

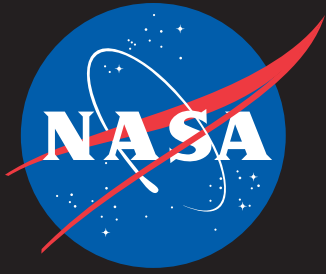
IT Talk

Jan - Mar 2021

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Collaboration at NASA



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Message from the NASA CIO

The COVID-19 pandemic highlights the importance of effective collaboration. Enhanced remote teamwork tools with the accelerated availability of Teams, training sessions, Office 365 mobile applications, and the Teams Audio Conferencing service have allowed our Agency's mission to successfully continue. Scientists and engineers have been able to collaborate with internal and external partners to develop research proposals, exchange ideas and observations, share data and analysis, and collaboratively develop scientific software applications. In this issue, we'll look at how collaboration has evolved over the past several months and how we're preparing for the future of work at NASA.

And we will explore how NASA's Supply Chain Risk Management (SCRM) team is playing a pivotal role in lowering the threats and vulnerabilities associated with procuring information and communications technologies. We all share a responsibility to protect NASA's network and understand and manage supply chain risk.

And finally, we'll also highlight some prestigious awards that many of our Office of the Chief Information Officer (OCIO) teammates have earned recently. This is a testament to the great work being done at the Centers that is helping to deliver critical capabilities to enable the NASA mission. I'm proud of how information technology at the Agency is evolving. Keep up the great work!

Jeff Seaton

NASA Chief Information Officer (Acting)



Arvin Baroni Recognized as a 2020 Rising Star

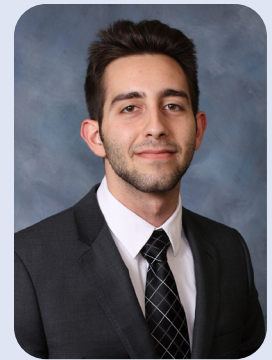
*By Whitney Haggins, IT Communication Strategist,
Jet Propulsion Laboratory, California Institute of Technology*

The Government Innovation Awards, presented by Federal Computer Week, Government Computing News, and Washington Technology & Defense Systems, have named Arvin Baroni, a Product Lifecycle Management Senior Product Manager in the Information and Technology Solutions Directorate, as one of their 2020 Rising Stars. Baroni is the Jet Propulsion Laboratory's (JPL's) sixth Rising Star honoree since 2010. The Rising Star Award recognizes outstanding early-career individuals in the first ten years of their IT career whose work significantly impacts their employers.

Tasked with managing multiple critical projects within the Product Lifecycle Management arena, Baroni manages several products heavily used by the engineering community as part of a cadre of applications for streamlining information

gathering/retention while creating labor efficiencies and process visibility. In his five years at JPL, Baroni has proven himself to be not only an effective project manager, but a trusted partner in the process, successfully teaming with multiple engineering organizations to balance their needs and priorities to meet their goals. As an ardent advocate for change and process flow improvement, he is passionate about learning and serves as a role model to his fellow group members; moreover, he is continuously challenging the status quo, driving for the highest standards in operations, user experience design/user interface design (UX/UI), application development, and platform consistency.

Complete profiles for all the 2020 Rising Stars can be found at <https://fcw.com/articles/2020/10/16/rising-stars-2020.aspx>.



Arvin Baroni

ICT SCRM Takes a Village

By the ICT Supply Chain Risk Management Team, Goddard Space Flight Center

Information Communications Technology (ICT) Supply Chain Risk Management (SCRM) is a huge title befitting the enormous task that NASA faces maintaining the security of all mission-critical systems that support the Agency. Since we rely extensively on computerized information systems and electronic data to carry out our wide variety of missions, the exploitation of ICT products and services through the global supply chain is an emerging and continuous threat that continues to grow.

ICT SCRM is not about hindering purchases—it is about protecting NASA. From design to disposal, NASA’s ICT supplies, products, and services are susceptible to compromise. When we fail to properly assess all ICT purchases for risks, bad things happen. Perfectly put by our partners at the Cybersecurity and Infrastructure Security Agency (CISA) at the Department of Homeland Security (DHS), those things are vulnerabilities that “can enable data and intellectual property theft, loss of confidence in the integrity of the system, or exploitation to cause system or network failure.”

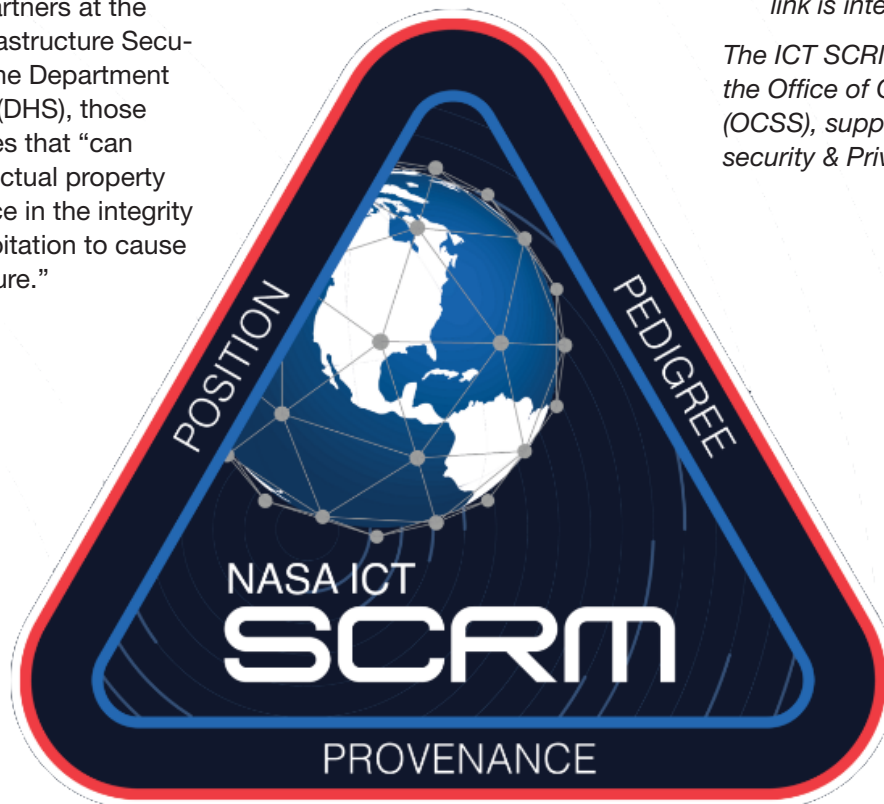
The ICT SCRM analysts play a pivotal role in lowering the threats and vulnerabilities associated with procuring information and communications technologies. The comprehensive assessment process works to identify malicious software and hardware vulnerabilities, counterfeit components and poor product designs, manufacturing processes, and maintenance procedures. Our process ensures that only assessed and cleared covered articles enter the Agency’s supply chain.

While the ICT SCRM Team is on the front line of supply chain security, it takes a village. Protecting NASA’s network and understanding and managing supply chain risk is everyone’s responsibility.

Here are some easy steps to take whenever you need a new ICT supply, product, or service:

1. Check the Assessed and Cleared List to determine if the item has already been assessed for risk and approved for purchase.
2. If you cannot locate the item you need, submit a Request for Investigation (RFI), also known as a Supply Chain Risk Assessment Needed (SCAN) or NF 1823. Reach out to your Center’s SCRM Point of Contact for assistance with the form.
3. Visit the [ICT SCRM website](#) regularly for the latest SCRM news and the information you need to know to keep our supply chain and our missions safe. *(Please note, this link is internal to NASA)*

The ICT SCRM is a service provider of the Office of CyberSecurity Services (OCSS), supporting the OCIO’s Cybersecurity & Privacy Division (CSPD).



Teams' New Meeting Experience Designed for Focus

By Shaina Strom, End User Services Program Office Communications, Marshall Space Flight Center



The End User Services Program Office (EUSO) is continually looking at new and enhanced functionality coming from Microsoft to implement at NASA and improve the user experience.

Recently, Microsoft released New Meeting Experience and additional features meant to dim distractions and enhance focus. New Meeting Experience features will eventually be enabled by default, but until then, you can opt in to use them through your settings. Turn them on now to explore.

- Use Teams in multiple windows with pop-out meetings, creating a new, separate window with the Controls Menu at the top of the new window.

- Feel closer together with Together Mode and impose a shared background with meeting participants, making it feel like you are all sitting in the same room.
- Turn on the Spotlight for speakers so that all participants can give their attention to the main speaker. Meeting organizers can lock the individual video feed so that the speaker has the floor.
- Reduced background noise uses artificial intelligence (AI) noise suppression technology to keep your barking coworkers a little quieter for your colleagues. Select one of four settings to suppress the right amount of background noise.
- Meeting chat moderation allows organizers to manage participants' ability to chat before, during, or after the meeting, or if the chat should remain read-only.

Upcoming releases give you more control over how you work in Teams.

- Native notifications on Mac and Windows devices allow you to choose how you would like to be notified through the settings.

Visit our [O365 Roadmap](#) for the latest information on new releases from Teams (*please note this link is internal to NASA*).





Collaboration at NASA

By Barbara Jo Webb, Customer Experience Specialist, Marshall Space Flight Center

This past year has been fun, interesting, frustrating, exhausting, and educational. We've learned to work with spouses walking through the room, children playing in the kitchen, and dogs barking in the background. Cats usually walk between you and your computer to ensure that they have been seen. Thanks to videoconferencing, we've seen how your home office is decorated and we've learned to work while the doorbell is ringing with your Amazon delivery. Simply stated, we've learned to work in a virtual environment, and we've learned the necessity of collaboration.

When faced with the situation of mandatory teleworking, our NASA workforce did not just accept the situation—they embraced it with determination and helped demonstrate to the OCIO the importance

of having the correct set of tools to get the job done in an environment that involves [remote collaboration](#).

NASA's use of Microsoft Teams has shown that we can collaborate internally with ease. Files and documents are constantly being uploaded to Teams sites. Millions of messages have been sent across the Teams chat feature. And we did see you eating that sandwich during the Teams meeting yesterday.

Mobile access to VPN is currently in the pilot phase and will soon be available. What will that allow users to do? The mobile VPN access will allow secure browsing to internal NASA sites via Edge, mobile access to SharePoint Online sites, and access to collaborate from mobile devices on files stored on a user's OneDrive account.

But what about trying to [collaborate with partners outside of NASA](#)? Admittedly, that gets a bit trickier. Due to the sensitivity of the NASA data, extra protocols need to be put in place to ensure that the data are kept secure and handled properly. Since most of you are using Zoom in your personal lives and are already familiar with its ease of use, you have repeatedly requested access for your use at work as well. The NASA OCIO went to work investigating the use cases, the functionality of the tool, and the security protocols. Beginning in January 2021, Zoom Webinar will be offered for NASA employees' use. And while there are some restrictions in place to maintain the security needed, Zoom Webinar will be available.

But what else is available?

For sharing files, we have Box! We're currently working to bring a Federal Information Security Management Act (FISMA)-moderate instance of Box to allow collaboration with external partners with credentials from another federal agency. Sensitive But Unclassified (SBU)/Personally Identifiable Information (PII)-Sensitive data will be allowed in this area.

If you need to share International Traffic in Arms Regulations (ITAR)/Export Administration Regulations (EAR) data, a pilot project is underway to support collaboration regarding the International Space Station (ISS)/European Space Agency (ESA) and allow external vetted Foreign National partners to collaborate on ITAR/EAR/SBU/PII-Sensitive documents using Box.

A FISMA-low instance of Slack is slated to be available for NASA to collaborate with external partners in January 2021.

And while virtual collaboration in a Microsoft Teams meeting is used on a daily basis within NASA, sometimes teams and organizations need to connect with larger audiences utilizing additional capabilities not found in a Teams meeting. Webex Meetings and Webex Training now support up to 1,000 attendees, with the ability to use Breakout Rooms for additional sessions in a virtual conference or meeting.

Trying to plan the logistics of a large meeting or conference and are not sure where to get started? NASA's OCIO has provided an entire site for you to investigate what is available

and request assistance with selecting the appropriate tool and submitting the request. Visit [Getting Started with Planning Your Virtual Event](#) for more information.

The NASA OCIO team has worked to identify the needs of the workforce and provide solutions in a safe environment to make collaboration possible. While not all needs have been answered, investigations continue in an effort to provide what the workforce needs to collaborate and continue work in a secure environment.

To start collaborating, visit: <https://nasa.sharepoint.com/sites/collaboration>. (Please note, all links are internal to NASA.)





Remote Collaboration Tools Support NASA's Mission of Exploration

By Daniel Horton, End User Services Program Office Communications, Marshall Space Flight Center

Working and collaborating online took on a new meaning in 2020. Instead of being supplementary to onsite work, it has become a primary conduit of productivity as remote work has become the norm over the last year.

This has been the case for the women and men of NASA, who still have a mission to explore our solar system and return boots to the Moon in the coming years. Keeping that task on schedule has required many tools enabling remote collaboration provided by the End User Services Program Office (EUSO).

One of the most exciting accomplishments of 2020 was the return of crewed launches from Kennedy Space Center. In March, Operations Integrator Manager Mike Hess commented that “through all of the time of remote work, we haven’t slowed down.” Hess’s Commercial Crew Program team at Kennedy Space Center continued to leverage tools like Microsoft Teams and Office 365, remotely supporting flight readiness reviews of crewed launches to the International Space Station.

“If anything, the pace of work has accelerated using many of the standard tools for teleworking,” Hess mentioned. EUSO’s remote col-

laboration tools would minimize face-to-face interaction, ensuring a safe launch of crewed commercial flights.

Just down the road on the Space Coast, launches to another target took place. In July, the Perseverance Rover started its journey to the Jezero Crater on Mars, thanks in part to remote collaboration tools from EUSO.

Michael Haddad is part of the Safety and Mission Assurance Launch Services team on this mission. He continued to work online with his colleagues to ensure that a healthy launch vehicle could give Perseverance a smooth ride to Mars. “Cube-to-cube interaction is something that was useful to us onsite, but now it’s been replaced by Teams,” explained Haddad. “We’re all using video chat. It’s gotten so commonplace that we’re used to our kids or dogs being part of our team meetings.”

These online meetings have also been crucial in studying other objects in our solar system. One example is with Solveig Irvine of the Planetary Mission Program Office. Irvine has had a very busy year, studying both the NEOWISE Comet and the asteroid Benu as they have passed near Earth. Working on these projects

requires collaboration between Marshall Space Flight Center, Goddard Space Flight Center, the Jet Propulsion Laboratory, and many others.

Irvine explained that her team has “continued to excel using our virtual tools—both with the mission planning and execution, and even having some virtual celebrations with the team to mark milestone events.” Remote collaboration took on a whole new meaning in October, as the Origins, Spectral Interpretation, Resource Identification, Security–Regolith Explorer (OSIRIS-REx) craft collected samples from Benu. During the approach, the whole team spread across the country was able to watch. Even while working from home, Irvine described that it was “one of the best moments I have experienced in my career.”

The adaptations required by the past year have not been an obstruction to the mission. In combination, the flexibility of NASA’s workforce and the remote collaboration tools provided by EUSO have ensured that 2020 was indeed a landmark year. From crewed flights to the International Space Station, to the exploration of planets and objects in our solar system, work has continued at the speed of light.

Technology-Enabled Strategic Partnerships Are Critical to Goddard's Science Missions

By Steve Thornton, Acting Division Chief, Solutions Division, Information Technology and Communications Directorate (Code 730), Goddard Space Flight Center

Congress founded NASA in 1958 as America's civilian space and aeronautics agency. Central to NASA's mission are ensuring that space activities are devoted to peaceful purposes for the benefit of all humankind; maximizing the commercial use of space; expanding human knowledge of Earth, its atmosphere, and space; using long-range studies to advance science and peaceful space and aeronautic activities; conducting the search for life's origin, evolution, distribution, and future in the universe; and cooperating with other nations in these pursuits. As such, in this digital age, collaborative strategic partnerships and collaborative science, effectively enabled by technology, are critical to NASA's mission.

Goddard's scientists and engineers collaborate with internal and external partners to develop research proposals, exchange ideas and observations, share data and data analysis, and collaboratively develop scientific software applications. NASA's external partners in the scientific community are employed by universities worldwide, foreign space agencies, other U.S. Government agencies, and private industry.

More than 50 Goddard spacecraft explore Earth and soar through the solar system, collecting observations to be parsed and studied by this global community of scientists in the disciplines of Earth science, solar science and the Sun-Earth environment, planetary studies, and astrophysics. Goddard's Sciences and Exploration Directorate currently has 19 missions and projects under study, 30 in development, and 222 in operations. Most of these include Government, academic, or private-sector partners and require effective, secure collaboration; workflow integration; and integrated



design and testing capabilities. Goddard is on track for jointly authoring over 1,400 publications with non-NASA collaborators globally. Many of these publications are the end-product of collaborative research and development, for which IT is a critical enabler.

Goddard scientists also rely on information technology, including end-user devices, inter-connected networks, cloud computing, applications, and identity management capabilities to collaborate securely with several critical Federal agency partners, including the National Oceanic and Atmospheric Administration (NOAA) and the United States Geological Survey (USGS). All three agencies collaborate regularly around their respective missions and create standards around Earth science data and supporting platforms, such as cloud computing.

Since COVID-19, effective, secure collaboration capabilities have become even more critical to Goddard's mission. In order to provide value and enable the mission for our scientists, engineers, and flight project directorate customers, NASA OCIO is working to improve large file sharing with external partners, as well as the ability to easily share identities and credentials with partners. In October 2020, the Agency started piloting the use of Slack to provide NASA project teams and scientists with a persistent group-chat application that allows them to share FISMA low data with external partners. The Slack project team is working toward a goal to make Slack available NASA-wide by March 2021. Goddard's important mission work has largely continued, despite the pandemic, and technology has been a critical enabler for this work.

Communications Program Hosts Webex Cheer Wall for SpaceX DM-2 and Crew-1 Launches

By Sylvester Placid, Communications Strategist, Communications Program, Marshall Space Flight Center

When NASA and SpaceX launched Crew Dragon Demo-2 on May 30 and Crew-1 on November 15, the astronauts were cheered on—virtually—by several hundred personnel from NASA, SpaceX, the Japan Aerospace Exploration Agency (JAXA), California Polytechnic State University, and other mission partners using an innovative collaboration solution from the Communications Program (CP).

CP hosted a Webex “cheer wall” that enabled video greetings for the astronauts from people across NASA and our external partners. The Webex sessions were collected and compiled by NASA video production teams for DM-2 and Crew-1.



JPL IT volunteers support 2020 Congressional App Challenge

By Whitney Haggins, IT Communication Strategist, Jet Propulsion Laboratory, California Institute of Technology

Four members of the AI, Analytics and Innovation Development (1740) team served as judges in the 2020 Congressional App Challenge for California's 27th district (Judy Chu). The Congressional App Challenge, an official initiative of the U.S. House of Representatives, is recognized as the largest student computer science competition globally. 2020 was an immense challenge to date, with more than 6,000 students registered for the event. Participants were from 308 districts across 49 states, Puerto Rico, Guam, the Mariana Islands, and Washington, D.C. Information on the challenge can be found at <https://www.congressionalappchallenge.us/about/>.

For Rep. Chu's district, the ITSD judging team consisted of Data Scientists

Valentino Constantinou, Annie Didier, Anastasia Menshikova, and Hamsa Venkataram. The submissions were from grades K-12. Judges first individually reviewed the video submissions and then virtually convened to discuss the entries and make recommendations to Rep. Chu based on creativity, the importance of the issue/concept the app attempts to solve, technique, and quality of presentation. For Annie Didier, the judging experience was inspiring, and she is interested in participating as a judge next year. Didier said, "It's incredible to see what these kids have put together. Some of them even have apps available on the app store and are in use by other people. There were even a few where I thought, "I need that!" I would love to hire some of these kids!"

2020 marked Valentino Constantinou's second time as an app challenge judge. He enjoyed the experience so much he signed on to participate this year. Constantinou noted an increase in participation from 2019 and welcomed the community involvement. The biggest surprise to him was how the students were much more technically savvy than he was at that age, from the technical content and the quality of their video submissions.

Rep. Chu announced the winning entries in a virtual award ceremony on December 12.

- **First Place**
Zion Asemota – Help4Med
- **Best Presentation**
Charlie Heatherly, Julia Heatherly, Andrew Smithwick – Red Dungeon
- **Best Technical**
Devin Shih, Lewis Polansky, Nicholas Parra – Hourlyly
- **Honorable Mention**
Jolene Lee, Lauren Hu, Connor Wang, Xiangbo Qi – ClubSpace
- **Honorable Mention**
Ariana Pineda – Purity – Gout Diet Management
- **Honorable Mention**
Sulekha Kishore – Fruitfull
- **Honorable Mention**
Ethan Chantanusart – Common Language Translator



JPL IT volunteer judges (clockwise from top left): Valentino Constantinou, Annie Didier, Hamsa Venkataram, and Anastasia Menshikova (Courtesy NASA/JPL-Caltech)

Honor Awards: Kudos to the OCIO Team!

By Eldora Valentine, OCIO Communications Manager, NASA Headquarters

Congratulations to the following team members in the NASA Office of the Chief Information Officer (OCIO) for winning awards.

The NASA IT Strategy and Performance Team has won a silver achievement medal in the Agency Honor Awards. Team members include Meredith Isaacs, Lara Petze, and Jon Walsh. This team transformed the strategic management of NASA's information technology (IT) to better enable NASA's mission in alignment with Agency and Federal direction. They supported the NASA CIO and worked with Agency customers to establish a clear IT value proposition and customer-oriented strategy to strengthen performance management and promote effective stewardship of NASA's IT while implementing repeatable processes to make future efforts sustainable and cost-efficient. NASA's IT Strategic Plan for FY 2018–21 is an outcome-oriented plan based on engagement with diverse stakeholders and first-ever approval through NASA's IT Council.



Meredith Isaacs



Lara Petze



Jon Walsh



Allison Wolff

Allison Wolff has won a FedScoop 50 award for Most Inspiring Up & Comer. Wolff is an applications architect in OCIO. She worked with NASA's medical community to develop and deploy a contact tracing and tracking system application during COVID-19. FedScoop 50 Awards celebrate the tireless leaders who have made a lasting impact on the community and the Nation in 2020, particularly in regard to how they used technology to respond to and overcome the challenges of the COVID-19 outbreak. For more information about the FedScoop Awards visit <https://www.fedscoop.com/list/2020-fedscoop-50/>.

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