event aims to pioneer the future in space exploration, scientific discovery and aeronautics research. A primary component of exploration is transportation, and transportation is enabled by propulsion. The further understanding of this research and its applications are directly applicable to the advancement of the Agency's mission. More capable propulsion systems will lead to more efficient and more cost effective exploration systems.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
12 th International Planetary Probe Workshop (IPPW)	Cologne, Germany	6/15/2015	6/19/2015	\$202,829	20
<p>Web site Link: http://ippw12.dlr.de/</p> <p>Purpose: The IPPW is the primary meeting where new technology and findings in the field of Entry, Descent and Landing (EDL) are shared. This event is essential to preserving the Nation's core competency in the field of EDL. This is the only conference that brings together planetary scientists and mission designers to discuss issues that are specific to entry probes.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Astrobiology Science Conference (AbSciCon)	Chicago, IL	6/15/2015	6/19/2015	\$348,934	81
<p>Web site Link: http://www.hou.usra.edu/meetings/abscicon2015/</p> <p>Purpose: The AbSciCon is the only conference that brings together the panoply of individuals whose research focuses on the diverse fields encompassed by Astrobiology. As many of the missions funded by NASA generally and the Planetary Science Division specifically are focused on the search for life and habitable worlds in our solar system and beyond. The AbSciCon allows for the scientists that are part of this broad community to discuss their research with others in the Astrobiology community who are often primarily located in different communities and facilitates collaborations that lead to new research directions for future missions.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
American Institute of Aeronautics and Astronautics (AIAA) Aviation 2015	Dallas, TX	6/22/2015	6/26,3015	\$736,044	266
<p>Web site Link: https://www.aiaa-aviation.org/</p> <p>Purpose: The AIAA Aviation program covers many subjects that are vitally important to NASA's missions, to our core capabilities, and to our academic and commercial partners. Aviation 2015 will drive discussions of a global aviation ecosystem and its economic value by building upon a foundation in engineering disciplines, such as, acoustics, applied aerodynamics, fluid mechanics and dynamics, aero measurement technology, flight and ground testing, atmospheric flight mechanics, thermophysics and heat transfer, in addition to broader topics of atmosphere and space environments and aviation technology, integration and operations. The study of aviation as a changing ecosystem is the result of market success driven by the democratization of international travel making air travel more accessible to more people and the desire to sustain that access for future generations.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
26 th The International Union of Geodesy and Geophysics (IUGG) General Assembly 2015	Prague, CZ	6/22/2015	6/26/2015	\$214,622	13
<p>Web site Link: http://www.iugg2015prague.com/</p> <p>Purpose: The IUGG General Assembly is primarily aligned with NASA's Earth Science program. IUGG is truly an international organization, not just focused on Europe or the US. IUGG is an umbrella for many international organizations, such as the International Association of Geodesy, the International Association of Meteorology and Atmospheric Sciences and similar association in Hydrology. IUGG provides a high degree of international cooperation as well as effective central coordination. The data interpretation and analysis of NASA Earth science measurements is performed collaboratively by scientists across the world. The wealth of information from current EOS missions and other NASA satellites, Soil Moisture Active Passive (SMAP), Gravity Recovery and Climate Experiment (GRACE), Aquarius, Suomi National Polar-orbiting Partnership (NPP), SeaWinds, QuikSCAT, etc. and airborne missions such as IceBridge, is the basis of collaborative research.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
4th Annual International Space Station Research and Development (ISS R&D) Conference	Boston, MA	7/7/2015	7/9/2015	\$272,482	119
<p>Web site Link: http://www.iafastro.org/evenements/iss-rd-conference-2015/</p> <p>Purpose: The 2015 ISS R&D Conference is a forum to showcase the latest innovations, breakthroughs and discoveries onboard the International Space Station. The 2015 ISS R&D Conference brings together the leading minds in scientific research from the commercial and academic communities. The 4th annual conference focuses on new discoveries in microgravity research, life sciences, materials development and remote sensing.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
45 th International Conference on Environmental Sciences	Bellevue, WA	7/12/2015	7/16/2015	\$195,581	67
<p>Web site Link: http://www.depts.ttu.edu/cweb/ices/</p> <p>Purpose: The conference will covers numerous topics relating to humans living and working in hostile environments including: aerospace human factors, environmental control and life support, system technologies, environmental monitoring and controls, planetary protection, Extravehicular Activity (EVA) system technology, life sciences, planetary habitats and systems and thermal control systems for both manned and unmanned vehicles. The conference is open to participants from any nation, academics, government and industry organizations.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Earth Science Information Partners (ESIP) Federation Summer Meeting 2015	Pacific Grove, CA	7/14/2015	7/17/2015	\$166,927	91
<p>Web site Link: http://commons.esipfed.org/2015SummerMeeting</p> <p>Purpose: The ESIP Federation meetings align with and are crucial to the goals and activities of NASA's Earth Science Data Systems (ESDS) Program at NASA Headquarters as well as the Earth Science Data and Information System (ESDIS) Project at NASA Goddard Space Flight Center (GSFC). The ESDIS Project is responsible for management, oversight and technical direction of the Earth Observing System Data and Information System (EOSDIS), which includes, among other things, 12 Distributed Active Archive Centers (DAACs).</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
International Geoscience and Remote Sensing Symposium (IGARRS) 2015	Milan, Italy	7/26/2015	7/31/2016	\$266,127	47
<p>Web site Link: http://www.igarss2015.org/</p> <p>Purpose: The IGARRS event emphasizes the following areas: science data analysis methods; atmospheric science; cryospheric science; ocean science; solid Earth science; science missions and instruments; and education. These themes are also closely linked to NASA's Earth Science Division strategic priorities and the work that the Division is funding. In addition, this year's IGARRS conference is focusing on: monitoring natural disasters; hazard detection and mapping; emergency response; damage assessment; food security; and global crop monitoring. The aforementioned activities are all high priority areas for NASA.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
51 st / American Institute of Aeronautics and Astronautics/Society of Automotive Engineers/American Society of Engineering Education/Joint Propulsion Conference (JPC)	Orlando, FL	7/27/2015	7/29/2015	\$323,489	95
<p>Web site Link: http://arc.aiaa.org/doi/book/10.2514/MJPC15</p> <p>Purpose: The JPC conference directly addresses the mission of the Agency to “drive advances in science, technology and exploration to enhance knowledge, education, innovation, economic vitality and stewardship of the Earth.” The focus of this conference is on aerospace propulsion and energy conversion technology, advanced energy and power systems, devices for terrestrial energy systems and aerospace applications. The JPC focuses on identifying and highlighting how innovative aerospace propulsion technologies powering both new and evolving systems are being designed, tested and flown. Panel sessions focused on advanced system applications that can be used to showcase propulsion systems and components and the technologies that enable them.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Unmanned Aerial Systems (UAS) Traffic Management Convention (UTM)	Moffett Field, CA	7/28/2015	7/30/2015	\$992,962	84
<p>Web site Link: http://utm.arc.nasa.gov/utm2015.shtml</p> <p>Purpose: UTM represents the United States commercial interests, such as Amazon and Google. Industry and government panelists discussed the following topics:</p> <ul style="list-style-type: none"> • Privacy, Safety and Security • Technology • UAS Industry – Steps Toward Safe Integration • Commercial Applications: Media, Agriculture, Environmental and Cinematography • International Perspective: Safely Enabling Low-Altitude UAS Operations • State and Local Government Perspective: Getting Ready for Safe Low-Altitude Operations. 					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Asia Oceania Geosciences Society (AGOS)	Suntec, Singapore	8/2/2015	8/7/2015	\$204,234	36
<p>Web site Link: http://www.asiaoceania.org/aogs2015/public.asp?page=home.htm</p> <p>Purpose: The AGOS meeting is one of the most important Asian meetings in heliophysics research. AOGS is focused on the geosciences with an emphasis on global issues. In addition, its location allows U.S. NASA researchers to interact with a population of researchers that are not otherwise readily available for scientific discussions. This conference allows NASA scientists to expose and disseminate the latest results from NASA missions and provide access to state-of-the-art simulations and correlative data sets from foreign space missions.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Thermal & Fluids Analysis Workshop (TFWAS)	Washington, DC	8/3/2015	8/7/2015	\$139,392	215
<p>Web site Link: https://tfaws.nasa.gov/</p> <p>Purpose: The TFAWS is an annual training and professional development workshop that is designed to encourage knowledge sharing, professional development and networking throughout the thermal and fluids engineering community within NASA and the aerospace community at large. The vision of TFAWS is to maintain continuity over time and between disciplines throughout the thermal and fluids engineering community.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
29 th International Astronomical Union (IAU)	Honolulu, HI	8/3/2015	8/14/2015	\$815,367	161
<p>Web site Link: http://www.iau.org</p> <p>Purpose: The IAU brings together over 10,000 distinguished astronomers from all nations of the World to promote and safeguard the science of astronomy in all its aspects through international cooperation. This meeting is the most effective means of fostering understanding of NASA's mission, and the understanding of NASA's scientists of the intellectual questions and national concerns that will be addressed by future missions. NASA's scientists efficiently maintain currency in their disciplines by presenting and by participating in the many scientific and programmatic sessions held during the meeting. NASA-funded scientists and other scientists present their latest results, often in advance of publication. Discussions at the meetings by NASA's scientists are an effective means to maintain understanding of recent trends in astrophysics research and NASA's scientists have made effective use of this opportunity.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
29 th Annual American Institute of Aeronautics and Astronautics (AIAA)/Utah State University (USU) Small Satellites	Logan, UT	8/8/2015	8/13/2015	\$312,625	126
<p>Web site Link: http://www.smallsat.org/conference/</p> <p>Purpose: The AIAA/USU Conference on Small Satellites is internationally recognized as the premier conference on small satellites. The annual gathering provides a forum for the best minds in the small satellite community to review recent successes, explore new directions and introduce emerging technologies in small spacecraft development. In addition to creating an excellent environment for networking and talking with experts in military, science and academic fields, the Conference offers a program of international relevance, focusing on the key challenges and opportunities facing the small satellite community today.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Society of Photographic Instrumentation Engineers (SPIE) Optics + Photonics 2015	San Diego, CA	8/9/2015	8/13/2015	\$238,046	92
<p>Web site Link: http://spie.org/optics-photonics.xml</p> <p>Purpose: The SPIE Optics and Photonics Conference is held once every two years, and continues to be a key showplace conference for NASA to represent and present current technologies, current mission data, and interact with the international community in fields of Optics, Detectors, Systems Engineering, Contamination Engineering, Materials, Nanotechnology and many other critical technical fields.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
Aerodynamics Specialist Conference 2015	Vail, CO	8/9/2015	8/13/2015	\$111,805	42
<p>Web site Link: https://www.aaa.org/EventDetail.aspx?id=25374</p> <p>Purpose: The Aerodynamics Specialists Conference holds technical sessions covering a wide spectrum of current topics in aerodynamics and spaceflight mechanics. This event is an essential forum for NASA's technical leaders in aerodynamics to present their work, network with potential new hires and discuss cross-collaborations across NASA and other international space agencies.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
NASA Cost Analysis Symposium	Moffett, CA	8/25/2015	8/27/2015	\$178,894	74
<p>Web site Link: http://www.nasa.gov/offices/ooe/Symposium.html#.Vp58H0b0_p0</p> <p>Purpose: The NASA Cost Analysis Symposium is essential to maintaining and improving the estimating and analysis functions across the NASA community. The NASA cost analysis community includes all Centers as well as HQ and represents an essential function to the agency. This event advances NASA's core mission by providing a professional forum for agency analysts to present and learn results of cost research and participate in training sessions on methods and tools to support important agency initiatives such as conducting Joint Confidence Level (JCL) analyses.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
American Institute of Aeronautics and Astronautics (AIAA) Space 2015	Pasadena, CA	8/31/2015	9/2/2015	\$418,706	201
<p>Web site Link: https://www.aiaa-space.org/</p> <p>Purpose: Since 2000, NASA, United States Air Force (USAF) and Industry jointly have organized this premier AIAA space conference and exposition event on the West Coast and provides an annual forum for exchange of information and discussions critical for the future exploration of Space. AIAA SPACE 2015 combines the best aspects of technical conferences with insights from respected leaders, providing a single, integrated forum for navigating the key challenges and opportunities affecting the future direction of global space policy, capabilities, planning, research and development, funding, security, environmental issues and international markets.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
First Joint Solar Probe Plus- Solar Orbiter Workshop	Florence, Italy	9/2/2015	9/4/2015	\$108,341	31
<p>Web site Link: http://www.solarprobeplus.org/2015/</p> <p>Purpose: The First Joint workshop gathers the Heliophysics community to discuss the exciting new science opportunities that the Solar Orbiter (SO) and Solar Probe Plus (SPP) missions will provide and examines the important synergies between the two missions, leading to a strong collaboration for major advances in our understanding of the origins of the Heliosphere. The Workshop will address how the joint exploration of the corona and inner heliosphere will lead to advances in our understanding of coronal heating and solar wind acceleration, the magnetic and plasma structure of the heliosphere and the acceleration of energetic particles at shocks and flares.</p>					

Conference	Location	Start Date	End Date	Total Cost	NASA Paid Attendees
European Planetary Science Congress 2015 (EPSC)	Nantes, France	9/27/2015	10/2/2015	\$179,677	40
<p>Web site Link: http://meetingorganizer.copernicus.org/EPSC2015/</p> <p>Purpose: The annual EPSC is an opportunity to showcase NASA's efforts in Planetary Sciences and to present the results from NASA's missions to an international community of scientists and to the media. The event fosters conversations regarding Rosetta; presenting the results from the lander and the orbiter; Cassini and Curiosity; NASA laboratory experiments; astrobiology; and exoplanets. Due to the large number of sessions and attendance, the opportunities to forge collaborations with other scientists are outstanding. The interpretation and analysis of NASA data is performed collaboratively</p>					

by scientists across the world. NASA's core mission includes disseminating the latest measurements and engaging the science community to make the best use of this data possible.



Administrator Approval for Conferences Exceeding \$500K

Purpose

Science Mission Directorate (SMD) is requesting a waiver for 975 participants to attend the **Fall American Geophysical Union (AGU)** conference which is proposed to be held on December 15 -19, 2014 in San Francisco, California. The cumulative Agency participation is projected as 975 employees at an estimated cost of approximately \$2,637,500.

The following strategic goals will be addressed through NASA's attendance at the Fall American Geophysical Union conference:

1. Expand the frontiers of knowledge, capability, and opportunity in space.
2. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet.

Conference Background

The AGU conference is the premier event for scientists and engineers from Earth Science, Heliophysics and Planetary Science. AGU is the best opportunity for NASA scientists and engineers to interact with their respective communities, and the interactions often grow into proposals for NASA research announcements.

Conference Explanation

AGU serves as a mission critical event for inspiring future scientists and engineers. AGU is attended by several hundred teachers and students. AGU provides the perfect opportunity for NASA to inspire prospective future employees, or as a minimum, excite students to pursue a STEM career. NASA is one of the Nation's, if not the World's, greatest champion in implementing highly successful STEM activities. AGU provides us the ideal forum to reach and inspire future scientists and engineers for NASA and more importantly – our Nation. AGU is one of those mission-critical events that NASA should make every effort to attend to preserve and grow the knowledge and capabilities of our scientists and engineers.

Decision and Signature:

Approve: _____

Disapprove: _____

Date of Approval: 10/22/2014



Administrator Approval for Conferences Exceeding \$500K

Purpose

Langley Research Center (LaRC) is requesting a waiver for 458 participants to attend the **AIAA Science and Technology Forum and Exposition (SciTech)** conference which is proposed to be held on January 5 - 9, 2015 in Kissimmee, FL. The cumulative Agency participation is projected as 458 employees at an estimated cost of approximately \$1.5M.

The following strategic goals will be addressed through NASA's attendance at the AIAA SciTech 2015:

1. Expand the frontiers of knowledge, capability, and opportunity in space
2. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet

Conference Background

SciTech 2015 brings together engineers and educators, researchers and designers, scientists and students, managers and executives in sharing lessons learned across many organizations and disciplines, advancing technological innovation, education, economic progress, and national security. The event will explore how new technologies and new approaches can influence system affordability and environmental impact to enable the aerospace missions of tomorrow.

Conference Explanation

This is the largest event for aerospace research, development, and technology organized by the American Institute of Aeronautics and Astronautics, and is a consolidation of 11 technical events. This event will provide extensive access to a wide range of the latest in research and development within specific areas of expertise and across technological boundaries. The value to NASA from this event is high; this conference covers many areas that are vital to strengthen core capabilities that cut across missions and offers discipline integration expertise.

In addition to the conferences with a high number of NASA participants in the table above, AIAA is co-locating the following additional conferences at SciTech 2015:

- 23rd AIAA/ASME/AHS Adaptive Structures Conference
- 2nd AIAA Spacecraft Structures Conference
- 53rd AIAA Aerospace Sciences Meeting
- AIAA Atmospheric Flight Mechanics Conference
- AIAA Infotech @ Aerospace
- AIAA Guidance, Navigation, and Control Conference
- AIAA Modeling and Simulation Technologies Conference
- 17th AIAA Non-Deterministic Approaches Conference
- 56th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference
- 8th Symposium on Space Resource Utilization
- 33rd ASME Wind Energy Symposium

Decision and Signature:

Approve: _____

Disapprove: _____

Date of Approval: 10/14/2014



Administrator Approval for Conferences Exceeding \$500K

Purpose

Johnson Space Center (JSC) is requesting a waiver for 370 participants to attend the **46th Lunar and Planetary Science Conference (LPSC)** which is proposed to be held on March 16 - 20, 2015 in Woodland, Texas. The cumulative Agency participation is projected as 370 employees at an estimated cost of approximately \$873K.

The following strategic goals will be addressed through NASA's attendance at the LPSC conference:

1. Expand the frontiers of knowledge, capability and opportunity in space
2. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet

Conference Background

The LPSC is the primary conference where researchers from around the world present results from a variety of topic areas of specific interest to NASA's Planetary Science Division with special sessions chosen each year to highlight timely issues such as results from new planetary missions or emerging new fields of study. This conference began as the forum for presenting results from the Apollo program and continues as the major forum for first results from most of NASA's planetary missions. Previous total attendance from all communities has been over 2,000.

Conference Explanation

This conference highlights results from the scientific community on many NASA missions and international mission in which NASA has interest. Many NASA and JPL scientists use this domestic conference to report on their own competitive research as well as discuss new instrument and mission concepts with their peers. NASA officials will provide special briefings to the community on the state and direction of science and exploration initiatives of interest to the planetary science community. Based on history, approximately 45 JPL scientists are expected to attend. A large number of the NASA employees are local to the conference city.

Decision and Signature:

Approve: _____

Disapprove: _____

Date of Approval: 3/4/2015



Administrator Approval for Conferences Exceeding \$500K

Purpose

Langley Research Center (LaRC) is requesting a waiver for 285 participants to attend the **American Institute of Aeronautics and Astronautics (AIAA) Aviation 2015** conference which is proposed to be held on June 22 - 26, 2015 in Dallas, Texas. This conference is estimated to exceed \$500,000 in net NASA expenses. The cumulative Agency participation is projected as 285 employees, at an estimated cost of approximately \$837K.

The following strategic goals will be addressed through NASA's attendance at the AIAA Aviation:

1. Expand the frontiers of knowledge, capability, and opportunity in space
2. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet
3. Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure

Conference Background

The AIAA Aviation program covers many subjects that are vitally important to NASA's missions, to our core capabilities, and to our academic and commercial partners. Aviation 2015 will drive discussions of a global aviation ecosystem and its economic value by building upon a foundation in engineering disciplines, such as, acoustics, applied aerodynamics, fluid mechanics and dynamics, aero measurement technology, flight and ground testing, atmospheric flight mechanics, thermophysics and heat transfer, in addition to broader topics of atmosphere and space environments, and aviation technology, integration and operations. The study of aviation as a changing ecosystem is the result of market success driven by the democratization of international travel making air travel more accessible to more people and the desire to sustain that access for future generations.

Conference Explanation

AIAA Aviation 2015 will bring together more than 35 countries of experts reporting on the latest advancements in applied science and aviation technologies. More than 1,500 papers will be presented at the 16 technical conferences (with ITAR-compliant sessions). Seventy percent of the technical presentations will focus on five areas, including: Aeroacoustics; Applied Aerodynamics; Computational Fluid Dynamics; Fluid Dynamics and Air Transportation Integration and Operations.

Decision and Signature:

Approve: _____

Disapprove: _____

DATE: 4/1/2015



Administrator Approval for Conferences Exceeding \$500K

Purpose

Ames Research Center (ARC) is requesting a waiver for 102 participants to attend the **UAS Traffic Management Convention (UTM)** which is proposed to be held on July 28 - 30, 2015 in Moffett Field, California. The cumulative Agency participation is projected as 102 employees at an estimated cost of approximately \$995K.

The following strategic goals will be addressed through NASA's attendance at the UTM Convention conference:

1. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet
2. Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure

Conference Background

The 2015 UTM Conference was a workshop in preparation of this year's event and was the inaugural event. This is NASA's second annual UTM conference. This year the conference purpose and scope has been re-engineered and expanded significantly. This year's event is focused on exploring the broad range of technical, policy and social aspects of low altitude UAS flight and associated research needs. NASA has included significant research funds in this topic in the budget and the outcomes of these discussions will help to validate NASA's technical approach. As such, the facility used in 2014 is not sufficient to accommodate the more than 1,000 attendees expected. Tents with proper ventilation, security, and logistical support are required. This event will bring together a broad range of stakeholders with an interest or role in this fledgling industry and whose views will influence the NASA research agenda, hence the large size and the partnership with AUVSI to put the event together, and the large associated costs. This topic has brought intense community, media and Congressional interest this year with Congressional hearings and briefings, which is why the event was put together on such short notice. Coordinating with the varied stakeholders to organize this unprecedented activity also has taken a lot of time.

Conference Explanation

NASA's sponsorship of the event is critical for NASA's efforts in UTM for establishing key contacts and disseminating and sharing technical information. Bringing the broader community together on this topic can assist in obtaining knowledge of the appropriate technology and policies in place to keep pace with emerging opportunities in low-altitude UAS operations in the upcoming 5 -10 years.

Decision and Signature

Approve: _____

Disapprove: _____

Date of Approval: 7/20/2015



Administrator Approval for Conferences Exceeding \$500K

Purpose

Science Mission Directorate (SMD) is requesting a waiver for 224 participants to attend the **29th International Astronomical Union (IAU)** conference which is proposed to be held on August 3 -14, 2015 in Honolulu, Hawaii. This conference is estimated to exceed \$500,000 in net NASA expenses. The cumulative Agency participation is projected as 224 employees, at an estimated cost of approximately \$1.1M.

The following strategic goals will be addressed through NASA's attendance at the IAU:

1. Expand the frontiers of knowledge, capability, and opportunity in space
2. Advance understanding of Earth and develop technologies to improve the quality of life on our home planet
3. Serve the American public and accomplish our Mission by effectively managing our people, technical capabilities, and infrastructure

Conference Background

The IAU brings together over 10,000 distinguished astronomers from all nations of the World to promote and safeguard the science of astronomy in all its aspects through international cooperation. This meeting is the most effective means of fostering understanding of NASA's mission, and the understanding of NASA's scientists of the intellectual questions and national concerns that will be addressed by future missions. NASA's scientists efficiently maintain currency in their disciplines by presenting and by participating in the many scientific and programmatic sessions held during the meeting. NASA-funded scientists and other scientists present their latest results, often in advance of publication. Discussions at the meetings by NASA's scientists are an effective means to maintain understanding of recent trends in astrophysics research, and NASA's scientists have made effective use of this opportunity.

Conference Explanation

NASA is the world leader in space astrophysics, therefore it is appropriate that NASA attendance will constitute approximately 5% of the total attendance. NASA Scientists (civil servant and contractor) are significant fraction of the U.S. astronomical community. NASA scientists make up approximately 11% of the membership of the American Astronomical Society (AAS). Approximately, 30 to 40% of all NASA research funding goes to NASA scientists, indicating that NASA scientists make up more than one-third of the active space astronomy research community. It is appropriate and justified that NASA scientists would constitute a significant fraction of any large national or international astronomical meeting.

Decision and Signature:

Approve: _____

Disapprove: _____

DATE: 12/11/2014