

ORBITER NEWS

News, announcements, and more.

Aerospace Donates Much-Needed Supplies to Local Hospitals Fighting COVID-19

March 31, 2020

As the fight against the **COVID-19** outbreak continues, hospitals and medical workers around the country are facing a shortage of critical supplies. Looking for ways to help, a team of quick-thinking Aerospace employees collected crucial medical equipment to donate responsibly to local hospitals. The cross-organizational team located N95 masks and other personal protective equipment (PPE) from Aerospace's Environmental Health and Safety Emergency Preparedness, ETG and the Physical Science Laboratories.



Laura Schenasi, Executive Vice President of Torrance Memorial Foundation, was overjoyed to receive the much-needed supplies donated by Aerospace.

"It is truly incredible that these employees saw the possibilities here and worked to make it happen," said Chuck Gustafson, Chief Velocity Officer of Aerospace. "They may literally have saved lives by doing so. I am proud to be their colleague."

Working across multiple departments, the team was able to pull together:

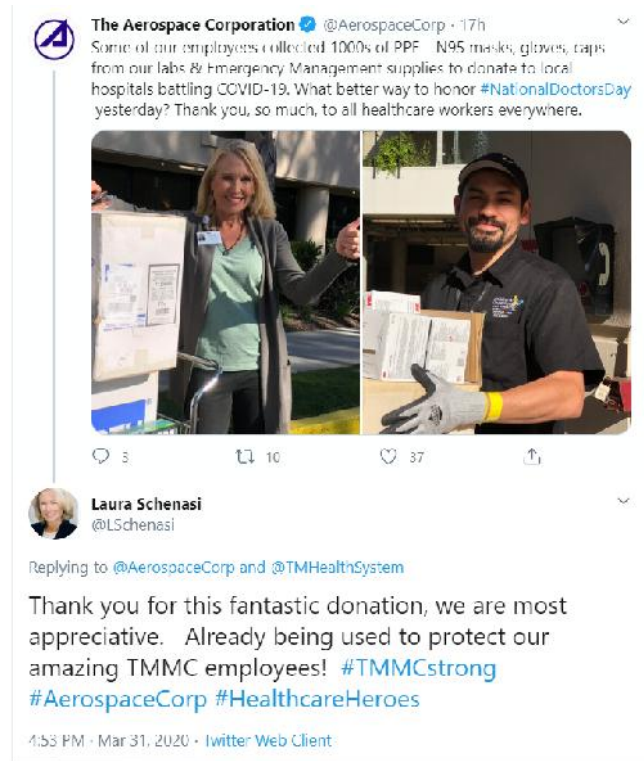
- 1400 nitrile gloves
- 1480 N95 masks
- 500 three-ply face masks

- 500 clean room caps

“We had an outpouring of concern and interest from employees wanting to know how they could help and find ways for Aerospace to contribute to the fight against COVID-19,” said Tim Graves, General Manager of PSL. “We were quick to determine our reserves and our expected needs for our Aerospace staff. Acting with velocity, Aerospace pulled together a serious stash to help our local hospitals.”

Aerospace employee Lianne McGinley, who was instrumental in the donation’s distribution efforts, delivered the supplies to Torrance Memorial Medical Center on Friday. Laura Schenasi, Executive Vice President of the Torrance Memorial Foundation, was overjoyed to receive them and Torrance Memorial staff shared that Aerospace’s N95 masks are already being used in the ICU.

Aerospace also delivered N95 masks to Children’s Hospital of Los Angeles to help with increased demand for PPE. Both organizations expressed their gratitude for the much-needed supplies.



“I am glad that we were able to donate supplies to healthcare providers that will help them to perform their jobs of helping and caring for those that are affected by COVID-19,” said Jason Bayonne of EHS. “It is a great opportunity to be able to focus our responsibility of defending our nation inward by helping to protect our fellow countrymen against this public health crisis. Be it a public health crisis, natural disaster or other emergency, we have a moral and ethical responsibility to help those that are in need.”

The donations were made with appropriate consideration and consultation as Aerospace is not a medical or first-responder organization and experiences the same manufacturing and supply chain challenges presented by the recent spike in demand for this kind of equipment. Aerospace has a limited quantity of

N95 masks on hand, which are reserved for critical needs, such as escorting staff during cleaning and disinfection of office spaces following a positive or presumed positive case.

Thank You, Willie: A Virtual Celebration for Dr. Krenz's Retirement

March 26, 2020



*Dr. Willie Krenz, Aerospace's first Chief Velocity Officer, at last year's OCVO All-Hands.
{Photo Credit: Jeff Berting}*

Please join us in wishing a fond farewell to Dr. Willie Krenz in this virtual celebration of his retirement! Share your appreciation, gratitude and well wishes in the comments section below.

Dr. Krenz joined The Aerospace Corporation on January 28, 1985, as a Member of the Technical Staff and progressed through a series of increasingly responsible ETG and program office positions before becoming Aerospace's Chief Information Officer on April 12, 2008. He held that position for nearly a decade before becoming Aerospace's first Chief Velocity Officer on April 1, 2017.

He has been a visionary architect in the CVO role, where he has overseen and facilitated actions designed to accomplish work more quickly and eliminate unnecessary processes that hinder efficiency while singularly uniting and establishing uniformity across Aerospace's nationwide work environments and experiences through his championing of the One Aerospace initiative.

Dr. Krenz has directed the departments of Corporate Communications and Public Affairs, Facilities, and Security and Safety, qualitatively and quantitatively changing how the company tells its story to the world, provides optimal spaces for its employees to advance their critical work, and sustains an environment free from the threat of harm or injury.

In his tenure as Chief Information Officer, among many milestones, he moved the company to an offsite data center and transformed collaboration to the cloud-based Office 365, profoundly strategic moves that have had significantly beneficial impact on company operations.

Dr. Krenz has received many prestigious accolades in recognition of his extraordinary accomplishments and contributions, including the 2013 CIO Top 10 Breakaway Leader Award, and earned the deep respect of the community for leading the way for FFRDCs and UARCs to use the Office 365 government cloud, while also holding an esteemed affiliation as an associate fellow of the American Institute of Aeronautics and Astronautics.

Dr. Willie Krenz has demonstrated unfailing devotion and adoration for his beloved alma mater, the University of Southern California, whose noble mission he has promoted in a myriad of ways, including his service as a member of the USC Industry Advisory Board.

Throughout his time at Aerospace, Dr. Krenz has garnered universal recognition for enhancing the corporate dress code, elevating the sartorial splendor of the company through his fiercely independent and thought-provoking attire.

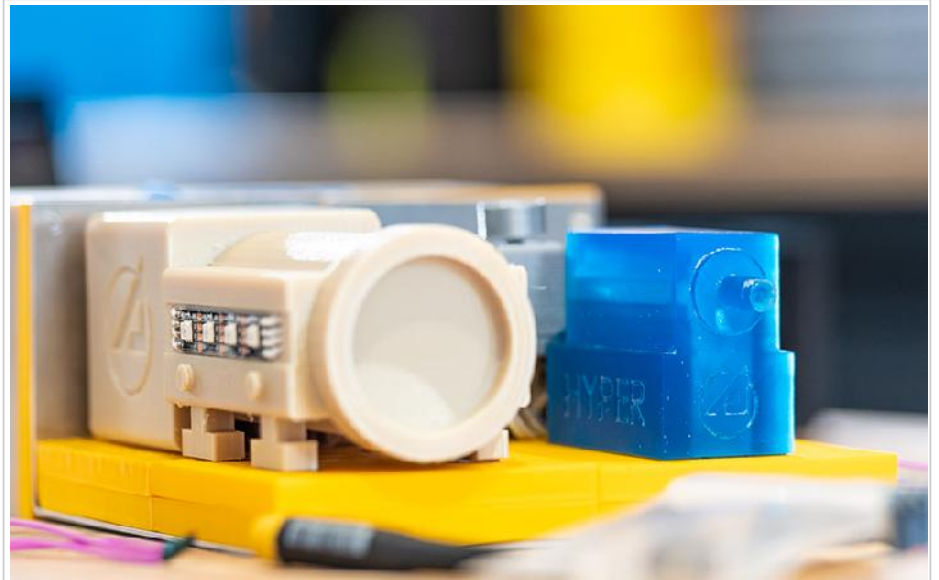
Thank you for all you have done, Willie. We at Aerospace wish you all the best in your retirement!

Building the Modular Future of Space

March 10, 2020

Since the days of Explorer 1, marrying a satellite's payloads to the bus that provides power, telemetry and communications has been a complex, time-intensive process unique to each particular mission.

But in a space environment where agility is increasingly prioritized and resiliency is an overarching imperative, a team of Aerospace employees is working on a vision of the future where integrating the payload and bus of a satellite is almost as easy as plugging a USB drive into a computer.



A 3D-printed model illustrating the concept of modularity in space systems.

“For most satellites, the payload and bus are designed and built together, each one’s timeline and resources dependent on the other,” said Brandie Rhodes, an engineering specialist with iLab. “Right now, what we’ve been really focusing on is ‘Can we decouple those processes in a way that is beneficial to everyone?’”

Aerospace scientists and engineers are pursuing a number of initiatives through iLab’s Ventures program with the shared goal of advancing the use of modularity in satellite design, a key enabler for future space missions.

Read more about [**Aerospace’s work on modularity here.**](#)

One Year and Going Strong: How Tech & Policy Seminars Bring New Voices into Aerospace

March 09, 2020

Have you ever attended a CSPA Technology & Policy Seminar? Open to only Aerospace employees, this exclusive series hosts noteworthy speakers from across the space enterprise in frank and open discussions on a wide array of topics surrounding space technology, innovation and policy.

Think innovative technologies like “space-tugs”, quantum encryption, space-based solar power and synthetic aperture radar.



The series also showcases current issues like small satellite economics, space insurance, emerging space powers, and space tourism.

And, of course CSPA brings in thought leaders in space policy speaking on such topics as commercial integration, industry best practices, international cooperation, and licensing.

“Aerospace has an important role to play in connecting government leaders and programs with innovative ideas coming from outside traditional sources. Events like these can play a key part,” said Jamie Morin, Vice President, Defense Systems Operations.

Sessions are hosted at the Crystal City office and, at the discretion of the speaker, many are recorded and made available to all Aerospace staff to browse and listen to later, even if they can’t attend.

Speakers have included authors, former NASA directors, former Chair of the House Intelligence Committee, former White House Director of Space Policy, Chair of Germany’s space agency, CEOs from commercial space, and space journalists.

The brainchild of Dr. Josef Koller, Systems Director, CSPA Policy & Regulatory Support, the seminar series began a year ago and has hosted almost 30 speakers. Here’s what Koller had to say about the events:

What gave you the idea to start this series?

Coming from an academic environment, it is not unusual to host distinguished speakers regularly to exchange ideas, thoughts, and knowledge. I wanted to bring that concept to CSPA but quickly realized that the broader Aerospace community could benefit from such engagements. It would provide opportunities across all Aerospace employees to engage with thought leaders in the space enterprise and, in return, would allow our visitors to discuss their views and thoughts with a broad spectrum of Aerospace experts.

How do you manage to book the speakers? Why do they want to come to Aerospace?

My team and I continuously seek engagements with noteworthy speakers either through our personal network or those we meet at conferences and events. All speakers view The Aerospace Corporation as a critical player and potential partner in the space enterprise. They are delighted by the invitation and usually agree to be a guest speaker without hesitation.

Who is your most memorable speaker?

Our most memorable speaker was probably Dr Pascale Ehrenfreund from the German DLR. She is the executive chair of the German national aeronautics and space research center and brought an entourage of people with her. It felt like hosting the NASA Administrator.

What has been the most engaging technology topic?

For me, the most interesting technology topic was a presentation by LyteLoop's CEO Ohad Harlev about their technology for storing huge amounts of data using ultra-high bandwidth lasers where the data is moving in an endless circulating loop. This patented technology has a tremendous amount of potential implication for the future. It can store data at much higher densities and lower energy costs.

Visit the Center for Space Policy & Strategy webpage to browse topics and speakers, or look for regular announcements to join the discussion on Skype.

Written by Colleen Stover

Isakowitz Shares Excitement of Space with LMU Students and Faculty

March 04, 2020

Addressing a packed auditorium at Loyola Marymount University last week, Aerospace President and CEO Steve Isakowitz made his case to students and faculty for why now is the most exciting time for space... ever.

Starting with the Apollo 11 moon landing, Isakowitz traced the development of the space industry to the present day, interspersing anecdotes about his own career that has led him to his current role.

He then cast an eye toward the trends that are shaping the future of space — things like the new generation of launch vehicles lowering the cost of access to space, the global challenges driving the need for innovation and the development of the commercial industry that's opening new frontiers in low-Earth orbit and beyond.

"Today is the most exciting time ever in the history of the space program," Isakowitz said. "Whether you're young or old, everybody has a role to play."

Isakowitz closed the event by taking questions from students, who quizzed him on topics ranging from space debris to asteroid mining to opportunities for entrepreneurship in space.

"What's really interesting about what's going on in space right now – there is a tremendous amount of excitement about what's taking place," Isakowitz said.

Isakowitz's remarks came as part of the Seaver Spotlight series, a biannual speaker event hosted by the LMU Frank R. Seaver College of Science and Engineering that features leaders making great impacts in their fields.



Aerospace President and CEO Steve Isakowitz speaks at Loyola Marymount University on Feb. 27, 2020. (Photo courtesy Loyola Marymount University)

Why Atomic Clocks Are So Critical to the Future of Space

March 02, 2020

The future of the world's satellite infrastructure depends on a device as old as time: the humble clock.

A mainstay on larger, legacy satellites such as the [Global Positioning System](#) (GPS), high-precision atomic clocks have enabled essential navigation and telecommunication functions while providing a timekeeping standard for financial markets, power grids and the internet.



Aerospace engineer Daniele Monahan takes a closer look at an atomic clock. (Photo: Jeff Bertling)

Fundamentally, all clocks measure the passage of time by counting oscillations of a resonator. Grandfather clocks count the oscillations of a pendulum (i.e., the number of times the pendulum arm passes through the vertical), while most modern timepieces count the vibrations of electrified quartz.

But differences in manufacturing, as well as the effects of heat and pressure, can cause resonators like quartz and pendulums to vary in their oscillation period over time.

Because satellites need to send and measure signals traveling at lightspeed, even the smallest variations in frequency can cause substantial errors; a deviation of one one-thousandth of a second could throw off a GPS route – or a missile's target – by 300 km.

Precision timekeeping could enable swarms of small satellites to [communicate with each other](#) more effectively and help spacecraft navigate in deep space. NASA's Jet Propulsion Laboratory is currently testing their [Deep Space Atomic Clock](#), which they hope will assist spacecraft to reach destinations as far as Mars and beyond.

For applications that require this level of precision, clocks aboard satellites must not only be synchronized, but also syntonized, or kept at the same frequency, said James Camparo, an Aerospace Fellow and atomic clock physicist.

Read more about Aerospace's work on atomic clocks [here](#).

March 2020 Obituaries

March 01, 2020

Sincere sympathy is extended to the families of:

- **Richard Daskivich**, member of technical staff, hired Dec. 4, 2000, retired Oct. 10, 2008, died Jan. 29, 2020
- **Melvin Friedlander**, member of technical staff, hired Aug. 9, 1973, retired Dec. 1, 1986, died Jan. 7, 2020
- **Carrol Gardner**, member of administrative staff, hired Sept. 5, 1962, retired Dec. 1, 1994, died Feb. 6, 2020
- **Guy Garner**, office of technical support, hired Aug. 26, 1968, retired July 1, 2016, died Dec. 17, 2019
- **Frances Gorman**, member of technical staff, hired July 22, 1964, retired June 1, 1987, died Jan. 1, 2020
- **Alfred Ingram Jr.**, member of administrative staff, hired March 13, 1961, retired July 1, 1985, died Dec. 20, 2019
- **Terry Kuwashima**, member of technical staff, hired Nov. 7, 1961, retired July 1, 1994, died Feb. 12, 2020
- **Carl Lenander III**, member of technical staff, hired May 24, 1962, retired July 1, 1998, died Feb. 8, 2020
- **Harry Pelton**, member of technical staff, hired Aug. 16, 1962, retired June 1, 1987, died Jan. 24, 2020
- **Kathleen Reed**, member of technical staff, hired Oct. 19, 1987, retired Aug. 1, 2012, died Jan. 20, 2020
- **Bettye Ryane**, member of administrative staff, hired Dec. 19, 1988, retired May 1, 2017, died Jan. 6, 2020
- **August Schmidt Jr.**, member of technical staff, hired April 8, 1963, retired Aug. 1, 1984, died Feb. 14, 2020
- **Christine Sorrentino**, office of technical support, hired Jan. 23, 1961, retired July 1, 1987, died Dec. 12, 2019
- **Haj Uyehara**, member of technical staff, hired May 15, 1989, retired Jan. 1, 1996, died Jan. 16, 2020
- **A. Virgil Weatherford**, member of technical staff, hired May 31, 1972, retired Oct. 1, 1996, died Feb. 3, 2020
- **Emilia Webster**, member of technical staff, hired March 3, 1980, retired March 1, 2018, died Nov. 14, 2019
- **Sheldon Wiemokly**, member of administrative staff, hired July 16, 1962, retired July 1, 1993, died Feb. 6, 2020

To notify Aerospace of a death and have it included in the Orbiter, please contact People Operations at (310) 336-5107.

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