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"Rummaging in the government's attic"

Description of document: National Aeronautics and Space Administration (NASA) emails from NASA Office of the Administrator containing the word "UAP" or the phrase "Unidentified Aerial Phenomena," May 01, 2021 - July 19, 2021

Requested date: 25-June-2021

Interim release date: 10-August-2021

Final Release date: 08-December-2021

Posted date: 13-December-2021

Source of document: FOIA Request
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300 E Street, SW
Room 5Q16
Washington, DC 20546
Fax: (202) 358-4332
Email: hq-foia@nasa.gov
[Online FOIA submission form](#)

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National Aeronautics and Space Administration

Headquarters

Office of Communications
300 E Street, SW
Washington, DC 20546-0001



August 10, 2021

Reply to Attn of: MS5L9, FOIA Public Liaison

Via Email

REF: FOIA Case No. 21-HQ-F-00567

Dear Sir,

This is an interim release of the responsive records to your Freedom of Information Act (FOIA) request, dated and received by the National Aeronautics and Space Administration ((NASA) Headquarters (HQ) FOIA Office on June 25, 2021. Your request was assigned FOIA Case Number 21-HQ-F-00567 and seeks:

“A copy of each email in the email accounts of individuals in the NASA **Office of the Administrator** that contains the word UAP , based on an electronic search. I limit this request to the time period May 1, 2021 through the present.”

In an email, dated July 11, 2021, you agreed to narrow your request to only include emails from the NASA Administrator, NASA Deputy Administrator, the Associate Administrator, and the White House Liaison, containing the “word UAP OR the phrase Unidentified Aerial Phenomena. A copy of that email is enclosed for your reference.

In response to your request the Information Technology Office conducted searches of the email inboxes for Senator Bill Nelson (Administrator), Pam Melroy (Deputy Administrator), Mr. Robert Cabana (Associate Administrator) and Mr. Phillip Thompson (White House Liaison), using the search terms UAP and Unidentified Aerial Phenomena. At this time the searches of these email inboxes are complete. The searches located 26¹ emails totaling 303 pages. We are releasing this first interim with 226 pages at this time.

We have reviewed the responsive record under the FOIA to determine whether they may be accessed under the FOIA’s provisions. Based on that review, this office is providing these initial responsive records in full.

¹ For ease of review and management several emails were grouped by subject title to 5 combined pdf documents.

Appeal Rights

You have the right to appeal my action on this interim release for your FOIA request. Your appeal must be received within 90 calendar days of the date of this letter. Your appeal must be in writing and addressed to:

Administrator
ATTN: FOIA Appeals
NASA Headquarters
Executive Secretariat
MS 9R17
Washington, DC 20546

Both the envelope and letter of appeal should be clearly marked "Appeal under the Freedom of Information Act." You must also include copies of your initial request, this correspondence, and any other correspondence with the FOIA office. In order to expedite the appellate process and ensure full consideration of your appeal, your appeal should also contain a brief statement of the reasons you believe this initial determination should be reversed.

Assistance and Dispute Resolution Services

For further assistance and to discuss any aspect of your request, you may contact NASA's Chief FOIA Public Liaison, Stephanie Fox, via telephone at 202-358-1553 or via e-mail at Stephanie.K.Fox@NASA.gov. You may also send correspondence to Ms. Fox at the following address:

National Aeronautics and Space Administration (NASA)
Freedom of Information Act Unit
NASA Headquarters
Attn: Stephanie Fox
Chief FOIA Public Liaison
300 E Street, S.W., 5P32
Washington D.C. 20546
(Fax) 202- 358-4332

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services it offers. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
Email: ogis@nara.gov
Telephone: (202) 741-5770
Toll free: 1-877-684-6448

Fax: (202) 741-5769

Important: Please note that contacting any agency official including the undersigned, NASA's Chief FOIA Public Liaison, and/or OGIS is not an alternative to filing an administrative appeal and does not stop the 90 day appeal clock.

If you have any questions or would like to discuss this matter, please contact me at 202-358-0680 or Mireya.P.Nyirenda@nasa.gov.

Sincerely,



Digitally signed by
Mireya Nyirenda
Date: 2021.08.10
12:46:11 -04'00'

MIREYA P. NYIRENDA
FOIA Public Liaison Officer

[EXTERNAL] NASA Morning Briefing for Thursday, May 27, 2021

From: Bulletin Intelligence <nasa@BulletinIntelligence.com>
To: nasa@BulletinIntelligence.com
Sent: May 27, 2021 6:57:13 AM EDT
Received: May 27, 2021 6:57:25 AM EDT

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Thursday, May 27, 2021 7:00 AM EDT

Editor's Note

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NASA Tests Techniques For X-59 Low-Boom Flights

Aviation Week

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=n02MLOeCjOPJepGOtebRuajWwC/s6w2ARIDmnP0FxoE=&reserved=0> (5/26) "Validating the quiet supersonic performance of NASA's X-59 QueSST low-boom flight demonstrator will require precise measurement of the shock waves generated by the aircraft and how they propagate through the atmosphere to the ground. To that end, the agency has flight tested a visual navigation..."

Interview With NASA Administrator On Climate Change

Spectrum News 13 (FL)

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a7a&t=c&data=04|01|phillip.m.thompson@nasa.gov|3d6e2dc976e54037a00008d920fe34b6|7005d45845be48ae8140d43da96dd17b|0|0|637577098452128567|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB Tl6lk1haWwiLCJXVCI6Mn0=|1000&sdata=/b1g7Yn4qTdhhlzRgSnjCvAR4zu/uKnM/EZEOLqPoXI=&reserved=0>
(5/26) "NASA is all about space exploration. But now its mission is expanding to tackle a growing problem on our planet. Spectrum News 13's Samantha Joe Roth speaks with NASA's new administrator about how the agency plans to tackle climate change."

NASA, Industry Face Challenges In Free Flyer Development

Aviation Week

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(5/26) "Questions surround NASA's strategy for transitioning human activities in low Earth orbit from the aging International Space Station (ISS) to multiple commercial free flyers, with potential industry partners curious about the agency's funding commitment. NASA plans a two-phase, multiyear effort to..."

U.S Firms GM, Lockheed Aim For The Moon With Lunar Rover Venture

Reuters

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(5/26, Staff) "U.S. firms General Motors (GM) and Lockheed Martin Corp will develop a vehicle to drive NASA astronauts around on the moon's surface, they said on Wednesday, competing for a space project that could also promote their brands on earth. GM and Lockheed said they would collaborate to make a battery-powered, autonomous Lunar Terrain Vehicle for NASA's Artemis lunar landing program, which aims to return U.S. astronauts to the moon as early as 2024."

Capital Calls: Jeff Bezos And Elon Musk's D.C. Space Battle

Reuters

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(5/26) "COUNTDOWN. A fight between Elon Musk and Jeff Bezos over whose rocket firm will dominate the space race is about egos as big as the universe. But a battle in Washington, D.C. over funding for the National Aeronautics and Space Administration shows the contest centers just as much on earthly influence. NASA wants to go to the moon by 2024, and Musk's SpaceX and Bezos' Blue Origin both thought they would win funding to do so. But in April, the agency made a surprise decision to pick only SpaceX, citing a budget shortfall and technical factors. Blue Origin challenged the choice as unfair and risky."

Opinion: We Need To Put Science At The Center Of The UFO Question

Washington Post

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(5/26) “Ravi Kopparapu is a planetary scientist at NASA Goddard Space Flight Center. Jacob Haqq-Misra is a research scientist at the Blue Marble Space Institute of Science. With a government report due in June on unidentified aerial phenomena (UAP) and a recent ‘60 Minutes’ story on U.S. Navy pilots’ sightings and videos of mysterious images, prominent people in politics, the military and national intelligence are finally asking: What are we looking at?”

SolarWinds Hack ‘A Big Wakeup Call,’ NASA’s Human Spaceflight Chief Says

SPACE

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(5/26, Wall) “The effects of the SolarWinds hack extend out into the final frontier. In December 2020, news broke that a cyberattack had breached the defenses of the U.S. Treasury Department and one branch of the Department of Commerce. ... That same month, The Washington Post reported that NASA was one of those nine infiltrated agencies. NASA leaders know that the space agency, with its huge stores of advanced technical data, is an inviting target for hackers and therefore take significant measures to head them off. Even still it was compromised, and that shook the agency up.”

Flight

NASA Tests Techniques For X-59 Low-Boom Flights

Aviation Week

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(5/26)
“Validating the quiet supersonic performance of NASA’s X-59 QueSST low-boom flight demonstrator will require precise measurement of the shock waves generated by the aircraft and how they propagate through the atmosphere to the ground. To that end, the agency has flight tested a visual navigation...”

Watch NASA Prepare For Our Flying-car Future

Mashable

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(5/26, Lekach) “Instead of taking a bus or train to work, what about a flying car? A Nova TV special, The Great Electric Airplane Race, airing Wednesday night on PBS, explores the possibility of using autonomous, battery-powered flight for commuting or taxi trips. As part of his research into electric flight, reporter Miles O’Brien visited NASA’s Ames

Research Center and hopped into its 10-story vertical motion simulator to see what it would be like to fly around San Francisco in one of these vehicles.”

Earth

Interview With NASA Administrator On Climate Change

Spectrum News 13 (FL)

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(5/26) “NASA is all about space exploration. But now its mission is expanding to tackle a growing problem on our planet. Spectrum News 13’s Samantha Joe Roth speaks with NASA’s new administrator about how the agency plans to tackle climate change.”

Lunar Eclipse: Photos Of The Super Flower Blood Moon May 26

Florida Today

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(5/26, Rice) “Sky watchers in some parts of the country witnessed one of the greatest sky spectacles of the year Wednesday morning as a full moon, supermoon and lunar eclipse happened at the same time, creating the super flower blood moon. ... ‘Because the orbit of the moon is not a perfect circle, the moon is sometimes closer to the Earth than at other times during its orbit,’ according to NASA.”

Total Lunar Eclipse Turns Moon Red: Relive The ‘Super Flower Blood Moon’

CNET News

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(5/26, Kooser) “A total lunar eclipse turned our celestial neighbor a rusty red on May 26. If you were in Africa or Europe, or simply slept through the show, you can still enjoy the images and livestream reruns of the ‘super flower blood moon’ and its lovely lava-like color. ... The astronauts on the International Space Station got a look at the supermoon and the eclipse from their vantage point in orbit around Earth. And photographers down on Earth also snapped some stunners.”

Stunning Lunar Eclipse Photos And Videos Show 2021 Supermoon

Newsweek

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(5/26, Palmer) "Images and videos have been shared online of the rare 'Super Flower Blood Moon' which is appearing in the night sky this week. ... The Earth's atmosphere then filters the light as it passes, giving the moon a dark reddish glow. According to NASA, the more dust or clouds in Earth's atmosphere there are during the eclipse, the redder the moon will appear."

Rare "Super Flower Blood Moon" Lunar Eclipse Captured In Stunning Photos From Around The World

CBS News

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(5/26, Lewis) "Skywatchers around the world were treated to the most spectacular full moon of the year in the early morning hours on Wednesday. May 26 marked not just a supermoon, but also a lunar eclipse, or so-called 'blood moon.' According to NASA, a blood moon occurs during a total lunar eclipse, when the Earth is positioned directly between the moon and the sun. Earth's atmosphere filters the sunlight, scattering blue light but allowing red light to pass through."

Blood Moon Lunar Eclipse Enthralls Viewers

Fox News

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(5/26, Musto) "A super 'Blood Moon' captured the attention of viewers across the world on Wednesday. ... According to NASA, the Blood Moon occurs during a total lunar eclipse when the Earth aligns itself between the moon and the sun."

Rising Global Temperatures 'Inexorably Closer' To Climate Tipping Point

Reuters

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=UZXqaCFscr7KorkurAx/Z0vHHgO/uZ8RKbj2iKH777E=&reserved=0>
(5/26, Januta) "There is now a 40% chance that global temperatures will temporarily reach 1.5 degrees Celsius above pre-industrial levels in the next five years – and these odds are rising, a U.N. report said on Wednesday. ... The WMO uses temperature data from multiple sources including NASA and the National Oceanic and Atmospheric Administration (NOAA)."

NASA To Design New 'Earth System Observatory' As Part Of National Push Against Climate Change

SPACE

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=l8ogmkxBqazlUAK3QS43o2WJ1bGmK6lqcu9ahTp5H9A=&reserved=0>
(5/26, Gohd) "NASA will design new, Earth-focused missions to support our growing understanding of climate change
and provide important information to those on Earth impacted by its effects, the agency announced May 24 as part of a
new Biden administration plan to 'enhance climate resilience.' The Biden administration, prior to meeting with climate
and homeland security team members on May 24, announced earlier that day in a White House release that it will
support the development of NASA's new 'Earth System Observatory' — a series of next-generation climate data
systems that will be used to better track climate change and its impact on communities around the world."

Humans in Space

NASA, Industry Face Challenges In Free Flyer Development

Aviation Week

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(5/26) "Questions surround NASA's strategy for transitioning human activities in low Earth orbit from the aging
International Space Station (ISS) to multiple commercial free flyers, with potential industry partners curious about the
agency's funding commitment. NASA plans a two-phase, multiyear effort to..."

This Is What It's Like To Walk In Space

CNN

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(5/26, Strickland) "When astronauts venture outside of the International Space Station to go on spacewalks, the most
important thing they have to do is focus. This may sound simple, but imagine trying to focus on a memorized set of
tasks while stepping out of an airlock and wearing a 300-pound spacesuit – with the glow of planet Earth and the sun
and the dark void of the universe all around you. A tether connects you to the space station, and the absence of
gravity keeps you from falling."

The Astronauts On Challenger Made Up The Perfect Crew

Air & Space Smithsonian Magazine

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=3TUqRG9Rqneq3j7HKol+d3CdW4Y59I4ppHvND45rKI8=&reserved=0>
(5/26, Tedeschi) "On the morning of January 28, 1986, NASA launched the space shuttle Challenger from the
Kennedy Space Center in Florida. The crew included the first Jewish astronaut, the second Black astronaut, and
NASA's first Teacher in Space, Christa McAuliffe. In his latest book, The Burning Blue, Kevin Cook documents the
crew's many achievements—and the flawed decision-making that led to their deaths. Cook spoke with Air & Space
senior associate editor Diane Tedeschi in April."

NASA Is Sending A Batch Of Adorable Squids To The Space Station

SlashGear

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(5/26, Roston) "Early next month, NASA will load a bunch of scientific experiments onto a cargo capsule destined for the International Space Station. One of these experiments involves a bunch of tiny, adorable squids. According to the space agency, the critters will be part of an experiment on the effects of spaceflight on beneficial microbes and their interactions with their hosts."

ISS Astronaut Snaps Super Flower Blood Moon And Lunar Eclipse From Orbit

CNET News

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(5/26, Kooser) "Life is a little different on the International Space Station. The residents see 16 sunrises and 16 sunsets every day, and there are no pesky clouds to get in the way of their moon views. Astronaut Akihiko Hoshide captured scenic views of the May 26 supermoon and lunar eclipse from orbit. Hoshide is with the Japan Aerospace Exploration Agency (JAXA) and is part of the SpaceX Crew-2 mission that arrived at the ISS in April."

Astronauts On Set: Space Station May Host Wave Of TV Shows And Films

New York Times

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> (5/26, Chang) "Who wants to be an astronaut? If the answer is you, there's a reality TV show, appropriately titled 'Who Wants to Be an Astronaut?', that you ought to apply for. The Discovery Channel is seeking to cast about 10 would-be astronauts to compete during the series's eight-episode run next year for a seat on a real-life trip to the International Space Station, followed by live coverage of the launch of the winner on a SpaceX rocket."

SpaceX Cargo Mission To Carry Water Bears, Baby Squids To Space Station

UPI

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(5/26, Hays) "SpaceX's 22nd cargo resupply mission, slated to launch no earlier than June 3, will see several unique science experiments – involving water bears, baby squids and kidney stones – ferried to the International Space Station. Like so many experiments before them, the bulk of the experimental setups being carried aboard SpaceX CRS-22 are designed to illuminate the health risks facing astronauts."

NASA Astronaut Peggy Whitson Joining Private Mission To ISS

KTLA-TV Los Angeles

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=ApEkALeYXTKwNmiNzy/M3Zf+6CgPEjLTmZJE3gcDedk=&reserved=0>
(5/26) "Retired NASA astronaut Peggy Whitson is dusting off her spacesuit for another trip to space. But this time, she's flying private."

Moon to Mars

U.S Firms GM, Lockheed Aim For The Moon With Lunar Rover Venture

Reuters

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=vY5yvRFOyG6+34yNpypiaNv+MY3FKv8S86XHiTP8eI4=&reserved=0>
(5/26, Staff) "U.S. firms General Motors (GM) and Lockheed Martin Corp will develop a vehicle to drive NASA astronauts around on the moon's surface, they said on Wednesday, competing for a space project that could also promote their brands on earth. GM and Lockheed said they would collaborate to make a battery-powered, autonomous Lunar Terrain Vehicle for NASA's Artemis lunar landing program, which aims to return U.S. astronauts to the moon as early as 2024."

Lockheed Martin And GM Are Working On An Electric Moon Buggy

The Verge

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=cG1E12MXzGvcXLw1GgwIK/Jx3bBz4q8Qc9C3IY4sQnY=&reserved=0>
(5/26, Roulette) "Lockheed Martin and General Motors unveiled plans on Wednesday to build an autonomous buggy-like vehicle that future astronauts can use to zip around the surface of the Moon. The two companies collaborated to pitch a conceptual Lunar Terrain Vehicle to NASA's Artemis program, a Moon exploration campaign that calls for various robots, vehicles, and scientific bases to be planted on the lunar surface within the next decade."

Lockheed Martin And GM Partner To Develop New Moon Buggy For NASA Astronauts And Cargo

CNBC

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=9IYuNBgRa+sBHlc+vWilzLmQHed5PIMlhFvM58Yc5I=&reserved=0>
(5/26, Sheetz) "Lockheed Martin and General Motors are partnering to develop a new type of lunar vehicle for NASA to use during its upcoming Artemis missions to the moon, the companies announced Wednesday. 'Surface mobility is

critical to enable and sustain long-term exploration of the lunar surface. These next-generation rovers will dramatically extend the range of astronauts,' Lockheed Martin executive vice president Rick Ambrose said in a statement."

GM And Lockheed Martin Are Making A Self-driving Moon Buggy For NASA

SlashGear

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Lockheed Martin And GM Partner Up To Build Next-gen Lunar Rover

New Atlas

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Lockheed Martin And GM Planning Self-Driving Rovers For NASA's Return To The Moon

Forbes

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Lockheed, General Motors Team Up On Lunar Rover Plan

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(5/26, Brinkmann) "Two American corporate giants, defense firm Lockheed Martin and automaker General Motors, will develop new lunar rovers for upcoming moon missions, the companies announced Wednesday. Lockheed and GM plan a fleet of robotic and piloted rovers, which would move farther than Apollo's three so-called moon buggies, according to a news release. The farthest distance an Apollo rover traveled was about 4.7 miles from the landing site."

GM, Lockheed Team Up On Potential New-Era Moon Rover For NASA

Bloomberg

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=Vr3CC6VF86LfnTSVjkf70XjwUTrUC0tE2C9FjusSYTQ=&reserved=0>
(5/26, Bachman) "General Motors Co. and Lockheed Martin Corp. are teaming up to develop a new lunar rover for the next time NASA has astronauts motoring around the moon. The Lunar Terrain Vehicle will be designed to travel farther than the Apollo-era rovers, which drove 4.7 miles (7.6 kilometers) from the landing site, GM and Lockheed said Wednesday. While NASA hasn't announced a contract for a lunar rover, a formal request for proposals could come later this year despite uncertainty about the timing and funding of the next moon mission."

GM, Lockheed Martin Developing A Next-generation Lunar Rover

NBC News

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=1lxgqjMPorKF8sHaEK8dhyM/mlWP/izaQJquU47HXoQ=&reserved=0>
(5/26, Chow) "General Motors and the aerospace firm Lockheed Martin are teaming up to develop a next-generation lunar rover that NASA astronauts could use on future missions to explore the moon, the two companies announced Wednesday. The planned vehicle is expected to be part of the companies' efforts to bid on a contract under NASA's Artemis program, which aims to return astronauts to the moon by 2024."

Lockheed Martin, GM Team Up To Build New Astronaut Moon Buggy

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=4YebTnT+qCAYUlpFI/d+ZXkYuGy5XdkxydO5HA5zF6w=&reserved=0>
(5/26, Wall) "Two titans of industry are teaming up to build an astronaut car for the moon. Lockheed Martin and GM announced today (May 26) that they're developing a crewed lunar rover for potential use by NASA's Artemis program, which aims to establish a sustainable human presence on and around the moon by the end of the decade."

GM's Newest Vehicle: Off-road, Self-driving Rover For Moon

AP

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=ONtgkHrpnfwZoCxQFvjL4i9w3nWmn7c42Sb7t67AE6k=&reserved=0>
(5/26, Dunn) “General Motors is teaming up with Lockheed Martin to produce the ultimate off-road, self-driving, electric
vehicles — for the moon. The project announced Wednesday is still in the early stages and has yet to score any NASA
money. But the goal is to design light yet rugged vehicles that will travel farther and faster than the lunar rovers that
carried NASA’s Apollo astronauts in the early 1970s, the companies said.”

GM Joins Lockheed Martin To Design A Moon Buggy For NASA Astronauts

CNET News

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=0+J7sJ4r9ztYDnW3US7okI5tCvBqLinF+PjMoncf2kE=&reserved=0](https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021052702nasa&r=email-af44&l=027-53a&t=c&data=04|01|phillip.m.thompson@nasa.gov|3d6e2dc976e54037a00008d920fe34b6|7005d45845be48ae8140d43da96dd17b|0|0|637577098452277916|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB
Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=0+J7sJ4r9ztYDnW3US7okI5tCvBqLinF+PjMoncf2kE=&reserved=0)> (5/26,
Mack) “General Motors says it aims to help NASA bring electric and autonomous vehicles to the moon this decade to
allow Artemis astronauts to zip around the lunar surface. The legacy car company announced Wednesday that it’s
teaming up with longtime NASA contractor Lockheed Martin to develop new moon buggies.”

NASA’s VIPER Rover To Look For Water, Resources On Moon

Fox News

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=Jw01dw61uFTOsv1UUQR6wyeQf+c4rM4h0/QStvnpPqU=&reserved=0)>
(5/26, Musto) “NASA’s ambitious lunar program Artemis will send the agency’s first mobile robot to the moon in late
2023. The Volatiles Investigating Polar Exploration Rover, also known as VIPER, would search the planet for ice and
other resources on and below its surface that could potentially be harvested for long-term exploration in the future.”

‘Marscapes’ Plans Landscape Art Of Red Planet In Kickstarter Project

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=HAzjx19tApZt14srm9d1DZgcNPu36J0O+fRIAGMAz3A=&reserved=0](https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021052702nasa&r=email-af44&l=029-6fe&t=c&data=04|01|phillip.m.thompson@nasa.gov|3d6e2dc976e54037a00008d920fe34b6|7005d45845be48ae8140d43da96dd17b|0|0|637577098452287871|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB
Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=HAzjx19tApZt14srm9d1DZgcNPu36J0O+fRIAGMAz3A=&reserved=0)>
(5/26, Howell) “A new art project on Kickstarter offers backers the chance to gain ‘raised landscapes’ of Mars in
celebration of the Mariner 9 spacecraft’s 50th anniversary. ... Mariner 9 made it to the Red Planet on Nov. 14, 1971 to
do NASA’s first orbital mapping of Mars. To scientists’ surprise, the spacecraft arrived in the middle of a dust storm —
showing that the planet was not a moon-like quiet desert, as previous flybys hinted. After the regolith subsided,
Mariner 9 spotted several volcanoes (including the Arizona-sized Olympus Mons) along with a gigantic gully system
(now called Valles Marineris) that dwarfs the Grand Canyon on Earth.”

Op-Ed | Artemis 2026: Celebrating America’s 250th With The Next Humans On The Moon

Space News

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(5/26, Bender) "On July 4, 2026, the United States will celebrate the 250th anniversary of its independence. America should commemorate this historical milestone in 2026 by landing humans on the moon for the first time since 1972. Sending humanity back to the moon in 2026 is not only technically feasible, but it also fits squarely in the projected timeline for NASA's already existing plan to return astronauts to the lunar surface — the Artemis program."

Hawley, Sanders Decry \$10B 'Bailout' To Jeff Bezos Tucked Into Bill To Rebuff China

Fox Business

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(5/26) "Former Connecticut Senator Joe Lieberman (I) provides insight into the Senate Republicans proposing a counteroffer on Biden's infrastructure plan. Sens. Josh Hawley and Bernie Sanders are speaking out against a \$10 billion corporate 'bailout' to Blue Origin, a space flight company founded by Amazon's Jeff Bezos. ... The amendment would come after the company lost out on a multibillion-dollar NASA contract to SpaceX, run by Elon Musk. It would provide additional funding for NASA to carry out the Human Landing System program, and direct NASA to have two lander programs, giving Blue Origin another shot."

Capital Calls: Jeff Bezos And Elon Musk's D.C. Space Battle

Reuters

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(5/26) "COUNTDOWN. A fight between Elon Musk and Jeff Bezos over whose rocket firm will dominate the space race is about egos as big as the universe. But a battle in Washington, D.C. over funding for the National Aeronautics and Space Administration shows the contest centers just as much on earthly influence. NASA wants to go to the moon by 2024, and Musk's SpaceX and Bezos' Blue Origin both thought they would win funding to do so. But in April, the agency made a surprise decision to pick only SpaceX, citing a budget shortfall and technical factors. Blue Origin challenged the choice as unfair and risky."

Bernie Sanders Is Fighting A Massive 'Bailout' To Jeff Bezos' Space Company

Vice

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(5/26, Ferreira) "The icy rivalry between space companies SpaceX and Blue Origin, which are owned respectively by billionaires Elon Musk and Jeff Bezos, has now spilled into the US Senate. Senator Bernie Sanders (I-Vermont) introduced an amendment to a funding bill on Monday seeking to stop a plan to secure \$10 billion in government funding, some of which would likely go to Blue Origin to provide redundancy for a project contracted to SpaceX last month. Sanders called the funding 'the multibillion dollar Bezos Bailout' in his amendment. Though Musk and Bezos

have traded personal taunts before, their feud has been amplified since April by NASA's decision to award SpaceX a prestigious \$2.9 billion contract to build a 'human landing system' for the Artemis program, which aims to return astronauts to the surface of the Moon this decade."

South Korea Is The Latest Nation To Join NASA's Artemis Accords

SlashGear

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=Rip6426VgDGIP1Vi+6vtQhe2AePNGYrNGiRyzMiS7io=&reserved=0>
(5/26, Roston) "NASA has announced that South Korea is now among the countries that have signed the Artemis Accords, joining other nations like the UK, UAE, Japan, Canada, Australia, and more. The Artemis Accords set forth a series of principles that the countries will follow, including everything from the public release of data to the safe and peaceful exploration of our Moon."

NASA's Artemis Mission

WESH-TV Orlando (FL)

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=bozox7vCOOnp395b4E8luMh1N/FIRL4qNthw/jYvMTs=&reserved=0> (5/26)
"NASA sent astronauts to the moon with the Apollo program and now we are going back with Artemis. This program will explore parts of the moon we've never been to before."

China's First Mars Rover Is Finally Cruising

BGR

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=6JrI4YMLF4BDUARBiovnrsbEIDL6SH6AulCH22QglEM=&reserved=0>
(5/26, Wehner) "On the list of big surprises in space science over the past decade, the fact that China has rapidly become one of the major players in space exploration has to be near the top. The country, which watched for decades as the United States, Russia (and formerly, the Soviet Union), and European countries launched ever more advanced orbiters, landers, and rovers, has caught up to and in some cases surpassed its peers by completing some very difficult missions. The latest happens to be on Mars, where the China National Space Administration sent a trio of high-tech machines last year."

Solar System and Beyond

Black Holes, Aliens, Multiverse & Mars: Space TED Talks You Need To Watch

SPACE

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d43da96dd17b|0|0|637577098452317739|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB
Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=9mLedHj04kTw9/X8iZ/hY3AfZbHfd63IKYJfx4bW47sM=&reserved=0>
(5/26, Plummer) "This enlightening talk centers on our oldest cosmic neighbors, asteroids, and their importance to us
here on Earth. Not only can asteroids shed light on the beginnings of the solar system, they also pose a massive risk
to our safety. ... Carrie Nugent is part of the team that uses NASA's NEOWISE telescope, a very valuable telescope
that was pulled out of retirement and reprogrammed to search the skies for asteroids and catalog them."

Jupiter's Ocean Moon Europa May Have Deep-sea Volcanoes

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=GJ663KoMpTvr2Uahf5H4O95v0Q5YEx/bK6T+iMIEoZc=&reserved=0)>
(5/26, Wall) "The Jupiter moon Europa may be an even more promising abode for life than scientists had thought. ... In
a decade or so, researchers should be able to test and supplement such Europa modeling work with a wealth of new
data, thanks to NASA's Europa Clipper mission."

Europa May Have Active Volcanoes On Its Ocean Floor

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=H1OTXvQ93KIAOZzevChlpQ32h0o9r5pVXSbTSInj/Lo=&reserved=0)>
(5/26, McGlaun) "One of the more interesting objects in the solar system, when it comes to searching for the potential
for extraterrestrial life, is Jupiter's moon Europa. On the surface, Europa looks like a giant frozen eyeball covered in
veins. It's hard to imagine activity under that frozen surface, but scientists believe that the rocky layer underneath that
frozen surface could be hot enough to melt, creating undersea volcanoes. NASA scientists have conducted new
research and computer modeling indicating volcanic activity may have occurred on the seafloor of Europa in the recent
past and could be happening still."

Space Tech

Russia To Launch Nuclear-powered Spaceship To The Moon, On To Venus, Then Jupiter

The Hill

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=0a1vsl9pcyoc+iDLdFAH8IM3ngKuluBfFjZQoQD0q6l=&reserved=0)> (5/26,
Srikanth) "More than half a century after NASA successfully sent the world's first nuclear reactor into orbit, Russia is
moving forward with plans to launch a nuclear-powered spaceship into space. It'll take quite the spacecraft to travel
from the Moon to Venus and then Jupiter over 50 months in deep space. Russia's space agency thinks their nuclear-
powered transport and energy module will do it in 2030, reported TASS, the Russian News Agency."

Various

Opinion: We Need To Put Science At The Center Of The UFO Question

Washington Post

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(5/26) “Ravi Kopparapu is a planetary scientist at NASA Goddard Space Flight Center. Jacob Haqq-Misra is a research scientist at the Blue Marble Space Institute of Science. With a government report due in June on unidentified aerial phenomena (UAP) and a recent ‘60 Minutes’ story on U.S. Navy pilots’ sightings and videos of mysterious images, prominent people in politics, the military and national intelligence are finally asking: What are we looking at?”

SolarWinds Hack ‘A Big Wakeup Call,’ NASA’s Human Spaceflight Chief Says

SPACE

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(5/26, Wall) “The effects of the SolarWinds hack extend out into the final frontier. In December 2020, news broke that a cyberattack had breached the defenses of the U.S. Treasury Department and one branch of the Department of Commerce. ... That same month, The Washington Post reported that NASA was one of those nine infiltrated agencies. NASA leaders know that the space agency, with its huge stores of advanced technical data, is an inviting target for hackers and therefore take significant measures to head them off. Even still it was compromised, and that shook the agency up.”

New Documentary Explores ‘Star Trek,’ Nichelle Nichols And NASA’s 1970s Astronaut Search

SPACE

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(5/26, Howell) “In the 1970s, ‘Star Trek’ actor Nichelle Nichols saw an astronaut corps lacking in diversity and did what she could to change it. The story of how Nichols went about it – and the various people she inspired – is told in the new documentary ‘Woman In Motion: Nichelle Nichols, Star Trek and the Remaking of NASA.’”

Nichelle Nichols’ New NASA Documentary Is Romantic And Unflinching

io9

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(5/26) “Early on in the new documentary Woman in Motion, Star Trek legend Nichelle Nichols discusses the idea of the blurred lines between the fantastical and the real in her job as Lieutenant Uhura, a character in equal parts history-making and yet also held back by the harsh realities of the era her character was made in. The documentary itself,

going far beyond that 23rd century future and all the way back into our own history, is a similar adventure. Directed by The Highwaymen's Todd Thompson—and now coming to Paramount+ after a limited theatrical debut earlier this year—Woman in Motion: Nichelle Nichols, Star Trek and the Remaking of NASA showcases a fascinating balancing act.”

NASA Projects Over Budget And Behind Schedule, According To GAO Report

Florida Today

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Other

Falcon 9 Completes Its 100th Successful Flight In A Row [Updated]

Ars Technica

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SpaceX Is About To Hit A Ridiculous Milestone

BGR

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SpaceX Bolsters Starlink Network With 60 More Satellites

Aviation Week

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(5/26) "A SpaceX Falcon 9 rocket delivered the 29th batch of Starlink satellites into orbit on May 26 as the company expanded beta trials of its high-speed internet service to Belgium and the Netherlands. More than 500,000 people have placed orders or put down deposits to try the service..."

SpaceX Launches More Starlink Satellites As Orders Reach Half A Million

Florida Today

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(5/26, Kelly) "A SpaceX Falcon 9 rocket helped deliver another batch of 60 Starlink satellites to low-Earth orbit Wednesday, further advancing the internet-beaming constellation that has already secured half a million pre-orders. 'To date, over half a million people have placed an order or put down a deposit for Starlink,' Youmei Zhou, a SpaceX propulsion engineer, said during a webcast leading up to the 2:59 p.m. launch from Cape Canaveral Space Force Station."

SpaceX Launches And Lands Falcon 9 Rocket For 85th Time

Bloomberg

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(5/26) "SpaceX Launches and Lands Falcon 9 Rocket for 85th Time"

Viasat Threatens To Sue FCC Over SpaceX's Starlink Plan

Law360

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(5/26) "Satellite provider Viasat Inc. has asked the Federal Communications Commission to halt rival SpaceX's updating of its Starlink satellite fleet, saying the proposed changes pose environmental concerns that the FCC didn't adequately consider and that Viasat plans to challenge in federal court. In a recent filing, Viasat said the FCC should put SpaceX's plan on ice while the D.C. Circuit assesses whether the fleet of low-Earth orbit broadband satellites will cause harmful light pollution and dangerous space debris."

Is SpaceX's Starlink Mega Constellation An Environmental Problem? The FCC Says 'No'

Forbes

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(5/26, O'Callaghan) "The Federal Communications Commission (FCC) has said SpaceX's Starlink constellation does not require an environmental review, after concerns were raised about its impact on the night sky and the atmosphere. In May 2019, SpaceX began the launch and deployment of its Starlink constellation, a planned group of up to 42,000 satellites in orbit designed to beam the internet to Earth from space."

Starlink V1.0 L28 Mission Completes First "Shell" Of Satellites For Worldwide Coverage

NASA Space Flight

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(5/26, Davenport) "SpaceX's 16th Falcon 9 launch of the year on Wednesday May 26 lifted off with 60 Starlink satellites to finish the first of five orbital shells for the constellation. Liftoff from Space Launch Complex 40 (SLC-40) occurred on time at 2:59 PM EDT (18:59 UTC). The Starlink constellation promises to provide high speed broadband internet to millions worldwide that lack the ability to obtain this type of service now."

EU Court Rejects OHB Bid To Suspend European Space Agency Decisions

Reuters

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(5/26, Staff) "Europe's second-top court on Wednesday rejected an application by German satellite company OHB System AG to suspend two public procurement decisions by the European Space Agency. The Luxembourg-based General Court also dismissed OHB's application for interim relief."

Editorial: Flight Puts Virgin, NM In Space Race

Albuquerque (NM) Journal

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(5/26) "Saturday was a big day for Virgin Galactic, Spaceport America, commercial space flight and New Mexico. After years of delays, Virgin Galactic's VSS Unity successfully shot into space after breaking away from its mothership at 44,000 feet. Unity climbed about 55 miles above Earth before gliding down to Spaceport America, the world's first purpose-built commercial spaceport near Truth or Consequences."

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=pRs0LdrvXF7O1Jj26SuBo+QKOfpRjb7kME6pedBVu08=&reserved=0>.

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Editor's Note

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Take 2: Spacewalking Astronauts Install New Solar Panel

AP

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(6/20, Dunn) "Spacewalking astronauts equipped the International Space Station with the first in a series of powerful new solar panels Sunday, overcoming suit problems and other obstacles with muscle and persistence. It took two spacewalks for French astronaut Thomas Pesquet and NASA astronaut Shane Kimbrough to install and unfurl the panel to its full 63 feet (19 meters) in length."

NASA 'Keeping Eye' On Jeff Bezos And Other Space Astronaut Billionaires

Fox Business

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(6/18, Vaughn) "With Billionaire Jeff Bezos weeks away from lifting off in his own Blue Origin rocket, along with his brother Mark and a mystery passenger who paid \$28 million to be onboard, NASA has a message: Space is not going to be the wild-west for billionaires or anyone else looking to blast off. 'I'm keeping my eye on it, but they're going to have to meet the same rigorous physical and psychological examination for any other professional astronaut,' NASA Administrator Bill Nelson told FOX Business exclusively."

Funding For Bezos Space Company Fails To Launch In House

Wall Street Journal

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43da96dd17b|0|0|637598698646216413|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=J30GhdazoFUHpy/fkEMBxalMsCSzRSg4od6tpYSAaak=&reserved=0>
(6/18, Rubin) "HOUSE THROWS UP ROADBLOCKS to funding for Jeff Bezos's Blue Origin space exploration company that was approved as part of the Senate's bipartisan China competition legislation last week. Members from both parties made clear the \$10 billion authorization, pushed by Washington Democratic Sen. Maria Cantwell, for a second moon lander contract (Elon Musk's SpaceX won the first contract earlier this year, while Blue Origin was one of two runners-up) was a nonstarter for the House's version of science and innovation legislation."

Rep. Waltz Reacts To Latest 'Woke' NASA Ad

Fox News

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(6/18) "MICHAEL WALTZ: More diversity in space than our astronauts, great. What we need to be focused on is getting more Americans into space because right now the Chinese are passing us. They are kicking our butts up there, and it's a real problem. Brian, more launches, more Chinese launches in space last year than the rest of the world combined, including the United States. As you said, just put their own astronauts in their own space station, which is brand new and being built, ours is 30 years old and decrepit."

If You Care About The US, Root For China To Score A Win In Space

The Hill

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(6/19, Mackinnon) "It can be argued that members of Congress and presidents sometimes appear to put their personal re-elections before all else — occasionally, this happens even at the expense of the long-term welfare of America. For politicians who view their lives and personal advancement in increments of two-, four- and six-year windows, tangible, immediate vote-influencing issues tend to dominate their policy decisions. ... The Biden administration and many members of Congress appear to have placed American preeminence in space back on the rear burner, or they've knocked it off the stove entirely. They're seeking to allocate more of NASA's space budget to climate change and other issues."

Flight

NASA, DLR Show SAFs Can Reduce Contrails' Climate Impact

Aviation Week

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"Cleaner-burning sustainable fuels can reduce aircraft contrails' cloudiness and their contribution to aviation's climate impact, joint research by NASA and German aerospace center DLR has concluded. Burning low-aromatic sustainable aviation fuel (SAF) can result in a 50-70% reduction in soot..."

New NASA Study Finds Sustainable Aviation Fuels Help Eliminate Contrails

SlashGear

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(6/20, McGlaun) "We've all looked up the sky and seen commercial aircraft flying overhead, leaving what looks like clouds in the sky, a phenomenon called contrails. NASA has published a new study in cooperation with DLA ATRA aircraft investigating alternative fuels. Cleaner burning jet fuels are made from stable resources and, according to the study, produce between 50 and 70 percent fewer ice crystal contrails at cruising altitude, helping to reduce the impact of aviation on the environment. Ice crystal formations can linger in the upper atmosphere for hours and impact how the earth heats and cools itself."

Earth

Nasa Warned The Earth Is Trapping Twice As Much Heat As In 2005 — A Pace That's 'Unprecedented'

Insider

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(6/18, Baker) "The amount of heat being trapped by Earth has roughly doubled since 2005, NASA warned. Researchers from NASA and the National Oceanic and Atmospheric Administration (NOAA) found in a new study released earlier this week that Earth's 'energy imbalance approximately doubled during the 14-year period from 2005 to 2019.'"

Earth's Atmosphere Trapping 'Unprecedented' Amount Of Heat: NASA, NOAA Report

Fox News

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(6/19, Musto) "Scientists at the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA) have determined in new research that the Earth's atmosphere has been trapping an 'unprecedented' amount of heat, with the planet's energy imbalance approximately doubling from 2005 to 2019."

Humans in Space

Take 2: Spacewalking Astronauts Install New Solar Panel

AP

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43da96dd17b|0|0|637598698646246284|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=x42HxCkU3aovcks/hgEInnDn3tgV8FI0H3bJ4F6YMqk=&reserved=0> (6/20, Dunn) "Spacewalking astronauts equipped the International Space Station with the first in a series of powerful new solar panels Sunday, overcoming suit problems and other obstacles with muscle and persistence. It took two spacewalks for French astronaut Thomas Pesquet and NASA astronaut Shane Kimbrough to install and unfurl the panel to its full 63 feet (19 meters) in length."

Thousands Tune In As Astronauts Install A New Solar Array On The International Space Station

Forbes

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Spacewalkers Unfurl First Of Six New Space Station Solar Arrays

Spaceflight Now

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ESA/NASA Complete ISS Spacewalk To Install First New Solar Array

NASA Space Flight

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Astronauts Install New Solar Panels In 6-hour Spacewalk On International Space Station

CNN

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(6/20, Strickland) "NASA astronaut Shane Kimbrough and European Space Agency astronaut Thomas Pesquet conducted a spacewalk Sunday – their second in the past week – to install new solar arrays that will provide a power boost to the space station. The spacewalk came days after facing "technical delays" during a spacewalk on Wednesday. The astronauts carried over some of Wednesday's work that was left unfinished due to the issues."

Astronauts On Spacewalk Deploy First Roll-Out Solar Array To Boost Power For Station

SPACE

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(6/20, Pearlman) "Two astronauts working outside the International Space Station successfully rolled out a new type of solar array, providing the orbiting outpost with its first power boost in decades. NASA astronaut Shane Kimbrough and French astronaut Thomas Pesquet of the European Space Agency conducted a six-hour and 28-minute extravehicular activity (EVA) on Sunday (June 20), to finish the installation and deployment of the first International Space Station (ISS) Roll-Out Solar Array (iROSA). The two Expedition 65 crewmates resumed work where they had left off on a spacewalk on Wednesday (June 16), by overcoming an interference issue that initially prevented them from unfolding the array fully."

In Second Attempt, Spacewalkers Successfully Deploy Balky Solar Array

CBS News

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(6/20, Harwood) "Spacewalkers Thomas Pesquet and Shane Kimbrough successfully deployed a balky roll-out solar blanket on the International Space Station Sunday after problems derailed an attempt last week. 'Beautiful,' Pesquet, a European Space Agency astronaut, marveled after releasing a final bolt, watching as the 15-foot-wide array began unfurling on the far left end of the station's solar power truss."

Rocket Report: China Launches Crew Mission, SpaceX Runs Into Road Troubles

Ars Technica

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(6/18, Berger) "Welcome to Edition 4.03 of the Rocket Report! This week saw two significant launches back-to-back. On Wednesday evening, US time, China launched its first crewed mission to its new space station, which was also the

country's first human spaceflight in nearly five years. And then, less than a day later, the US Space Force joined the ranks of reusable launch customers."

Will Jeff Bezos Be An Astronaut When He Travels Into Space On A Blue Origin Flight? It's Complicated, Because Experts Say There's Still A Debate About Where Space Begins.

Insider

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NASA 'Keeping Eye' On Jeff Bezos And Other Space Astronaut Billionaires

Fox Business

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NASA Is Keeping A Watchful Eye On Jeff Bezos And Other Billionaires Competing In The Space Race, According To The Agency's Chief

Insider

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Boeing Starliner Is On Track For Its July Test Flight

SlashGear

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(6/19, McGlaun) "NASA and Boeing are currently preparing the Starliner capsule for Orbital Flight Test-2 (OFT-2). The flight test is a critical portion of the testing regime to clear Starliner to carry astronauts to and from the ISS in the future. Recently, teams at the Starliner production facility at the NASA Kennedy Space Center in Florida began to fuel the Starliner crew module and service module in preparation for the OFT-2 launch on Friday, July 30."

Tens Of Thousands Sign Petition To Stop Jeff Bezos From Returning To Earth

NPR

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ISS Spacewalk

Spectrum News 13 (FL)

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(6/20)"Destination space news now, a spacewalk at the International Space Station on tap for today. Take a look at this feed from NASA's Shane Kimbrough and the European Space Agency's Thomas Pesquet installing new solar arrays today."

ISS Spacewalk

KABC-TV Los Angeles

<https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062102nasa&r=email-dece&l=01a-6e4&t=c&data=04|01|phillip.m.thompson@nasa.gov|32617f129ea447e1b69f08d934a3647a|7005d45845be48ae8140d43da96dd17b|0|0|637598698646306027|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=ff0SVZaJ9FETra1meh7dvLQYewp8RWMpJms9FV4zFAU=&reserved=0>
(6/20) "It is a busy morning at the International Space Station. Here are live pictures of a spacewalk happening now."

Moon to Mars

Funding For Bezos Space Company Fails To Launch In House

Wall Street Journal

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was approved as part of the Senate's bipartisan China competition legislation last week. Members from both parties made clear the \$10 billion authorization, pushed by Washington Democratic Sen. Maria Cantwell, for a second moon lander contract (Elon Musk's SpaceX won the first contract earlier this year, while Blue Origin was one of two runners-up) was a nonstarter for the House's version of science and innovation legislation."

Space Agencies Are Learning How To Make Food On Mars And The Moon

CNBC

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Turkey Aims To Send Rocket To Moon In Three Years, Land Lunar Rover By 2030

SPACE

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NASA Will Send A Mannequin On A Space Mission. Here's How You Can Help Name It.

Florida Today

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NASA Needs Your Help Naming The Dummy It's Sending To The Moon

CNET News

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Solar System and Beyond

NASA's Sudden Interest In Venus Is All About Climate Change

The Hill

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Europa Volcanism & Interior Heating Modeled In Detail, Offers Research Targets For Upcoming Missions

NASA Space Flight

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NASA Struggles To Fix A Hubble Space Telescope Computer Glitch

Engadget

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Hubble's payload computer. The system broke down on June 13th, and the operations team had no success either restarting the computer on the 14th or switching to a backup memory module. The agency also failed in repeated attempts with both modules on the evening of June 17th."

NASA Is Working To Restore Hubble Space Telescope Operations

SlashGear

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Computer Problem Takes Hubble Offline

Space News

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Computer Glitch Sends Aging NASA Hubble Space Telescope Into Safe Mode

CNET News

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Intelligent Life Probably Exists On Distant Planets — Even If We Can't Make Contact, Astrophysicist Says

Washington Post

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(6/18) "Recently released Navy videos of what the U.S. government now classifies as 'unidentified aerial phenomena' have set off another round of speculative musings on the possibility of aliens visiting our planet. Like other astrophysicists who have weighed in on these sightings, ... Beginning in the early 1960s, scientists have tried to calculate the odds of advanced extraterrestrial life. In 1961, researchers at the NASA-funded search for extraterrestrial intelligence (SETI) developed the 'Drake Equation' to estimate how many civilizations in the Milky Way might evolve to develop the technology to emit detectable radio waves."

Space Tech

No content.

Various

'The Burning Blue' Is A Compact, Suspenseful Chronicle Of The Challenger Disaster

Washington Post

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"In the months leading up to Jan. 28, 1986, the day the space shuttle Challenger crashed, killing everyone onboard, there were ominous portents. As journalist Kevin Cook recounts in his solid, gripping new book, 'The Burning Blue: The Untold Story of Christa McAuliffe and NASA's Challenger Disaster,' the bad signs piled up: A teenage gunman had entered the New Hampshire high school where McAuliffe taught social studies and was killed by police after taking hostages. When McAuliffe and other astronaut hopefuls took a trip to an amusement park, a young employee, trying to impress them, got tangled in the machinery of a ride and died."

NASA Shuttle Crew Likely Survived First Seconds After Explosion, Book Claims

Daily Mirror (UK)

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NASA Launches Mission Equity Initiative To Include Underserved Populations

SlashGear

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examine what potential barriers and challenges exist for communities historically underrepresented and underserved. NASA administrator Bill Nelson says the agency is a 21st century agency with 22nd century goals.”

Rep. Waltz Reacts To Latest ‘Woke’ NASA Ad

Fox News

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“MICHAEL WALTZ: More diversity in space than our astronauts, great. What we need to be focused on is getting more Americans into space because right now the Chinese are passing us. They are kicking our butts up there, and it’s a real problem. Brian, more launches, more Chinese launches in space last year than the rest of the world combined, including the United States. As you said, just put their own astronauts in their own space station, which is brand new and being built, ours is 30 years old and decrepit.”

‘Reach Those We’ve Never Reached Before’: NASA Joins The Woke Train With ‘Mission Equity’

Daily Caller

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NASA Launches Mission For ‘Equity’

Fox News

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If You Care About The US, Root For China To Score A Win In Space

The Hill

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(6/19, Mackinnon) "It can be argued that members of Congress and presidents sometimes appear to put their personal re-elections before all else — occasionally, this happens even at the expense of the long-term welfare of America. For politicians who view their lives and personal advancement in increments of two-, four- and six-year windows, tangible, immediate vote-influencing issues tend to dominate their policy decisions. ... The Biden administration and many members of Congress appear to have placed American preeminence in space back on the rear burner, or they've knocked it off the stove entirely. They're seeking to allocate more of NASA's space budget to climate change and other issues."

NASA, USPS Team Up To Create Stunning Sun Stamps

Fox News

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(6/19, Musto) "The U.S. Postal Service has issued a new set of stamps celebrating 10 years of sun-watching from the National Aeronautics and Space Administration's (NASA) Solar Dynamics Observatory (SDO). On June 18, the stamps were presented during a ceremony at the Greenbelt Main Post Office in Maryland, according to a Friday NASA release."

NASA's Images Of The Sun Find A Place On Postage Stamps

SlashGear

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(6/19, McGlaun) "The U.S. Postal Service has issued a new set of postage stamps highlighting views of the sun taken from the NASA Solar Dynamics Observatory (SDO). The stamps have a black background with images of the sun showcasing a range of activity observed by the Solar Dynamics Observatory since its launch. The postal service issued the Sun Science stamps during a ceremony held at the Greenbelt Main Post Office in Maryland on June 18."

US Postal Service Releases 'Sun Science' Stamps With NASA Imagery

SPACE

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(6/18, Pearlman) "The sun has risen on a new set of postage stamps. The United States Postal Service (USPS) on Friday (June 18) released 'Sun Science,' a collection of 10 stamps celebrating the study of heliophysics using the imagery from a NASA probe."

Ex-Astronaut Melroy Confirmed As Deputy NASA Administrator

Aviation Week

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25d&t=c&data=04|01|phillip.m.thompson@nasa.gov|32617f129ea447e1b69f08d934a3647a|7005d45845be48ae8140d43da96dd17b|0|0|637598698646395629|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=QE1+o/EQgY+b/n8zgb5vPFJMGRP7X/FZBRrsLlesD9A=&reserved=0>
(6/18) "Former space shuttle commander and retired U.S. Air Force Col. Pamela Melroy was confirmed by the U.S. Senate to become the deputy administrator of NASA, serving alongside NASA chief Bill Nelson."

Ex-NASA Scientist Imprisoned For 'Long-Running Deception' Working In China

FedScoop

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(6/18, Nyczepir) "U.S. District Judge P. Kevin Castel sentenced a former NASA nanotechnologist, suspected of giving Chinese nationals access to its facilities, to 30 days in prison Wednesday for lying to federal agents about working at a Chinese research university. Meyya Meyyappan, 66, served as chief scientist for exploration technology at the Center for Nanotechnology at NASA's Ames Research Center, until he was caught lying to the FBI and NASA Office of Inspector General about being a visiting professor at Soochow University for an estimated \$1.4 million over five years."

NASA Commemorates Juneteenth With Historic View From Space

SPACE

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NASA, USPS Release Stamp Set

KTLA-TV Los Angeles

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(6/20) "NASA is teaming up with the US postal service to release a new set of stamps. The new stamps celebrate NASA's decade long observation of the sun."

Other

Russia And China Outline Joint Lunar Station Road Map

Aviation Week

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053&t=c&data=04|01|phillip.m.thompson@nasa.gov|32617f129ea447e1b69f08d934a3647a|7005d45845be48ae8140d43da96dd17b|0|0|637598698646415544|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=RBcumpR1o3+zpzcVQLWWuSP/1dtHI6r9fZsZQydyqQkY=&reserved=0> (6/21) "Russia and China are deepening their cooperation in aerospace, making plans to develop a lunar base by 2035 that also will be open for international cooperation. The International Lunar Research Station (ILRS) being developed by Russia's Roscosmos space agency and the China National Space..."

SpaceX Successfully Launched GPS III Space Vehicle 05

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Space Tourism Startup Flies Test Balloon 20 Miles High Over Florida

UPI

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Space Force Launches Fifth GPS III Satellite For More Secure Positioning

Federal Times

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f69&t=c&data=04|01|phillip.m.thompson@nasa.gov|32617f129ea447e1b69f08d934a3647a|7005d45845be48ae8140d43da96dd17b|0|0|637598698646435461|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=3M2RS+xYK0cVaigHhQ5kmzM+I5Vd6E39idw8sEc3tfg=&reserved=0>.

Services including embedded Tweets are also subject to Twitter for Website's information and privacy policies

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0ac&t=c&data=04|01|phillip.m.thompson@nasa.gov|32617f129ea447e1b69f08d934a3647a|7005d45845be48ae8140d43da96dd17b|0|0|637598698646435461|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=CG0wsf/L0vNN8mmOW3i4n4REy9D3P4o++pQhUgT0uXs=&reserved=0>.

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Editor's Note

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- NASA's Aging Hubble Space Telescope Stuck In Safe Mode As Glitch Fixes Falter (CNET News) <#S43>
- Hubble Space Telescope Finds Galaxy With Weirdly Little Dark Matter (SPACE) <#S44>
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- Citizen Scientists Discover 2 Gas Giants Around A Distant Sun-like Star (SPACE) <#S51>
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- SpaceX's Starlink Satellite Internet Could Achieve Global Coverage By September (Engadget) <#S60>

Top Stories

Richard Branson And Jeff Bezos Will Fly To Space At Their Own Risk. Does That Make It Right For Everyone?

Washington Post

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Opinion: Americans Should Worry More About China Than Russia.

The New Space Race Shows Why. Washington Post (6/23) "The salute was carried live to 1 billion people but went unnoticed by most of the world. Three astronauts aboard China's new rival to the International Space Station gave military salutes to President Xi Jinping during a videoconference broadcast Wednesday on state television. ... NASA

Administrator Bill Nelson held up a photograph of China's Mars rover during a recent House hearing as he requested more funding for the Human Landing System."

NASA Chief Reminds Congress They're The Ones Not Funding A Lunar Lander

Ars Technica

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(6/23, Berger) "NASA Administrator Bill Nelson said the space agency expects a decision from the US Government Accountability Office on a lunar lander protest by August 4. This would seem to set a firm timeline after which NASA can move forward with its Artemis program. Nelson's comments came in response to members of the US House Science, Space, and Technology Committee asking for specifics on Artemis, which NASA intends to use to return humans to the Moon and eventually go on to Mars."

Space Force Set To Defend Deep Space

Washington Times

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Flight

DLR-NASA Flight Tests Show SAFs Can Reduce Climate Impact Of Contrails

Aviation Week

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(6/23, Wick) "Cleaner-burning sustainable fuels can reduce aircraft contrail cloudiness and their contribution to aviation's climate impact, joint research by NASA and German aerospace center DLR has concluded. Burning low-aromatic sustainable aviation fuel (SAF) can result in a 50-70% reduction in soot-particle emissions and the resulting ice crystal concentrations, reducing the warming effect from contrail cirrus clouds, according to research published on May 17 in Nature Communications journal Earth & Environment."

Earth

'Strawberry' Supermoon To Adorn Night Sky Wednesday Through Friday

Washington Post

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(6/23) “The first full moon of the summer is set to rise gracefully in the eastern sky Wednesday through Friday evenings and will appear a little plumper and brighter than normal. The June ‘Strawberry Moon’ is marginally considered a supermoon, according to NASA, the last in a series. Supermoons are those full moons that pass the Earth near the closest point in their monthly orbit (known as perigee) and can appear up to 30 percent brighter and 14 percent bigger than full moons that pass at their greatest distance (known as apogee).”

Last Supermoon Of 2021 Is This Week

NBC News

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(6/23, Chow) “A ‘strawberry’ moon is rising. June’s full moon will light up the sky Thursday, marking the last supermoon of the year and capping off a series of recent skywatching events that included a lunar eclipse and a ‘ring of fire’ solar eclipse. ... Thursday’s full moon will be at peak illumination at 2:40 p.m. ET, but the lunar spectacle won’t be visible for several hours, until the moon rises over the horizon in the eastern skies. The moon will subsequently appear full through early Saturday, according to NASA.”

How To See Tomorrow’s Strawberry Moon, The Last Supermoon Of 2021

CNET News

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(6/23, Kooser) “What a year it’s been for moon viewing. After May’s ‘super flower blood moon’ eclipse, we’re returning to a straight-up full moon on Thursday. It will be the last supermoon of 2021. ... ‘For 2021, some publications consider the four full Moons from March to June, some the three full Moons from April to June, and some only the two full Moons in April and May as supermoons,’ NASA program executive Gordon Johnston said in April.”

The Strawberry Moon: How, When To Watch It

Fox News

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Humans in Space

Richard Branson And Jeff Bezos Will Fly To Space At Their Own Risk. Does That Make It Right For Everyone?

Washington Post

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(6/23) “Want to jump out of a perfectly good airplane and hope the parachute opens? Be our guest. Or try bungee jumping? Sure, go for it. And, yes, feel free to strap yourself into that roller coaster and loop-de-loop until you turn green. ... DeFazio is also taking aim at the FAA’s dual mandate to both regulate and promote the space industry, which he said is a conflict of interest that could endanger the public. The FAA, he said in an interview, ‘should not be promoting commercial space. NASA can promote commercial space. The Commerce Department can promote commercial space. The FAA’s job is to regulate in the public interest.’”

SpaceX Sends Thousands Of Baby Squid To Space Station

The Hill

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(6/23, Spencer) “One dozen bobtail squid that were raised at the Kewalo Marine Laboratory at the University of Hawaii boarded the International Space Station after catching a ride from a SpaceX resupply mission, according to The Guardian. The space mission is part of University of Hawaii doctoral student Jamie Foster’s research on the effects of spaceflight on squid, The Honolulu Star-Advertiser reported, to help determine how long humans can remain healthy in space.”

Tide To Develop First Laundry Detergent For Astronauts' Clothing On Space Station

SPACE

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(6/23, Pearlman) “Future astronauts may not need to worry about moon dust and Mars soil stains, thanks to an effort by Tide to develop a laundry detergent for use in space. The Procter & Gamble (P&G) laundry brand has partnered with NASA to explore how to clean astronauts’ clothes aboard the International Space Station (ISS), as well as on future crewed missions to the moon and Mars. Under the terms of the new Space Act Agreement, NASA may study Tide’s cleaning solutions, while the company works to bring the lessons from its off-planet tests to its line of everyday consumer products for use on Earth.”

Equilibrium — Presented By NextEra Energy — A New Final Frontier: Washing Dirty Laundry In Space

The Hill

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0a6&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807010327|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=fA/+hIKUGDojBTO1WsiSdY64KrlaPK7zd1kJp18EWd0=&reserved=0> (6/23, Elbein, Udasin) "NASA is teaming up with Procter & Gamble Co. to develop a washer-dryer combo that could eventually operate on the moon or even Mars using minimal amounts of water and detergent, the Associated Press reported. Up until this point, astronauts dealt with their tons of dirty laundry each year by throwing it away: launching their garments to burn up in the atmosphere aboard discarded cargo ships, according to the AP."

NASA And Tide Team Up To Deal With Dirty Laundry In Space

BGR

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bf2&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807020284|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=78kECIvPa1pr9e/gg9reYKKKOB0vspiBL2unscOkMUM=&reserved=0> (6/23) "Humans have been living in space for years, but it took endless research and planning to make that possible.

Everything we take for granted on the surface of the planet, where we have gravity and resources to accommodate our every whim, has to be engineered to work in space. Scientists have yet to solve every problem required to make living in space for extended periods comfortable to astronauts and affordable for the governments and companies that might be footing the bill."

NASA Looking To Solve Dirty Laundry Issue In Space

CBS News

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cb5&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807020284|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=K0Rf3qnF4e9pRhvvnsmtpt2tM4OAlr/BsE3QNDRmKlIPM=&reserved=0> (6/23) "How do astronauts do laundry in space? They don't. They wear their underwear, gym clothes and everything else until they can't take the filth and stink anymore, then junk them. NASA wants to change that. CBS Los Angeles has the details."

On Sale: \$125,000 Balloon Trips To The Edge Of Space

CNN

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936&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807030242|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=GnIIHUOUgxZB/m3o+UY8UcjaE/eRDOawlpkFsk0C10=&reserved=0> (6/23) "If you're trying to avoid airborne viruses, heading to a near vacuum might not be the worst idea. A Florida company is planning to fly passengers to the edge of space in a high-tech version of a hot air balloon, with a pilot and up to eight travelers riding in a pressurized capsule suspended from an enormous blimp."

Florida-Based Space Balloon Company Launches Ticket Sales

UPI

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8cb&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807030242|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=GnzjAURSwyBiJsQ0HWJATr5rb+yCzppX0Yqj+1dntuM=&reserved=0>
(6/23, Brinkmann) "A new space tourism company began to sell tickets Wednesday for six-hour balloon rides to the stratosphere starting in 2024. The price of a seat: \$125,000. The company, Florida-based Space Perspective, plans up to 25 flights in the first year into what is the second major layer of the Earth's atmosphere and extends to about 31 miles, or more than 163,000 feet, above the planet's surface."

A Startup Offering To Take Tourists To Space In A Ship Lifted By An Enormous Balloon Is Selling Tickets For \$125,000 A Ride

Insider

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(6/23) "Forget airplanes, cruises, and hotels. Space Perspective wants to take you on a \$125,000 luxury trip to the 'edge of space,' according to the company. Spaceship Neptune. ... But don't picture your typical NASA rocket ship."

More Than 22,000 Apply To Join European Space Agency's Astronaut Corps, A New Record

SPACE

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(6/23, Pultarova) "The European Space Agency (ESA) received a record number of applications for its recently closed call for new astronauts, with more than 22,000 people applying — nearly three times as many applicants as in the previous astronaut recruitment round in 2008. In addition to that, ESA representatives said in a press briefing Wednesday (June 23) that a record number of women had applied: 5,419 compared to 1,287 in 2008."

European Space Agency Seeks Astronaut Applicants With Physical Disabilities

New York Daily News

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(6/24, Braine) "European Space Agency seeks astronaut applicants with physical disabilities"

Europe Seeks Disabled Astronauts, More Women In Space

AP

<https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=016-287&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807050154|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=fDYxuXnuGejZ0EL6kU7RCTICUqnZU8+QPICewmmMZ+A=&reserved=0>

(6/23) “The European Space Agency says it was ‘blown away’ by the record number of applicants — more than 22,000 — hoping to become the continent’s next generation of space travelers, including more women than ever and some 200 people with disabilities. In releasing the results of a new recruitment drive aimed at more astronaut diversity, the agency acknowledged Wednesday that it still has work to do on gender balance.”

Thousands Of People Want To Send Jeff Bezos Into Space Forever

The Hill

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The Date Of Jeff Bezos’ Trip To Space Isn’t A Coincidence — It’s The Anniversary Of The Apollo 11 Mission To The Moon

Insider

<<https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=018-6b5&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807060109|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=4tfnDYILwqy65Sv+7ERaJtTDzldr82FGH5vCIFSH2Mw=&reserved=0>> (6/23, Hartmans) “Jeff Bezos’ trip aboard a Blue Origin rocket next month will take place on a fortuitous day in space history. The 11-minute trip 62 miles above Earth will take Bezos to the edge of space. Inside Blue Origin’s New Shepard spacecraft, Bezos, his brother Mark, the unnamed tourist who paid \$28 million for the opportunity, and a fourth passenger will have three minutes to float around the spacecraft and view Earth from afar — or gaze into the depths of outer space.”

NASA, Tide Partner On Detergent For Astronauts

KCBS-TV Los Angeles

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Moon to Mars

Opinion: Americans Should Worry More About China Than Russia. The New Space Race Shows Why.

Washington Post

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I6lk1haWwiLCJXVCI6Mn0=|1000&sdata=96TZppBPjQA3tLEO2UReejuQkyMVMq9+q5lSgjHjYZI=&reserved=0> (6/23) “The salute was carried live to 1 billion people but went unnoticed by most of the world. Three astronauts aboard China’s new rival to the International Space Station gave military salutes to President Xi Jinping during a videoconference broadcast Wednesday on state television. ... NASA Administrator Bill Nelson held up a photograph of China’s Mars rover during a recent House hearing as he requested more funding for the Human Landing System.”

NASA Chief Reminds Congress They’re The Ones Not Funding A Lunar Lander

Ars Technica

<https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=01b-6d6&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807080023|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=eWjoliQR76NfGZcRa65CTPrOEigQclnp31PVG4b5NWM=&reserved=0> (6/23, Berger) “NASA Administrator Bill Nelson said the space agency expects a decision from the US Government Accountability Office on a lunar lander protest by August 4. This would seem to set a firm timeline after which NASA can move forward with its Artemis program. Nelson’s comments came in response to members of the US House Science, Space, and Technology Committee asking for specifics on Artemis, which NASA intends to use to return humans to the Moon and eventually go on to Mars.”

NASA Chief Promises More Moon, Mars Cost, Schedule Details

Aviation Week

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NASA, Nelson Push For Annual Moon Landings For ‘A Dozen Years’

UPI

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Nelson Says Artemis Plans Pending Decision On GAO Protest

Space News

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(6/23, Foust) "NASA Administrator Bill Nelson told a House committee June 23 that NASA is awaiting a decision from the Government Accountability Office on protests of the agency's lunar lander contract before releasing more details on plans to return humans to the moon. Testifying before the House Science Committee, Nelson said those plans will depend on whether the GAO upholds protests filed by Blue Origin and Dynetics of NASA's award of a single Human Landing System (HLS) contract to SpaceX in April. The GAO has until Aug. 4 to rule on the two protests."

Martian Dust Could End NASA's InSight Mission In A Matter Of Months

Gizmodo

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(6/23, Dvorsky) "Dwindling access to power, the result of dust settling onto solar panels, is threatening to end NASA's InSight Mars mission by April of next year. News of InSight's worrisome condition was announced on June 21 at a meeting of NASA's Mars Exploration Program Analysis Group, as SpaceNews reports. The steady buildup of dust on the probe's solar arrays has been 'considerable,' as Bruce Banerdt, principal investigator for the InSight mission at NASA's Jet Propulsion Laboratory, explained during the meeting."

Masten Delays First Lunar Lander Mission

Space News

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(6/23, Foust) "Masten Space Systems is pushing back the launch of its first lunar lander mission by nearly a year, the latest in a series of delays by companies with NASA contracts to transport payloads to the moon. Masten said June 23 that its Masten Mission 1 lander, which had been scheduled to launch in December 2022 to land near Haworth Crater in the south polar regions of the moon, will instead launch in November 2023. The company blamed the delay on the cumulative effects of the COVID-19 pandemic and industry-wide supply chain issues."

Mars Ingenuity Helicopter Marks The Successful Completion Of Its Eighth Test Flight

SlashGear

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(6/23, McGlaun) "NASA JPL has shared a tweet with a selfie taken by the Mars Ingenuity Helicopter. The picture was snapped during the helicopter's eighth test flight on Monday of this week. While NASA isn't sharing a wealth of details about the eighth test flight, what it has said is that the helicopter flew for 77.4 seconds over a distance of 160 meters."

NASA's Mars Helicopter Has Now Flown Successfully 8 Times, Beaming Back Photos That Look Like A Sci-fi Film

Insider

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4ff&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807109891|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=P5rLmdlDK3jhTc6cjB76id78NqZ2Zq6gU1r0y9S3xg=&reserved=0> (6/23, McFall-Johnsen) "The 4-pound helicopter spun its two pairs of blades to lift itself more than 30 feet above the ochre Martian dust. At a speed of 9 mph, it zipped to a new landing spot 525 feet away. The pair of robots landed in Mars' Jezero Crater on February 18. Ingenuity was meant to conduct up to five test flights in order to prove that helicopters could fly over and explore Mars. The demo chopper has far exceeded engineers' expectations."

Lockheed Martin To Build Aeroshell For Mars Sample Retrieval Lander

New Atlas

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bdb&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807119848|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=Vp1CRyBvatRn8lSyAiA1loEBknFM//yfl7yML6PRxqM=&reserved=0> (6/23, Szondy) "Lockheed Martin has been selected by NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California to design and build the aeroshell and heat shield for the space agency's Mars Sample Retrieval Lander, which will help return the first Martian samples to Earth. Penciled in for a July 2026 launch, the Mars Sample Retrieval Lander is part of a tag-team string of Mars Sample Return missions to bring bits of Mars back to Earth for analysis. The first phase is already underway as NASA's Perseverance rover traverses the Martian surface in search of signs of ancient microbial life. As the nuclear-powered rover collects soil and rock samples, these will be packaged and left behind in caches."

NASA Administrator Discusses Budget At Hearing

WKMG-TV Orlando (FL)

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ea3&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807119848|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=upGi5ubZ1qysD/gANryoqOIQSTfiV1/UJWD5in5qviM=&reserved=0> (6/23) "Former Florida Senator and current NASA Administrator Bill Nelson is on Capitol Hill fighting to get more money for space exploration."

China Plans To Send Its First Crewed Mission To Mars In 2033 And Build A Base There

CNBC

<[https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=025-](https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=025-a10&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807129807|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=94Eo4K30bkYDpzcTTtoHWUXskFQjJcv70OlineoK3Vyk=&reserved=0)

a10&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807129807|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=94Eo4K30bkYDpzcTTtoHWUXskFQjJcv70OlineoK3Vyk=&reserved=0> (6/24,) "China plans to send its first crewed mission to Mars in 2033 as it continues to boost its space ambitions in a battle with the U.S. The world's second-largest economy is planning regular crewed missions to the Red Planet."

China Plans Its First Crewed Mission To Mars In 2033

Reuters

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3b1&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807129807|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=XMmWboft0mNStRIOM5poQXrYBgkz1m8aj8zSuznWkDo=&reserved=0> (6/24, Staff) “China aims to send its first crewed mission to Mars in 2033, with regular follow-up flights to follow, under a long-term plan to build a permanently inhabited base on the Red Planet and extract its resources. The ambitious plan, which will intensify a race with the United States to plant humans on Mars, was disclosed in detail for the first time after China landed a robotic rover on Mars in mid-May in its inaugural mission to the planet.”

Solar System and Beyond

NASA Working To Resolve Computer Glitch, Return Hubble Space Telescope To Service

CBS News

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Hubble Space Telescope’s 1980s Computer Glitch May Run Deeper Than NASA Thought

SPACE

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To Fix The Hubble Space Telescope, NASA May Have To Rely On A Computer That Hasn’t Turned On Since 2009

Insider

<https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=029-6c3&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807149716|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=QA7RBZgUh06QHYRG2IGOOQIE5toZovr7q4bmGIDJ5mw=&reserved=0> (6/23, McFall-Johnsen) “NASA still hasn’t figured out what forced its Hubble Space Telescope offline more than a week ago. The telescope’s payload computer suddenly stopped working on June 13, sending NASA engineers scrambling to figure out the problem. That computer, built in the 1980s, is like Hubble’s brain — it controls and monitors all the science instruments on the spacecraft. So the telescope has gone into a hibernation-like “safe mode” while NASA troubleshoots.”

As Teams Work To Bring Hubble Back Online, New Science Highlights Missing Dark Matter In Galaxy

NASA Space Flight

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Hubble Trouble: NASA Can't Figure Out What's Causing Computer Issues On The Telescope

NPR

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NASA's Aging Hubble Space Telescope Stuck In Safe Mode As Glitch Fixes Falter

CNET News

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Hubble Space Telescope Finds Galaxy With Weirdly Little Dark Matter

SPACE

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the shadowy, invisible substance. Dark matter makes up the lion's share of a galaxy's mass, and it's critical to hold a galaxy's stars, gas and dust together. So, when scientists find evidence twice over that a certain galaxy seems to have a tiny fraction of the dark matter it ought to have, astronomers sit up and pay attention. And that's where recent observations with the venerable Hubble Space Telescope come in."

These Potentially Habitable Exoplanets Can See Earth As It Evolves

CNN

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(6/23, Strickland) "As human civilization began to flourish on Earth about 5,000 years ago, 1,715 star systems within 326 light-years of Earth could have seen our planet over that time. And over the next 5,000 years, 319 more star systems will be able to see Earth. If there are exoplanets orbiting these nearby stars, they could witness our planet as it crosses in front of the sun. The observation of a passing of a planet in front of its host star is called a transit, and it's one of the main methods used by astronomers to detect exoplanets using ground- and space-based telescopes. And it's how other life on other planets, if it exists, could observe Earth."

There Is Only One Other Planet In Our Galaxy That Could Be Earth-Like, Say Scientists

Forbes

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(6/23, Carter) "It's you and me, Kepler442b. What does it take for an alien exoplanet to host life as we know it? A lot, as it turns out. ... The James Webb Space Telescope (JWST), due to launch later this year, will be able to study the atmospheres of exoplanets as they transit their stars. The light coming through their atmosphere's will reveal what gases they contain."

How NASA's Parker Solar Probe Used Venus To Fly Closer To The Sun

ZDNet

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(6/23) "How NASA's Parker Solar Probe used Venus to fly closer to the sun"

Venus Surprisingly Active Beneath The Surface, Scientists Say

CNET News

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(6/23, Mack) "Something is moving on Venus – or rather beneath the planet's surface. It's not life, but it does suggest our neighboring world is a little less static than many previously believed. A team of global researchers analyzed NASA radar images from the Magellan mission to Venus and found big blocks of its lithosphere, or crust, appeared to have moved."

A New Analysis Of The Surface Of Venus Hints The Planet Might Be Geologically Active

SlashGear

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(6/23, McGlaun) "Scientists have performed a new analysis of the surface of Venus that has revealed evidence of tectonic motion. That evidence comes in the form of crustal blocks that have jostled against each other like broken chunks of pack ice on Earth's lakes and oceans. Researchers say that the movement of those blocks could indicate that Venus is geologically active and give insights into exoplanet tectonics and early tectonic activity on Earth. ... Researchers used radar images from the NASA Magellan mission to view the surface of Venus."

How Lobster Eyes Can Help Astronomers Get A Wider View Of The Cosmos

Astronomy News

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(6/23, Bugos) "For more than half a century, scientists have sought to understand cosmic X-rays and what they reveal about our galaxy and the universe beyond it. As it turns out, lobsters can help astronomers do just that. ... 'This is a technology that's been around a long time in astrophysics, looking for a use,' says Scott Porter, an astrophysicist at the NASA Goddard Space Flight Center. Porter's team is developing specialized instruments, including the Solar-Terrestrial Observer for the Response of the Magnetosphere (STORM), to understand how solar wind interacts with Earth's magnetic field."

Citizen Scientists Discover 2 Gas Giants Around A Distant Sun-like Star

SPACE

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[a72&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807199503|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=H/MPnoBHC0VsUvbZO2/h6L/p5+cLbpBPQNc0GUY+No=&reserved=0](https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062402nasa&r=email-cf10&l=034-a72&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807199503|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=H/MPnoBHC0VsUvbZO2/h6L/p5+cLbpBPQNc0GUY+No=&reserved=0)>

(6/23, Mathewson) "A pair of gas-giant exoplanets was found orbiting a distant sun-like star, thanks to the help of citizen scientists around the world. Members of the NASA-funded Planet Hunters Transiting Exoplanet Survey Satellite (TESS) project discovered the two planets around a distant star called HD 152843, which is located about 352 light-years from Earth. The star has a mass similar to that of the sun but is nearly 1.5 times bigger and slightly brighter, according to a NASA statement."

Aliens From 1,715 Stars Could've Seen Earth Over The Past 5,000 Years, Study Suggests

Gizmodo

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NASA Develops Balloon To Study Venus

KOKH-TV Oklahoma City

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Space Tech

No content.

Various

America Needs A Whole-of-government Approach To Studying Unidentified Aerial Phenomena

The Hill

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Space Force Set To Defend Deep Space

Washington Times

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moon and beyond, according to a report by the Air Force Research Laboratory. Defending cislunar space — the volume of space outside of geosynchronous Earth orbit and within the moon's gravitational pull — is outlined in a memorandum of understanding between the Space Force and NASA. The report was made public this week after China and Russia announced plans for a joint international research station to be built on the moon."

Fairborn Defense Contractor Wins \$233M In Contract Boosting NASA

Dayton (OH) Daily News

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(6/23, Gnau) "A joint venture between Banner Quality Management, Inc. and Fairborn's Peerless Technologies Corp. has won the largest award in its history, a five-year, \$233 million effort to support information technology, cybersecurity, communications and program management for NASA's Glenn Research Center and associated facilities."

See The Hubble Space Telescope's Iconic Pillars Of Creation In Lego Form

SPACE

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(6/23, Howell) "One of the Hubble Space Telescope's most iconic pictures is now reimaged in Lego form. The famous 'Pillars of Creation' image of 1995 showing epic clouds of gas in the Eagle Nebula is available now on the Lego's website for fans to recreate in brick form, for free. A copy of the instructions is online on the 'Go Beyond' website, to time with Lego's recently released NASA Space Shuttle Discovery Hubble set for adults."

Other

European Space Agency Is Wary Of Partnering With China

Aviation Week

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(6/24) "Until the mid-2010s, the European Space Agency (ESA) had great hopes that cooperating with the China Manned Space Agency (also known as the China Manned Space Engineering Office) would be fruitful. Harsh diplomatic realities have since dampened enthusiasm. ESA astronauts Samantha Cristoforetti and..."

SpaceX's Starlink Satellite Internet Could Achieve Global Coverage By September

Engadget

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(6/23, Moon) "The Starlink satellite internet service may have the capability to provide users in far-flung regions around the world with high-speed connections before the year ends. SpaceX has deployed 1,800 or so satellites for the Starlink constellation so far. While that number's just a fraction of the 12,000 satellites regulators already approved for the constellation, it's enough to enable worldwide coverage. According to Reuters, SpaceX president Gwynne Shotwell has revealed at a web conference that the service will be able to offer continuous global coverage once all 1,800 satellites reach their operational orbit. The aerospace corporation expects that to happen as soon as September this year."

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93d&t=c&data=04|01|phillip.m.thompson@nasa.gov|328795c14e304ab5746908d936ff28f7|7005d45845be48ae8140d43da96dd17b|0|0|637601291807249286|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=hQA94HDAkDtJ5hBolKsqmrfNQTFpvfI4h7PVzILkoOw=&reserved=0>. The NASA Morning Briefing is published five days a week by Bulletin Intelligence, which creates custom briefings for government and corporate leaders. We can be found on the Web at BulletinIntelligence.com, or called at (703) 483-6100.

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Astronauts Complete Solar Panel Work In 3rd Spacewalk

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(6/25, Dunn) "Astronauts finished unfurling a new pair of solar panels outside the International Space Station on Friday, making their third spacewalk in just over a week. NASA's Shane Kimbrough and France's Thomas Pesquet

successfully installed the second in a series of powerful solar wings that should keep the space station running the rest of this decade, as space tourism ramps up with visitors beginning in the fall.”

Virgin Galactic Gets FAA Approval To Take Customers To Space

Washington Post

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(6/25) “Virgin Galactic says it has Federal Aviation Administration approval to fly customers into space, making it the first spaceline to cross that hurdle, the company announced Friday. The milestone comes at a key moment in the space race: On the anniversary of the Apollo 11 moon landing, July 20, Jeff Bezos plans to be onboard when one of his Blue Origin rockets makes its first crewed spaceflight. The FAA is expected to grant Blue Origin a commercial license soon, according to people familiar with the process.”

“Space Is For Everyone”: Europe’s Space Agency To Hire First Disabled Astronaut

Reuters

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(6/25, Escriitt) “The European Space Agency hopes to hire and launch the world’s first physically disabled astronaut and several hundred would-be para-astronauts have already applied for the role, ESA head Josef Aschbacher told Reuters on Friday. The 22-member space programme has just closed its latest decennial recruitment call for astronauts and received 22,000 applicants, Aschbacher said.”

The Chinese-Russian Lunar Axis Adopts A Plan From The Late Paul Spudis

The Hill

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(6/27, Whittington) “Recently, a group of Russian and Chinese space officials revealed plans for what they call an ‘International Lunar Research Station’ during a conference in St. Petersburg, Russia. The plan for the facility’s development seemed remarkably similar to one proposed by Paul Spudis, the late lunar geologist and return-to-the-moon advocate, and Tony Lavoie, at the time employed by NASA.”

Nelson’s First NASA Challenge: The Space Race With China

Orlando (FL) Sentinel

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[iI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=Zi2uchOXBK30EmK+Icdmgn3GfU2qp2AkLkd3Fq1Lfl=&reserved=0>](https://gcc02.safelinks.protection.outlook.com/?url=https://mailview.bulletinintelligence.com/mailview.aspx?m=2021062802nasa&r=email-13fc&l=007-f37&t=c&data=04|01|phillip.m.thompson@nasa.gov|b71ed6fecec94b463cb908d93a23a477|7005d45845be48ae8140d43da96dd17b|0|0|637604747037175811|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB) (6/27,

Weiner, Paras) "While NASA focuses on Venus, China's space program, the China National Space Administration (CNSA), is aimed at landing people on the moon, something NASA hasn't done since Apollo 17 in 1972. It's astounding that 52 years since the U.S. landed, we have done nothing with human beings for decades but send commuter shuttles to a space station 200 miles away."

Flight

How NASA Intends To Make The Next Narrowbody Airlines 25% More Efficient

FlightGlobal

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(6/28, Hemmerdinger) "NASA has left no doubt that it wants to help make next-generation narrowbody jets significantly more efficient. That goal became clear in May, when the agency revealed its Sustainable Flight National Partnership (SFNP), a technology development effort aimed at bringing 25% efficiency gains to single-aisle jets coming to market in the 2030s."

Earth

Researchers Harness A NASA Satellite To Track Microplastics In The Atlantic

SlashGear

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(6/27, McGlaun) "Researchers from the University of Michigan have devised a way to use data collected by NASA satellites to track the movement of tiny pieces of plastic in the Atlantic Ocean. The plastic they're tracking is known as microplastics and forms when plastic trash in the ocean begins to break down from a combination of sun rays and the motion of ocean waves. Microplastics are a significant concern for the marine ecosystem as the small pieces are harmful to marine organisms and the ecosystem in general."

Humans in Space

Astronauts Complete Solar Panel Work In 3rd Spacewalk

AP

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(6/25, Dunn) "Astronauts finished unfurling a new pair of solar panels outside the International Space Station on Friday, making their third spacewalk in just over a week. NASA's Shane Kimbrough and France's Thomas Pesquet successfully installed the second in a series of powerful solar wings that should keep the space station running the rest of this decade, as space tourism ramps up with visitors beginning in the fall."

Spacewalking Astronauts Deploy Second New Solar Array For Space Station

SPACE

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TiI6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=gTDvy2mEvACdlqEca4ARCma/JPO8ahLX0IUz+kgft6l=&reserved=0>
(6/25, Pearlman) "For the third time in less than two weeks, two astronauts ventured outside of the International Space Station to augment the orbiting outpost's power system with new solar arrays. NASA astronaut Shane Kimbrough and French astronaut Thomas Pesquet with the European Space Agency (ESA) completed a six-hour and 45-minute spacewalk on Friday (June 25), during which they install the second of six new International Space Station (ISS) Roll-Out Solar Arrays (iROSA). The pair previously worked together during spacewalks on June 16 and June 20 to deploy the first new array."

Astronauts Unfurl 60-Foot-Long Space Station Solar Array

UPI

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TiI6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=bzOAF0XK/skcO8UpQsZG1r6RneDVSF0BWWNFU2WBC4=&reserved=0>
(6/25, Brinkmann) "Two astronauts concluded a spacewalk Friday outside the International Space Station and installed a second of six new solar arrays that will boost the orbiting laboratory's electrical power supply. Shane Kimbrough and Thomas Pesquet exited the space station about 8 a.m. EDT. They successfully mounted and rolled out a 60-foot-long solar array, known as iROSA or International Space Station Roll-Out Solar Array. The spacewalk concluded after 6 hours, 45 minutes."

Spacewalking Astronauts Install Second Upgraded Solar Array

Spaceflight Now

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TiI6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=PmE+ioUKG8jEBdxKucq3KLFZsEW7nVXA5g5b38WWvw=&reserved=0>
(6/25, Harwood) "French astronaut Thomas Pesquet and NASA crewmate Shane Kimbrough floated back outside the International Space Station Friday and deployed a 60-foot-long roll-out solar array, the second of six new blankets being installed to upgrade the lab's power system and offset age-related degradation. 'It looks like the deployment is complete,' Pesquet radioed, watching the array unroll itself six hours after the spacewalk began."

Pesquet & Kimbrough Complete New Solar Array Installation On ISS

NASA Space Flight

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TiI6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=i3H1ft1Q3/lu0c54wfh3zlcqNjIWcM2hdtLZw35+MY=&reserved=0>
(6/25, Harding) "For the third time in 9 days, Thomas Pesquet and Shane Kimbrough donned their spacesuits and ventured

outside the International Space Station (ISS), this time to install the second of six new Boeing-built ISS Roll Out Solar Arrays (IROSAs) to the outpost — part of a program to increase the station's electrical power capability as its science and research demands increase and future expansion plans continue.”

Virgin Galactic Gets FAA Approval To Take Customers To Space

Washington Post

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=HvfRHv/NrWI8ldxbEYPdD+0xLwWyDyrKsVBWlc3C1to=&reserved=0>
(6/25) “Virgin Galactic says it has Federal Aviation Administration approval to fly customers into space, making it the first spaceline to cross that hurdle, the company announced Friday. The milestone comes at a key moment in the space race: On the anniversary of the Apollo 11 moon landing, July 20, Jeff Bezos plans to be onboard when one of his Blue Origin rockets makes its first crewed spaceflight. The FAA is expected to grant Blue Origin a commercial license soon, according to people familiar with the process.”

Virgin Galactic Gets Official Clearance To Start Flying Paying Customers To Space

Gizmodo

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=q2pgy85zv4x7FoGI6ALEQgtYkKxROczpUM0+qFRY92s=&reserved=0>
(6/25, Dvorsky) “An upgraded FAA operators license now allows Virgin Galactic to include paying customers on its space flights, in what is a major milestone for the company and also the nascent space tourism sector. The space tourism industry is starting to heat up. Blue Origin will attempt its first crewed launch of the New Shepard rocket in July, with Amazon CEO Jeff Bezos and the winner of a \$28 million auction on board for the ride. Bezos is poised to beat his rivals in the emerging cold war of billionaires trying to get to space before the other guy, but today's news—that Virgin Galactic has secured an upgraded license to fly paying customers to space—means Richard Branson might actually be the first among them to see the curvature of Earth from suborbital space.”

Virgin Galactic Earns FAA Approval To Fly Humans To Space

ABC News

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Til6lk1haWwiLCJXVCI6Mn0=|1000&sdata=5CYfBiSV+anbTV0oz5UEd8pLjuod9mtt0MGhnpUYybE=&reserved=0>
(6/25, Thorbecke) “The company has already secured reservations from future passengers. Virgin Galactic, the private spaceflight firm founded by billionaire Richard Branson, said Friday that it had received Federal Aviation Administration approval to fly humans to space. The company said that its existing commercial space transportation operator license had been upgraded to allow it to fly customers on the heels of its successful crewed test flight last May, which an extensive data review found performed all flight objectives.”

FAA Gives Green Light To Virgin Galactic's Space Tourism

The Hill

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(6/25, Kelley) "Virgin Galactic, one of the aerospace companies working to pioneer space tourism, received approval from the Federal Aviation Administration (FAA) to take passengers to space. This follows a May 22 test flight of the company's VMS Eve and VSS Unity. It was Virgin Galactic's third space flight and the first launch from Spaceport America, located in New Mexico."

Virgin Galactic Receives FAA Approval To Take Passengers Into Space

Engadget

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(6/25, Shah) "Virgin Galactic has received the go ahead from aviation regulators to fly passengers to space. The company announced today that the Federal Aviation Authority (FAA) has updated its existing commercial space transportation operator license, which it has held since 2016. Virgin Galactic said the decision makes it the first spaceline to secure permission to fly customers."

Virgin Galactic Gets FAA Approval To Fly Customers To Space

Wall Street Journal

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(6/25, Grossman) "Richard Branson's Virgin Galactic Holdings Inc. came a step closer to sending customers to the edge of space Friday as federal regulators expanded the company's operator license."

Virgin Galactic Cleared By FAA To Fly Customers Into Space

Bloomberg

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(6/25, Palazzo) "Virgin Galactic Holdings Inc. received regulatory approval to fly customers into space, moving the budding industry founded by billionaires one step closer to reality. The shares surged almost 40% – the biggest one-day jump ever. The Federal Aviation Administration upgraded the company's existing license to cover customer flights, Virgin Galactic said Friday in a statement, saying the approval was the first of its kind. The company also confirmed that a May 22 test flight performed well against objectives."

Virgin Galactic Cleared To Fly Customers On SpaceShipTwo

Space News

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Branson's Virgin Galactic Cleared For Takeoff As Space Tourism Race Heats Up

Reuters

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Virgin Galactic Gets FAA's OK To Launch Customers To Space

AP

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These Tiny Indestructible Tardigrades Will Reveal How To Survive In Extremes Of Space

SPACE

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Chinese Space Station A Looming Threat To US, Experts Say

Washington Free Beacon

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(6/26, Beyrer) "China will use its space station to advance its military technology and strengthen its influence in foreign countries, experts and lawmakers warn the Washington Free Beacon. Three Chinese astronauts reached the Tiangong space station on June 17. The project ushers in an expansion of China's capabilities in space and a boost to its international prestige."

Report Backs NASA Proposal To Change Astronaut Radiation Exposure Limits

Space News

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(6/25, Foust) "A National Academies committee has endorsed a NASA proposal to change the radiation exposure limits the agency sets for its astronauts but cautioned that the revised limit is still insufficient for human Mars missions. The June 24 report by a committee established by the National Academies and sponsored by NASA backs the agency's proposal to set a single lifetime radiation exposure limit for astronauts, rather than different limits based on age and gender."

ULA, Boeing, And NASA Prepare For Uncrewed And Crewed Starliner Flight Tests

NASA Space Flight

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(6/26, Navin, Kanayama) "United Launch Alliance (ULA), Boeing, and NASA have all started their final preparations for the second Orbital Flight Test (OFT-2) for the CST-100 Starliner spacecraft. OFT-2 will demonstrate all of the changes made to the Starliner spacecraft following the partial failure on the first OFT mission in December 2019. Preparations are also underway for the Starliner Crew Flight Test (CFT), including the delivery of the Atlas V rocket to Cape Canaveral, Florida."

Boeing And NASA Will Launch Rosie, A Dummy, Into Space Next Month

SlashGear

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(6/25, Roston) "NASA and Boeing are gearing up to launch a literal dummy into space next month as part of the Commercial Crew Program. The dummy is named Rosie; she belongs to Boeing, which previously used her to collect data during its first (uncrewed) Orbital Flight Test, the OFT-1. This time around, Rosie will be sent into space to help

collect data about Starliner's design."

"Space Is For Everyone": Europe's Space Agency To Hire First Disabled Astronaut

Reuters

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(6/25, Escritt) "The European Space Agency hopes to hire and launch the world's first physically disabled astronaut and several hundred would-be para-astronauts have already applied for the role, ESA head Josef Aschbacher told Reuters on Friday. The 22-member space programme has just closed its latest decennial recruitment call for astronauts and received 22,000 applicants, Aschbacher said."

A Final Word Before Mr. Bezos Blasts Off

New York Times

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(6/27, Bensinger) "In over a decade in which I've covered Amazon, one conversation stands out as neatly summarizing the ethos of the e-commerce giant under Jeff Bezos, who will step aside as chief executive next month. An Amazon executive was confronting his new role as a buyer of large appliances, like dishwashers, after several years as a book buyer. ... So while Mr. Bezos floats weightlessly in the cosmos, the question remains whether lawmakers can ultimately bring Amazon back down to earth."

Jeff Bezos Is Heading To Space, But He's Not The Only Mogul Obsessed With Extreme Experiences. Here Are The Wildest Ways The World's Elite Spend Their Free Time.

Insider

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(6/26, Hartmans) "In just a few short weeks, Jeff Bezos will take the riskiest flight of his life, one that takes him 62 miles above Earth, right to the edge of space. The soon-to-be-ex-Amazon CEO is something of an adventurer, what with his trips out to sea or to the bottom of caves. But that doesn't exactly make him unique among his peers — in fact, a passion for extreme experiences seems to be a common trait among the world's billionaires."

A Petition To Make Jeff Bezos Stay In Space Has More Than 120,000 Signatures

CNBC

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(6/25, Huddleston) "With less than a month to go before Jeff Bezos embarks on his 'greatest adventure' with a trip to space, more than a few people here on Earth are making it known they'd prefer it if the wealthiest man on the planet takes a one-way trip and remains in orbit. A petition on Change.org entitled 'Do not allow Jeff Bezos to return to Earth' launched in early June, after Bezos announced his plans to fly on next month's first passenger spaceflight of his company Blue Origin, and the petition already has more than 122,000 signatures as of Friday afternoon. Bezos has said he's dreamed of going to space since he was 5 years old."

Here Is How Richard Branson May Try To Beat Jeff Bezos To Space

CNBC

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(6/25, Sheetz) "Jeff Bezos plans to launch himself to the edge of space on July 20, but fellow billionaire Sir Richard Branson might still try to fly with Virgin Galactic first. Virgin Galactic leadership previously stated the company would conduct three more spaceflights to complete development testing of spacecraft VSS Unity. The company is working to begin flying paying passengers in early 2022, having completed a successful mission last month with just two pilots."

ISS Spacewalk

KHOU-TV Houston

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(6/25) "And we are giving you a live look at the International Space Station. Astronauts are getting ready to head out for power system upgrades that will help missions to the moon."

Moon to Mars

The Chinese-Russian Lunar Axis Adopts A Plan From The Late Paul Spudis

The Hill

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(6/27, Whittington) "Recently, a group of Russian and Chinese space officials revealed plans for what they call an 'International Lunar Research Station' during a conference in St. Petersburg, Russia. The plan for the facility's development seemed remarkably similar to one proposed by Paul Spudis, the late lunar geologist and return-to-the-moon advocate, and Tony Lavoie, at the time employed by NASA."

Nelson's First NASA Challenge: The Space Race With China

Orlando (FL) Sentinel

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90a&t=c&data=04|01|phillip.m.thompson@nasa.gov|b71ed6fecec94b463cb908d93a23a477|7005d45845be48ae8140d43da96dd17b|0|0|637604747037315226|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB TIl6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=CuxNYpDAobmZDOD9TXo61o3WumpluACh6jM32buJlqA=&reserved=0> (6/27, Weiner, Paras) "While NASA focuses on Venus, China's space program, the China National Space Administration (CNSA), is aimed at landing people on the moon, something NASA hasn't done since Apollo 17 in 1972. It's astounding that 52 years since the U.S. landed, we have done nothing with human beings for decades but send commuter shuttles to a space station 200 miles away."

Mars May Have More Water Than Scientists Thought

SlashGear

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ebe&t=c&data=04|01|phillip.m.thompson@nasa.gov|b71ed6fecec94b463cb908d93a23a477|7005d45845be48ae8140d43da96dd17b|0|0|637604747037325155|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB TIl6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=7T6SuosZcb82HI18w85n6W+mu3dgtlemb9krje1lp5l=&reserved=0> (6/27, McGlaun) "Data showed that there are subsurface lakes on Mars back in 2018. That data came from an ESA spacecraft called Mars Express. The spacecraft shot radar signals at the surface of the Red Planet, and the data gathered showed that the South Pole of the planet appeared to have liquid subsurface Lakes. Since 2018, follow-up studies have revealed what are believed to be additional subsurface lakes on Mars. A new paper was recently published by a pair of scientists from the NASA Jet Propulsion Laboratory."

NASA's Perseverance Rover Shot 62 Images For Its Iconic Selfie With Ingenuity

Engadget

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5fd&t=c&data=04|01|phillip.m.thompson@nasa.gov|b71ed6fecec94b463cb908d93a23a477|7005d45845be48ae8140d43da96dd17b|0|0|637604747037325155|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB TIl6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=5qDTiX+wsEYEx3byWbTj2hmJGlmzHlnsxHj536PHAPE=&reserved=0> (6/25, Bonifacio) "Back in April, NASA's Ingenuity rover captured the imagination of the world when it sent back an epic selfie it took with Ingenuity on the surface of Mars. It turns out, capturing that photo wasn't so easy as Perseverance posing, taking a single photo and calling it a day. According to a new video NASA released on Friday, what we got to see here on Earth was the result of 62 separate images the agency stitched together."

'Like A Flute': NASA Shares Sounds Of Mars Rover Snapping Epic Selfie

CNET News

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ad7&t=c&data=04|01|phillip.m.thompson@nasa.gov|b71ed6fecec94b463cb908d93a23a477|7005d45845be48ae8140d43da96dd17b|0|0|637604747037335110|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJB TIl6Ik1haWwiLCJXVCI6Mn0=|1000&sdata=9w35hneNgB4X0dSRtzbdeiAWPRAkeLSF0RXQGW1S7Og=&reserved=0> (6/26, Kooser) "Taking a selfie on Earth is easy. You just hold out your arm and click. The Mars Perseverance rover held out its arm to snap an epic selfie with the Ingenuity helicopter in April, but the whole process was a lot more complex than on its home planet."

Mars Helicopter Takes It To The Limit With More Groundbreaking Flights

CNN

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=ec1SrVbK0JnvL3aMPoh+MIGUQIMQkOx1rqyhmQA3e9k=&reserved=0>
(6/25, Strickland) "Where are you now, Mars Ingenuity helicopter? While it seems like the little chopper has been quiet, it turns out that Ingenuity has aced more of its flights – and even got a software update to fix an annoying issue that impacted some of its previous outings. The 4-pound helicopter has successfully flown eight times on Mars as of June 21, according to an update from Teddy Tzanetos, the helicopter operations lead at NASA's Jet Propulsion Laboratory in Pasadena, California."

China Wants To Build 'Sky Ladder' To Mars To Beam Up Humans And Cargo

The Hill

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=IQES655sv4S3OeZkSG++j3/D4IOO+Eg1zcbLUebpgZ4=&reserved=0>
(6/25, Romaine) "China wants to build a 'Sky Ladder' to Mars as part of the country's plans for future Mars expeditions, according to China's state-owned media the Global Times. The country's top rocket manufacturer, Wang Xiaojun, announced this week that China is aiming to put people on Mars by 2033, and a part of its plan includes what it is calling the 'Sky Ladder.'"

NASA Outline A Larger Helicopter For Future Mars Missions

SlashGear

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=E0MDk0k3PhMsDDhpryhtoR9LhWZQLQ6XPRcCdBSdEdA=&reserved=0>
(6/25, McGlaun) "NASA has had impressive success with the Ingenuity helicopter that's been testing on the surface of Mars for weeks now. With the success of the Ingenuity helicopter, NASA engineers are already looking at concepts for larger and more capable rotorcraft that could be used for future missions. NASA hopes to continue flying the Ingenuity helicopter and conducting more missions. Data the helicopter is collecting supports the planning stages for future helicopter designs by engineers at JPL, the Ames Research Center, and AeroVironment. NASA is already considering a larger flying vehicle called the Mars Science Helicopter."

NASA's InSight Mars Lander Might Die By April If It Doesn't Get A Significant Energy Boost

Insider

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Til6lk1haWwiLCJXVCi6Mn0=|1000&sdata=m+cmiWLCRQHSJgEMnOW2ajlSj59oKs4P89XMPZ7aZ3s=&reserved=0>
(6/25, McFall-Johnsen) "NASA's InSight lander may not survive another year on Mars. The \$800 million robotic science station landed in a Martian plain called Elysium Planitia in November 2018. Since then, it has detected more than 500 Mars quakes, felt more than 10,000 dust devils pass by, and started to measure the planet's core. But over the last six months, InSight has been facing an energy crisis, since dust is building up on its solar panels."

NASA Scientists Find More Subsurface Lakes On Mars

Gizmodo

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(6/25, Schultz) "Researchers peering at layered deposits on Mars' south pole found what appear to be dozens of subsurface lakes, though many of them are in areas where water would be frozen. ... 'We're not certain whether these signals are liquid water or not, but they appear to be much more widespread than what the original paper found,' said Jeffrey Plaut, a research scientist at NASA's Jet Propulsion Laboratory, in an agency statement."

NASA Tells Lawmakers That It Wants To See Moon Landings Occur Annually For 12 Straight Years

Insider

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(6/25, Shalvey) "NASA wants to go to the moon every year for a dozen years. Agency Administrator Bill Nelson on Wednesday said the \$2.9 billion contract awarded to SpaceX for the Artemis program marked the beginning of what would be a series of ambitious projects to return often to the moon."

Solar System and Beyond

NASA Completes Tests To Identify Problem With Hubble Space Telescope Computer

Fox News

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(6/26, Musto) "NASA said Friday it had completed additional diagnostic testing in an effort to identify a problem with the Hubble Space Telescope's (HST) payload computer. This announcement comes on the heels of additional testing on Wednesday and Thursday and after the spacecraft's payload computer 'halted' on June 13 and it stopped collecting science data."

There's A Problem With Hubble, And NASA Hasn't Been Able To Fix It Yet

Universe Today

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(6/25, Williams) "For over thirty years, the Hubble Space Telescope has been in continuous operation in Low Earth Orbit (LEO) and revealing never-before-seen aspects of the Universe. In addition to capturing breathtaking images of our Solar System and discovering extrasolar planets, Hubble also probed the deepest reaches of time and space,

causing astrophysicists to revise many of their previously-held theories about the cosmos. Unfortunately, Hubble may finally be reaching the end of its lifespan. In recent weeks, NASA identified a problem with the telescope's payload computer which suddenly stopped working."

Even The Hubble Space Telescope's Backup Computer Is Glitching Now – Raising New Questions About What's Gone Wrong

Insider

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(6/25, McFall-Johnsen) "NASA has been trying to figure out what's wrong with the Hubble Space Telescope for nearly two weeks, but the mystery just deepened. Hubble, which launched into orbit in 1990, is the world's most powerful space telescope. It has captured images of the births and deaths of stars, discovered new moons around Pluto, and tracked two interstellar objects as they zipped through our solar system. Hubble's observations have allowed astronomers to calculate the age and expansion of the universe and to peer at galaxies formed shortly after the Big Bang."

NASA Is Pulling Out All The Stops To Fix The Hubble Space Telescope

SlashGear

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(6/27, McGlaun) "The iconic Hubble Space Telescope is still non-functional at this time. However, NASA reminds fans that all science instruments and the spacecraft itself are in perfect working order. The problem is the '80s era computer responsible for operations of the spacecraft has encountered a serious problem that has prevented it from exiting safe mode. NASA continued to diagnose the problem with the payload computer and announced that it completed another series of tests on June 23 and 24th."

Weird Neptune-like Exoplanet May Have Water Clouds

SPACE

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(6/25, Howell) "A Neptune-like planet that's relatively close to Earth may sport a watery surprise. The exoplanet, called TOI-1231 b, might have clouds of water high in its atmosphere, but the observations are so preliminary that it's hard to say for sure. 'Future observations of this new planet will let us determine just how common (or rare) it is for water clouds to form around these temperate worlds,' Jennifer Burt, a scientist at NASA's Jet Propulsion Laboratory in California and lead author of the new research, said in a statement from the University of New Mexico, which was also involved in the research."

The 7 Weirdest Things About Venus, Hell Planet

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(6/25, Schultz) "It's been nearly 30 years since a NASA spacecraft went to Venus, a yellowish planet 67 million miles from the Sun and 141 million miles from us. Venus is often thought of as a sibling planet to Earth, both being rocky worlds close enough to the Sun to bask in its heat. And yet, at some point in their histories, the two worlds diverged in an extreme way."

Scientists Find 29 Planets Where Aliens Could Be Watching Us

The Hill

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(6/25, Spencer) "Scientists have identified 1,715 star systems where aliens could have discovered Earth by observing our planet's transit — and within that, 29 planets could be habitable and are uniquely positioned to watch us and pick up on our broadcast transmissions, The Guardian reports. ... Kaltenegger and Faherty, an astrophysicist at the American Museum of Natural History, used the Gaia catalogue from the European Space Agency to position stars and motions to figure out which stars are in the Earth's transit zone, according to The Guardian."

Volunteers And Amateurs Named Credited In NASA's Latest Discoveries

NPR

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(6/26) "NASA is crediting volunteers and amateurs with advancing our knowledge of the universe through online data investigations, helping the agency identify two new planets far beyond our solar system. This month, NASA announced the discovery of two new planets far beyond our solar system, exotic worlds orbiting a star that's similar to our own sun but bigger and brighter and about 352 light years away. The find is published online in the Royal Astronomical Society, where the names of volunteers and amateurs are credited as co-authors. Cesar Rubio is a machinist in Pomona, Calif."

Space Tech

James Webb Space Telescope Will Study Quasars To Learn About The Early Universe

SlashGear

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(6/25, Then) "NASA is looking forward to the launch of the James Webb Space Telescope later this year. The

telescope will observe all manner of space phenomena but will particularly focus on studying quasars. A quasar is a very bright and distant, active supermassive black hole that is millions to billions of times the sun's mass. Quasars are typically located at the centers of galaxies and feed on material from an accretion disk surrounding it, and unleashes torrents of radiation."

Watch NASA Launch A Small Rocket With Dozens Of Student Experiments Today!

SPACE

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Watch NASA Rocket Launch Today Live From Wallops Island

Newsweek

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Various

NASA Team To Study New Roles For The Agency In Addressing Orbital Debris

Space News

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NASA Will Dismantle Two Test Sites At Toxic Santa Susana Field Lab Area

Los Angeles Daily News

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U.S. Has No Explanation For Unidentified Objects And Stops Short Of Ruling Out Aliens

New York Times

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Pentagon UFO Report

KRIV-TV Houston

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Former NASA Administrator On The Possibility Of U.S.-China Cooperation In Space

CNBC

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Other

Elon Musk's Starship Could Attempt Orbital Test Next Month

The Hill

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(6/25, Guzman) "Elon Musk's SpaceX is aiming to launch its Starship spacecraft into Earth's orbit for the first time next month, according to CNBC. The outlet reports SpaceX president Gwynne Shotwell said during the National Space Society's virtual International Space Development conference that the company is 'shooting for July.'"

SpaceX's New Rocket Factory Is Making Its Texas Neighbors Mad

NPR

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(6/26) "What Elon Musk has built on the remote mudflats at the southern tip of Texas is astonishing: gantries, fuel storage tanks, an Airstream trailer village, and a silver rocket straight out of Buck Rogers—all fronted by neon letters that spell out 'Starbase.' But can SpaceX coexist with the original feathered inhabitants on the lower Gulf coast? Environmentalists from Brownsville to Washington D.C. are protesting his ambitious vision to build, test and launch next-generation rockets in this fragile ecosystem."

SpaceX President Gwynne Shotwell Says She Is Hoping For A Starship Orbital Launch In July

Insider

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(6/27, Tayeb) "SpaceX's president, Gwynne Shotwell, said the company is "shooting for July" for its first Starship rocket orbit launch, SpaceNews reported. Speaking at the National Space Society's International Space Development Conference on Friday, Shotwell said: 'I'm hoping we make it, but we all know that this is difficult.'"

SpaceX Aiming For July For Starship Orbital Launch Despite Regulatory Reviews

Space News

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(6/26, Foust) "SpaceX President Gwynne Shotwell says the company is 'shooting for July' for the first orbital launch of the company's Starship vehicle despite lacking the regulatory approvals needed for such a launch. Speaking at the National Space Society's International Space Development Conference (ISDC) June 25, Shotwell said the company was pressing ahead with plans for an orbital flight involving the Super Heavy booster and Starship upper stage from the company's Boca Chica, Texas, test site."

SpaceX Plans To Launch Its First Orbital Starship Test Flight In July

Engadget

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(6/26, Fingas) "SpaceX might conduct Starship's first orbital test flight in a matter of weeks. According to CNBC, SpaceX president Gwynne Shotwell told those at the online International Space Development conference that the company was 'shooting for July' when planning the orbital trip. Shotwell was aware of the challenges, but said that her firm was 'really on the cusp' of that key journey."

SpaceX Aims To Launch First Orbital Starship Flight In July, Company President Says

CNBC

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(6/25, Sheetz) "Elon Musk's SpaceX is 'shooting for July' to launch the first orbital spaceflight of its Starship rocket, company president Gwynne Shotwell said Friday. 'I'm hoping we make it, but we all know that this is difficult,' Shotwell said, speaking at the National Space Society's virtual International Space Development conference."

SpaceX Delays Rare-trajectory Cape Canaveral Launch To Next Week

Florida Today

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(6/25, Kelly) "SpaceX is targeting no earlier than next week for its upcoming Falcon 9 launch from Florida, a rare polar mission that will see the rocket pivot south and hug the state's east coast. The company on Friday confirmed teams were targeting no earlier than 2:56 p.m. Tuesday, June 29, for the 230-foot rocket's flight from Cape Canaveral Space Force Station. The mission named Transporter-2 was originally slated to fly from Launch Complex 40 on Friday, June 25."

Russia's Soyuz Launches Pion-NKS Naval Intelligence Satellite

NASA Space Flight

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(6/25, Graham) "Russia launched the first satellite for its long-delayed next-generation ocean reconnaissance system on Friday. The Pion-NKS No.901 satellite lifted off atop a Soyuz-2-1b carrier rocket from the Plesetsk Cosmodrome in Northern Russia at 22:50 Moscow Time (19:50 UTC). Pion-NKS is part of the wider Liana program, aimed at replacing

the Soviet-era signals intelligence satellites which Russia previously used to collect and monitor radio signals from low Earth orbit. Pion replaces the Upravlenkiye Sputnik – Passivny Modifikirovanny (US-PM) satellites used for naval reconnaissance, while the complementary Lotos-S satellites are replacing Tselina-2 spacecraft that were specialized for locating radio sources on land.”

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Editor's Note

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Russian Cargo Ship Lifts Off For International Space Station

AP

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(6/29) “An uncrewed Russian cargo ship blasted off Wednesday on a mission to deliver supplies to the International Space Station. The Progress MS-17 lifted off atop a Soyuz rocket from the Russian space complex in Baikonur, Kazakhstan, at 4:27 a.m. (23:27 GMT Tuesday).”

Stunning Image Shows International Space Station Moving Across The Sun

The Hill

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Northrop Grumman's Cygnus Cargo Ship Departs Space Station To Begin New Mission In Orbit

SPACE

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(6/29, Thompson) “A Northrop Grumman Cygnus cargo spacecraft successfully undocked from the International Space Station Tuesday (June 29) at 12:25 p.m. EDT (1625 GMT), more than four months after it arrived in orbit. The undocking aired live on NASA TV, with the spacecraft separating from the orbital outpost right on time, enabling the craft to begin a secondary mission before its planned fiery demise.”

Washington Goes Crazy With Talk Of UFOs, Alien Life

Washington Times

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(6/29, Curl) “ANALYSIS/OPINION: Every summer in Washington, D.C., the dog days arrive. Temperatures soar into the 100s in the nation’s capital, part of which was literally built in a swamp. ... NASA Administrator Bill Nelson, a former astronaut and U.S. senator, said Monday that he doesn’t think we ‘are alone’ here on Earth.”

NASA Ranks As The Best Place To Work In Government For Ninth Year

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(6/29, Bubl ) “For the ninth year in a row, NASA came out as the best place to work in the federal government among large agencies in a nonprofit’s annual rankings. On Tuesday, the nonprofit Partnership for Public Service and global management consulting firm Boston Consulting Group released the 2020 Best Places to Work in the Federal Government rankings, based largely on responses to the Office of Personnel Management’s annual Federal Employee Viewpoint Survey that was administered from Sept. 14, 2020, to Nov. 5, 2020. The Partnership and consultancy incorporated additional survey data from 10 agencies (including the Veterans Affairs Department and Peace Corps) as well as responses from intelligence agency employees.”

After Delayed SpaceX Launch, Musk Says Reform Needed For Humanity To ‘Become A Spacefaring Civilization’

Fox Business

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(6/29, Best) “SpaceX was seconds away from sending dozens of satellites into orbit aboard its Falcon 9 rocket on Tuesday when the launch was called off because an airplane entered its launch zone. The launch’s 24-hour delay earned the ire of SpaceX CEO Elon Musk, who tweeted that the rocket’s ‘keep out zone’ is ‘unreasonably gigantic.’”

Flight

No content.

Earth

Mountaintop Glacier Ice Is Disappearing In Tropics Globally

Forbes

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21f&t=c&data=04|01|phillip.m.thompson@nasa.gov|f69125c04e594c8dca9908d93bb5fa1a|7005d45845be48ae8140d43da96dd17b|0|0|637606475045512229|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=1uE4a8W6dOgwavnWGT2+H3ljh7+bWhWNHXQWdRQKHbM=&reserved=0>

(6/29, Shetty) “Glacier ice on the mountaintop now covers significantly less area in the tropical region compared to 50 years ago. The change has been linked to rising global temperatures, according to a latest study. ... This is the first such study to combine NASA satellite imagery with data from ice cores drilled during field expeditions on tropical glaciers around the world. That combination shows that climate change is causing these glaciers, which have long been sources of water for nearby communities, to disappear and indicates that those glaciers have lost ice more quickly in recent years.”

A Massive Lake Suddenly Vanished In Antarctica, Scientists Discover

Vice

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(6/29, Ferreira) "A massive lake, filled with billions of cubic feet of water, vanished within the span of a few days in Antarctica, leaving a sinkhole that is visible in images captured from outer space, reports a new study. ... Warner thought the structure might be a doline, or sinkhole, that could point to a dramatic and recent drainage event. With the help of sophisticated satellites such as NASA'S WorldView and the European Space Agency's Sentinel constellation, he was able to look back in time and pinpoint when the vast lake emptied out through channels that burst open in the ice below it."

NASA Studying Louisiana River Delta System

KIAH-TV Houston

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"Now let's talk a little space, but here on Earth NASA's using high-tech airborne systems along with boats and nets logging work on islands for what is being called a 15-million-dollar study of Louisiana's river delta system."

Humans in Space

Russian Cargo Ship Lifts Off For International Space Station

AP

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(6/29) "An uncrewed Russian cargo ship blasted off Wednesday on a mission to deliver supplies to the International Space Station. The Progress MS-17 lifted off atop a Soyuz rocket from the Russian space complex in Baikonur, Kazakhstan, at 4:27 a.m. (23:27 GMT Tuesday)."

Russia's Progress Cargo Ship Successfully Launches To Space Station

SPACE

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(6/29, Gohd) "Tonight (June 29), Russia's uncrewed Progress 78 mission successfully launched to space. At 7:27 p.m. EDT (2327 GMT, or 4:27 a.m. June 30 local time, Russia's Progress MS-17 cargo spacecraft launched to the International Space Station from the Russian space agency Roscosmos' Baikonur Cosmodrome in Kazakhstan in a mission dubbed Progress 78 by NASA. The cargo ship launched aboard a Soyuz 2.1a rocket."

Russian Cargo Ship Sets Off After The International Space Station In Dramatic Sky Show

CBS News

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(6/29, Harwood) "A Russian Progress cargo ship blasted off from the Baikonur Cosmodrome in Kazakhstan on Tuesday and set off after the International Space Station, climbing into the light of the rising sun and putting on a spectacular show as its expanding exhaust plume billowed and blossomed in the upper atmosphere. The Progress MS-17/78P spacecraft and its Soyuz 2-1a booster took off from the Baikonur Cosmodrome at 7:27 p.m. ET (4:27 a.m. Wednesday local time), lighting up the predawn sky as it climbed directly into the plane of the space station's orbit to kick off a two-day rendezvous."

Roscosmos Launches Progress MS-17 To ISS

NASA Space Flight

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(6/29, Navin, Kanayama) "Roscosmos has launched their latest resupply mission to the International Space Station, Progress MS-17. The launch occurred at 23:27 UTC on June 29 from Site 31/6 at the Baikonur Cosmodrome in Kazakhstan. A Soyuz 2.1a launch vehicle was used to launch the Progress MS-17 spacecraft. The mission is known to NASA as Progress 78P, as Progress MS-17 is the 78th Russian resupply mission to the ISS."

Stunning Image Shows International Space Station Moving Across The Sun

The Hill

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(6/29, Guzman) "NASA has released a breathtaking composite image that shows the International Space Station (ISS) crossing in front of the sun. The image captured by NASA photographer Joel Kowsky shows the ISS as a small shape with visible solar arrays on both sides with the sun as a glowing, bright orange backdrop."

Spectacular Image Captures International Space Station Crossing In Front Of The Sun During Astronaut Spacewalk

CBS News

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(6/29, Lewis) "Astronauts were performing a spacewalk outside of the International Space Station as it passed in front of the sun last week — and a NASA photographer captured the exact moment it happened. The resulting image is breathtaking. A composite image made from seven frames taken by NASA photographer Joel Kowsky shows the

silhouette of the ISS last week as it transited the sun at about five miles per second, or about 18,000 miles per hour. The images, which feature the sun as a glowing orange backdrop to the orbiting laboratory, were taken from Nellysford, Virginia, NASA said in a statement Monday.”

NASA Shares A Spectacular Image Of The ISS Transiting The Sun

SlashGear

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(6/29, McGlaun) “The International Space Station has been in orbit for many years. The space station has been used as a platform for conducting various scientific research that has resulted in some great science over the years. Currently, the ISS is being serviced by both Russian and American spacecraft with a crew of international astronauts on board.”

Northrop Grumman’s Cygnus Cargo Ship Departs Space Station To Begin New Mission In Orbit

SPACE

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(6/29, Thompson) “A Northrop Grumman Cygnus cargo spacecraft successfully undocked from the International Space Station Tuesday (June 29) at 12:25 p.m. EDT (1625 GMT), more than four months after it arrived in orbit. The undocking aired live on NASA TV, with the spacecraft separating from the orbital outpost right on time, enabling the craft to begin a secondary mission before its planned fiery demise.”

Cygnus Supply Ship Departs Space Station After Four-month Mission

Spaceflight Now

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(6/29, Clark) “A Cygnus spacecraft owned by Northrop Grumman departed the International Space Station Tuesday, concluding a four-month mission that delivered more than 8,000 pounds of cargo. The automated resupply freighter will deploy five small CubeSats before re-entering the atmosphere and burning up over the Pacific Ocean.”

Do You Want To Go To Space?

Discovery Channel

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(6/29) “Discovery’s new series, WHO WANTS TO BE AN ASTRONAUT is giving regular people the chance to

compete for an official spot aboard a rocket to outer space. The winner will get to live at the International Space Station (ISS) for eight days. We caught up with former NASA astronaut and mechanical engineer, Mike Massimino, to ask him about life aboard the ISS, and tips for aspiring astronauts.”

Remembering The Crew Of Soyuz 11, The Only Astronauts To Die In Space

Discover Magazine

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Jeff Bezos Is Soon To Visit Space

Forbes

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Moon to Mars

China Once Said It Couldn’t Put A Potato In Space. Now It’s Eyeing Mars

CNBC

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A Lunar Farside Telescope Could Detect Exoplanets Through Their Magnetospheres

Universe Today

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43da96dd17b|0|0|637606475045611800|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=FipBRJwT1BBG0iijnxnsyJQbRR0qomNOLAc5w7f8wz8=&reserved=0> (6/29, Koberlein) "It's difficult to do radio astronomy on Earth, and it's getting harder every day. Our everyday reliance on radio technology means that radio interference is a constant challenge, even in remote areas. And for some wavelengths even the Earth's atmosphere is a problem, absorbing or scattering radio light so that Earth-based telescopes can't observe these wavelengths well. ... NASA is currently studying how we might build a radio telescope on the Moon. If it is built in the coming decades, we might finally see the aurora glow of a distant Earth."

NASA May Have Finally Solved A Mars Methane Mystery

CNET News

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NASA's Moon-bound Mannequin Astronaut Named After Hero Of Troubled Apollo 13 Mission

CNN

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Dust Problems Draining Power From NASA's InSight Mars Lander

SPACE

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NASA's Mars Helicopter Ingenuity Could Keep Flying The Martian Skies For Months

SPACE

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(6/29, Wall) “The future of aerial Mars exploration looks bright. NASA’s Mars helicopter Ingenuity, which landed inside Mars’ Jezero Crater with the agency’s Perseverance rover in February, has now completed eight Red Planet flights. That’s three more than the maximum targeted for the 4-lb. (1.8 kilograms) chopper’s original technology-demonstration mission — and Ingenuity isn’t done yet.”

NASA Reveals The Public’s Favorite Dummy Name: Commander Moonikin

SlashGear

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(6/29, Roston) “A few weeks ago, NASA asked the public to vote on their favorite name for the manikin (a type of human-sized dummy) that’ll be used as part of the Artemis I lunar mission. Space fans spoke and now NASA is back with the final name for its latest manikin: Commander Moonikin Campos. Yes, that’s right. Cmdr. Moonikin will be fitted with its own spacesuit and launched all by itself into space.”

Solar System and Beyond

‘Pac-Man’ In Space: Black Holes Gobble Up Neutron Stars In First Evidence Of A Rare Celestial Event

CNN

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(6/29, Strickland) “Nearly a billion years ago, two of the most extreme objects in the universe came together in a death spiral, and one of them didn’t make it out alive. For the first time ever, astronomers have detected two separate instances of black holes swallowing dense neutron stars — and it played out like Pac-Man in space. ... ‘We’ve now seen the first examples of black holes merging with neutron stars, so we know that they’re out there,’ said Maya Fishbach, a NASA Einstein Postdoctoral Fellow and LIGO Scientific Collaboration member.”

Mystery Explosion 1,000 Years Ago May Be A Rare, Third Type Of Supernova

LiveScience

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(6/29, Specktor) “On July 4, 1054 — about 700 years before the United States popped its first celebratory firework — a mysterious light exploded in the sky. The blast was visible around the world, lingering in the daytime sky for nearly a month, and visible at night for nearly two years, according to NASA. At the time, Chinese astronomers labeled the mysterious blaze a ‘guest star’ — a temporary heavenly object that seemingly appeared from nothing, then vanished to nothing.”

Giant Comet Zooming Toward The Sun Is Largest Ever Seen

USA Today

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(6/29, Rice) "This is a big one. A giant comet – which scientists say is arguably the largest comet discovered in modern times – is on its way toward the sun and will make its closest approach to Earth in 2031. ... The comet probably came from the Oort Cloud, which is believed to be a giant spherical shell that surrounds the solar system, according to NASA. Most long-period comets such as this one come from the Oort Cloud, NASA said."

Astronomers Believe There May Be More Earth-sized Planets Than They Thought

SlashGear

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(6/29, McGlaun) "Some astronomers believe that exoplanet searches may be missing nearly half of all Earth-sized planets orbiting other stars. The findings by astronomers suggest that Earth-sized planets could be undiscovered in binary star systems hidden by the glare of the parent stars. Scientists note that roughly half of all stars are binary systems meaning they could be overlooking vast numbers of Earth-sized planets. Astronomers on the project used twin telescopes from the Gemini Observatory to determine that many planet-hosting stars identified by NASA's TESS exoplanet mission are actually binary pairs with planets orbiting one of the stars in the pair."

Earth-Like Planets May Be Lurking In The Glare Of Binary Star Systems

New Atlas

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(6/29, Wood) "Double star systems may be concealing a population of potentially habitable Earth-sized planets in their combined glare, according to the results of a newly published study. Roughly half of all stars are thought to exist in binary systems, in which two massive stellar bodies orbit around a common center of mass. ... The scientists behind the study sought to discover how many stars in a sample of data collected by NASA's TESS exoplanet hunting mission were actually part of a double star system. They also hoped to shed light on whether it was likely that the intense light from the stars was capable of obscuring the presence of hitherto unknown Earth-like worlds."

Scientists Say There's No Life On Venus — But Jupiter Has Potential

CBS News

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I6lk1haWwiLCJXVCI6Mn0=|1000&sdata=zjD4AGWu+sIWYUoD4hbTntISl4oP4zZWn3cn7qjR9N4=&reserved=0>
(6/29, Lewis) "It turns out the clouds of Venus aren't made of the right stuff to support life — so now, scientists are turning to Jupiter instead. ... The findings come nearly a month after NASA announced two new discovery missions to the inferno-like planet, scheduled to launch between 2028 and 2030. One of those missions could help determine if Venus could have supported life billions of years ago."

These Scientists Spent Decades Pushing NASA To Go Back To Venus. Now They're On A Hot Streak.

Popular Science

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(6/29) "Jörn Helbert was standing outside a stranger's apartment in the north end of Berlin with a bouquet of yellow roses. It was June 2020, and the woman behind the door was in mandatory quarantine. ... Helbert, Dyar, and a team of colleagues were in the last stages of pitching NASA on a mission called VERITAS, which would send a satellite to map Venus at higher resolution than ever before."

Venus Can't Sustain Life In The Clouds, But Jupiter Has Potential

CNET News

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Space Tech

Stratodynamics Completes Turbulence-Detection Sensor Flights

Aviation Week

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(6/29) "Stratodynamics and UAVOS have completed a series of stratospheric flights with the HiDRON autonomous glider from Spaceport America in New Mexico. The flights tested sensors for the onboard detection of clear air turbulence. The early June flight campaign, supported by the NASA's Flight Opportunities..."

Various

Washington Goes Crazy With Talk Of UFOs, Alien Life

Washington Times

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(6/29, Curl) "ANALYSIS/OPINION: Every summer in Washington, D.C., the dog days arrive. Temperatures soar into the 100s in the nation's capital, part of which was literally built in a swamp. ... NASA Administrator Bill Nelson, a former astronaut and U.S. senator, said Monday that he doesn't think we 'are alone' here on Earth."

NASA Administrator Bill Nelson Believes We Are Not Alone In The Universe

Fox News

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"Take them to our leader. NASA Administrator Bill Nelson says he doesn't think we 'are alone' after reading the US intelligence community's recent report on unidentified aerial phenomena (UAP), adding that the launch of a new telescope later this year could find more planets potentially home to intelligent alien life."

NASA Ranks As The Best Place To Work In Government For Ninth Year

NextGov

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(6/29, Bubl ) "For the ninth year in a row, NASA came out as the best place to work in the federal government among large agencies in a nonprofit's annual rankings. On Tuesday, the nonprofit Partnership for Public Service and global management consulting firm Boston Consulting Group released the 2020 Best Places to Work in the Federal Government rankings, based largely on responses to the Office of Personnel Management's annual Federal Employee Viewpoint Survey that was administered from Sept. 14, 2020, to Nov. 5, 2020. The Partnership and consultancy incorporated additional survey data from 10 agencies (including the Veterans Affairs Department and Peace Corps) as well as responses from intelligence agency employees."

Agencies Score High Marks From Employees On Handling Of Pandemic, But Leadership Issues Persist

Federal News Network

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(6/29, Moges) "Federal agencies received overwhelmingly positive feedback on their handling of the pandemic in 2020, but leaders still have much work to do to earn their employee's confidence. That's according to this year's Best Places to Work in the Federal Government rankings. ... In maybe the least surprising result, NASA continued its domination among large agencies, ranking highest for the ninth year in a row with a score of 86.6 points — a 5.1 point increase from 2019. Rounding out the rest of the top five is the Intelligence Community with 76.7 points, followed by

the Transportation Department (76.1), the Department of Health and Human Services (75.3) and the Commerce Department (74.9)."

DC Circ. Relaunches Ex-NASA Worker's Disability Bias Case

Law360

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(6/29) "The D.C. Circuit revived a disability bias case from a former NASA employee on Tuesday, finding he wasn't required to forfeit a \$35,000 U.S. Equal Employment Opportunity Commission win in order..."

Colombia Catches Hacker Wanted In The U.S. For 'Gozi' Virus

Washington Post

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"Colombian officials say they have arrested a Romanian hacker who is wanted in the U.S. for distributing a virus that infected more than a million computers from 2007 to 2012. ... Victims included individuals, corporations and also computers belonging to NASA."

Federal Agencies Need Stricter Limits On Facial Recognition To Protect Privacy, Says Government Watchdog

Washington Post

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(6/29) "The use of facial recognition technology is widespread throughout the federal government, and many agencies do not even know which systems they are using. That needs to change, the federal government's main watchdog said in a new report. Twenty agencies — including departments not generally associated with law enforcement, such as the U.S. Postal Service, the Fish and Wildlife Service and NASA — have used the tech, according to the Government Accountability Office."

Raymond Soto: The Awe And Wonder Of The Kennedy Space Center

USA Today

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(6/29) "Editor's Note: The USA TODAY NETWORK is auctioning its inaugural nonfungible token (NFT) inspired by the first newspaper delivered to space in 1971. Apollo 14 astronaut Alan Shepard, the first American in space, transported a special edition of TODAY, now FLORIDA TODAY and part of the USA TODAY NETWORK, to the moon and back. In

celebration of the 50th anniversary of Shepard's visit, select stories from that edition are being republished, and visual journalist Pat Shannahan assembled more than 300 photographs, illustrations and front pages from five decades of space coverage to recreate the cover as an interactive mosaic."

Evidence Suggests Aliens Might Be Surveilling Our Troops. Should We Be Worried?

Daily Caller

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NASA Is Using Data Science To Fill Its Data Science Skills Gap

ZDNet

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Other

After Delayed SpaceX Launch, Musk Says Reform Needed For Humanity To 'Become A Spacefaring Civilization'

Fox Business

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SpaceX Scrubs Transporter 2 Launch Attempt Due To Range Violation

NASA Space Flight

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43da96dd17b|0|0|637606475045771101|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|1000&sdata=//CAX+L5fRyvDhyh2UMAIDrGerslo5vrbUkSPkbCjsk=&reserved=0> (6/29, Lentz) "SpaceX was preparing to launch the Transporter 2 mission on Tuesday, June 29 at 14:56 EDT (18:56 UTC) from Space Launch Complex 40 (SLC-40) at Cape Canaveral Space Force Station. However, the countdown was held at T-30 seconds due to an aircraft within the range's restricted airspace, setting up a next attempt no earlier than Wednesday, June 30."

Falcon 9 Launch Scrub Highlights Airspace Integration Problems

Space News

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Rarely Heard Sonic Booms Expected Tuesday As SpaceX Launches, Lands Falcon 9 Rocket

USA Today

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Starlink Will Be Here In August, Elon Musk Says

Gizmodo

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Elon Musk Counts On 500,000 Starlink Users Within The Next Year

The Verge

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(6/29, Roulette) “SpaceX’s satellite internet network, Starlink, should have roughly 500,000 users within the next 12 months, Elon Musk said at the Mobile World Congress (MWC) conference on Tuesday. SpaceX’s current goal, Musk said, is to beam broadband internet to most of the planet by August. The internet network, in the midst of an open beta phase, has launched more than 1,700 satellites to low-Earth orbit since 2018 and recently surpassed a ‘strategically significant’ benchmark of 69,420 active users, Musk told MWC.”

Low Supply Drove U.S. Home Prices Higher In April

Washington Post

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(6/29) “U.S. home prices soared in April at the fastest pace since 2005 as potential buyers bid up prices on a limited supply of available properties. ... Elon Musk’s satellite network Starlink is on track to beam broadband Internet everywhere in the world except polar regions by August, Musk said on Tuesday. Space Exploration Technologies has launched more than 1,500 satellites so far and has Starlink operations in about a dozen countries, Musk said at the Mobile World Congress conference.”

SpaceX Had To Reschedule Its Rocket Launch Because A Helicopter Entered The ‘Keep Out Zone’ With Seconds To Go — And Elon Musk Isn’t Happy About It

Insider

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(6/29, Canales) “Tesla CEO Elon Musk said a SpaceX launch was called off because an aircraft entered the so-called keep out zone. Musk, who also is CEO of SpaceX, tweeted Tuesday that the ‘keep out zone’ is ‘unreasonably gigantic,’ and since an aircraft entered it, the company was not able to launch its own.”

Elon Musk Calls For Reform After SpaceX Flight Canceled Due To Air Space Crowding

Newsweek

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(6/29, Fung) “SpaceX founder Elon Musk is calling for systematic reform after Tuesday’s Space X flight was canceled due to a range issue with another airplane in the launch zone. ‘Unfortunately, launch is called off for today, as an aircraft entered the ‘keep out zone,’ which is unreasonably gigantic,’ Musk tweeted Tuesday afternoon.”

Elon Musk Calls Rocket Launch Regulations 'Broken' After Aircraft Delays SpaceX Launch

CNBC

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(6/29, Sheetz) "SpaceX was seconds away from launching its 20th mission of this year Tuesday when the countdown was halted due to an aircraft entering the launch range, delaying the mission by at least a day. Elon Musk took to Twitter to voice his frustration about the delay, reiterating prior criticisms he has made about regulations around the business of launching rockets."

Elon Musk Says Starlink Has 2 Major Telecommunications Partners

Fox Business

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(6/29, Manfredi) "SpaceX's satellite internet service, Starlink, has forged two 'quite significant' partnerships with major telecommunications companies, according to CEO Elon Musk. 'We have two quite significant partnerships with major country [telecommunications companies], that I'd like to be able to announce now but obviously we defer it to our partners to make any announcement,' Musk said during a virtual keynote at the Mobile World Congress trade show in Barcelona, Spain, on Tuesday."

Elon Musk Says SpaceX Is Losing Money On Its Starlink Terminals But Has Found A Way To Cut Costs With Updated Versions

Insider

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(6/29) "Elon Musk said Starlink will build new satellite terminals that can help the company save money. Terminals currently cost \$1,000 for each, he said. They're sold to customers for \$500."

Elon Musk Says Starlink Will Be Available Worldwide In August

CNET News

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SpaceX Rocket Launch Carrying 88 Satellites Delayed By A Wayward Plane

SPACE

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SpaceX Transporter-2 Launch Today Scrubbed And Elon Musk Isn't Happy

SlashGear

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Elon Musk Touts SpaceX Surging Internet Growth, But Still Says Goal Is To Avoid Bankruptcy

CNN Business

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SpaceX Scrubs Transporter-2 Launch Due To Range Issue [Updated]

Ars Technica

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Wednesday afternoon.”

Musk Says May Need \$30 Billion To Keep Starlink In Orbit

Reuters

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(6/29, Mukherjee, Laudette) “Billionaire entrepreneur Elon Musk said on Tuesday that his Starlink satellite internet venture was growing quickly as he forecast total investment costs in the business at between \$20 billion and \$30 billion. Without disclosing details, he also said Starlink has ‘two quite significant partnerships with major country telcos’ that could help the SpaceX division plug gaps in fifth-generation mobile and cellular networks.”

SpaceX Had To Reschedule Its Rocket Launch Because A Helicopter Entered The ‘Keep Out Zone’ With Seconds To Go – And Elon Musk Isn’t Happy About It

Insider

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“Elon Musk tweeted an aircraft crossed the ‘keep out zone,’ preventing a SpaceX rocket launch. The SpaceX CEO said that the zone is ‘unreasonably gigantic.’”

Virgin Orbit Looks To Increase Launch Rates In 2022

Space News

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(6/29, Foust) “On the eve of its second revenue-generating launch, Virgin Orbit is looking to 2022 to ramp up its launch activity and operate from several airports in the United States and Great Britain. In a call with reporters June 29, Virgin Orbit Chief Executive Dan Hart confirmed that the company was ‘green for launch’ on a LauncherOne mission called ‘Tubular Bells: Part One.’”

SpaceX’s Starship Could Launch To Orbit For 1st Time As Soon As July

SPACE

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(6/29, Howell) “SpaceX president Gwynne Shotwell says the company is still ‘shooting for July’ for the first orbital flight of its huge Starship Mars rocket, although she acknowledged the company may not meet that target. ‘I’m hoping we make it, but we all know that this is difficult,’ Shotwell said during the National Space Society’s International Space

Development Conference on Friday (June 25)."

Former U.S. Air Force Top Counsel Tom Ayres Joins Voyager Space

Space News

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NASA INTERVIEW PREP DOCUMENT - as of 5-28-21 (internal distribution only)

From: Beutel, Allard (HQ-NA020) <allard.beutel@nasa.gov>
Sent: May 29, 2021 10:56:57 AM EDT
Received: May 29, 2021 10:57:36 AM EDT
Attachments: NASA INTERVIEW PREP DOCUMENT - as of 5-28-21.docx

Morning, attached is the latest interview prep document. The top four items are new:

- Fiscal Year 2022 NASA Full Budget Proposal
- Earth System Observatory
- Hurricanes and NASA
- Search for Life, Technosignatures, and UAP/UFOs

The upcoming events public dates section is update.

-Allard

Attachment

1. NASA INTERVIEW PREP DOCUMENT - as of 5-28-21.docx

Type: application/vnd.openxmlformats-officedocument.wordprocessingml.document
Size: 59 KB (60,644 bytes)

Attachment #1

NASA INTERVIEW PREP DOCUMENT - as of 5-28-21.docx

Original view

13 pages (displayed on pages 4 to 16)



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NASA INTERVIEW PREP DOCUMENT

RECENT HOT TOPICS

Fiscal Year 2022 NASA Full Budget Proposal

On May 28, the Biden-Harris Administration released the full budget proposal for Fiscal Year 2022.

- President's Fiscal Year 2022 budget requests \$24.8 billion for NASA, an increase of more than 6% over what the agency received the previous year.

Overarching Points

- This funding request demonstrates the president's commitment to NASA and the people across the agency and its partners who have worked so hard this past year under the most difficult circumstances and achieved unprecedented success.
- The NASA workforce and the American people should be encouraged by what they see in this budget request. It is an investment in our future, and it shows confidence in what this agency has to offer. We owe it to the president and the American people to be good and responsible stewards of every tax dollar invested in NASA.
- This budget request includes the strongest NASA budget ever for science, which will help address the climate crisis at home and abroad, as well as advance robotic missions that will pave the way for astronauts to explore the Moon and Mars.
- This is also the strongest budget for exploration since the Apollo program.
- This budget request will restore America's global standing, promote racial and economic equity, and drive economic growth.

Supports Human Exploration of the Moon, Mars, and Beyond

- The president's funding request increases funding for Artemis by \$350 million and gives us the resources to advance America's bipartisan Moon to Mars space exploration plan, agreed to by the Administration and Congress.
- This request keeps us on the path toward a regular cadence of Artemis missions with crew to the Moon by the middle of the decade.
- NASA's human landing system contract award, with the goal of a human demonstration mission to the lunar surface by 2024, is under protest.
- NASA is currently reviewing the overall Artemis timeline based on appropriations and expected budget, and outcome of the human landing system protest. We hope to provide an updated Artemis timeline later this year following conclusion of the protest.
- The FY2022 budget request assumes an Artemis I launch no earlier than November 2021, an Artemis II launch no earlier than September 2023, followed by Artemis III targeted for late 2024 and Artemis IV for late 2025. Landing the first woman and first person of color on the lunar surface as part of the Artemis program will promote equity – signaling to every American they too can see themselves among the stars.
- With NASA's Space Launch System rocket and Orion spacecraft, as well as U.S. commercial partnerships with the human landing system and Gateway lunar outpost, we will send astronauts to the Moon to test technologies and exploration practices that will make future missions more productive than ever before.
- This budget funds an upgraded Space Launch System, known as Block1B, that can deliver larger cargos to lunar orbit.

Quick Reference

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[Public Dates](#)



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- Gateway, built with our commercial and international partners, is important to sustainable lunar operations.
 - The foundation of our lunar outpost is targeted to launch no earlier than November 2024, with additional modules from our international partners launching later.
- We are working day and night to reduce risks and overcome the challenges of long-term human exploration of the Moon and Mars.
- The budget funds early design work and planning for additional surface architecture necessary including the lunar terrain vehicle and surface habitats to ensure our astronauts can explore more of the Moon than ever before and stay for increasingly longer periods of time in deep space.
- NASA's Lunar Surface Innovation Initiative is advancing technologies to support mission operations on the Moon. This budget includes funding for the preliminary design of a fission surface power system that could power operations on the Moon and Mars.

Further Robotic Exploration of the Solar System and the Universe

- This funding request also furthers robotic exploration of the solar system and the universe.
- The budget provides more than \$650 million for the Mars Sample Return mission, the highest priority large mission in planetary science.
- It includes strong support for planetary defense, including the near-Earth objects (NEO) Surveyor mission to detect asteroids and comets that could potentially impact Earth.

Enhances Research and Development at NASA

- This funding request supports continued progress developing cutting-edge space technologies, transformative capabilities, and renewable energy, all of which feed the economy and create good paying American jobs.
- Investing in new technologies enhances NASA's missions and fosters the growing space economy.
- NASA routinely demonstrates new technologies, reducing overall risk and encouraging industry adoption. The budget includes \$500 million for technology demonstrations.
- It fully funds the On-orbit Servicing, Assembly, and Manufacturing 1 (OSAM-1) mission. Robotically refueling a satellite and manufacturing and assembling spacecraft parts in-orbit will foster a more sustainable space economy.
- Launching next month, our Laser Communications Relay Demonstration will demonstrate a technology that can provide 10-100 times better data rates than commonly used radio frequency communications systems. In the coming years, we'll further refine laser communications technology for use in deep space.
- More than \$280 million would be directed toward small business innovation research and technology transfer. The increase of \$60 million will provide more money to small companies to research new ideas and develop innovative solutions to challenging problems.
- An investment in NASA and space infrastructure reaffirms our nation is the world's premier partner in space collaboration, and we will be for decades to come.
- We are investing in aviation to make our skies safer, our fuels cleaner, and to get you to your destination faster than ever before. This also includes investing in next-generation



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aeronautics research that will safely integrate automated aircraft systems with piloted airplanes.

- This budget enhances American competitiveness in the global aviation industry including the first two flights of new X-57 and X-59 aircraft.
- NASA aeronautics is leading transformation of the way people and goods are moved through Advanced Air Mobility (air taxis, drone cargo deliveries, etc.), an emerging market expected to be worth \$115 billion a year by 2035.
 - It will help safely deliver revolutionary aviation capabilities to previously underserved local, regional, intraregional, and urban areas. NASA investments today will spur the advancements of tomorrow.
- The budget provides a \$30 million increase to accelerate transformative science at the frontiers of biological and physical sciences research in space.

Advances Climate Science

- Climate change has increasing economic and national security impacts, and this budget increases investments in climate research and science programs.
- This funding increases our ability to better understand Earth and how it works as an integrated system, from our oceans to our atmosphere and how it all impacts our daily lives.
- NASA is developing the next-generation Earth System Observatory. NASA's new Earth System Observatory will provide the world with an unprecedented understanding of our Earth's climate system, arming us with next-generation data critical to mitigating climate change, and protecting our communities in the face of natural hazards.
 - The Earth System Observatory will help improve our understanding of extreme weather events and our decision making on climate resilience, adaptation, and mitigation. It will also inform decisions that ensure communities have the resources they need to build resilience prior to these crises.
- Research on zero-emissions aviation
 - NASA Aeronautics is partnering with industry, academia and other agencies through the Sustainable Flight National Partnership to accomplish the aviation community's aggressive climate change agenda. Through advanced vehicle technologies, efficient airline operations and sustainable aviation fuels, collectively NASA and our federal government and industry partners aim to reduce carbon emissions from aviation by half by 2050, compared to 2005, and achieve net-zero emissions by 2060.
- NASA continues to lead the development of new small spacecraft capabilities. For example, small platforms can enable distributed observations for climate science.

Builds a Diverse Future STEM Workforce

- This budget invests in the Artemis Generation. It requests funding for NASA's STEM engagement efforts for the first time in five years to inspire the next generation of scientists, engineers, mathematicians, and explorers by supporting the agency's STEM efforts.
- With this budget, NASA will increase funding for Space Grant and MUREP and will work with university and consortia partners to implement initiatives focused on diversity, equity and inclusion.



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- NASA taps into the skills of a diverse group of partners and reaches new groups through our small business programs, academic partnerships, and prizes, challenges, and crowdsourcing activities.
- The Space Technology Mission Directorate is collaborating with OSTEM's Minority University Research and Education Project to offer research planning grants and incentivize partnerships between minority-serving institutions and small businesses, setting them up to apply to NASA opportunities.

Continues Research on the International Space Station

- The space station is a convergence of science, technology, and human innovation that demonstrates new technologies and enables research not possible on Earth. The space station remains the springboard to NASA's next great leap in exploration, including future human missions to the Moon and eventually to Mars.
- With continued support for the International Space Station and the Artemis program, the president welcomes the international community to join us as we push human exploration deeper into space.
- This budget supports early design maturation of multiple commercially owned and operated low-Earth orbit (LEO) destinations (free flyers) from which NASA, along with other customers, can purchase services and stimulate the growth of commercial activities in LEO.
- In addition to maintaining continuous U.S. access to a space station in LEO, these new and more cost-effective platforms will democratize access to space by lowering the barriers to entry for the next generation of researchers, technologists, and tourists.

Earth System Observatory

On May 24, the White House and NASA announced new Earth System Observatory missions to help address and mitigate climate change:

- NASA will design a new set of Earth-focused missions to provide key information to guide efforts related to climate change, disaster mitigation, fighting forest fires, and improving real-time agricultural processes.
- With the Earth System Observatory, each satellite will be uniquely designed to complement the others, working in tandem to create a 3D, holistic view of Earth, from bedrock to atmosphere.
- "I've seen firsthand the impact of hurricanes made more intense and destructive by climate change, like Maria and Irma. The Biden-Harris Administration's response to climate change matches the magnitude of the threat: a whole of government, all hands-on-deck approach to meet this moment," said NASA Administrator Bill Nelson. "Over the past three decades, much of what we've learned about the Earth's changing climate is built on NASA satellite observations and research. NASA's new Earth System Observatory will expand that work, providing the world with an unprecedented understanding of our Earth's climate system, arming us with next-generation data critical to mitigating climate change, and protecting our communities in the face of natural disasters."
- The observatory follows recommendations from the 2017 Earth Science Decadal Survey by the National Academies of Sciences, Engineering and Medicine, which lays out ambitious but critically necessary research and observation guidance.
- Areas of focus for the observatory include:



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- Aerosols: Answering the critical question of how aerosols affect the global energy balance, a key source of uncertainty in predicting climate change.
- Cloud, Convection, and Precipitation: Tackling the largest sources of uncertainty in future projections of climate change, air quality forecasting, and prediction of severe weather.
- Mass Change: Providing drought assessment and forecasting, associated planning for water use for agriculture, as well as supporting natural hazard response.
- Surface Biology and Geology: Understanding climate changes that impact food and agriculture, habitation, and natural resources, by answering open questions about the fluxes of carbon, water, nutrients, and energy within and between ecosystems and the atmosphere, the ocean, and the Earth.
- Surface Deformation and Change: Quantifying models of sea-level and landscape change driven by climate change, hazard forecasts, and disaster impact assessments, including dynamics of earthquakes, volcanoes, landslides, glaciers, groundwater, and Earth's interior.
- NASA currently is initiating the formulation phase for the observatory.
- Among its first integrated parts is NASA's partnership with the Indian Space Research Organisation (ISRO), which brings together two different kinds of radar systems that can measure changes in Earth's surface less than a half-inch.
 - This capability will be utilized in one of the observatory's first missions intended as a pathfinder, called NISAR (NASA-ISRO synthetic aperture radar).
 - This mission will measure some of the planet's most complex processes such as ice-sheet collapse and natural hazards such as earthquakes, volcanoes, and landslides. NISAR can assist planners and decision makers with managing both hazards and natural resources in the future.

Hurricanes and NASA

June 1 is the official start of hurricane season for the Atlantic Ocean.

- After 2020 brought a record number of named storms in 2020, NASA is once again prepared to help understand and monitor these storms from its unique vantage point of space.
- NASA develops and launches satellites for NOAA, which is the lead federal agency for forecasting hurricanes. But the science of hurricanes doesn't start – or end – with forecasting.
- Global warming is increasing the heat in the ocean basins and already making it more likely that storms will intensify faster and be stronger, a phenomenon NASA scientists continue to study deeply.
- With the challenge posed by climate change, NASA has never been more committed to innovation in Earth science research.
 - Our next-generation Earth System Observatory, announced on May 24, missions will help us understand extreme weather events and other climate-fueled hazards to inform the solutions of the future.
- NASA researchers and data also support U.S. stakeholders before, during and after storms make landfall.
 - Stages of NASA Data:
 - Pre-storm assessment (feed weather prediction and forecasting models)



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- Near-real-time assessment (identify potential impacts ahead of landfall)
- Post-storm assessment (help identify needs for support after landfall)
- Data access and visualization
- The [NASA Disasters Mapping Portal](#) takes disaster-related data and puts it into understandable, usable formats real-time use and application with the goal to bridge the gap between science products and the people who can use the data to assist in preparedness, response, mitigation, and recovery.
 - After a hurricane makes landfall, NASA satellites are in prime position to identify impacts such as damage, flood depth and extent, power outages, rainfall accumulation, landslide risk, and even soil moisture.
 - That information helps local governments, the Army Corps of Engineers, and FEMA monitor infrastructure failures and disruptions, isolate contaminated water supplies, and identify hotspots for urgent response needs.
- NASA also does plenty of its own deep research on hurricanes and tropical cyclone dynamics. A few examples among many:
 - NASA's Global Modeling and Assimilation Office is pioneering the use of ultra-high-resolution global weather and micro-climate models.
 - The CPEX-AW airborne campaign planned in the Caribbean this August and September will pilot new technology to use LiDAR to better understand atmospheric winds and convective clouds in tropical storms.
 - NASA's Jet Propulsion Laboratory (JPL) is studying the use of artificial intelligence/machine learning to improve hurricane prediction capabilities using NASA satellite data.

Search for Life, Technosignatures, and UAP/UFOs

Public and media interest in the topic of Unidentified Aerial Phenomenon/Unidentified Flying Objects (UAP/UFOs) has seen an uptick in recent weeks following reports about the Department of Defense's release of three unclassified Navy videos. Likewise, the 2021 Intelligence Authorization Act, signed in December 2020, stipulated the government had 180 days to gather and analyze data from disparate agencies. Below is our response to the public and media who call for NASA comment:

- One of NASA's key goals is the search for life in the universe. To date, NASA has yet to find any credible evidence of extraterrestrial life, however, NASA is exploring the solar system and beyond to help us answer fundamental questions, including whether we are alone in the universe. We stand ready to support the rest of the government in the search for life in the universe, be it close to home, on the planets or moons of our solar system, or deeper into space.

NASA Administrator Fighting for Funding for NASA Missions

On May 19, NASA Administrator Sen. Bill Nelson testified virtually about NASA's fiscal year 2022 budget in front of the House Committee on Science, Space, and Technology. Sen. Nelson emphasized the support necessary to continue pursuing NASA's goals and missions. On May 21, he sent a [video](#) and following message to NASA employees:

- President Biden's discretionary funding request for NASA – \$24.8 billion – clearly demonstrates the Biden-Harris Administration's commitment to NASA, especially in light of the difficult circumstances of the past year. The full details of the president's budget



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request are expected next week and will provide further insight into funding for all NASA programs.

Of course, NASA's goals and missions are challenging and require robust funding to see them through to completion. That's why I asked Congress yesterday, in a hearing before the House Appropriations Commerce, Justice, and Science Subcommittee, to include NASA in the upcoming American Jobs Plan, in addition to the president's full budget request.

NASA missions support tens of thousands of jobs nationwide and the Jobs Plan's focus on infrastructure, research, and development is an opportunity for Congress to include funding for NASA's critical missions, including the Artemis program, while also supporting good-paying American jobs.

China's Zhurong Mars rover landing last week is an example of why NASA's inclusion in the Jobs Bill is important – there is no time to wait.

Investments in technologies like nuclear thermal propulsion, advanced spacesuits, and updated, green infrastructure at our centers are important to our nation and NASA's future as a leader in space, innovation, and jobs around the country. I'm fighting to ensure the agency has the resources we need to continue that incredible legacy.

China Mars Lander

On May 14 (Eastern Time), China's Tianwen-1 orbiter deployed its rover, recently named "Zhurong," to the surface of Mars. NASA has been asked to comment on several aspects of the landing. On May 19, NASA Administrator Sen. Bill Nelson issued the following statement after the China National Space Administration's (CNSA's) release of the first photos from the Zhurong Mars rover:

- "Congratulations to the China National Space Administration on receiving the first images from the Zhurong Mars rover!" Nelson said. "As the international scientific community of robotic explorers on Mars grows, the United States and the world look forward to the discoveries Zhurong will make to advance humanity's knowledge of the Red Planet. I look forward to future international discoveries, which will help inform and develop the capabilities needed to land human boots on Mars."

CNSA's successful landing of the Zhurong rover last week makes it only the second nation to ever land successfully on Mars. Zhurong joins active NASA missions – the Curiosity and Perseverance rovers and Insight Lander – in exploring the surface of the Red Planet.

- The week of May 16, media outlets asked whether CNSA used NASA animation from a Mars mission a decade ago for animation related to its Zhurong Mars lander. The following is our response:
 - NASA's imagery is made freely available for use by the public.
 - If pressed for more:
 - For questions about the Zhurong animation, please check directly with the China National Space Administration.



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- NASA also was asked the week of May 16 whether the agency's InSight Mars lander was able to detect Zhurong's landing. The following is our response:
 - As part of its normal science, InSight's data acquired seismic and atmospheric measurements at the time of Zhurong's landing. As we did with NASA's Perseverance landing, the InSight science team examined seismic and pressure oscillation signals associated with the Zhurong landing. Based on preliminary examination of the data, we don't appear to have detected it, just as we didn't with Perseverance.
- Below is NASA's initial public comment about the landing from Science Mission Directorate Associate Administrator Dr. Thomas Zurbuchen on [Twitter](#):
 - "Congratulations to CNSA's #Tianwen1 team for the successful landing of China's first Mars exploration rover, #Zhurong! Together with the global science community, I look forward to the important contributions this mission will make to humanity's understanding of the Red Planet."

Human Landing System Sen. Cantwell Amendment

On May 12, Sen. Maria Cantwell offered an amendment in committee markup of the Endless Frontier Act that included language and proposed funding related to NASA's Human Landing System for the Artemis program. Below is our response to the public and media who call for comment:

- NASA is excited to return to the Moon with more robot and human explorers than ever before as part of the Artemis program. Both government and commercial capabilities are necessary to enable long-term exploration on and around the Moon. By purchasing commercial services to take astronauts from lunar orbit to land on the surface of the Moon, we will ensure a robust deep space transportation system is in place as we learn to live and work on another world for the benefit of all. NASA is unable to comment on the proposed amendment due to ongoing litigation of the recent human landing system selection.

More information can be found here: <https://www.nasa.gov/nextstep/humanlander2>

Webb Telescope Reported Possible Launch Delay

On May 12, Space News [reported](#) ongoing work to address a problem seen on two previous Ariane 5 rocket launches could delay the high-profile launch of NASA's James Webb Space Telescope. Below is our response to calls for comment:

- The launch readiness date for NASA's James Webb Space Telescope, which will be the premier observatory of the next decade, is Oct. 31, 2021. Webb is on schedule for that date, but we know schedule margin is tight. We are working closely with ESA and Arianespace on their launch vehicle readiness, and should a launch date change be needed, Webb has launch windows available almost every day of the year. Webb will study every phase in the history of our universe, including the first luminous glows after the creation of the cosmos, the formation of solar systems capable of supporting life on planets like Earth, and the evolution of our own solar system.

Roscosmos Spaceflight Participants to the International Space Station Announcements

On May 13, Roscosmos [announced](#) it plans to send spaceflight participants (non professional astronauts) for short trips to the International Space Station this year, including an actress and



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filmmaker on a Soyuz flight in October. Below is the response to the public and media who ask for NASA comment:

- This year is truly a renaissance for human spaceflight both as we fly NASA and international partner astronauts on U.S. commercial crew spacecraft to the International Space Station and also as we see the expansion of private astronaut missions. As more people fly to space and do more things during their spaceflights, it attracts even more people to do more activities in low-Earth orbit, and reflects the growing market we envisioned the Commercial Crew Program enabling when we embarked on it about 10 years ago.

Webb Name Webb Telescope Name Statement

On May 7, Slate.com posted an [article](#) with the headline and sub-headline “The James Webb Space Telescope Hasn’t Launched Yet. In One Way, It’s Already a Relic. It will collect important data, but what does its name say about who it’s for?” Below is our response to the public and media who call for comment:

- NASA is aware of concerns that have arisen about James E. Webb, and we are working with historians to examine his role in government. NASA named its next generation observatory, the James Webb Space Telescope, after its second administrator, who helped establish the Apollo Program that landed humans on the Moon. The agency made the naming decision in recognition of Webb’s role in retaining an active science program at NASA in the agency’s early years. Webb’s work as administrator laid the groundwork for today’s accomplishments, and science remains a critical part of NASA’s work: to understand the universe, advance exploration, and inspire the next generation.

NASA’s Ingenuity Mars Helicopter

On April 19, NASA’s Ingenuity Mars Helicopter successfully completed the first attempt at powered, controlled flight of an aircraft on another planet. The experimental rotorcraft was carried to the Red Planet on NASA’s Perseverance Mars rover. Ingenuity progressively added more complex flights on April 22, April 25, April 30, May 7, and May 23. On April 30, NASA [announced](#) that after its next two demonstration flights, Ingenuity will embark on a new operations demonstration phase, exploring how aerial scouting and other functions could benefit future exploration of Mars and other worlds.

- Ingenuity Key points:
 - Ingenuity is the first aircraft to attempt and achieve controlled flight on another planet (a “Wright Brothers” moment).
 - Ingenuity had already demonstrated feats of engineering – shrinking its size and mass, working with specialized materials, demonstrating flight in a thin atmosphere while still on Earth.
 - Tests on Earth proved many of its engineering principles.
 - With Ingenuity’s success, future Mars exploration could include an ambitious aerial dimension.
 - Ingenuity is a technology demonstration. Its experimental mission is separate from the rover, but we do tech demos because they advance our capabilities and help prove concepts for future mission.
- Ingenuity’s technology demonstration objectives are:
 - Prove powered flight in the thin atmosphere of Mars.



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- The Red Planet has lower gravity (about one-third that of Earth) but its atmosphere is just 1% as thick, making it much harder to generate lift.
- Demonstrate miniaturized flying technology.
 - That requires shrinking down onboard computers, electronics and other parts so that the helicopter is light enough to take off.
- Operate autonomously.
 - Ingenuity will use solar power to charge its batteries and rely on internal heaters to maintain operational temperatures during the cold Martian nights. After receiving commands from Earth relayed through the rover, each test flight is performed without real-time input from Mars Helicopter mission controllers.
- NASA's Perseverance Mars rover mission objectives are:
 - Take samples to leave on the surface for return to Earth in a few years. First leg of a round trip to Mars.
 - Search for signs of ancient microbial life as the rover explores a crater that billions of years ago might have been a large body of water like a lake.
 - Characterize the geology and climate of Mars.
 - Help pave the way for human exploration beyond the Moon.
- Perseverance Mars rover Key Points:
 - The Perseverance rover is the most capable rover ever sent to Mars and builds on the legacy of NASA's Mars Exploration Program and earlier rovers.
 - The mission embodies our nation's spirit of persevering even in the most challenging of situations, providing inspiration and advancing science and exploration. The mission itself personifies the human ideal of persevering toward the future.
 - The Mars 2020 mission is part of America's larger Moon to Mars exploration approach, which includes astronaut missions to the Moon that prepare for human exploration of the Red Planet.
 - NASA is committed to working with our international partners to accomplish stunning achievements in science, technology and exploration, and this mission reinforces those strong bonds.
 - Perseverance is the beginning of the first round-trip to another planet. The rover will collect rock and soil samples for return to Earth by future missions that could possibly confirm the ultimate astrobiology question: does life exist, or did it, elsewhere?
 - Perseverance carries the most sophisticated suite of instruments ever sent to Mars.
 - The mission addresses high-priority science goals to:
 - Return samples from Mars.
 - Search for clues about the potential for past life on Mars.
 - Find out what Mars' environment was like billions of years ago, and what might be preserved in the unique rocks of Jezero Crater.
 - Study what the planet's environment is like today.
 - NASA's robotic exploration of Mars is paving the way for future human missions to the Red Planet and will gather knowledge and demonstrate technologies that address the challenges of those human expeditions. Some relevant technologies include:
 - Entry, descent and landing technology.



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- In situ resource use.
- Terrain-relative navigation.
- The public will get to ride along. The mission has more cameras than any previous interplanetary mission, and while we have “felt” vibrations in response to wind with the InSight lander’s seismometer and “translated” them into sounds that we could hear with the human ear, two microphones on Perseverance will attempt for the first time to hear audio of the rover’s operations and travels, as well as the environment at Mars.
- Perseverance joins a fleet that right now includes a rover, a lander and multiple orbiters. This is the 9th U.S. mission to land and the 5th rover. The U.S. is the only nation to successfully land on Mars.
- On April 20, a toaster-size experimental instrument aboard Perseverance called the Mars Oxygen In-Situ Resource Utilization Experiment ([MOXIE](#)) converted some of the Red Planet’s thin, carbon dioxide-rich atmosphere into oxygen – the first time this has ever been done.
 - While the technology demonstration is just getting started, it could pave the way for science fiction to become science fact – isolating and storing oxygen on Mars to help power rockets that could lift astronauts off the planet’s surface. Such devices also might one day provide breathable air for astronauts themselves.

UPCOMING EVENTS PUBLIC DATES

*Below are the publicly listed dates of some high-profile activities/events/milestones in 2021. Internal planning, target, and pre-decisional dates are not listed below as they’re not official and public yet. The public dates listed are as specific as they can be, at this time. This list will be regularly updated and added to, as appropriate. Text in **red** is newly updated public information:*

- **State of NASA – June 2:** NASA Administrator Bill Nelson’s first live address to the NASA workforce about the state of the agency and its activities
- **Russian Spacewalk on the International Space Station - June 2:** Russian EVA 48 (Novitskiy and Dubrov) from Poisk to dismantle cables for Pirs docking compartment undocking
- **SpaceX CRS-22 – June 3:** Next commercial [resupply services](#) mission to space station from Florida
- **Laser Comm – June 23:** NASA’s [Laser Communications Relay Demonstration](#) to test optical communications launches from Florida
- **Boeing Orbital Flight Test-2 – July 30 –** Boeing’s uncrewed CST-100 Starliner OFT-2 (Orbital Flight Test-2) launch from Florida to the International Space Station
- **Northrop Grumman CRS-16 – July 2021:** Commercial [resupply services](#) mission to space station from Virginia
- **X-57 – Fall 2021 --** Flight test for NASA’s first all-electric plane, [X-57](#), at Armstrong Flight Research Center
- **Landsat 9 – September:** NASA and U.S. Geological Survey launch latest Earth observation satellite, [Landsat 9](#), from California
- **CAPSTONE – Fall 2021:** NASA [CubeSat](#) to validate new navigation technologies and verify dynamics in Gateway’s planned orbit will launch to space
- **Imaging X-Ray Polarimetry Explorer – Fall 2021:** NASA’s [IXPE](#) mission to discover hidden astronomical objects in the universe launches from Florida



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- **SpaceX CRS-23 – Fall 2021:** Commercial [resupply services](#) mission to space station from Florida
- **Lucy – Oct 16:** NASA's [Lucy](#) mission to study the Trojan asteroids of Jupiter will launch from Florida
- **SpaceX Crew-3 – No earlier than Oct. 23:** [Crew-3](#) will launch to station from Florida
- **SpaceX Crew-2 Return – No Earlier than Oct. 31:** Crew-2 returns to Earth
- **Webb Telescope – (Launch Readiness Date) Oct. 31:** NASA's [James Webb Space Telescope](#) to help answer questions about our cosmic origins launches from French Guiana
- **DART – Nov. 24:** Window opens to launch Double Asteroid Redirection Test from California, NASA's first flight demonstration for planetary defense
- **Webb Telescope – November/December:** The [James Webb Space Telescope](#) completes mission deployments/arrives in its L2 (second Lagrange Point) orbit about 29 days after launch
- **Artemis I - November:** NASA reviewing launch date for [first integrated flight test](#) of the uncrewed Space Launch System rocket and Orion spacecraft launches on a multi-week mission around the Moon
- **Orion splashdown:** NASA's [Orion](#) spacecraft splashes down on Earth following a multi-week mission around the Moon
- **Geostationary Operational Environmental Satellite-T – December:** NASA and NOAA's latest weather satellite, [GOES-T](#), launches from Florida
- **Astrobotic's CLPS Flight – Late 2021:** Suite of robotic NASA payloads sent to the lunar surface as part of a [Commercial Lunar Payload Services](#) delivery. Landing takes place in the following weeks
- **Boeing's Crew Flight Test – Under review pending OFT-2:** Boeing's CFT earliest possible launch to space station from Florida
- **Boeing Starliner-1 – Under review pending outcome of earlier flight tests:** Launch date for first operational Boeing commercial crew launch to space station from Florida
- **Astronaut Candidates – 2021:** NASA will announce selections for the next class of [astronaut candidates](#) to begin training
- **Intuitive Machines' CLPS Flight – Early 2022:** Suite of robotic NASA payloads sent lunar surface as part of a [Commercial Lunar Payload Services](#) delivery. Landing takes place in the following weeks

AGENCY COMMUNICATION THEME PRIORITIES

For full key points and other products for all themes, visit: <https://communications.nasa.gov>.

Earth

NASA uses the vantage point of space to understand and explore our home planet, improve lives and safeguard our future.

Tagline: **Your Home. Our Mission.**

Flight

NASA explores new technologies to make aircraft quieter and faster, get you gate-to-gate safely and on time, and transform aviation into a new economic engine at all altitudes.

Tagline: **NASA is With You When You Fly.**

Humans in Space

NASA leads human space exploration in low-Earth orbit with commercial and international



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partners to enable missions to the Moon and Mars. International Space Station missions are a catalyst for economic development and the advancement of scientific knowledge and new technologies that improve our lives.

Tagline: **Leading Discovery, Improving Life on Earth.**

Moon to Mars

NASA is leading a sustainable return to the Moon with commercial and international partners to expand human presence in space and bring back new knowledge and opportunities.

Tagline: **Moon Lights the Way.**

Solar System & Beyond

NASA is exploring our Solar System and beyond, uncovering worlds, stars, and cosmic mysteries near and far with our powerful fleet of space and ground-based missions.

Tagline: **Discovering the Secrets of the Universe.**

Space Tech

NASA technologies advance capabilities for space exploration, promote America's global leadership in innovation and transform the world around us.

Tagline: **Technology Drives Exploration.**

-end-

[EXTERNAL] Proxy Special Elections, AAPI Voters, and Rx Pricing

From: The Well News <ee@thewellnews.com>
To: robert.d.cabana@nasa.gov, Cabana, Robert D. {HQ-Associate Administrator} (KSC-AA000) <robert.d.cabana@nasa.gov>
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Voters in New Mexico's 1st Congressional District will go to the polls on Tuesday to choose a replacement for Deb Haaland, the former

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Sunday, May 30, 2021

We'd love to hear from you. Please send your tips, questions, or comments to us at: tips@thewellnews.com

POLITICS

In New Mexico, Yet Another Special Election Seen As Proxy for 2022

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Recent polls suggest Republican Mark Moores, a state senator since 2013, has an outside shot at winning, particularly due to the relative lack of experience of his Democratic opponent.

Democratic state Rep. Melanie Stansbury has been in the state legislature for only two years, having formerly worked as an aide to the state Senate Energy and Natural Resources Committee.

Read More

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IN THE NEWS

- 'We Are Not a Monolith': Understanding Mass Diversity Key to Winning Over AAPI Voters

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By Kate Michael

- Empowering Local Officials on Foreign Policy Could Help U.S. Globally

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By Daniel Mollenkamp

- White House Appears Intrigued by GOP Infrastructure Proposal

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By Dan McCue

- 25 States, DC Have Fully Vaccinated Half Their Population

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By TWN Staff

THE WEEK AHEAD

May 30-June 6

Coming this week...

SUNDAY, MAY 30

- The 32nd PBS National Memorial Day Concert will broadcast nationwide, honoring men and women in uniform, their families and all those who have given their lives for the country.

- President Joe Biden and First Lady Dr Jill Biden will spend Memorial Day weekend in Delaware.

MONDAY, MAY 31

- The National Park Service will hold wreath laying ceremonies in honor of Memorial Day Weekend, with the agenda including Friends of the National World War II Memorial (9:00 AM EDT), the U.S. Navy Memorial (1:00 PM EDT), and the Vietnam Veterans Memorial Fund (1:00 PM EDT).

- The US Senate the House of Representatives will be in recess until June 7.

TUESDAY, JUNE 1

- The election to fill the congressional seat vacated by former Democratic Rep and now Secretary of the Interior, Deb Haaland, will take place between Democrat Melanie Ann Stansbury, Republican Mark Moores and Libertarian Chris Manning.

- The Atlantic and Central North Pacific hurricane seasons start.

- The U.S. Census Bureau will release the 'Characteristics of New Housing: 2020' report.

- Secretary of State Blinken will begin his Costa Rica visit.

- President Biden will visit Oklahoma to commemorate the Tulsa Race Massacre 100th anniversary.

WEDNESDAY, JUNE 2

- The U.S. Small Business Administration Interagency Task Force on Veterans will hold a Small Business Development meeting.

- Secretary of State Blinken will conclude his visit to Costa Rica.

- Transportation Secretary Buttigieg will kick off the 'Innovation for a Sustainable, Equitable Transportation System' virtual series.

- NASA Administrator Bill Nelson discusses plans for future climate science missions during a State of NASA event.

THURSDAY, JUNE 3

- SpaceX is expected to launch its 22nd commercial resupply mission to the ISS.

- The U.S. Postal Service will hold a dedication ceremony for Japanese Americans Soldiers of World War II stamps.

- The North Carolina Republican Party holds its state convention in Greenville until June 6, with former President Donald Trump headlining the convention dinner on Saturday evening.

FRIDAY, JUNE 4

- The Monthly Employment Report will be released.

- UK Chancellor Rishi Sunak hosts the G7 Finance Ministers in London meeting ahead of next week's G7 Leaders Summit in Cornwall.

SATURDAY, JUNE 5

- This is National Trails Day, with events including hikes, biking, horseback rides, paddling trips, birdwatching,

geocaching, gear demonstrations, and stewardship projects from the American Hiking Society.

POLLS

President Biden Job Approval

5/28: Approve 55, Disapprove 43 | Rasmussen Reports

5/27: Approve 52, Disapprove 44 | Reuters/Ipsos

5/26: Approve 54, Disapprove 42 | FOX News

5/26: Approve 49, Disapprove 41 | Quinnipiac

5/26: Approve 55, Disapprove 41 | Politico/Morning Consult

5/26: Approve 52, Disapprove 42 | Economist/YouGov

5/25: Approve 62, Disapprove 38 | Harvard-Harris

5/21: Approve 54, Disapprove 40 | Gallup

5/21: Approve 60, Disapprove 40 | The Hill/HarrisX

5/21: Approve 52, Disapprove 46 | Rasmussen Reports

5/20: Approve 56, Disapprove 39 | Reuters

5/19: Approve 54, Disapprove 42 | Politico/Morning Consult

5/19: Approve 51, Disapprove 43 | Economist/YouGov

5/17: Approve 53, Disapprove 42 | NPR/PBS/Marist

Congressional Job Approval

5/26: Approve 23, Disapprove 58 | Economist/YouGov

5/25: Approve 46, Disapprove 55 | Harvard-Harris

5/19: Approve 24, Disapprove 54 | Economist/YouGov

2022 Generic Congressional Vote

5/26: Democrats 49, Republicans 40 | Quinnipiac

Direction of Country

5/27: Right Direction 33, Wrong Track 50 | Reuters/Ipsos

5/26: Right Direction 43, Wrong Track 49 | Economist/YouGov

5/26: Right Direction 49, Wrong Track 51 | Politico/Morning Consult

5/25: Right Direction 43, Wrong Track 47 | Harvard-Harris

5/24: Right Direction 39, Wrong Track 54 | Rasmussen Reports

5/19: Right Direction 42, Wrong Track 48 | Economist/YouGov

5/19: Right Direction 48, Wrong Track 52 | Politico/Morning Consult

5/17: Right Direction 38, Wrong Track 55 | Rasmussen Reports

POLITICAL POLLS

January 6, CDC, Memorial Day, and UFOs?

A new Quinnipiac Poll finds that 55% of those polled view the events of Jan. 6 as an attack on democracy that should never be forgotten, while 39% say too much is being made of the storming of the U.S. Capitol and it is time to move on.

Democrats say 84 - 12% and independents say 54 - 42% that the Jan. 6 storming of the Capitol should never be forgotten, while Republicans say 74 - 18% that too much is being made of it and that it is time to move on.

The Centers for Disease Control and Prevention gets a slightly positive grade on its handling of mask guidelines as 49% of Americans approve of the way the CDC is handling the guidelines and 44% disapprove.

Americans say 73 - 24% that they plan to spend Memorial Day weekend much like they did before the coronavirus pandemic.

Next month, US intelligence agencies are expected to deliver a report to Congress about unidentified aerial phenomena, commonly known as UFOs. This report comes after the U.S. acknowledged there have been unexplained sightings by military aircraft. Asked what they think these sightings are, 42% say they think they are man-made aircraft, 35% say they think they are aircraft from another world, and 22% did not offer an opinion.

This RDD telephone survey was conducted from May 18 – 24, 2021 throughout the nation. Responses are reported for 1,316 adults with a margin of sampling error of +/- 2.7 percentage points. Margins of sampling error for subgroups are available upon request. Surveys are conducted with live interviewers calling landlines and cell phones. Data collection support provided by Dynata. All data was managed and tabulated by the Quinnipiac University Poll.

POLITICAL ADS

Drug Prices Front and Center

According to AdImpact, for the two weeks ending May 21, there were 260 unique political ads that aired 39,632 times and represented a total \$40.9 million in political spending from 778 advertisers.

Each of the top 10 advertisers spent more than \$1 million. The three highest spending advertisers were American Action Network, John Cox for CA Governor, and End Citizens United/Let America Vote Action Fund.

American Action Network spent \$2.5 million and currently has four ads on air. The group is targeting Democratic Reps.

Matt Cartwright, D-Pa., Jared Golden, D-Maine, Elaine Luria D-Va., and Chris Pappas, D-N.H. over what it calls “Pelosi’s dangerous drug plan” and prescription drug production in China.

John Cox for CA Governor spent \$1.9 million and has three ads on air. The ads all compare Gavin Newsom, the “Beauty,” to Cox, the “Beast,” who wants to make big changes in Sacramento.

End Citizens United/Let America Vote Action Fund spent \$1.8 million and has 12 ads on air supporting the For the People Act. The ad with the most airings has run 844 times and is on air in West Virginia.

The spending for NYC mayor reached \$24 million. The top advertiser in the race is New Start N.Y.C. that has spent \$5.4M in support of Shaun Donovan.

Meanwhile, after Republicans bought \$5 million in ads targeting Democrats working to lower the cost of prescription medications, the DCCC is hitting back with a digital ad campaign.

The new five-figure digital ad buy shows that House Democrats will continue fighting to lower the costs of prescription drugs.

The ads highlight 16 Democrats: Carolyn Bourdeaux

<[<\[Jared Golden\]\(https://gcc02.safelinks.protection.outlook.com/?url=https://email.thewellnews.com/e2t/tc/VW5hT564HzkCW1qmvWX6MP1-hW2v98dD4sc5w8N3fD2D73p_97V1-WJV7CgHTgW166VfW1xdGwqV1sSkx6JsBv-W1mvyKn6njLhTW2td6QY3rf7-pMCI_ZtFF2c8W8wp2WS6bFdWyW58jFKW12ZCZkW4HGyhp7R97cNW7NLnYc6vR7PRW99m3pX7042HMMW8K84lq20NF6NN93JY5R52syrVdv77Q61mtf3W2WPRRR5cJZ4bW5QkdpB12V1kgW1kTDYf8k_MG5W11sv9x6_hpjFw6mFP h73t4CZvW6IMW0_1jHQyzW1_kZv511BftVMPNVT2_fQ2VW6h2zWV6TQchwW8t7L4N8m_FmFW2Yt5K91tTXQT31vs1&data=04|01|robert.d.cabana@nasa.gov|a2a49445eb5145a7929208d9237c5f26|7005d45845be48ae8140d43da96dd17b|0|0|637579839813684087|Unknown|TWFPbGZsb3d8eyJWljoIMC4wLjAwMDAiLCJQljoiv2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0=|3000&sdata=tz8rl4e5bJslpfUUhGUC+PY1dMsZDzKeDV6QEfxYlHw=&reserved=0>, Iowa;</p></div><div data-bbox=\)](https://gcc02.safelinks.protection.outlook.com/?url=https://email.thewellnews.com/e2t/tc/VW5hT564HzkCW1qmvWX6MP1-hW2v98dD4sc5w8N3fD2BZ5nxG7V3Zsc37CgZvW7MknLr7DdT-W12gVlq8QnC38W3_88DD1rdDMMW1CxRBQ3d0Lz9W3kZ6QS8s6lLqW7cLG6z1VLd3YW3JPhZj4VshmcW2CCLPC6sHqQTW6jT_x04JLSJsN1_VxM0qzgCMW3mth3S297NjNVKMj2Y7IYnBbW3wVP_v8Gzh2CW20hfnK8vm04qV3J0P23b8ggrW21C5gY9bbJFW6TWh4h2rRk-mW2lcJIF4NDnsrW4VmB1I56yK-BW8_BrX48v3GL9VRSzqr3qs9TfW433G1z2YIFdMW89-Ycx1STz6BVXmGNf21NGHwW2kh03p2nXFqgW45hBWP52N2s-W70tX3Q2jsTC-N9dDdKSb_HYmVRbL0n5XH-jsW2YRn995PQZpgMfRkn22rh30W2JxtHj3q5nrS3fwT1&data=04|01|robert.d.cabana@nasa.gov|a2a49445eb5145a7929208d9237c5f26|7005d45845be48ae8140d43da96dd17b|0|0|637579839813674134|Unknown|TWFPbGZsb3d8eyJWljoIMC4wLjAwMDAiLCJQljoiv2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0=|3000&sdata=KUj015KoMXB5XaaYdBNdg7WaljTbwQ8aUoXJOSCUMPE=&reserved=0>, Georgia; Cindy Axne</p></div><div data-bbox=)

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<https://gcc02.safelinks.protection.outlook.com/?url=https://email.thewellnews.com/e2t/tc/VW5hT564HzkCW1qmvWX6MP1-hW2v98dD4sc5w8N3fD2D73p_97V1-
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<https://gcc02.safelinks.protection.outlook.com/?url=https://email.thewellnews.com/e2t/tc/VW5hT564HzkCW1qmvWX6MP1-hW2v98dD4sc5w8N3fD2D73p_97V1-WJV7CgV2QN81_SJlpxJJvW7dgDvk2MxpcLW5yN4F61B-XcDW49cjmnm2m9g3DW1fqYcy2BT2c_W6Svvggt4RSfFqW6D652C1-
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DCCC Spokesperson Helen Kalla said, "If Republicans think that spending millions of dollars from their dark money allies for ads touting sky-high costs for prescription medication is a winning message, we won't get in their way. In the meantime, House Democrats will continue listening to the American people and fighting for lower health care costs to make sure life-saving prescription medication is affordable for seniors and hard working Americans."

Republicans Targeting Gov. Whitmer

The Hill is reporting the Republican Governors Association is set to target Michigan Gov. Gretchen Whitmer
<https://gcc02.safelinks.protection.outlook.com/?url=https://email.thewellnews.com/e2t/tc/VW5hT564HzkCW1qmvWX6MP1-hW2v98dD4sc5w8N3fD2D73p_97V1-WJV7CgQmgW9lCdtR78NjDwW3P6gV13wt-
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The ad, titled "Suzette's Testimonial," criticizes Whitmer for flying to Florida to visit her father during the pandemic. The spot features a woman named Suzette, who said she could not visit her father in Michigan before he died in a nursing home because Whitmer closed the facilities during the pandemic.

The ad is sponsored by Get Michigan Working Again, a political action committee and RGA affiliate.

Michigan's Democratic Party hit back at the RGA in a statement, calling the ad "desperate" and "misleading."

The Well News, 777 6th Street, NW, Washington, DC 20001

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Daily Report for Tuesday, June 22

From: Potter, Sean (HQ-NA020) <sean.potter@nasa.gov>
Sent: June 22, 2021 8:00:34 AM EDT
Received: June 22, 2021 8:01:08 AM EDT
Attachments: DAILY REPORT 06-22-2021.docx

Good morning.

Attached and below is today's Communications Daily Report.

Thank you,

Sean Potter

NASA Communications Daily Report

Tuesday, June 22

Activities

·12:30 to 1:30 pm – NBC interview on NASA's search for life with Planetary Sciences Division Director Lori Glaze

oNBC's Tom Costello will interview Lori Glaze on NASA's ongoing work and research in the search for life beyond our own planet.

·3pm – NASA Administrator Bill Nelson live interview with Newsmax on vision for NASA

·Aviation Week interviews with Webb experts

o4:30 pm – Sandra Irish, Webb lead structures engineer; Begoña Vila, Webb instrument systems engineer; Bill Ochs, Webb project manager at Goddard; Scott Willoughby, Webb program manager at Northrop Grumman interview with Irene Klotz of Aviation Week at Northrop Grumman

o5 to 6 pm – Aviation Week interview of Webb team members Scott Willoughby and Bill Ochs

·7 to 8 pm – Virtual Tour: Space Environments Complex at Glenn

oVirtual tour followed by live Q&A with expert for registered guests. The SEC is home to the world's largest and most powerful Space Simulation Vacuum Chamber, which measures 100 ft. in diameter by 122 ft. high. It also boasts the Reverberant Acoustic Test Facility, which can simulate the noise of a spacecraft launch up to 163 decibels; and the Mechanical Vibration Facility, the world's most powerful spacecraft shaker system, which subjects test articles to the rigorous conditions of launch.

·Deutsche Welle interview with Dr. Ravi Kumar Kopparapu of Goddard for story on the UFO/UAP report.

·External Proctor & Gamble media release on NASA Space Act Agreement

·Webb Launch Readiness Exercise #4 concludes at the Space Telescope Science Institute in Baltimore

·Astronaut Jessica Meir for Emory University and Children's Healthcare of Atlanta

oResults of SpaceX's 20th Resupply Mission Research "How Growing Cardiac Stem Cells in Space Can Benefit our Cardiac Kids" in Atlanta.

·Astronaut Kate Rubins with Fox 40 Sacramento on her recent mission to the space station

NASA Television

On Air

·No new programming scheduled

NASA HQ In-Studio Shoots, Productions:

·12:30 pm – Lori Glaze interview with NBC's Tom Costello via Zoom

Social Media ActivitY

Agency

·Live coverage of Administrator Nelson's testimony before the House Science Committee on NASA's FY2022 Budget will air beginning at 10 a.m. EDT. Programming will air on NASA TV, the NASA App, nasa.gov/live and will be promoted on flagship social media accounts.

·Women@NASA posts with flagship amplification to commemorate science fiction author Octavia E. Butler's birthday. In March, NASA named the landing site of the Perseverance rover "Octavia E. Butler Landing," after the author.

Solar System and Beyond

·Flagship social media accounts will amplify posts for the Ask an Astrobiologist live show featuring Goddard scientist Heather Graham. The program will stream live at 1 p.m. EDT to the NASA Astrobiology Facebook page.

Other

·NASA Knowledge: The Golden Record in English / Johnson

HQ Products

Release

·[TENTATIVE] RFI Public Meeting Registration

oInformation on how to register for the June 29 Mission Equity RFI event

Media Advisory

·NASA to Air Third Spacewalk to Install New Station Solar Arrays

·Northrop Grumman CRS-15 departure coverage advisory

Contract Release

·[TENTATIVE] NASA Extends Cyclone Global Navigation Satellite System Mission Contract (notifications complete; held from Monday)

·4 pm – Contract Mechanical Integration Services and Technologies (MIST) II contract (held from Monday)

Center Products

Blog Post

·10 am – Artemis I LVSA Foaming and Integration / Kennedy

oBlog post on Artemis I Launch Vehicle Stage Adapter (LVSA) will be mated atop the core stage upon completion of thermal protection system (TPS) foaming.

·2 pm – Ingenuity Flight 8 Recap / JPL

oOperations lead Teddy Tzanetos recaps the flight from Sunday, June 20.

Image/Video

·UTM close-out image feature / Ames

oA multi-image feature marks the close-out of the Unmanned Aircraft Systems Traffic Management project, or UTM. One photo is featured from each year of testing for the four technical capability levels achieved.

Web Articles

·10 am – EPSCoR Feature / Kennedy

oFeature highlighting NASA's Established Program to Stimulate Competitive Research program with an overview of two of the recently funded projects.

·1:30 pm -- A Perseverance Scientist's Favorite Image from Jezero Crater / JPL

oAs part of an occasional series, a Perseverance scientist offers details on her favorite image of Jezero Crater. First up is an image of a feature called Delta Scarp.

Attachment

1. DAILY REPORT 06-22-2021.docx

Type: application/vnd.openxmlformats-officedocument.wordprocessingml.document
Size: 44 KB (45,747 bytes)

Attachment #1

DAILY REPORT 06-22-2021.docx

Original view

3 pages (displayed on pages 6 to 8)

NASA Communications Daily Report

Tuesday, June 22

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Daily Report for Tuesday, June 29

From: Potter, Sean (HQ-NA020) <sean.potter@nasa.gov>
Sent: June 29, 2021 7:53:23 AM EDT
Received: June 29, 2021 7:53:47 AM EDT
Attachments: DAILY REPORT 06-29-2021.docx

Good morning.

Attached and below is today's Communications Daily Report.

Thank you,

Sean Potter

NASA Communications Daily Report

Tuesday, June 29

Activities

·9 am – Sen. Nelson at Best Places to Work Event

·9 am to 1 pm – CBS Sunday Morning News Interview at JPL on Drought in West

oThe interview will be with hydrologist JT Reager.

·10:30 am – Sen. Nelson Interview with Bloomberg TV on commercialization

·10:30 to 11 am – Phil McAlister, director of commercial spaceflight development, interview with AP's Marcia Dunn about the agency's efforts to grow a strong low-Earth orbit economy

·11 am – Sen. Nelson records NASA Science Live video for Asteroid Day and KSC Indian River Bridge video

·11 am to 1 pm – Kathy Lueders Artemis update to National Academy of Engineering

·12:25 pm – Northrop Grumman CRS-15 Cygnus departure from International Space Station; live coverage on NASA TV begins at 12 pm.

·2:00 pm – Sen. Nelson Interview with Discovery on UAP report

·7:27 pm – Progress 78 launch from Baikonur Cosmodrome in Kazakhstan; live coverage on NASA TV begins at 7 pm

·Astronaut Mike Barratt for 16th Annual Space Life Sciences Summer Institute in Houston

·Launch of SpaceX Transporter-2 with NASA CubeSats

oSpaceX Transporter-2 rideshare mission will launch from Cape Canaveral Space Force Station in Florida. Includes the TROPICS pathfinder CubeSat, as well as two technology demonstration missions – PACE-1, and TILE-3, that will fly on CubeSat platforms.

·Webb presentations at the European Astronomical Society

·Anniversary: Launch of first nuclear powered satellite (Transit 4A) (1961)

Social Media Activity

Agency

·Pride Month – New edition of Faces of NASA web feature released for Pride month.

Humans in Space

·Live coverage of the release of the Northrop Grumman “SS Katherine Johnson” Cygnus Cargo Craft from the International Space Station is scheduled for release at 12:25 pm. Coverage will be airing on NASA TV, the NASA App, nasa.gov/live and NASA flagship social media accounts.

·Live coverage of the launch of the ISS Progress 78 Cargo Ship to the International Space Station from the Baikonur Cosmodrome in Kazakhstan launch scheduled for 7:27 pm, airing on NASA TV, the NASA App, and nasa.gov/live.

Moon to Mars

·Flagship social media accounts will share communications products for the conclusion of the Purposeful Passengers – Name the Artemis Moonikin Challenge. Products include a news release and a Tumblr post.

Space Tech

·Flagship will amplify Space Tech social media products surrounding the newest edition of NASA’s Software catalog.

NASA Television

On Air

·12 pm – Coverage of the Release of the Northrop Grumman “SS Katherine Johnson” Cygnus Cargo Craft from the International Space Station (release scheduled at 12:25 p.m. EDT)

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In Production

·10:30 am – Sen. Nelson interview with Bloomberg

·11 am – Record Teleprompter Message for NASA Science Live

·11:15 am – Record Teleprompter Message for Indian River Bridge Award

·2 pm – Sen. Nelson interview with Discovery

HQ Products

Release

·Best Place to Work Results

·Available for Download, NASA Software Benefits Earth

oNASA's computational innovations are readily available for applications beyond space, including benefiting our home planet. The agency's latest software catalog has dozens of new codes available for free download.

·Public Names 'Moonikin' Flying Around Moon on NASA's Artemis I Mission

Web Article

·9 am – After 60 Years, Nuclear Power for Spaceflight is Still Tried and True

oSix decades after the launch of the first nuclear-powered space mission, Transit IV-A, NASA is embarking on a bold future of human exploration and scientific discovery. This future builds on a proud history of safely launching and operating nuclear-powered missions in space.

·11 am – Abnormally High Alcohol, Mystery Heat Source Detected on Comet Wirtanen

oA study using Keck Observatory data finds that Comet 46P/Wirtanen was releasing an unusual amount of alcohol as it made its historic flyby of Earth two and a half years ago.

·12 pm – Black Holes Make Tsunamis in Computer Simulations

Center Products

Blog Post

·3 pm – ELaNa 33 CubeSat Deployment / Kennedy

oThe ELaNa 33 CubeSat IT-SPINS, created by Montana State University, will deploy after the NG-15 Cygnus spacecraft undocks from the ISS.

·[TENTATIVE] Ingenuity Flight 9 Preview / JPL

oIngenuity chief pilot Havard Grip looks ahead at what could be an ambitious next flight.

Web Articles

·11 am – Scientists Closer to Explaining Mars Methane Mystery / Goddard

oScientists closer to settling the question: Why do some instruments detect methane on Mars while others don't?

·12 pm – Evergreen story about PACE series of CubeSat missions / Ames (held from Monday)

oEvergreen webpage about the Payload Accelerator for CubeSat Endeavors, or PACE, initiative's series of missions. The timing of the feature is tied to the launch of the first mission, PACE-1, on SpaceX's Transporter-2 rideshare mission.

·[TENTATIVE] 3:30 pm – NASA Launches First of Six Tiny Satellites to Keep a Near-constant Eye / Goddard

oNASA launched a test satellite or Pathfinder, ahead of a constellation of six small satellites that will work together to provide near hourly updates of hurricanes and tropical cyclones. Also tied to Transporter-2 rideshare launch.

·Endowing Satellite Swarms With a Hive Mind / Goddard

oUsing machine learning, swarms of SmallSats buzzing around Earth could coordinate amongst themselves to collect data on important weather patterns at different times of the day or year, and from multiple angles. Such swarms could revolutionize scientists' understanding of weather and climate changes.

·NASA Satellites See Climate-Driven Upper Atmosphere Cooling and Shrink / Goddard

oThe sky isn't falling, but scientists have found the upper atmosphere is gradually dropping in response to rising human-produced greenhouse gas emissions. Combined data from three NASA satellites have produced the first long-term record that reveals a particular layer of the atmosphere, the mesosphere, is both cooling and shrinking.

Attachment

1. DAILY REPORT 06-29-2021.docx

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Original view

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 - The interview will be with hydrologist JT Reager.
- 10:30 am – Sen. Nelson Interview with Bloomberg TV on commercialization
- 10:30 to 11 am – Phil McAlister, director of commercial spaceflight development, interview with AP's Marcia Dunn about the agency's efforts to grow a strong low-Earth orbit economy
- 11 am – Sen. Nelson records NASA Science Live video for Asteroid Day and KSC Indian River Bridge video
- 11 am to 1 pm – Kathy Lueders Artemis update to National Academy of Engineering
- 12:25 pm – Northrop Grumman CRS-15 Cygnus departure from International Space Station; live coverage on NASA TV begins at 12 pm.
- 2:00 pm – Sen. Nelson Interview with Discovery on UAP report
- 7:27 pm – Progress 78 launch from Baikonur Cosmodrome in Kazakhstan; live coverage on NASA TV begins at 7 pm
- Astronaut Mike Barratt for 16th Annual Space Life Sciences Summer Institute in Houston
- Launch of SpaceX Transporter-2 with NASA CubeSats
 - SpaceX Transporter-2 rideshare mission will launch from Cape Canaveral Space Force Station in Florida. Includes the TROPICS pathfinder CubeSat, as well as two technology demonstration missions – PACE-1, and TILE-3, that will fly on CubeSat platforms.
- Webb presentations at the European Astronomical Society
- Anniversary: Launch of first nuclear powered satellite (Transit 4A) (1961)

SOCIAL MEDIA ACTIVITY

Agency

- Pride Month – New edition of Faces of NASA web feature released for Pride month.

Humans in Space

- Live coverage of the release of the Northrop Grumman “SS Katherine Johnson” Cygnus Cargo Craft from the International Space Station is scheduled for release at 12:25 pm. Coverage will be airing on NASA TV, the NASA App, nasa.gov/live and NASA flagship social media accounts.
- Live coverage of the launch of the ISS Progress 78 Cargo Ship to the International Space Station from the Baikonur Cosmodrome in Kazakhstan launch scheduled for 7:27 pm, airing on NASA TV, the NASA App, and nasa.gov/live.

Moon to Mars

- Flagship social media accounts will share communications products for the conclusion of the Purposeful Passengers – Name the Artemis Moonikin Challenge. Products include a news release and a Tumblr post.

Space Tech

- Flagship will amplify Space Tech social media products surrounding the newest edition of NASA's Software catalog.

NASA TELEVISION

On Air

- 12 pm – Coverage of the Release of the Northrop Grumman "SS Katherine Johnson" Cygnus Cargo Craft from the International Space Station (release scheduled at 12:25 p.m. EDT)
- 7 pm – Coverage of the Launch of the ISS Progress 78 Cargo Ship to the International Space Station from the Baikonur Cosmodrome in Kazakhstan (Launch scheduled at 7:27 p.m. EDT)

In Production

- 10:30 am – Sen. Nelson interview with Bloomberg
- 11 am – Record Teleprompter Message for NASA Science Live
- 11:15 am – Record Teleprompter Message for Indian River Bridge Award
- 2 pm – Sen. Nelson interview with Discovery

HQ PRODUCTS

Release

- Best Place to Work Results
- Available for Download, NASA Software Benefits Earth
 - NASA's computational innovations are readily available for applications beyond space, including benefiting our home planet. The agency's latest software catalog has dozens of new codes available for free download.
- Public Names 'Moonikin' Flying Around Moon on NASA's Artemis I Mission

Web Article

- 9 am – After 60 Years, Nuclear Power for Spaceflight is Still Tried and True
 - Six decades after the launch of the first nuclear-powered space mission, Transit IV-A, NASA is embarking on a bold future of human exploration and scientific discovery. This future builds on a proud history of safely launching and operating nuclear-powered missions in space.
- 11 am – Abnormally High Alcohol, Mystery Heat Source Detected on Comet Wirtanen
 - A study using Keck Observatory data finds that Comet 46P/Wirtanen was releasing an unusual amount of alcohol as it made its historic flyby of Earth two and a half years ago.
- 12 pm – Black Holes Make Tsunamis in Computer Simulations

CENTER PRODUCTS

Blog Post

- 3 pm – ELaNa 33 CubeSat Deployment / Kennedy
 - The ELaNa 33 CubeSat IT-SPINS, created by Montana State University, will deploy after the NG-15 Cygnus spacecraft undocks from the ISS.
- [TENTATIVE] Ingenuity Flight 9 Preview / JPL
 - Ingenuity chief pilot Havard Grip looks ahead at what could be an ambitious next flight.

Web Articles

- 11 am – Scientists Closer to Explaining Mars Methane Mystery / Goddard
 - Scientists closer to settling the question: Why do some instruments detect methane on Mars while others don't?
- 12 pm – Evergreen story about PACE series of CubeSat missions / Ames (*held from Monday*)
 - Evergreen webpage about the Payload Accelerator for CubeSat Endeavors, or PACE, initiative's series of missions. The timing of the feature is tied to the launch of the first mission, PACE-1, on SpaceX's Transporter-2 rideshare mission.
- [TENTATIVE] 3:30 pm – NASA Launches First of Six Tiny Satellites to Keep a Near-constant Eye / Goddard
 - NASA launched a test satellite or Pathfinder, ahead of a constellation of six small satellites that will work together to provide near hourly updates of hurricanes and tropical cyclones. Also tied to Transporter-2 rideshare launch.
- Endowing Satellite Swarms With a Hive Mind / Goddard
 - Using machine learning, swarms of SmallSats buzzing around Earth could coordinate amongst themselves to collect data on important weather patterns at different times of the day or year, and from multiple angles. Such swarms could revolutionize scientists' understanding of weather and climate changes.
- NASA Satellites See Climate-Driven Upper Atmosphere Cooling and Shrink / Goddard
 - The sky isn't falling, but scientists have found the upper atmosphere is gradually dropping in response to rising human-produced greenhouse gas emissions. Combined data from three NASA satellites have produced the first long-term record that reveals a particular layer of the atmosphere, the mesosphere, is both cooling and shrinking.

[EXTERNAL] Open Forum Digest for Friday July 16, 2021 to Sunday July 18, 2021

From: AIAA Engage <DoNotReply@ConnectedCommunity.org>
To: robert.d.cabana@nasa.gov, Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Sent: July 19, 2021 7:04:17 AM EDT
Received: July 19, 2021 7:09:43 AM EDT

1 new thread, 14 replies and 1 library entry from 9 authors in the "Open Forum" community ... Commercial Space Station Development Proposals...UFO/UAPs ...

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Jul 16, 2021 - Jul 18, 2021

Discussions

started 2 days ago, Steven Sidorek

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Commercial Space Station Development Proposals Sought by NASA

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>

1.

The agency has published a request for proposals... <#m0> Steven Sidorek

started 3 days ago, Paul Murad

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2.

I was not part of these discussions last year,... <#m1> Robert Fink

3.

Paul, Unfortunately, I don't see the recent... <#m2> Eric Dorward

4.

Comparing the 1960's Blue Book conclusions with... <#m3> Rene Rezende

5.

Hello Everyone, We will be having a 4-hour... <#m4> Nijo Abraham

6.

Nijo, thanks for the heads up About the event... <#m5> Rene Rezende

7.

To the degree that such phenomena do not appear... <#m6> James Felder

8.

Thank you for your honesty. I wonder what you... <#m7> Paul Murad

9.

I too would want to know as well about this... <#m8> Paul Murad

10.

Hello Rene and Paul, You can access the... <#m9> Nijo Abraham

11.

Not yet. "Belief" is the wrong word. It implies... <#m10> Craig Nordeen

12.

This is part of the problem. It would be nice... <#m11> Paul Murad

13.

Paul, No one is making any determinations on... <#m12> Eric Dorward

14.

Nijo, thanks for the information about the... <#m13> Rene Rezende

started 3 years ago, Kristen Parody

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15.

Hi everyone! I'm located in the Los... <#m14> Elliot Stiglic

top <#toca>

next <#m1>

1.

Commercial Space Station Development Proposals Sought by NASA

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Jul 16, 2021 9:27 AM

Steven Sidorek

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The agency has published a request for proposals for its Commercial Low Earth Orbit Development program, which will provide funding for initial studies of commercial space stations that could ultimately be used by NASA and other customers. Proposals are due 26 August.

sam.gov/opp/2f2eacc157274cd6a3d134f25b1c4505/view

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Steve Sidorek

Director, Public Policy & Government Relations
American Institute of Aeronautics and Astronautics

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Jul 16, 2021 7:59 AM

Robert Fink

<<https://gcc02.safelinks.protection.outlook.com/?url=https://engage.aiaa.org/network/members/profile?UserKey=ad095e2c-0969-4bf8-9ae4-28308677c4b8&data=04|01|robert.d.cabana@nasa.gov|39215b5f13e7475db58308d94aa5b4ab|7005d45845be48ae8140d43da96dd17b|0|0|637622897840031903|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTil6Ik1haWwiLCJXVCi6Mn0=|2000&sdata=UmtTUVbtDdlHHL/TCetMAR3gLcwr3Q7xBv9o7RFHuqo=&reserved=0>>

I was not part of these discussions last year, but I am a "non-believer" as you describe and the released videos of the F/A-18 footage is very unconvincing, and to me, uninteresting. In my opinion, this whole UAP/UFO thing is ultimately what in today's parlance is called a "nothing-burger, as in nothing to see here, move on.

Sorry if this response disappoints you, but it's honest and direct.

Robert Fink
Home address
Charleston SC
(321)626-7532

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Sent: 15 Jul, 2021 08:12

From: Paul Murad

Subject: UFO/UAPs

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Paul Murad
Retired
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703 759 2028

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Jul 16, 2021 8:09 AM

Eric Dorward

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Paul,

Unfortunately, I don't see the recent government report/data dump shedding any real light on the issue. It's pretty clear there are some kind of unexplained aerial phenomena, but that's pretty much the extent of what we can say for certain. We're left in pretty much the same place we were prior to the government report's release - a lot of video and no tangible evidence. The most plausible explanation is still that these UAPs are optical effects and not anything physical. Pretty much every other conclusion falls to Occam's Razor and extraordinary claims require extraordinary proof. Exploring the phenomena for the sake of curiosity is great, but sometimes reality isn't terribly exciting.

Eric Dorward
STEM Educator
York, PA

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Jul 16, 2021 9:49 AM

Rene Rezende

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Comparing the 1960's Blue Book conclusions with the latest, 2021, Pentagon report outputs brings us some interesting results.

The Blue Book comes to the conclusion that UFO was not placing the US national security in danger. That single topic prevented serious cash flow into funding any UFO study, now UAP, for half a century. If it were not for privately funded organizations, TV shows, and conspiracy theories supporters, the UFO phenomenon would have faded away. But, it didn't go away.

The 2021 report represents a 180-degree change in course, as compared with its 60's counterpart. The latest report recognizes that UFO/UAP is real, even if its nature is not fully understood. But the most important conclusion offered by the report is linked to placing UFO/UAP as something that affects the US national security and represents a danger to commercial aviation. Because of that, whoever wrote the report asks for a little money to develop better sensors to study UFOs. The UFO/UAP community couldn't wish for a better outcome.

Now, it remains to be seen if any money at all would be allocated to UFO/UAP studies.

Before closing, please remember that UFO/UAP has nothing to do with ET, at least until extraordinary evidence is presented.

Rene Rezende
Technical Director
Inotech
Long Branch NJ
9124016453

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Paul Murad
Retired
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Nijo Abraham

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Hello Everyone,

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See attached file for details.

Title: Advocating for Scientific Study of Unidentified Aerial Phenomenon – Technical Perspective with focus on

Aviation Safety
Date: Friday, Aug 6th
Time: 11:15 am - 3:15 pm EST
Venue: Virtual AVIATION conference

I hope you will all attend with an open mind, and be ready with questions.

Nijo Abraham
Design Engineering Technical Committee

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Original Message:
Sent: 16 Jul, 2021 09:48
From: Rene Rezende
Subject: UFO/UAPs

Comparing the 1960's Blue Book conclusions with the latest, 2021, Pentagon report outputs brings us some interesting results.

The Blue Book comes to the conclusion that UFO was not placing the US national security in danger. That single topic prevented serious cash flow into funding any UFO study, now UAP, for half a century. If it were not for privately funded organizations, TV shows, and conspiracy theories supporters, the UFO phenomenon would have faded away.

But, it didn't go away.

The 2021 report represents a 180-degree change in course, as compared with its 60's counterpart. The latest report recognizes that UFO/UAP is real, even if its nature is not fully understood. But the most important conclusion offered by the report is linked to placing UFO/UAP as something that affects the US national security and represents a danger to commercial aviation. Because of that, whoever wrote the report asks for a little money to develop better sensors to study UFOs. The UFO/UAP community couldn't wish for a better outcome.

Now, it remains to be seen if any money at all would be allocated to UFO/UAP studies.

Before closing, please remember that UFO/UAP has nothing to do with ET, at least until extraordinary evidence is presented.

Rene Rezende
Technical Director
Inotech
Long Branch NJ
9124016453

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Jul 16, 2021 11:49 AM

Rene Rezende
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Nijo, thanks for the heads up

About the event "Advocating for Scientific Study of Unidentified Aerial Phenomenon – Technical Perspective with focus on Aviation Safety".

Would you mind letting me know how to apply to attend this event?

Thanks

Rene Rezende
Technical Director
Inotech
Long Branch NJ
9124016453

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Original Message:
Sent: 16 Jul, 2021 10:05
From: Nijo Abraham
Subject: UFO/UAPs

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Nijo Abraham
Design Engineering Technical Committee

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Jul 16, 2021 12:35 PM

James Felder

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To the degree that such phenomena do not appear to violate the laws of physics, then they should be investigated vigorously like any other incursion of the national airspace. Observations that appear to violate the known laws of physics such as extremely high acceleration, or reactionless movement (i.e. no exhaust) and for which there is only a visual observation from a single viewpoint should be logged, but I don't think they merit exhaustive investigation since single viewpoint observations (even if recorded) can not determine distance nor can they distinguish between reflections and refractions any better than the human eye. As such parsimony says such single viewpoint visual light observations are almost certainly optical distortions that are entirely within the known optics of the atmosphere in the presence of thermal gradients, especially sharp gradients due to thermal inversions, rather than taken as evidence of technology, human or not, that far exceeds what is known in the general scientific community.

Now what would be very interesting is if there were multiple simultaneous and well spaced video recordings of a UAP performing maneuvers that appear to violate the known laws of physics. Background objects in the video would allow the physical coordinates of each camera to be established. Also any frame of the video which included the UAP and background objects would allow a vector to the object from the camera to be determined (those frames with just the object in them are useless, so a suggestion to everybody who ever pulls their phone out to record one of these phenomena, always keep buildings or terrain visible along with the UAP even if you have to zoom OUT to do so. The important information you are capturing isn't the size and shape of the object, but where it is in relation to stationary objects).

Synchronizing the multiple video recordings would allow the 3-D location of the object versus time to be determined. From there it would be straightforward to calculate acceleration rates and object speed. If there is enough resolution in any of the videos to determine the object size (So OK briefly zoom in to the limits of the optical zoom of your device to try to get more visual information about the size and shape of the object, but immediately zoom back out to get stationary objects in frame), then for a reasonable estimates of overall density (+/- 50% of high speed aircraft?), the weight of the object can be estimated. And from estimates of weight and acceleration the the instantaneous power and total energy required to perform the maneuvers can be calculated.

If from such an observation it was shown conclusively that the UAP was say performing maneuvers requiring thousands of g of acceleration and requiring gigawatts of power to perform, then we can start to say that this is technology far beyond known technology, and either there are organizations here on earth that have achieved massive advancements in technology and managed to keep it mostly secret (other than taking their super-secret craft out for joy-rides where it can be seen by the general public), or it is extraterrestrial origin.

James Felder
NASA Glenn Research Center
Westlake OH
(216)433-3956

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Original Message:

Sent: 15 Jul, 2021 08:12

From: Paul Murad

Subject: UFO/UAPs

All:

Last year or so ago, I was involved with several heated discussions concerning UFO/UAPs. I would be curious if the non-believers now believe based upon the F/A-18 sensor responses.

We should always keep an open but not an empty mind and look toward finding solutions to realistic anomalies to satisfy our curiosity....

P.A. Murad, AIAA AF.

Paul Murad
Retired
Vienna VA
703 759 2028

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8.

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Jul 16, 2021 1:37 PM

Paul Murad

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Thank you for your honesty.

I wonder what you really know or feel about based upon any evidence on any subject?

P.A. Murad. AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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Original Message:

Sent: 16 Jul, 2021 07:59

From: Robert Fink

Subject: UFO/UAPs

I was not part of these discussions last year, but I am a "non-believer" as you describe and the released videos of the F/A-18 footage is very unconvincing, and to me, uninteresting. In my opinion, this whole UAP/UFO thing is ultimately what in today's parlance is called a "nothing-burger, as in nothing to see here, move on.

Sorry if this response disappoints you, but it's honest and direct.

Robert Fink
Home address
Charleston SC
(321)626-7532

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9.

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Jul 16, 2021 2:03 PM

Paul Murad

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I too would want to know as well about this meeting assuming I am invited...

Regarding how the situation started, I would believe that a classified meeting between Einstein and Oppenheimer in 1947 set the tone for UFOs. The issue is that they appeared to be benign, politically aligned with an agenda, but there was absolutely nothing we could do about it. In other words, our weapon systems were totally useless.

What disappoints me is that the lack of curiosity based upon some of the responses. For example, we cannot generate a vehicle capable of hundreds of accelerations from one altitude to another, travel near orbital speed while at sea, level or trans leave the atmosphere to travel underwater at significant speeds that we could not achieve. These are all common behavior and yet, our understanding and physical laws are wanting. Moreover, how do we depend upon traveling at reasonable times to go to, say Mars, or do we write off all of this because we think we know what we know?

If we did that, we would have never gone to the moon! We would have never done anything that produced something of value.

The lack of curiosity within this generation makes me wonder if there is anything worth doing and this should be an AIAA concern!

P.A. Murad AIAA AF

Paul Murad

Retired
Vienna VA
703 759 2028

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Original Message:

Sent: 16 Jul, 2021 11:48
From: Rene Rezende
Subject: UFO/UAPs

Nijo, thanks for the heads up

About the event "Advocating for Scientific Study of Unidentified Aerial Phenomenon – Technical Perspective with focus on Aviation Safety".

Would you mind letting me know how to apply to attend this event?

Thanks

Rene Rezende
Technical Director
Inotech
Long Branch NJ

9124016453

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10.

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Jul 17, 2021 2:41 AM

Nijo Abraham

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Hello Rene and Paul,

You can access the session by registering for the AVIATION conference at www.aiaa.org/aviation/registration
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Once you register, you'll receive a confirmation email along with a second email with instructions to access the virtual platform.

The link to the UAP session will be within the virtual platform.

James,

Within the UAP session on Friday, Aug 6th, the second presentation titled "The Flight Characteristics and Physics of UAP" and the third presentation "Anomalous Aerodynamic Physics demonstrated by the 2004 USS Nimitz UAP Encounter", will include analyses that provide an estimated range of velocity, acceleration, and power requirements.

We hope you will all register for the conference, attend the UAP session, and participate in the discussion.

Nijo Abraham
Design Engineering Technical Committee

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>

Original Message:
Sent: 16 Jul, 2021 12:34
From: James Felder
Subject: UFO/UAPs

To the degree that such phenomena do not appear to violate the laws of physics, then they should be investigated vigorously like any other incursion of the national airspace. Observations that appear to violate the known laws of physics such as extremely high acceleration, or reactionless movement (i.e. no exhaust) and for which there is only a visual observation from a single viewpoint should be logged, but I don't think they merit exhaustive investigation since single viewpoint observations (even if recorded) can not determine distance nor can they distinguish between reflections and refractions any better than the human eye. As such parsimony says such single viewpoint visual light observations are almost certainly optical distortions that are entirely within the known optics of the atmosphere in the presence of thermal gradients, especially sharp gradients due to thermal inversions, rather than taken as evidence of technology, human or not, that far exceeds what is known in the general scientific community.

Now what would be very interesting is if there were multiple simultaneous and well spaced video recordings of a UAP performing maneuvers that appear to violate the known laws of physics. Background objects in the video would allow the physical coordinates of each camera to be established. Also any frame of the video which included the UAP and background objects would allow a vector to the object from the camera to be determined (those frames with just the object in them are useless, so a suggestion to everybody who ever pulls their phone out to record one of these phenomena, always keep buildings or terrain visible along with the UAP even if you have to zoom OUT to do so. The important information you are capturing isn't the size and shape of the object, but where it is in relation to stationary objects).

Synchronizing the multiple video recordings would allow the 3-D location of the object versus time to be determined. From there it would be straightforward to calculate acceleration rates and object speed. If there is enough resolution in any of the videos to determine the object size (So OK briefly zoom in to the limits of the optical zoom of your device to try to get more visual information about the size and shape of the object, but immediately zoom back out to get stationary objects in frame), then for a reasonable estimates of overall density (+/- 50% of high speed aircraft?), the weight of the object can be estimated. And from estimates of weight and acceleration the the instantaneous power and total energy required to perform the maneuvers can be calculated.

If from such an observation it was shown conclusively that the UAP was say performing maneuvers requiring thousands of g of acceleration and requiring gigawatts of power to perform, then we can start to say that this is technology far beyond known technology, and either there are organizations here on earth that have achieved massive advancements in technology and managed to keep it mostly secret (other than taking their super-secret craft out for joy-rides where it can be seen by the general public), or it is extraterrestrial origin.

James Felder
NASA Glenn Research Center
Westlake OH
(216)433-3956

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Jul 17, 2021 10:47 AM

Craig Nordeen

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Not yet.

"Belief" is the wrong word. It implies an acceptance of something without evidence. And currently implies an acceptance of reality beyond our understanding.

So far, there is only the general recognition that there is something worthy of study. The videos themselves, have been certified by the DOD as real. What they show is still undefined. I have seen no thorough explanation of why these show objects beyond our ken, as distinct from electronic chaff or mis-identification of normal phenomena. There are articles and videos arguing both. And experts.

So far, nothing at the level of a scientific paper such as we are used to seeing in AIAA. One with peer review and measured thought behind it.

No extraordinary proof yet to back up these extraordinary claims.

Craig Nordeen

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Original Message:

Sent: 15 Jul, 2021 08:12

From: Paul Murad

Subject: UFO/UAPs

All:

Last year or so ago, I was involved with several heated discussions concerning UFO/UAPs. I would be curious if the non-believers now believe based upon the F/A-18 sensor responses.

We should always keep an open but not an empty mind and look toward finding solutions to realistic anomalies to satisfy our curiosity....

P.A. Murad, AIAA AF.

Paul Murad
Retired
Vienna VA
703 759 2028

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Jul 17, 2021 4:40 PM

Paul Murad

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This is part of the problem.

It would be nice for someone to explain what is going on but if we do not know or understand, we, therefore, can make the determination that it does not exist due to our lack of understanding....

The issue is if there is an unknown and the evidence exists that there is something of unusual behavior, do we intellectually fold, or do we try to explain the unknown.

It is by far easier to ignore the unknown but then where are you going? This requires intellectual bravery. For example, explain these events based upon our known knowledge. Are the results of your conventional wisdom pleasing?

P.A. Murad AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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Original Message:

Sent: 17 Jul, 2021 10:47

From: Craig Nordeen

Subject: UFO/UAPs

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13.

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Jul 17, 2021 5:12 PM

Eric Dorward

<<https://gcc02.safelinks.protection.outlook.com/?url=https://engage.aiaa.org/network/members/profile?UserKey=18f83a8c-1a7c-49ff-ba25-7931f42eaaf1&data=04|01|robert.d.cabana@nasa.gov|39215b5f13e7475db58308d94aa5b4ab|7005d45845be48ae8140d43da96dd17b|0|0|637622897840549636|Unknown|TWFPbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQlloiV2luMzliLCJBTiI6lk1haWwiLCJXVCI6Mn0=|2000&sdata=5sTvHmLHRFVnQakvqGomuoBsB/5iYwpDontMzCvzUcE=&reserved=0>>

Paul,

No one is making any determinations on whether or not UAPs are actual air- or spacecraft - that's the entire point. The burden of proof is on the person making the positive claim (ie, you) and there isn't any extraordinary evidence to support the extraordinary claim that UAPs are vehicles capable of astonishing flight performance. Failing that evidence, the simplest explanation tends to be the best, which in this case is that UAPs are not vehicles but some kind of optical effects or other non-extraordinary events. Can I prove that? No, but I don't need to, it's not my responsibility. Is it pleasing? Sure, why not? If UAPs are illusions, that doesn't mean aliens don't exist or interstellar flight isn't possible. It just means there isn't proof yet.

Personally, I find your claims that skeptics lack bravery out of place. When you say we should be investigating the technologies necessary to make UAPs fly the way they do, you're assuming facts not in evidence (that UAPs are indeed vehicles). If you're willing to make that leap of faith, fine, but acknowledge it for what it is. It isn't cowardly to reject extraordinary claims without extraordinary evidence - it's the scientific method. Further, it isn't necessary to make that leap of faith to be interested in turning science fiction into science fact. I know the starship Enterprise isn't real, but I can still be interested in how we might develop the technology seen on the show. There's nothing mutually exclusive about curiosity and skepticism.

Eric Dorward
STEM Educator
York, PA

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Original Message:
Sent: 17 Jul, 2021 16:39
From: Paul Murad
Subject: UFO/UAPs

This is part of the problem.

It would be nice for someone to explain what is going on but if we do not know or understand, we, therefore, can make the determination that it does not exist due to our lack of understanding....

The issue is if there is an unknown and the evidence exists that there is something of unusual behavior, do we intellectually fold, or do we try to explain the unknown.

It is by far easier to ignore the unknown but then where are you going? This requires intellectual bravery. For example, explain these events based upon our known knowledge. Are the results of your conventional wisdom pleasing?
P.A. Murad AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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14.

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Jul 18, 2021 7:41 PM

Rene Rezende

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Nijo, thanks for the information about the conference.

By the way, I was already registered, as I will be presenting two papers.

One is linked to a literature review due on August 10th, with the title "The literature behind a liquid rocket engine design methodology" and the second one will be presented on August 13th, at EATS-21, and it deals with "General Aviation Electrification: Challenges on the transition to new technologies"

Best regards

Rene Nardi

Rene Rezende
Technical Director
Inotech
Long Branch NJ
9124016453

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Original Message:

Sent: 17 Jul, 2021 02:41
From: Nijo Abraham
Subject: UFO/UAPs

Hello Rene and Paul,

You can access the session by registering for the AVIATION conference at www.aiaa.org/aviation/registration
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Once you register, you'll receive a confirmation email along with a second email with instructions to access the virtual platform.

The link to the UAP session will be within the virtual platform.

James,

Within the UAP session on Friday, Aug 6th, the second presentation titled "The Flight Characteristics and Physics of UAP" and the third presentation "Anomalous Aerodynamic Physics demonstrated by the 2004 USS Nimitz UAP Encounter", will include analyses that provide an estimated range of velocity, acceleration, and power requirements.

We hope you will all register for the conference, attend the UAP session, and participate in the discussion.

Nijo Abraham
Design Engineering Technical Committee

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previous <#m13>

15.

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Jul 16, 2021 5:09 PM

Elliot Stiglic

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Hi everyone!

- I'm located in the Los Angeles, California area (work in El Segundo, live in Long Beach).
- I work at Raytheon Intelligence and Space, currently supporting the Worldview Legion polar-orbiting satellite imaging system. Our group builds the camera instrument ("Red Legion") which mounts to the satellite bus.
- I studied at California State University, Long Beach (CSULB). I did a dual major in Mechanical Engineering and Physics for my undergrad, and Physics for my M.S. I'm considering pursuing a doctorate in Systems Engineering; we'll see!
- I originally pursued engineering due to my passion for cars and motorcycles; however, after working with space sensors, I realized how interesting things can get once you have to deal with launching highly-sensitive electronics into space. It's tricky, complex, and fascinating!
That said, I still closely follow the automotive / motorcycle industry, and I love a good drive or motorcycle ride up the local canyon roads.

Good to meet you all virtually, and I'm sure I'll be seeing some of you at a conference soon!

-Elliot

Elliot Stiglic
Raytheon Intelligence & Space
El Segundo, CA

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Sent: 22 Jan, 2018 18:38

From: Kristen Parody

Subject: Introduce Yourself Here!

Hi there everyone,

Though some of you may already know one another, I wanted to give everyone an opportunity to introduce themselves and start making connections with other new members. Please take a moment to share something about who you are:

- Where are you located?
- Are you a student? An educator? A professional?
- Where did you study?
- What do you study? What kind of projects do you pursue?
- What do you love most about your field of expertise?
- The possibilities are endless--feel free to share anything you think other members might find interesting, funny, or otherwise noteworthy about yourself!

I can't wait to learn more about all of you!

Kristen Parody
Community Manager
AIAA

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[EXTERNAL] Open Forum Digest for Monday July 19, 2021

From: AIAA Engage <DoNotReply@ConnectedCommunity.org>
To: robert.d.cabana@nasa.gov, Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Sent: July 20, 2021 7:06:16 AM EDT
Received: July 20, 2021 7:07:00 AM EDT

1 new thread and 1 reply from 2 authors in the "Open Forum" community ... UFO/UAP ... Introduce Yourself Here! ...

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Jul 19, 2021

Discussions

started 18 hours ago, Paul Murad

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1.

All: Looks like the comfort level of a few... <#m0> Paul Murad

started 3 years ago, Kristen Parody

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2.

Hi All, My name is Mario Maggio, I am a young... <#m1> Mario Maggio

top <#toca>

next <#m1>

1.

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Jul 19, 2021 12:38 PM

Paul Murad

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All:

Looks like the comfort level of a few individuals needs to be examined further.

You can make all sorts of claims but then again, who can answer my original question that these things can be achieved with our conventional wisdom? In other words, go maneuver underwater several hundred miles per hour, perform large accelerations with altitude changes, and move at orbital velocity at sea level... How do you do these things?

Also, how can you make a judgment upon the FLIR data and radar itself? The future career of pilots would make them reluctant about UFOs. If this data is all false, and it seems to repeat itself, can the sensor data be ignored? I do not think so...

Dare I mention it but the conventional wisdom may be lacking and needs to be developed... and if so, how can you improve the conventional wisdom?

P.A. Murad AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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Jul 19, 2021 10:14 PM

Mario Maggio

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Hi All,

My name is Mario Maggio, I am a young professional in Houston, TX.

I received my BS in Aerospace Engineering at the University of Alabama (Roll Tide) and went on to CU Boulder to earn my Masters degree with a focus on Bioastronautics.

I am currently part of the Assembly and Integration team at Intuitive Machines building a lunar lander. In my spare time I am an avid runner and foodie, and aspiring chef.

Mario Maggio

Intuitive Machines

Houston TX

(610)329-0321 (610329032)

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Original Message:

Sent: 22 Jan, 2018 18:38

From: Kristen Parody

Subject: Introduce Yourself Here!

Hi there everyone,

Though some of you may already know one another, I wanted to give everyone an opportunity to introduce themselves and start making connections with other new members. Please take a moment to share something about who you are:

- Where are you located?
- Are you a student? An educator? A professional?
- Where did you study?
- What do you study? What kind of projects do you pursue?
- What do you love most about your field of expertise?
- The possibilities are endless--feel free to share anything you think other members might find interesting, funny, or otherwise noteworthy about yourself!

I can't wait to learn more about all of you!

Kristen Parody

Community Manager

AIAA

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[EXTERNAL] Open Forum Digest for Tuesday July 20, 2021

From: AIAA Engage <DoNotReply@ConnectedCommunity.org>
To: robert.d.cabana@nasa.gov, Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Sent: July 21, 2021 7:02:46 AM EDT
Received: July 21, 2021 7:02:52 AM EDT

2 new threads and 1 reply from 3 authors in the "Open Forum" community ... UFO/UAP ... Anchoring Company Search ... UFO/UAP ...

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Jul 20, 2021

Discussions

started 18 hours ago, Paul Murad

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1.

Marty: Yes. I have seen the ODNI Comments. I... <#m0> Paul Murad

started 19 hours ago, Ron Wilson

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(0 replies)

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2.

I am working with JPL on the Lunar Crater Radio... <#m1> Ron Wilson

started yesterday, Paul Murad

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(1 reply)

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3.

Hi Paul, Relative to UAP, did you happen to... <#m2> Martin Snow

top <#toca>

next <#m1>

1.

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Jul 20, 2021 12:09 PM

Paul Murad

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Marty:

Yes. I have seen the ODNI Comments. I also read the DIA reports as well as interact with these individuals.

This remains more than an enigma...

P.A. Murad AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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top <#toca>

previous <#m0>next <#m2>

2.

Anchoring Company Search

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Jul 20, 2021 11:27 AM

Ron Wilson

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I am working with JPL on the Lunar Crater Radio Telescope LCRT. I am researching anchoring systems for adhering LCRT with anchor points around the rim of a lunar crater. I am looking for a list or any names of companies that do any type or kind of anchoring, similar to harpoon systems like on the Rosetta mission or a mole or screw system like on Insight. Other innovative companies that specialize in mining of asteroids that have looked in to anchoring systems.

Thank you in advance

Ron Wilson

ronald.wilsona10@gmail.com

Ron Wilson

American Airlines

Sturgis MI

269-967-6233

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3.

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Jul 20, 2021 10:06 AM

Martin Snow

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Hi Paul,

Relative to UAP, did you happen to read the unclassified report published by the ODNI? This was followed by a Memorandum from the Dep. Secretary of Defense. It appears the military is taking the UAP incursions seriously and are making a pitch for standardized reporting across services as well as (of course) the need for additional funding.

A "gold nugget" in the ODNI report was the confirmation that the Air Force had started a new program to study/analyze UAP reports.

The ODNI report also stated they were only able to identify (with confidence) 1 out of 144 military generated UAP reports and acknowledged that some sightings exhibited advanced technology.

Marty

Martin Snow
Rochester NY
585-474-1479

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Original Message:

Sent: 19 Jul, 2021 12:37

From: Paul Murad

Subject: UFO/UAP

All:

Looks like the comfort level of a few individuals needs to be examined further.

You can make all sorts of claims but then again, who can answer my original question that these things can be achieved with our conventional wisdom? In other words, go maneuver underwater several hundred miles per hour, perform large accelerations with altitude changes, and move at orbital velocity at sea level... How do you do these things?

Also, how can you make a judgment upon the FLIR data and radar itself? The future career of pilots would make them reluctant about UFOs. If this data is all false, and it seems to repeat itself, can the sensor data be ignored? I do not think so...

Dare I mention it but the conventional wisdom may be lacking and needs to be developed... and if so, how can you improve the conventional wisdom?

P.A. Murad AIAA AF

Paul Murad

Retired

Vienna VA

703 759 2028

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[EXTERNAL] Open Forum Digest for Wednesday July 21, 2021

From: AIAA Engage <DoNotReply@ConnectedCommunity.org>
To: robert.d.cabana@nasa.gov, Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Sent: July 22, 2021 7:07:09 AM EDT
Received: July 22, 2021 7:07:15 AM EDT

2 new threads and 2 replies from 4 authors in the "Open Forum" community ... Small Satellite Mission of the Year Nominations ... Model Rocket Launch as Inspiration ...

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Jul 21, 2021

Discussions

started 11 hours ago, Giovanni Minelli

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Small Satellite Mission of the Year Nominations

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1.

Dear Colleagues, Please take a moment to... <#m0> Giovanni Minelli

started 15 hours ago, Jack Colpas

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Model Rocket Launch as Inspiration

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2.

Hi, If you are one of those people whose... <#m1> Jack Colpas

started 6 days ago, Paul Murad

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3.

My comfort level is just fine. We are the... <#m2> Craig Nordeen

started 3 years ago, Kristen Parody

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4.

Hello everyone, I am located in Wichita, Kansas... <#m3> Roger Merriman

top <#toca>

next <#m1>

1.

Small Satellite Mission of the Year Nominations

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BTil6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=0ILSWkTqC9ShPqYsctktOY2qDkFwl1VtQQCwFnRJOd0=&reserved=0>

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Jul 21, 2021 7:43 PM

Giovanni Minelli

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Dear Colleagues,

Please take a moment to nominate your favorite mission for the SmallSat 2021 Mission of the Year Award!

The AIAA Small Satellite Technical Committee invites nominations for candidates for this year's sixth annual SmallSat Mission of the Year Award. The deadline to nominate and "second" nominations is Friday, July 30th 2021.

How to nominate: You can email awards_chair@aiaa-smstc.org directly with your nomination (Mission name and a brief 1 paragraph description), or if you would like to submit recommendations anonymously or second a current nomination, please use: forms.gle/65N7ooLt5igMLrMe7

<https://gcc02.safelinks.protection.outlook.com/?url=https://urldefense.us/v3/_https://forms.gle/65N7ooLt5igMLrMe7_!!PvBDto6Hs4WbVuu7!YdUUk8pnZqW430p2EAJULvt15DmWQw_3q|VccTGxxcBAvSlf6rtpTZTEfiY0bqA31HJfSeVz\$&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361120944|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTil6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=p8GxV6M2llrJi1fORiGR/f5NiWiHdrPQ4ICYJt0Fg24=&reserved=0>. Nominees so far include ANDESITE, TechEdSat-10, DeMi, Capella (2, 3, 4, and 6 combined), ICEYE (X6, X7, X8, X9, and X10 combined), Lynk 04, and OSM 1 CICERO. Add your mission to the list!

The following databases may be useful:

1) [sites.google.com/a/slu.edu/swartwout/home/...](https://sites.google.com/a/slu.edu/swartwout/home/)

<https://gcc02.safelinks.protection.outlook.com/?url=https://urldefense.us/v3/_https://sites.google.com/a/slu.edu/swartwout/home/cubesat-database_!!PvBDto6Hs4WbVuu7!YdUUk8pnZqW430p2EAJULvt15DmWQw_3q|VccTGxxcBAvSlf6rtpTZTEfiY0bqA31KrMUvZH\$&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361120944|Unknown|TWFpbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTil6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=Ww0Y3OTSZK0pbLGzhgQc4uLkC3N1puWVllyYYT047I=&reserved=0>

2) space.skyrocket.de/doc_sat/cubesat.htm

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GiuzQmo\$&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361130902|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=A6nlujPFs8W3pj0RWaL2j7nLzChAfzDmxeZhjFPU9Q=&reserved=0>

Award Description: The Small Satellite Mission of the Year Award is presented annually to the mission that has demonstrated a significant improvement in the capability of small satellites. Eligible missions must have individual satellite wet mass of less than 150 kg, and must have launched, established communication, and have acquired results from on-orbit after January 1, 2020 00:00:00 UTC. To demonstrate "significant improvement," nominations must show innovation in: spacecraft structural design, scientific instrument development, communications capability, attitude determination and control capability, intersatellite coordination, constellation or cluster management, onboard computing, or other mission aspects. The judges may consider missions with earlier launch dates that had delayed ISS deployments or extensive on-orbit checkout periods, on a case-by-case basis.

Award Logistics: The AIAA Small Satellite Technical Committee will use your nominations to generate a short list of finalists. The finalists will be notified and their mission descriptions will be on the voting page that will be live at the opening of The Small Satellite Conference. The SmallSat Mission of the Year organizers will send an e-mail to conference attendees after the Pre-Conference Workshop with a link to the final voting webpage, asking the community to vote and rank the finalists. Voting is open to the public and not limited to Conference attendees and will close at 11:59 pm on Wednesday August 11th. The Small Satellite Technical Committee selects the winner, informed by the public vote. The winner will be announced at SmallSat on Thursday August 12th.

Your nominations will help us to capture the exciting innovations and achievements of the Small Satellite community. They will help to communicate the cutting-edge efforts of recent and ongoing missions and lead to interesting discussions that will educate both the experts and the newcomers to the community.

Thank you!

The AIAA SmSTC awards committee

Giovanni Minelli
Chair, AIAA Point Lobos Section
Naval Postgraduate School
(831)277-3466

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BTil6lk1haWwiLCJXVCi6Mn0=|1000&sdata=QfpzfsCNKITZzF1GeLxbMMQ5QmC0DYOQlqlbh/YWJ0=&reserved=0>
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2.

Model Rocket Launch as Inspiration

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Jul 21, 2021 3:55 PM

Jack Colpas

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BTil6lk1haWwiLCJXVCi6Mn0=|1000&sdata=NiBVSOcnqjWtAR/JixgWnwDluJ0pXUkt5Nf0zh/MShE=&reserved=0>

Hi,

If you are one of those people whose lives were influenced by launching a solid-fuel powered model rocket (probably Estes) as a kid, please let us know.

We want to share these stories on our website. RocketCompetition.com

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I'm Jack Colpas. My wife, Kathy and I founded and continue to direct the Reach for the Stars ~ National RocketCompetition. It is an annual event held since 2006 – Involving over 22,000 kids!

- Our goal is to give kids the unique educational experience of building & launching a solid-fuel powered model rocket.
- Our mission is to keep alive the memory of the first Teacher-in-Space, Christa McAuliffe.
- Our purpose is to foster an interest in STEM subjects (Science, Technology, Engineering, Math) and aeronautics.

Thanks,

Jack & Kathy

JackColpas
Reach for the Stars - National Rocket Competition
(941)955-3958

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epl to Community via Email <mailto:AIAA_openforum_0dd8f2ba-14ad-4431-92c5-c1d572555928@ConnectedCommunity.org?subject=Re: Model Rocket Launch as Inspiration>View Thread Online
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Jul 21, 2021 12:29 PM

Craig Nordeen

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My comfort level is just fine. We are the current state of a 4B year long running experiment and collectively forget that we live on the edge of an abyss.

My discomfort comes from not examining the assumptions behind the conclusions that these things are sentient tech comparable and superior to our own. It is a bit late, but a good start that the sightings now can be officially

documented properly. There is a long list of possibilities to work through, starting with the data itself. First, rule out spurious repeating signals. Microwave oven blamed for radio-telescope signals - Nature
<https://gcc02.safelinks.protection.outlook.com/?url=https://www.nature.com/articles/521129f?error=cookies_not_supported&code=dde74839-8e35-41b7-828d-01e439497cb2&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361220509|Unknown|TWFPbGZsb3d8eyJWlloiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=QXkkkYbPpdMuBpd4Bfh+QYU8da8qSK6dVgf9Fb9EP4o=&reserved=0>
As a legitimate repeating signal, it would be logical to be prepared for the next round of observation with a new set of eyes. E.g., multi-spectrum targeting scopes. Since these things emit EMR, a spectral analysis would speak volumes. it is within recent memory that many did not believe that some earth craters were caused by rocks falling from the sky. It took some hard work to prove it.
I look forward to the upcoming papers and presentations.

Craig Nordeen

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Original Message:
Sent: 19 Jul, 2021 12:37
From: Paul Murad
Subject: UFO/UAP

All:

Looks like the comfort level of a few individuals needs to be examined further.

You can make all sorts of claims but then again, who can answer my original question that these things can be achieved with our conventional wisdom? In other words, go maneuver underwater several hundred miles per hour, perform large accelerations with altitude changes, and move at orbital velocity at sea level... How do you do these things?

Also, how can you make a judgment upon the FLIR data and radar itself? The future career of pilots would make them reluctant about UFOs. If this data is all false, and it seems to repeat itself, can the sensor data be ignored? I do not think so...

Dare I mention it but the conventional wisdom may be lacking and needs to be developed... and if so, how can you improve the conventional wisdom?

P.A. Murad AIAA AF

Paul Murad
Retired
Vienna VA
703 759 2028

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Jul 21, 2021 8:51 AM

Roger Merriman

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Hello everyone,

I am located in Wichita, Kansas and am a professional (Sr. Flight Test Engineer) at Textron Aviation. I have a BS in Aerospace Engineering from Iowa State University, MBA from University of Colorado and just recently finished my PhD in Industrial Engineering at Wichita State University.

Currently in my new role in Flight Test Engineering, I am looking for new methods of testing so that we are not burning so much fuel testing the aircraft. I love that I get a bigger picture/systemic view of the airplane and the company within Flight Test Engineering.

Roger Merriman

Textron Aviation

Colwich KS

(316)573-8939

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18f163087bfd&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361280244|Unknown|TWfPbGZsb3d8eyJWljoimC4wLjAwMDAiLCJQljoiv2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=cfnftqdwr/DHTTr/thTqZayrSZCGp8u4coseu8ck1CXo=&reserved=0>

Original Message:

Sent: 22 Jan, 2018 18:38

From: Kristen Parody

Subject: Introduce Yourself Here!

Hi there everyone,

Though some of you may already know one another, I wanted to give everyone an opportunity to introduce themselves and start making connections with other new members. Please take a moment to share something about who you are:

- Where are you located?
- Are you a student? An educator? A professional?
- Where did you study?
- What do you study? What kind of projects do you pursue?
- What do you love most about your field of expertise?
- The possibilities are endless--feel free to share anything you think other members might find interesting, funny, or otherwise noteworthy about yourself!

I can't wait to learn more about all of you!

Kristen Parody
Community Manager
AIAA

You are subscribed to "Open Forum" as robert.d.cabana@nasa.gov. To unsubscribe or modify your community subscriptions, go to My Subscriptions

<<https://gcc02.safelinks.protection.outlook.com/?url=https://engage.aiaa.org/network/members/profile/myaccount/my-settings?section=subscriptions&data=04|01|robert.d.cabana@nasa.gov|8e1645cf848f487da57e08d94d00dc83|7005d45845be48ae8140d43da96dd17b|0|0|637625488361280244|Unknown|TWfPbGZsb3d8eyJWljoimC4wLjAwMDAiLCJQljoiv2luMzliLCJBTiI6lk1haWwiLCJXVCi6Mn0=|1000&sdata=H22xQjX2j5lj1qbunM9eGjlv6j04IPHHrOYk3eytuhA=&reserved=0>>.

OIIR Weekly Update

From: Feldstein, Karen C. (HQ-TA000) <karen.c.feldstein@nasa.gov>
To: Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Cc: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>, Saunders, Melanie (HQ-AA000) <melanie.saunders-1@nasa.gov>, Quinn, Susie Perez (HQ-AH000) <susie.p.quinn@nasa.gov>, Dalton, Bale (HQ-AH000) <bale.dalton@nasa.gov>, Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>, Cremins, Tom (HQ-AJ000) <tom.cremins-1@nasa.gov>, Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>, Stephenson, Johnny F. (MSFC-NA000) <johnny.f.stephenson@nasa.gov>, Jacobs, Bob (HQ-NA000) <bob.jacobs@nasa.gov>, Kerwin, Mary D. (HQ-IA000) <mary.d.kerwin@nasa.gov>, Brown, Alicia N. (HQ-VA000) <alicia.n.brown@nasa.gov>, Flaherty, Christopher J. (HQ-VA030) <christopher.j.flaherty@nasa.gov>, Zurbuchen, Thomas H. (HQ-DA000) <thomas.h.zurbuchen@nasa.gov>, Lueders, Kathryn L. (KSC-CA000) <kathryn.l.lueders@nasa.gov>, McKay, Meredith (HQ-TA000) <meredith.mckay@nasa.gov>, Swails, Casey L. (HQ-LE030) <casey.l.swails@nasa.gov>
Sent: July 25, 2021 5:08:12 PM EDT
Received: July 25, 2021 5:08:14 PM EDT

Bob,

Below is a list of top-level, OIIR-supported activities of interest this week and some upcoming activities.

National Security Council (NSC) Sub-Interagency Policy Committee (sub-IPC) on Quad Critical and Emerging Technology (CET) Working Group: On July 27, the NSC will hold a Sub-IPC on the Quad CET Working Group via secure VTC to address plans for the four Lines of Effort: tech standards, 5G deployment and diversification, horizon-scanning, and technology supply chain security. OIIR will attend with representatives from the Office of the Chief Engineer (OCE) and HEO/SCaN.

NSC Restricted IPC Meeting: On July 28, the NSC will hold its weekly in-person restricted IPC meeting to continue the development of strategic messaging and a diplomatic plan for Department of Defense space activities. OIIR will attend.

OSTP National Science and Technology Council (NSTC) Research Security Meeting: At a meeting on July 28, the NSTC Research Security Subcommittee will continue developing interagency guidance to implement National Security Policy Memorandum (NSPM)-33. NSPM-33 is designed to strengthen protection of USG-supported R&D against foreign interference and exploitation. OIIR will attend.

British and Iraqi Ambassadors at OFT-2 Launch: On July 30, the British Ambassador to the U.S., Karen Pierce, and Iraq's Ambassador to the U.S., Fareed Yasseen, will the Orbital Flight Test 2 (OFT-2) launch at the invitation of the Administrator.

SMD AA Travel to French Guiana: On July 30, Dr. Zurbuchen, on the invitation of Arianespace CEO Stephane Israel, will attend a commercial launch from the Kourou Space Port in French Guiana. While in Kourou, he will visit launch facilities in preparation for the launch of JWST and meet with Mr. Israel and the ESA Director of Space Transportation, Daniel Neuenschwander. While in transit, Dr. Zurbuchen will participate in an airborne science flight of the NASA Laser Vegetation Imaging Sensor (LVIS) mission. Dr. Zurbuchen plans to highlight JWST as well as LVIS on social media.

NSC Homeland and Critical Infrastructure Resilience (HCIR) IPC Meeting: On July 30, the NSC will host the next HCIR IPC meeting via secure VTC. The discussion will focus on the draft National Security Memorandum on "Strengthening the Security and Resilience of United States Food and Agriculture" and other issues including the ongoing ransomware campaign and the planned resilience line of effort, and other matters. Representatives from OIIR, the Office of Protective Services, and the Office of the Chief Information Officer will participate.

NSC Sub-IPC on the Quad Climate Working Group: On July 30, the NSC will hold a Sub-IPC via secure VTC to discuss three pillars papers on Climate: 1) Ambition; 2) Clean Energy Innovation and Deployment; and 3) Adaptation, Resilience and Preparedness. OIIR will attend.

Upcoming Activities

August 2021

Aug 4-5 (Proposed)

Administrator virtual meeting with President, Japan Aerospace Exploration Agency President

Aug 4-5

ISS Advisory Committee joint meeting with Roscosmos Advisory Expert Council (virtual)

Aug 5

Administrator Nelson meeting with Director, National Reconnaissance Office (NRO)

Aug 11 (to be confirmed)

OSTP Director roundtable with academia to discuss implementation of NSPM-33 to strengthen protections of USG-supported R&D against foreign interference & exploitation

Aug 17

Briefing to Administrator on Task Force Report on Unidentified Aerial Phenomena

Aug 18

Administrator Nelson meeting with NOAA Administrator

Aug 22-26

36th Space Symposium, Colorado Springs

Aug 25-Sep 3

UN Committee on the Peaceful Uses of Outer Space (COPUOS)

Aug 30-Sep 4

SMD AA Zurbuchen travel to Europe for meetings with CNES and ESA and remarks at the Swiss Economic Forum

Please let me know if you have any questions or would like additional information.

Regards,

Karen

Karen C. Feldstein

Associate Administrator for

International and Interagency Relations

NASA Headquarters

300 E St SW, Washington DC 20546

Tel: (202) 358-0400

Mobile: (202) 294-1391

OIIR Weekly Update

From: Feldstein, Karen C. (HQ-TA000) <karen.c.feldstein@nasa.gov>
To: Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Cc: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>, Saunders, Melanie (HQ-AA000) <melanie.saunders-1@nasa.gov>, Quinn, Susie Perez (HQ-AH000) <susie.p.quinn@nasa.gov>, Dalton, Bale (HQ-AH000) <bale.dalton@nasa.gov>, Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>, Cremins, Tom (HQ-AJ000) <tom.cremins-1@nasa.gov>, Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>, Stephenson, Johnny F. (MSFC-NA000) <johnny.f.stephenson@nasa.gov>, Jacobs, Bob (HQ-NA000) <bob.jacobs@nasa.gov>, Kerwin, Mary D. (HQ-IA000) <mary.d.kerwin@nasa.gov>, Brown, Alicia N. (HQ-VA000) <alicia.n.brown@nasa.gov>, Flaherty, Christopher J. (HQ-VA030) <christopher.j.flaherty@nasa.gov>, Zurbuchen, Thomas H. (HQ-DA000) <thomas.h.zurbuchen@nasa.gov>, Lueders, Kathryn L. (KSC-CA000) <kathryn.l.lueders@nasa.gov>, McKay, Meredith (HQ-TA000) <meredith.mckay@nasa.gov>, Swails, Casey L. (HQ-LE030) <casey.l.swails@nasa.gov>
Sent: July 18, 2021 5:44:33 PM EDT
Received: July 18, 2021 5:44:36 PM EDT

Bob,

Below is a list of top-level, OIIR-supported activities of interest this week and some upcoming activities:

Public Meeting on NASA's Proposal to Withdrawal Land from Railroad Valley (RRV), Nevada: On July 19, NASA will participate in a virtual public meeting with an official from the Department of Interior's Bureau of Land Management to provide an overview of, and hear public comments regarding, NASA's request to withdraw nearly 23,000 acres of land from public use in RRV. NASA initiated the withdrawal application to preserve this land for satellite calibration activities. RRV is the best vicarious calibration site in the U.S. and one of the best in the world for Earth observing satellites because it has ideal and stable land characteristics, is well-instrumented, and can be relatively easily accessed by scientists. Representatives from SMD, OComm, and OIIR will attend.

ISS Multilateral Coordination Board (MCB): On July 19, HEOMD AA Lueders will chair the ISS MCB, the highest-level governing board of the program, with her counterparts from the Canadian Space Agency (CSA), Roscosmos, the European Space Agency (ESA), and Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Norms of Behavior for National Security Space Activities: On July 20, the National Security Council (NSC) will kick off a series of biweekly Sub-Interagency Policy Committee (Sub-IPC) meetings to develop norms of behavior for national security space activities. The principal participants are DOD, the State Department, and the Intelligence Community. Civil departments and agencies are being included for awareness. OIIR will support.

NASA Annual Export Control Program Review: On July 20, the Deputy Administrator will provide welcoming remarks at this OIIR-sponsored agencywide event for 75 NASA civil servants and contractors responsible for assuring agency compliance with U.S. export control regulations. The Deputy Administrator's participation will reinforce the critical importance of protecting the nation's sensitive technologies.

NSC Restricted IPC meeting: On July 21, the NSC will hold the 2nd in a series of weekly in-person restricted IPC meetings to continue the development of strategic messaging and a diplomatic plan for Department of Defense space activities. OIIR will support.

Climate presentation at Japan event: On July 21, NASA Senior Climate Advisor (acting) Dr. Gavin Schmidt will provide a presentation on "NASA's Cooperation in Addressing the Climate Challenge" to a Japan Aerospace Exploration

Agency (JAXA)-hosted virtual event.

Launch of Russia's Nauka Multipurpose Laboratory Module (MLM) to ISS: On July 21, Roscosmos is scheduled to launch the Nauka MLM to ISS from Baikonur, Kazakhstan, on a Proton-M rocket. The Nauka MLM includes a robotic arm provided by the European Space Agency. NASA's Director of Human Space Flight Programs in Russia, Tricia Mack, traveled from Moscow to Baikonur for launch.

Potential Visit by Spain Prime Minister to JPL: On July 22, the mayor of Los Angeles, Eric Garcetti, is scheduled to host the Prime Minister of Spain, Pedro Sanchez, for a meeting and brief tour at JPL. The visit isn't yet confirmed.

Chief Scientist Lecture at Oxford: On July 23, NASA Chief Scientist Dr. Jim Green will give a virtual lecture at the University of Oxford's St. Cross College Center for the History and Philosophy of Physics on "The Future of Space Activities and Preservation on Mars."

Upcoming Activities

July 2021

July 27-Aug 1

Zurbuchen travel to Kourou, French Guiana for Ariane 5 launch

July TBD

Administrator meeting with SBA Administrator

August 2021

Aug 4-5

ISS Advisory Committee joint meeting with Roscosmos Advisory Expert Council (virtual)

Aug 4-5 (proposed)

Administrator meeting with President, Japan Aerospace Exploration Agency (JAXA) President

Aug 5

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August 17

Briefing on Task Force Report on Unidentified Aerial Phenomena

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Please let me know if you have any questions or would like additional information.

Regards,

Karen

Karen C. Feldstein

Associate Administrator for

International and Interagency Relations

NASA Headquarters

300 E St SW, Washington DC 20546

Tel: (202) 358-0400

Mobile: (202) 294-1391

NASA INTERVIEW PREP DOCUMENT - as of 6-25-21 (internal distribution only)

From: Beutel, Allard (HQ-NA020) <allard.beutel@nasa.gov>
Sent: June 25, 2021 11:43:30 PM EDT
Received: June 25, 2021 11:44:04 PM EDT
Attachments: NASA INTERVIEW PREP DOCUMENT - as of 6-25-21.docx

Good evening, attached is the latest interview prep document.

The top item is new:

- Search for Life, Technosignatures, and UAP/UFOs

The updated items are:

- Hubble Space Telescope Issue
- Upcoming Events Public Dates section

-Allard

Attachment

1. NASA INTERVIEW PREP DOCUMENT - as of 6-25-21.docx

Type: application/vnd.openxmlformats-officedocument.wordprocessingml.document
Size: 56 KB (57,773 bytes)

Attachment #1

NASA INTERVIEW PREP DOCUMENT - as of 6-25-21.docx

Original view

12 pages (displayed on pages 4 to 15)



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NASA INTERVIEW PREP DOCUMENT

RECENT HOT TOPICS

Quick Reference

[Upcoming Events](#)

[Public Dates](#)

Search for Life, Technosignatures, and UAP/UFOs

Public and media interest in the topic of UAP/UFO (Unidentified Aerial Phenomena /Unidentified Flying Objects) has seen an uptick in recent weeks following reports related to the Department of Defense's release of three unclassified U.S. Navy videos. An unclassified preliminary [report](#) from the Office of the Director of National Intelligence was released June 25, which is when we posted a NASA [article](#) on what the agency is doing to search for life beyond Earth. And below is our response to the public and media who call for NASA comment:

- One of NASA's key goals is the search for life in the universe. To date, NASA has yet to find any credible evidence of extraterrestrial life; however, NASA is exploring the solar system and beyond to help us answer fundamental questions, including whether we are alone in the universe. We lead the U.S. government's search for extraterrestrial life, be it close to home, on the planets or moons of our solar system, or deeper into space.

NASA does not actively search for UAPs and the lack of robust data is the central problem for scientific study of UAPs and to determine whether they are natural or human-made phenomena – there is no current data to support that UAPs or UFOs are evidence of alien technologies.

Hubble Space Telescope Issue

Starting on June 16, NASA has provided status [updates](#) that the Hubble Space Telescope operations team has been working since June 13 to resolve an issue with the observatory's payload computer.

- The Hubble operations team continues working to solve the payload computer issue onboard the Hubble Space Telescope. The team is working to collect all the data available to them to isolate the problem and determine the best path forward for bringing the computer back to operations. At this time, there is no definitive timeline for bringing the computer back online. However, the team has multiple options available to them and are working to find the best solution to return the telescope to science operations as soon as possible. Launched in 1990, Hubble has contributed greatly to our understanding of the universe over the past 30 years.

Senate Confirms Pam Melroy as NASA's Deputy Administrator

On June 17, the U.S. Senate confirmed Pam Melroy to be NASA's next Deputy Administrator. The following [statements](#) were issued following confirmation:

- "It's an honor to be confirmed by the Senate to serve as NASA Deputy Administrator, and I am humbled by President Biden and Vice President Harris' confidence in me," Melroy said. "I look forward to returning to the NASA family and working with Administrator Nelson to ensure the United States continues to lead in space and beyond – exploring the wonders of the universe, expanding the Earth science research critical to combatting climate change, unlocking scientific discoveries that will change the world as we know it, and inspiring the next generation of discoverers and dreamers."



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- “Pam is a pioneer and veteran of NASA, and will be an outstanding leader as we venture farther out to the stars,” said NASA Administrator Bill Nelson. “We certainly are lucky to have her on board, and I look forward to leading NASA with her as a team.”

Mission Equity

On June 15, NASA announced a new effort called [Mission Equity](#) that included issuing a Request for Information (RFI) seeking public input to broaden access to the agency.

- NASA is launching Mission Equity, a comprehensive effort to assess expansion and modification of agency programs, procurements, grants, and policies, and examine what potential barriers and challenges exist for communities that are historically underrepresented and underserved.
- NASA Administrator Bill Nelson said of Mission Equity:
 - “NASA is a 21st century agency with 22nd century goals. To be successful, it’s critical that NASA takes a comprehensive approach to address the challenges to equity we see today. The agency’s new Mission Equity is a bold and necessary challenge for NASA to ensure our programs are accessible to all Americans and, especially, those living in historically underserved communities across the country. Because when NASA opens doors to talent previously left untapped, the universe is the limit.”
- NASA issued a [request for information](#) (RFI) on June 15, entitled Advancing Racial Equity and Support for Underserved Communities in NASA Programs, Contracts and Grants. To this RFI, the agency is seeking public feedback as it conducts a thorough review of its programs, practices, and policies to assess:
 - Potential barriers that underserved and underrepresented communities and individuals may face in agency procurement, contract, and grant opportunities.
 - Whether new policies, regulations, or guidance may be necessary to advance equity and opportunities in agency actions and programs.
 - How agency resources and tools can assist in enhancing equity, including advancing environmental justice.
- Areas in which the agency would like to receive comments include:
 - Diversity and Equal Opportunity at NASA and in the STEM Community
 - Opportunities for NASA to Leverage its Data, Expertise, and Missions to Help Underserved Communities
 - Barriers/Gaps to Accessing Current NASA Grants, Programs, and Procurements
 - Engagement and Outreach with Organizations and Individuals from Underserved and Underrepresented Communities
- Underserved and underrepresented communities include: Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.
- Through the RFI process, NASA hopes to initiate vibrant, meaningful, and ongoing dialogues that will help the agency build and improve current agency policies, practices, and programs. The deadline for public comments to this RFI is Monday, July 12, but we encourage submission of comments as soon as possible to enable early analysis and follow-up discussions. NASA will host a virtual public meeting soon, during which NASA officials will discuss the RFI and corresponding agency goals.



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NASA Administrator Statement on US Innovation and Competitiveness Act

NASA Administrator Bill Nelson released the following statement June 8 after the Senate passed the U.S. Innovation and Competitiveness Act:

- “The U.S. Innovation and Competitiveness Act, which includes the NASA authorization bill, is an investment in scientific research and technological innovation that will help ensure the U.S. continues to lead in space and sets us on a path to execute many landings on the Moon in this decade. I applaud the Senate passage of the bill and look forward to working with the House to see it passed into law.”

NASA Selects Two Missions to Venus

On June 2, NASA announced it has selected two new missions to Venus.

- NASA’s two new missions to Earth’s nearest planetary neighbor aim to understand how Venus became an inferno-like world when it has so many other characteristics similar to ours – and may have been the first habitable world in the solar system, complete with an ocean and Earth-like climate.
- The selected missions are:
 - DAVINCI+ (Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging)
 - DAVINCI+ will measure the composition of Venus’s atmosphere to understand how it formed and evolved, as well as determine whether the planet ever had an ocean.
 - The mission consists of a descent sphere that will plunge through the thick atmosphere, making precise measurements of noble gases and other elements to understand why Venus’s atmosphere is a runaway hothouse compared the Earth’s.
 - DAVINCI+ also will return the first high resolution pictures of the unique geological features on Venus known as “tesserae,” which may be comparable to Earth’s continents, suggesting that Venus has plate tectonics.
 - This would be the first U.S.-led, missions to Venus’s atmosphere since 1978, and the results from DAVINCI+ could reshape our understanding of terrestrial planet formation in our solar system and beyond.
 - VERITAS (Venus Emissivity, Radio Science, InSAR, Topography, and Spectroscopy)
 - VERITAS will map Venus’ surface to determine the planet’s geologic history and understand why it developed so differently than Earth.
 - Orbiting Venus with a synthetic aperture radar, VERITAS will chart surface elevations over nearly the entire planet to create 3D reconstructions of topography and confirm whether processes such as plate tectonics and volcanism are still active on Venus.
 - VERITAS also will map infrared emissions from Venus’ surface to map its rock-type, which is largely unknown, and determine whether active volcanoes are releasing water vapor into the atmosphere.
- In addition to the two missions, NASA selected a pair of technology demonstrations to fly along with them.



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- VERITAS will host the [Deep Space Atomic Clock-2](#), built by NASA's Jet Propulsion Laboratory and funded by NASA's Space Technology Mission Directorate. The ultra-precise clock signal generated with this technology will ultimately help enable autonomous spacecraft maneuvers and enhance radio science observations.
- DAVINCI+ will host the Compact Ultraviolet to Visible Imaging Spectrometer (CUVIS) built by NASA's Goddard Space Flight Center. CUVIS will make high resolution measurements of ultraviolet light using a new instrument based on freeform optics. These observations will be used to determine the nature of the unknown ultraviolet absorber in Venus's atmosphere that absorbs up to half the incoming solar energy.
- DAVINCI+ and VERITAS are the final selections from [four mission concepts](#) NASA's Discovery Program picked in February 2020 as part of the agency's Discovery 2019 competition. Following a competitive, peer-review process, the two missions were chosen based on their potential scientific value and the feasibility of their development plans.
- NASA is awarding approximately \$500 million per mission for development. Each is expected to launch between 2028 - 2030. The project teams now will work to finalize their requirements, designs, and development plans.

Webb Telescope Reported Possible Launch Delay

During a June 1 ESA (European Space Agency) news conference, media asked about reported possible launch delays to NASA's James Webb Space Telescope. Below is our response to calls for comment:

- NASA's James Webb Space Telescope, which will be the premier observatory of the next decade, remains on schedule for a launch readiness date no earlier than Oct. 31, 2021.

Webb will ship to the launch site in August with little to no schedule margin. Launch processing will take two months. The observatory has completed all the post-environmental testing deployments, and it's in its final integration and folding stages. Final stow, closeout, and pack and ship are imminent. We are working closely with ESA and Arianespace on establishing the launch date. We'll launch approximately four months after the first launch of the Ariane 5 this year, which is scheduled for late July. Webb has no launch date constraints, so it can launch almost any day of the year.

Webb will study every phase in the history of our universe, including the first luminous glows after the creation of the cosmos, the formation of solar systems capable of supporting life on planets like Earth, and the evolution of our own solar system.

Fiscal Year 2022 NASA Full Budget Proposal

On May 28, the Biden-Harris Administration released the full budget proposal for Fiscal Year 2022.

- President's Fiscal Year 2022 budget requests \$24.8 billion for NASA, an increase of more than 6% over what the agency received the previous year.

Overarching Points



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- This funding request demonstrates the president's commitment to NASA and the people across the agency and its partners who have worked so hard this past year under the most difficult circumstances and achieved unprecedented success.
- The NASA workforce and the American people should be encouraged by what they see in this budget request. It is an investment in our future, and it shows confidence in what this agency has to offer. We owe it to the president and the American people to be good and responsible stewards of every tax dollar invested in NASA.
- This budget request includes the strongest NASA budget ever for science, which will help address the climate crisis at home and abroad, as well as advance robotic missions that will pave the way for astronauts to explore the Moon and Mars.
- This is also the strongest budget for exploration since the Apollo program.
- This budget request will restore America's global standing, promote racial and economic equity, and drive economic growth.

Supports Human Exploration of the Moon, Mars, and Beyond

- The president's funding request increases funding for Artemis by \$350 million and gives us the resources to advance America's bipartisan Moon to Mars space exploration plan, agreed to by the Administration and Congress.
- This request keeps us on the path toward a regular cadence of Artemis missions with crew to the Moon by the middle of the decade.
- NASA's human landing system contract award, with the goal of a human demonstration mission to the lunar surface by 2024, is under protest.
- NASA is currently reviewing the overall Artemis timeline based on appropriations and expected budget, and outcome of the human landing system protest. We hope to provide an updated Artemis timeline later this year following conclusion of the protest.
- The FY2022 budget request assumes an Artemis I launch no earlier than November 2021, an Artemis II launch no earlier than September 2023, followed by Artemis III targeted for late 2024 and Artemis IV for late 2025. Landing the first woman and first person of color on the lunar surface as part of the Artemis program will promote equity – signaling to every American they too can see themselves among the stars.
- With NASA's Space Launch System rocket and Orion spacecraft, as well as U.S. commercial partnerships with the human landing system and Gateway lunar outpost, we will send astronauts to the Moon to test technologies and exploration practices that will make future missions more productive than ever before.
- This budget funds an upgraded Space Launch System, known as Block1B, that can deliver larger cargos to lunar orbit.
- Gateway, built with our commercial and international partners, is important to sustainable lunar operations.
 - The foundation of our lunar outpost is targeted to launch no earlier than November 2024, with additional modules from our international partners launching later.
- We are working day and night to reduce risks and overcome the challenges of long-term human exploration of the Moon and Mars.
- The budget funds early design work and planning for additional surface architecture necessary including the lunar terrain vehicle and surface habitats to ensure our astronauts can explore more of the Moon than ever before and stay for increasingly longer periods of time in deep space.



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- NASA's Lunar Surface Innovation Initiative is advancing technologies to support mission operations on the Moon. This budget includes funding for the preliminary design of a fission surface power system that could power operations on the Moon and Mars.

Further Robotic Exploration of the Solar System and the Universe

- This funding request also furthers robotic exploration of the solar system and the universe.
- The budget provides more than \$650 million for the Mars Sample Return mission, the highest priority large mission in planetary science.
- It includes strong support for planetary defense, including the near-Earth objects (NEO) Surveyor mission to detect asteroids and comets that could potentially impact Earth.

Enhances Research and Development at NASA

- This funding request supports continued progress developing cutting-edge space technologies, transformative capabilities, and renewable energy, all of which feed the economy and create good paying American jobs.
- Investing in new technologies enhances NASA's missions and fosters the growing space economy.
- NASA routinely demonstrates new technologies, reducing overall risk and encouraging industry adoption. The budget includes \$500 million for technology demonstrations.
- It fully funds the On-orbit Servicing, Assembly, and Manufacturing 1 (OSAM-1) mission. Robotically refueling a satellite and manufacturing and assembling spacecraft parts in-orbit will foster a more sustainable space economy.
- Launching next month, our Laser Communications Relay Demonstration will demonstrate a technology that can provide 10-100 times better data rates than commonly used radio frequency communications systems. In the coming years, we'll further refine laser communications technology for use in deep space.
- More than \$280 million would be directed toward small business innovation research and technology transfer. The increase of \$60 million will provide more money to small companies to research new ideas and develop innovative solutions to challenging problems.
- An investment in NASA and space infrastructure reaffirms our nation is the world's premier partner in space collaboration, and we will be for decades to come.
- We are investing in aviation to make our skies safer, our fuels cleaner, and to get you to your destination faster than ever before. This also includes investing in next-generation aeronautics research that will safely integrate automated aircraft systems with piloted airplanes.
 - This budget enhances American competitiveness in the global aviation industry including the first two flights of new X-57 and X-59 aircraft.
 - NASA aeronautics is leading transformation of the way people and goods are moved through Advanced Air Mobility (air taxis, drone cargo deliveries, etc.), an emerging market expected to be worth \$115 billion a year by 2035.
 - It will help safely deliver revolutionary aviation capabilities to previously underserved local, regional, intraregional, and urban areas. NASA investments today will spur the advancements of tomorrow.
- The budget provides a \$30 million increase to accelerate transformative science at the frontiers of biological and physical sciences research in space.



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Advances Climate Science

- Climate change has increasing economic and national security impacts, and this budget increases investments in climate research and science programs.
- This funding increases our ability to better understand Earth and how it works as an integrated system, from our oceans to our atmosphere and how it all impacts our daily lives.
- NASA is developing the next-generation Earth System Observatory. NASA's new Earth System Observatory will provide the world with an unprecedented understanding of our Earth's climate system, arming us with next-generation data critical to mitigating climate change, and protecting our communities in the face of natural hazards.
 - The Earth System Observatory will help improve our understanding of extreme weather events and our decision making on climate resilience, adaptation, and mitigation. It will also inform decisions that ensure communities have the resources they need to build resilience prior to these crises.
- Research on zero-emissions aviation
 - NASA Aeronautics is partnering with industry, academia and other agencies through the Sustainable Flight National Partnership to accomplish the aviation community's aggressive climate change agenda. Through advanced vehicle technologies, efficient airline operations and sustainable aviation fuels, collectively NASA and our federal government and industry partners aim to reduce carbon emissions from aviation by half by 2050, compared to 2005, and achieve net-zero emissions by 2060.
- NASA continues to lead the development of new small spacecraft capabilities. For example, small platforms can enable distributed observations for climate science.

Builds a Diverse Future STEM Workforce

- This budget invests in the Artemis Generation. It requests funding for NASA's STEM engagement efforts for the first time in five years to inspire the next generation of scientists, engineers, mathematicians, and explorers by supporting the agency's STEM efforts.
- With this budget, NASA will increase funding for Space Grant and MUREP and will work with university and consortia partners to implement initiatives focused on diversity, equity and inclusion.
- NASA taps into the skills of a diverse group of partners and reaches new groups through our small business programs, academic partnerships, and prizes, challenges, and crowdsourcing activities.
- The Space Technology Mission Directorate is collaborating with OSTEM's Minority University Research and Education Project to offer research planning grants and incentivize partnerships between minority-serving institutions and small businesses, setting them up to apply to NASA opportunities.

Continues Research on the International Space Station

- The space station is a convergence of science, technology, and human innovation that demonstrates new technologies and enables research not possible on Earth. The space station remains the springboard to NASA's next great leap in exploration, including future human missions to the Moon and eventually to Mars.



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- With continued support for the International Space Station and the Artemis program, the president welcomes the international community to join us as we push human exploration deeper into space.
- This budget supports early design maturation of multiple commercially owned and operated low-Earth orbit (LEO) destinations (free flyers) from which NASA, along with other customers, can purchase services and stimulate the growth of commercial activities in LEO.
- In addition to maintaining continuous U.S. access to a space station in LEO, these new and more cost-effective platforms will democratize access to space by lowering the barriers to entry for the next generation of researchers, technologists, and tourists.

Hurricanes and NASA

June 1 is the official start of hurricane season for the Atlantic Ocean.

- After 2020 brought a record number of named storms in 2020, NASA is once again prepared to help understand and monitor these storms from its unique vantage point of space.
- NASA develops and launches satellites for NOAA, which is the lead federal agency for forecasting hurricanes. But the science of hurricanes doesn't start – or end – with forecasting.
- Global warming is increasing the heat in the ocean basins and already making it more likely that storms will intensify faster and be stronger, a phenomenon NASA scientists continue to study deeply.
- With the challenge posed by climate change, NASA has never been more committed to innovation in Earth science research.
 - Our next-generation Earth System Observatory, announced on May 24, missions will help us understand extreme weather events and other climate-fueled hazards to inform the solutions of the future.
- NASA researchers and data also support U.S. stakeholders before, during and after storms make landfall.
 - Stages of NASA Data:
 - Pre-storm assessment (feed weather prediction and forecasting models)
 - Near-real-time assessment (identify potential impacts ahead of landfall)
 - Post-storm assessment (help identify needs for support after landfall)
 - Data access and visualization
- The [NASA Disasters Mapping Portal](#) takes disaster-related data and puts it into understandable, usable formats real-time use and application with the goal to bridge the gap between science products and the people who can use the data to assist in preparedness, response, mitigation, and recovery.
 - After a hurricane makes landfall, NASA satellites are in prime position to identify impacts such as damage, flood depth and extent, power outages, rainfall accumulation, landslide risk, and even soil moisture.
 - That information helps local governments, the Army Corps of Engineers, and FEMA monitor infrastructure failures and disruptions, isolate contaminated water supplies, and identify hotspots for urgent response needs.
- NASA also does plenty of its own deep research on hurricanes and tropical cyclone dynamics. A few examples among many:



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- NASA's Global Modeling and Assimilation Office is pioneering the use of ultra-high-resolution global weather and micro-climate models.
- The CPEX-AW airborne campaign planned in the Caribbean this August and September will pilot new technology to use LiDAR to better understand atmospheric winds and convective clouds in tropical storms.
- NASA's Jet Propulsion Laboratory (JPL) is studying the use of artificial intelligence/machine learning to improve hurricane prediction capabilities using NASA satellite data.

Webb Name Webb Telescope Name Statement

On May 7, *Slate.com* posted an [article](#) with the headline and sub-headline "The James Webb Space Telescope Hasn't Launched Yet. In One Way, It's Already a Relic. It will collect important data, but what does its name say about who it's for?" Below is our response to the public and media who call for comment:

- NASA is aware of concerns that have arisen about James E. Webb, and we are working with historians to examine his role in government. NASA named its next generation observatory, the James Webb Space Telescope, after its second administrator, who helped establish the Apollo Program that landed humans on the Moon. The agency made the naming decision in recognition of Webb's role in retaining an active science program at NASA in the agency's early years. Webb's work as administrator laid the groundwork for today's accomplishments, and science remains a critical part of NASA's work: to understand the universe, advance exploration, and inspire the next generation.

UPCOMING EVENTS PUBLIC DATES

*Below are the publicly listed dates of some high-profile activities/events/milestones in 2021 and 2022. Internal planning, target, and pre-decisional dates are not listed below as they're not official and public yet. The public dates listed are as specific as they can be, at this time. This list will be regularly updated, as appropriate. Text in **red** is newly updated public information:*

- **TROPICS Pathfinder Launch – No earlier than June 29:** Launch of a test satellite or Pathfinder on a rideshare on SpaceX Transporter 2 from Cape Canaveral Space Force Station, ahead of a constellation of six small satellites (launching in 2022) that will work together to provide near hourly updates of hurricanes and tropical cyclones
- **Boeing Orbital Flight Test-2 – July 30** – Boeing's uncrewed CST-100 Starliner OFT-2 (Orbital Flight Test-2) launch from Florida to the International Space Station
- **Northrop Grumman CRS-16 – July 2021:** Commercial [resupply services](#) mission to space station from Virginia
- **Landsat 9 – September:** NASA and U.S. Geological Survey launch latest Earth observation satellite, [Landsat 9](#), from California
- **Lucy – Oct 16:** NASA's [Lucy](#) mission to study the Trojan asteroids of Jupiter will launch from Florida
- **SpaceX Crew-3 – No Earlier than Oct. 31:** [Crew-3](#) will launch to station from Florida
- **SpaceX Crew-2 Return – Early to mid-November:** Crew-2 returns to Earth
- **Webb Telescope – (Launch Readiness Date) Oct. 31:** NASA's [James Webb Space Telescope](#) to help answer questions about our cosmic origins launches from French Guiana
- **X-57 – (tentative Oct. 31)** – Flight test for NASA's first all-electric plane, [X-57](#), at Armstrong Flight Research Center



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- **DART – Nov. 24:** Window opens to launch Double Asteroid Redirection Test from California, NASA's first flight demonstration for planetary defense
- **Webb Telescope – November/December:** The [James Webb Space Telescope](#) completes mission deployments/arrives in its L2 (second Lagrange Point) orbit about 29 days after launch
- **Artemis I - November:** NASA reviewing launch date for [first integrated flight test](#) of the uncrewed Space Launch System rocket and Orion spacecraft launches on a multi-week mission around the Moon
- **Orion splashdown – Late 2021:** NASA's [Orion](#) spacecraft splashes down on Earth following a multi-week mission around the Moon
- **Geostationary Operational Environmental Satellite-T – December:** NASA and NOAA's latest weather satellite, [GOES-T](#), launches from Florida
- **SpaceX CRS-23 – Fall 2021:** Commercial [resupply services](#) mission to space station from Florida
- **CAPSTONE – Fall 2021:** NASA [CubeSat](#) to validate new navigation technologies and verify dynamics in Gateway's planned orbit will launch to space
- **Imaging X-Ray Polarimetry Explorer – Fall 2021:** NASA's [IXPE](#) mission to discover the secrets of black holes, pulsars, and other high-energy objects in the universe launches from Florida
- **Boeing's Crew Flight Test – Late 2021, under review pending OFT-2:** Boeing's CFT earliest possible launch to space station from Florida
- **Boeing Starliner-1 – Under review pending earlier flight tests:** Launch date for first operational Boeing commercial crew launch to space station from Florida
- **Astronaut Candidates – Late 2021:** NASA will announce selections for the next class of [astronaut candidates](#) to begin training
- **Laser Comm – Under Review:** NASA's [Laser Communications Relay Demonstration](#) to test optical communications launches from Florida
- **Intuitive Machines' CLPS Flight – Early 2022:** Suite of robotic NASA payloads sent lunar surface as part of a [Commercial Lunar Payload Services](#) delivery. Landing takes place in the following weeks
- **Astrobot's CLPS Flight – 2022:** Suite of robotic NASA payloads sent to the lunar surface as part of a [Commercial Lunar Payload Services](#) delivery. Landing takes place in the following weeks.
- **Artemis II Crew Announcement – Early 2022:** NASA will announce the astronauts that will fly on the first crewed flight of Orion spacecraft and Space Launch System rocket for the [Artemis II mission](#).
- **Webb Telescope – Spring 2022:** First science images from the [James Webb Space Telescope](#), about six months after launch
- **TROPICS Launch – Spring 2022:** Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats (TROPICS), a constellation of six CubeSats, will launch from Kwajalein Atoll in the Marshall Islands. The satellites will work together to provide near hourly updates of hurricanes and tropical cyclones
- **The next crew rotation mission to the International Space Station after NASA's SpaceX Crew-3 is targeted for no earlier than mid-April 2022:** The specific commercial crew partner's spacecraft and rocket will be determined at a later date



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- **X-59 QueSST First Flight – (tentative June 1, 2022):** The first flight of the [X-59](#) Quiet SuperSonic Technology (QueSST) aircraft will take place out of Lockheed flight facilities in Palmdale, California
- **Psyche – August 2022:** Window opens to launch [Psyche](#) from Florida, NASA's mission to study the metal-rich asteroid 16 Psyche.
- **Surface Water and Ocean Topography (SWOT) Launch – November 2022:** Launch of SWOT to observe details of the ocean's surface topography, and measure how water bodies change over time, jointly developed by NASA and the Centre National d'Études Spatiales (CNES), with contributions from the U.K. Space Agency (UKSA) and the Canadian Space Agency (CSA)
- **NISAR Launch (NASA + Indian Space Research Organization + synthetic aperture radars) – Late 2022:** Joint mission between NASA and the Indian Space Research Organization to track subtle changes in Earth's surface, spot warning signs of imminent volcanic eruptions, help to monitor groundwater supplies, track the melt rate of ice sheets tied to sea level rise, and observe shifts in the distribution of vegetation around the world
- **PACE Launch (Plankton, Aerosol, Cloud, ocean Ecosystem) - 2022:** PACE will advance the assessment of ocean health by measuring the distribution of phytoplankton, tiny plants and algae that sustain the marine food web
- **TEMPO launch (Tropospheric Emissions Monitoring of Pollution) - 2022:** NASA's first Earth Venture Instrument mission will measure pollution of North America, from Mexico City to the Canadian oil sands, and from the Atlantic to the Pacific hourly and at high spatial resolution. TEMPO will be the first space-based instrument to monitor air pollutants hourly across the North American continent during daytime

AGENCY COMMUNICATION THEME PRIORITIES

For full key points and other products for all themes, visit: <https://communications.nasa.gov>.

Earth

NASA uses the vantage point of space to understand and explore our home planet, improve lives and safeguard our future.

Tagline: **Your Home. Our Mission.**

Flight

NASA explores new technologies to make aircraft greener and quieter, get you gate-to-gate safely and on time, and transform aviation into a new economic engine at all altitudes.

Tagline: **NASA is With You When You Fly.**

Humans in Space

NASA leads human space exploration in low-Earth orbit with commercial and international partners to enable missions to the Moon and Mars. International Space Station missions are a catalyst for economic development and the advancement of scientific knowledge and new technologies that improve our lives.

Tagline: **Leading Discovery, Improving Life on Earth.**

Moon to Mars

NASA is leading a sustainable return to the Moon with commercial and international partners to expand human presence in space and bring back new knowledge and opportunities.

Tagline: **Moon Lights the Way.**



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Solar System & Beyond

NASA is exploring our Solar System and beyond, uncovering worlds, stars, and cosmic mysteries near and far with our powerful fleet of space and ground-based missions.

Tagline: **Discovering the Secrets of the Universe.**

Space Tech

NASA technologies advance capabilities for space exploration, promote America's global leadership in innovation and transform the world around us.

Tagline: **Technology Drives Exploration.**

-end-

UAP Report (public)

From: Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>
To: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>
Sent: June 25, 2021 5:40:57 PM EDT
Received: June 25, 2021 5:40:59 PM EDT

The public version is out.

Bhavya Lal, Ph.D.

(703)-203-9804

Begin Forwarded Message:

From: "Etkind, Marc R. (HQ-NA000)" <marc.r.etkind@nasa.gov>
Subject: FW: FIRST UPDATE - UFO Report
Date: 25 June 2021 17:00
To: "McGuinness, Jackie (HQ-NA000)" <jackie.mcguinness@nasa.gov>, "Brown, Alicia N. (HQ-VA000)" <alicia.n.brown@nasa.gov>, "Gulley, Bryan F. (HQ-NA000)" <bryan.f.gulley@nasa.gov>, "Quinn, Susie Perez (HQ-AH000)" <susie.p.quinn@nasa.gov>, "Lal, Bhavya (HQ-AA000)" <bhavya.lal@nasa.gov>, "Dalton, Bale (HQ-AH000)" <bale.dalton@nasa.gov>

From: "Jacobs, Bob (HQ-NA000)" <bob.jacobs@nasa.gov>
Date: Friday, June 25, 2021 at 4:58 PM
To: "Etkind, Marc R. (HQ-NA000)" <marc.r.etkind@nasa.gov>, "Stephenson, Johnny F. (MSFC-NA000)" <johnny.f.stephenson@nasa.gov>, "Beutel, Allard (HQ-NA020)" <allard.beutel@nasa.gov>, "Thompson, Tabatha T. (HQ-NA020)" <tabatha.t.thompson@nasa.gov>, Brittany Brown <brittany.a.brown@nasa.gov>
Subject: FIRST UPDATE - UFO Report

<https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf>
<<https://gcc02.safelinks.protection.outlook.com/?url=https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf&data=04|01|pamela.a.melroy@nasa.gov|9392072d83254bbd28ca08d93821eb37|7005d45845be48ae8140d43da96dd17b|0|0|637602540595247005|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjojV2luMzliLCJBTiI6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=exW8nvSY1TqcSSnhBOKDwZU6ASpdZv4jQ8vdnAd+mA0=&reserved=0>>

We can expect inquiries accordingly.

bj

UAP Report

From: Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>
To: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>
Sent: June 25, 2021 7:23:53 PM EDT
Received: June 25, 2021 7:23:54 PM EDT

Hi Pam

The Unclassified UAP Report was released late this afternoon and the link below.

<https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf>

Marc Etkind

Associate Administrator, Communications

NASA Headquarters

National Aeronautics and Space Administration

Headquarters
Office of Communications
Washington, DC 20546-0001



December 8, 2021

Reply to Attn of: MS5L9, FOIA Public Liaison

Via Email

REF: FOIA Case No. 21-HQ-F-00567

Dear Sir,

This is our Final Determination of the responsive records to your Freedom of Information Act (FOIA) request, dated and received by the National Aeronautics and Space Administration ((NASA) Headquarters (HQ) FOIA Office on June 25, 2021. Your request was assigned FOIA Case Number 21-HQ-F-00567 and sought:

“A copy of each email in the email accounts of individuals in the NASA **Office of the Administrator** that contains the word UAP, based on an electronic search. I limit this request to the time period May 1, 2021 through the present.”

In an email, dated July 11, 2021, you agreed to narrow your request to only include emails from the NASA Administrator, NASA Deputy Administrator, the Associate Administrator, and the White House Liaison, containing the “word UAP OR the phrase Unidentified Aerial Phenomena.” A copy of that email is enclosed for your reference.

Based on your clarification, we tasked NASA’s Information Technology (IT) division to conduct a search of the email accounts for Senator Bill Nelson (Administrator), Pam Melroy (Deputy Administrator), Mr. Robert Cabana (Associate Administrator) and Mr. Phillip Thompson (White House Liaison), using the search terms UAP and Unidentified Aerial Phenomena. The searches located 26 emails totaling 313 pages.¹ On August 10, 2021, we issued our first interim response with 229 pages of records responsive to this request. We have now concluded our review of the remaining records.² We reviewed the

¹ For ease of review and processing of these emails, we have grouped several emails by their subject line to five combined pdf documents.

² Please be advised we have excluded the duplicate emails from processing. For this reason, the final page count for this Final Response has been reduced from 84 pages to 62 pages.

responsive records under the FOIA to determine whether they may be disclosed to you. Based on that review, this office is providing the following:

- 40 page(s) are released in full (RIF);
- 11 page(s) are released in part (RIP);
- 11 page(s) are withheld in full (WIF).

NASA redacted from the enclosed documents certain information pursuant to the following FOIA exemptions:

Exemption 5, 5 U.S.C. § 552(b)(5)

Exemption 5 protects “inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency.” 5 U.S.C. § 552(b)(5). Courts interpret Exemption 5 to incorporate three primary privileges: the attorney work-product privilege, the attorney-client privilege, and the deliberative process privilege. NASA invokes the deliberative process privilege.

The deliberative process privilege is intended to protect the decision-making process of government agencies and to encourage frank discussion of legal and policy issues. The scope of the privilege covers documents reflecting advisory opinions, recommendations, and deliberations comprising part of a process by which government decisions and policies are formulated. To qualify for the deliberative process privilege, a document must be both “pre-decisional” and “deliberative.” Documents are pre-decisional when they precede an agency decision and are prepared in order to assist an agency in arriving at its decision. Documents are deliberative when they comprise part of the process by which government decisions are made. The types of records/information NASA withheld under this exemption consists of draft documents, portions of emails containing analyses, recommendations, opinions and/or personal views expressed by employees. NASA considered the foreseeable harm that would result from the release of this information and determined that its release would hinder the decision-making process, create a chilling effect on internal deliberations, lead to uninformed decision-making, and public confusion.

Exemption 6, 5 U.S.C. § 552(b)(6)

Exemption 6 allows withholding of “personnel and medical files and *similar files* the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.” 5 U.S.C. § 552(b)(6)(emphasis added). NASA invokes exemption 6 to protect work cell phone numbers, personal and third parties mentioned or referenced in these records and any information that could reasonably be expected to identify such individuals.

Appeal Rights

You have the right to appeal my action on this interim release for your FOIA request. Your appeal must be received within 90 calendar days of the date of this letter. Your appeal must be in writing and addressed to:

Administrator
ATTN: FOIA Appeals
NASA Headquarters
Executive Secretariat
MS 9R17
Washington, DC 20546

Both the envelope and letter of appeal should be clearly marked "Appeal under the Freedom of Information Act." You must also include copies of your initial request, this correspondence, and any other correspondence with the FOIA office. In order to expedite the appellate process and ensure full consideration of your appeal, your appeal should also contain a brief statement of the reasons you believe this initial determination should be reversed.

Assistance and Dispute Resolution Services

For further assistance and to discuss any aspect of your request, you may contact NASA's Chief FOIA Public Liaison, Stephanie Fox, via telephone at 202-358-1553 or via e-mail at Stephanie.K.Fox@NASA.gov. You may also send correspondence to Ms. Fox at the following address:

National Aeronautics and Space Administration (NASA)
Freedom of Information Act Unit
NASA Headquarters
Attn: Stephanie Fox
Chief FOIA Public Liaison
300 E Street, S.W., 5P32
Washington D.C. 20546
(Fax) 202- 358-4332

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services it offers. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
Email: ogis@nara.gov
Telephone: (202) 741-5770
Toll free: 1-877-684-6448

Fax: (202) 741-5769

Important: Please note that contacting any agency official including the undersigned, NASA's Chief FOIA Public Liaison, and/or OGIS is not an alternative to filing an administrative appeal and does not stop the 90 day appeal clock.

If you have any questions or would like to discuss this matter, please contact me at 202-358-0680 or Mireya.P.Nyirenda@nasa.gov.

Sincerely,

Mia Nyirenda Digitally signed by
Mireya Nyirenda
Date: 2021.12.08
12:51:40 -05'00'

MIREYA P. NYIRENDA
FOIA Public Liaison Officer

[EXTERNAL] Press Briefing by Press Secretary Jen Psaki and Director of the National Economic Council Brian Deese, June 4, 2021

From: White House Press Office <info@mail.whitehouse.gov>
To: phillip.m.thompson@nasa.gov, Thompson, Phillip M. (HQ-AA000)
<phillip.m.thompson@nasa.gov>
Sent: June 7, 2021 4:13:35 PM EDT
Received: June 7, 2021 4:14:32 PM EDT

FOR IMMEDIATE RELEASE

June 7, 2021

Press Briefing by Press Secretary Jen Psaki and Director of the National Economic Council Brian Deese, June 4, 2021

James S. Brady Press Briefing Room

(June 4, 2021)

1:39 P.M. EDT

MS. PSAKI: Hi, everyone. Happy Friday. We have a special guest with us today, on Jobs Day -- Brian Deese, our Director of the National Economic Council -- who will give some brief remarks on the jobs numbers and take a few questions, and then we'll proceed with the briefing.

MR. DEESE: Great. Hi, everybody. Glad to be with you today. So you all heard from the President early today -- earlier today with his perspective on the May employment report. So I won't repeat what he said, but I just did want to provide a couple of contextual points and a little bit more looking under the hood of that report from an economic perspective.

So a couple of things that I think were notable from our perspective: First, beyond the topline -- strong job gains and the now consistent pace of over 500,000 jobs a month for the last four months -- we saw in May the largest one-month decline in long-term unemployment -- the long-term unemployment rate since 2011, so in about a decade. That measure is measuring people who have been out of work for at least 27 weeks, so for more than half a year. And that number fell by 431,000 this month.

This is a really important indicator, certainly for those of us who have been watching and tracking the economy closely over the course of the last several years and into and through the pandemic. Because we know the economic evidence that those who are long-term unemployed tend to have the hardest time getting back into the labor force and eventually find new employment.

And so, this substantial reduction is an important indicator of the -- that the health of the labor market and something that is obviously very good news for those people and also, I think, for the economy writ large.

Second is on wages. And the President touched on this, but we saw average weekly earnings rise a half a percent this month, which -- consistent with the wage growth that we saw last month. We saw analogous data on aggregate compensation come out earlier this week.

And this again is -- it's good news -- good news for the American worker, and also consistent with what the President was talking about when he went to Cleveland last week, around looking at the broader goals of our economic recovery to drive toward full employment and to put our economy in a situation where we see sustained job gains but also wage gains for American workers.

Third point is just how we see in this jobs report some of the impact of the American Rescue Plan and the specific elements of that work that were designed to try to address challenges that we face. Obviously, beyond the direct vaccination effort, two of the key elements of the American Jobs Plan were around trying to provide the support necessary to get schools open, and then, in particular, to provide the support for childcares and childcare centers to actually get more childcare centers open, because we know that the more centers that are open, the more slots there are, the safe -- safe childcare environment is a key element of how families and parents think about how to sustain work in the post-COVID environment.

In May, we saw employment increase by 103,000 in state and local education. That is a direct result of seeing more schools open, more educator jobs. Good news for those people who are getting back to work but also for the broader economic recovery.

We saw 18,000 jobs added in child and daycare services. Again, you draw a direct line between the resources that were provided in the Rescue Plan for those purposes and the results we're seeing now.

I would also provide the context on that: You know, despite that progress, we're still down 800,000 state and local education jobs since February of 2020. And we're still down 135,000 jobs in childcare. And I think that that's a reminder of the depth of the crisis of this pandemic, the ways that we have to go, but also, I think, importantly, a reminder of why it is that we focused on passing a Rescue Plan that would sustain support over the course of this year -- that the Rescue Plan was designed to not just provide support for a day or for a month, but over the course of the year, as we understood -- and the need to continue to provide support, to continue to build back to a stronger foundation.

Fourth, I think that, you know, we're looking at this employment report in the context of -- of a number of contemporaneous economic data points.

The first -- probably the most important that provides, I think, additional reason for economic optimism -- is that this report was a snapshot of what -- of where we were on May -- May 12th. And perhaps most evocatively, and just how quickly things are changing, were we -- were we to have been doing this briefing on the day that this -- you know, on a day in that week, we all still would have been masked. Things are changing very quickly. And, in fact, since that period, an additional 21 million adult-age Americans have gotten fully vaccinated. And so we're making progress even -- even since this snapshot in time.

And secondly, we're looking at, you know, this job growth in the context of the overall health and growth of the economy. And we saw earlier this week the OECD significantly increase its economic growth forecast to 6.9 percent for 2021.

In that report, citing that the American Rescue Plan and the United States fiscal response likely adding 3 to 4 percentage points to GDP this year and positioning the U.S., as the President heads to his first G7, as the only G7 country, the only OECD country in a position where our future growth prospects are actually stronger today than they were pre-pandemic in January 2020. That's the -- that's only true of the United States, not any other developed country.

The final point that I will make is a point that you will hear me repeat is -- if and when I come back and we talk more about jobs numbers in the future -- is that we are in an unprecedented situation; there's a lot of uncertainty in our economy; and we never put too much weight on any individual data point, be it a jobs report or any other report.

We expect there to be ups and downs. We expect there to be bottlenecks as we turn this economy back on. And our focus, the President's focus, is on executing an economic strategy that is working -- we see that in the data from today -- but to be patient and think to the long term about what the American economy needs and the American workers

need as well.

So with that --

MS. PSAKI: Yeah. Just take a few --

MR. DEESE: -- happy to open it up and take some questions.

MS. PSAKI: -- a few today.

But go ahead, Zeke.

Q Thanks, Brian. You mentioned just now, and the President mentioned in his remarks earlier, the administration is going to look to efforts to address some of the supply bottlenecks. Industry experts say semiconductors -- that's a multi-year process to fix that. So what is the administration going to do to fix some of those bottlenecks that are raising prices right now?

MR. DEESE: Yeah, it's a great question. So, first of all, I would say this is an issue that the President has been focused on from the campaign and early on in -- upon taking office; that one of the things that the pandemic has exposed is the degree of vulnerability in supply chains and the need to have a deliberate strategy to try to build resilience in our supply chains.

So that's why the President actually, on February 25th, signed an executive order tasking an all-of-government approach to try to look at supply chain challenges across a set of four critical areas -- one of them being semiconductors -- but also to launch a longer-term effort to look at supply chain vulnerabilities and opportunities across sectors of the economy.

So, that -- that executive order had a 100-day timeframe associated with it, which is -- which is coming due at the end of this week. So you can expect to hear more from us on this topic early next week.

But, in short, what I would say is, look: On a lot of these issues, there is no immediate short-term, you know, magic-bullet fix. We have been at this issue of semiconductors now for some time. We've been spending an enormous amount of time with industry participants up and down the semiconductor supply chain. We've identified some very concrete solutions that we need to take, and thinking about a long-term strategy to actually build resilience so that we're not left vulnerable, the way that we have been, to supply chain challenges in the future. Some of that is working on bipartisan legislation to actually fund a dedicated strategy to build out a domestic -- domestic semiconductor industry in the United States. We're making a lot of progress on that front and are optimistic there.

The other thing that we will be looking at is: Some areas where we have seen, over the course the last 100 days, bottlenecks emerge that are more short-term in nature, that may not connect to a longer-term geostrategic or -- or -- or strategic supply chain issue, but are blockages, in part because we're seeing demand come back in some areas faster than people anticipated.

So whether that's in, you know, housing and construction materials, or in transportation and logistics, those are areas we're building on the all-of-government approach that we have in place, we're going to intend to really zero in on: Are there pragmatic issues that we can help facilitate? And some of that is bringing the right industry actors around the table to really understand where those bottlenecks are and whether there are ways to unstick them.

At the end of the day, a lot of that issues are transitory, associated with turning an economy back on, and supply and demand mismatches that the market will work through. But we want to be doing everything that we can to try to help facilitate practical solutions where they exist.

So, we'll have a lot more to say about the specifics of that, but I think that hopefully gives you the context.

MS. PSAKI: Monica.

Q So, last month, President Biden assessed that federal unemployment benefits had not contributed -- or he didn't see much evidence -- to the more lackluster numbers. Is that still his assessment for this month? And given how many states are now going to end them through the month of June, with the President's comments earlier today about them expiring in 90 days, should other states consider ending them sooner? Or could that money be used elsewhere?

MR. DEESE: So, I'd say a couple things about that. I mean, the first thing that -- the first takeaway from this report is that we're seeing really robust job growth. And we're seeing, in fact, historic job growth in the context of historic economic growth.

So, we find ourselves -- the American economy now -- the economy is growing faster than any other major economy, jobs are growing faster than any other major economy. So, that's the -- that's the -- that's the immediate context.

With respect to the UI benefits -- you heard the President earlier today -- this -- that program was designed as a temporary lifeline. The UI program itself provides a critical support network to the American people and the American economy. And those temporary -- the temporary boost is slated to now expire in 90 days. And as the President said, that's appropriate.

With respect to some of the state changes, I just -- just the important context -- which I think is implicit in your question, but just to be clear -- is that none of the state -- none of the states have actually eliminated any benefits yet. Some states will initiate that process over the course of the next several weeks.

But, in many cases, what we're talking about is states making changes to benefits for four weeks, six weeks, eight weeks before the expiration that is -- that will happen under current law.

So, as we look at where we are in the economy, we see strong job growth -- 500,000 jobs a month on average the last four months, the U.S. outpacing every other major economy in the world -- and we see reason to really focus on what are -- what are actually going to be the drivers to accelerate this recovery and then sustain it for the long term.

And that's where you'll see the President's continued focus is on finishing the job on vaccinations, delivering benefits to get schools open, to get childcare available, and focusing now -- now is the right time to focus on what are those investments that are actually going to sustain us, not just through a rapid recovery, but into full employment and the kind of productive investments that you see in the Jobs Plan and the Families Plan.

MS. PSAKI: Nancy, did you --

Q I didn't -- oh, yeah. I --

MS. PSAKI: It's got to be the last one, though, because he's got to go to a meeting.

Q My question was similar to Monica's, so I'll ask another one. How do you explain the drop in construction jobs last month? Wasn't this a sector that was actually revving up?

MR. DEESE: Yeah, so it's a great question. I think if you look under the hood in employment, in the establishment survey, what you see in May is job gains very broad-based across almost all sectors -- job gains.

We did see, you know -- we did see a reduction in construction. I think that, you know, the first thing I would say to that is that in any given month, you see some movements up and down, and so you never want to read too much into one

month. But you saw construction jobs increase in the prior month. We saw manufacturing jobs decline in the prior month and up this month.

I think -- but -- so, you don't want to read too much into one individual month. But I do think that some of this is connected to the prior question where we are -- as we -- as this economy recovers, we're seeing some supply chain bottlenecks, we're seeing some mismatches between supply and demand.

And as we anticipate those to be short term, they are still -- you know, they're still causing bottlenecks. And we're seeing that in different sectors of the economy. I think some of that may be what's going on in the -- in the construction sector as well.

So -- so I think, you know, bottom line, we saw broad-based job growth over the course of May. And I think that that's the most important takeaway. And, at the same time, you can expect the administration to be really laser-focused on those places where we are seeing those bottlenecks, trying to make sure that we're doing everything that we can, in a practical level, to try to help unstick those temporary issues.

MS. PSAKI: We can do one more.

Q I just want to clarify really quickly, because you didn't say yes or no: Does the President still feel that these enhanced jobless benefits are not discouraging people from finding jobs?

MR. DEESE: The President -- I'll just, you know, restate what the President said today: The President believes that the temporary unemployment benefits and the temporary boost to those benefits has provided a critical lifeline, that that lifeline was designed to be temporary and to expire in about 90 days. And that's -- that's appropriate.

And I would, you know, also just put that in the context of that is a -- that is a very short-term issue, where most states you're talking about a set of weeks. And, really, as we look forward and are focused on what are the things that are really going to drive the durability of this economy going forward, you're going to see the President continue focus like a laser on the vaccination program.

The President identified and recognized, before coming into office, that there would be no economic recovery if there wasn't a viable eco- -- vaccination strategy. We're seeing the progress in the vaccination strategy help to -- help to drive economic gains, help to make it possible for more people to feel comfortable and capable to go back to work.

And we anticipate that as we continue to succeed on that front, we continue to make investments in things like school opening and childcare and otherwise, we're going to be able to sustain this progress going forward.

MS. PSAKI: Thank you, Brian, very much.

Q Do you have a status report on infrastructure? The infrastructure talks?

MS. PSAKI: We'll have more this afternoon.

MR. DEESE: We will have a status report on that later this afternoon --

MS. PSAKI: Yes.

MR. DEESE: -- so, stay tuned.

MS. PSAKI: More to come.

MR. DEESE: Thanks, guys.

MS. PSAKI: Okay, thank you so much, Brian. Let's do this again next month. Okay, a couple of items for all of you: Starting this weekend, as we noted the other day, we will -- and with collaboration and support -- we will be launching our National Month of Action, so that is exciting. We've outlined a lot of those specific details, but it's starting this weekend, so wanted to note that.

I also wanted to give you all an update that, today, the U.S. government delivered 1 million doses of the Johnson & Johnson vaccine to the Republic of Korea. The friendship and alliance between our two countries run deep, especially in times of great need and hardship.

As was noted when the President hosted -- hosted the South Koreans here just a few weeks ago, this was done in order to ensure the safety and readiness of U.S. and ROK military forces. And today, thanks to a whole-of-government effort, we are delivering on that promise.

And I would just note, again, that our plan -- our commitment to deliver 80 million doses is five times more than any other country and 13 percent of the U.S. supply. And we're committed to doing that by the end of June.

Also would note the Vice President is traveling to Mexico and Guatemala next week in her role overseeing diplomacy toward the Northern Triangle and Mexico.

She lands in Guatemala on the evening of June 6th. She'll be on the ground there until the evening of June 7th before flying to Mexico. Then she'll be in Mexico until the evening of June 8th. She'll meet with the President of Guatemala, the President of Mexico, and -- as well as community leaders, innovators, entrepreneurs, and U.S. embassy personnel. And I'm sure they'll do many readouts from there.

The week ahead: On Monday, the President will meet with NATO Secretary General Stoltenberg at the White House. The President and Secretary General will discuss the June 14th NATO Summit in Brussels and many issues on the NATO agenda, including reinforcing transatlantic security in the face of challenges from Russia and China.

They will also discuss adapting NATO to address threats like cyberattacks and climate change, while continuing to ensure a more equitable sharing of responsibility among Allies.

As we've said, revitalizing our alliances is a priority for this administration, and our Alliance with NATO is a big part of that.

As you all know, on Wednesday, the President and First Lady will also be traveling to the United Kingdom for their first stop for their first overseas trip. And we'll have one of the members of the national security team, hopefully at the highest level -- we're working on schedules -- on Monday to do a full preview of the trip for all of you.

Last thing I would note -- I think that was it, actually.

Zeke, go ahead.

Q Thanks, Jen. Looking ahead to that trip, the backend --

MS. PSAKI: Yeah.

Q -- the meeting with Russian President Vladimir Putin: He had some comments today where he was suggesting that he was not expecting any concrete breakthroughs. I was hoping you could describe what the President hopes to get out of that meeting. And is the President going to commit to raising issues, like the imprisonment of Navalny, the imprisonment of American citizens in Russia, directly with President Putin, face to face?

MS. PSAKI: Well, first, I would say that the President never holds back in raising human rights issues, the detainment of activists, with the Russian President. And, certainly, as our -- as our readout made clear when he spoke with him directly, he didn't hold back in that conversation. I don't expect he will when they meet in two weeks at the summit.

In terms of the focus of the summit: You know, I think the -- we'll have more to preview on Monday. But as I've noted in here previously, I think the President expects to raise a number of issues, including Ukraine and what we've seen as aggressive behavior at the border by the Russians.

He also will raise cyber activity, malign activity, problematic activity, harmful activity we've seen take place. Of course, there is the SolarWinds hack, but also the ransomware hacks. As we've talked about, the actions of criminal groups within a country -- there's a responsibility of the leaders of that country to take action. And there's no doubt President Biden will be raising that directly in that conversation.

I don't think we're setting this up to be a meeting where there is going to be, you know, an outcome that resolves every issue or every challenge in our relationship. We expect there still to be challenging conversations moving forward. But it's an opportunity to discuss areas where we -- where we have mutual interest, like nuclear -- nuclear security and stability, and also to raise issues where we have concern. And we expect that -- this to be a forum for that, face to face.

Q Separately, the President just got back from a couple days at the beach. Heading into the summer travel season, should we expect to hear from the President -- you know, encouraging Americans to travel, particularly domestically, as a way to stimulate the economy, to spend their money here at home? As sort of -- as the pandemic seems to be waning and travel does seem to be picking up, is that -- is there going to be a pivot from -- on the part of the President, going forward, to encourage Americans to, sort of, get out there and spend the money?

MS. PSAKI: Well, I think the President will continue to encourage Americans to safely get out there into their communities, especially vaccinated Americans, who are safer to travel, to go to restaurants, to not wear masks. And certainly, we abide by CDC guidelines, as you know. But the President went to a restaurant just last weekend with the Vice President -- last weekend? -- on Monday with the Vice President. They had a meal -- something he hasn't done a lot of; most Americans haven't done a lot of over the last year and a half.

So certainly, he will -- he will lead by action and continue to encourage Americans to take advantage of the benefits of being vaccinated; and for those who are not vaccinated, to get a shot so they can take advantage of those benefits themselves.

Q And just one last one for me, since it's Friday: Has the President been briefed on the unidentified aerial phenomena report? And is he satisfied with the conclusions? Does he want additional work in that space?

MS. PSAKI: Because it's Friday -- it's always a little wacky on Friday. So, let me first say that we know there have been press reports about the status of this report. This is a DOD report, and so I would certainly refer to them on the status of the report. Their work with ODNI is ongoing.

We -- the team is actively working on it, but it's not at a conclusion phase, as I understand, and as I think they've commented from their building.

I will say that we take reports of incursion [sic] -- incursions into our airspace by any aircraft, identified or unidentified, very seriously and investigate each one. Safety and security of our personnel, of our operations are of paramount concern. There's a requirement to put out this report, and certainly our appropriate teams are working on finalizing it.

Q But was the President briefed on it? Or has he been briefed on it?

MS. PSAKI: I don't have any update on internal briefings, no.

Go ahead.

Q Thanks, Jen. There seems to be a bit of a shift in tone here because, last month, the President was pretty adamant that he did not believe that these enhanced unemployment benefits were playing a role or factoring into people's decisions not to get back into the jobs market. Today, though, he's underscoring that these benefits are simply temporary, set to expire in 90 days. So, which is it? Yes or no: Does the President believe that these unemployment benefits are playing a role here?

MS. PSAKI: Well, I think we shouldn't lose sight of some basic facts here, which is that those governors who have made the decision, as they have every right to do, to pull back on unemployment benefits -- or not accept them, I should say, accurately -- that hasn't even taken effect in any state across the country. So in terms of how we're evaluating the impact, we haven't even seen the impact yet; that takes effect in June.

It is important for people to understand, factually, that the President, no one from the administration has ever proposed making these permanent or doing it over the long term. And sometimes I think that was just an effort to make that clear in the public.

So we understand there's politics at play here. That's okay. Every governor is going to make their own decision.

At the end of the day, what we see as the biggest driving factor is vaccines and individuals being vaccinated feeling safe to go back to workplaces. The fact that childcare centers have rehired, that teachers have gone back to work -- those are all positive signs. And at the end of the day, we've created -- the President and this administration has created more jobs than any President and any administration in modern American history.

So that's, kind of, how we see the jobs data.

Q But based on the data, do you believe that these benefits are having any kind of impact in people deciding not to maybe reenter the job force right now?

MS. PSAKI: Well, again, I think that's a really difficult thing to analyze, given we have created a historic number of jobs in the last four months -- more than any President in modern American history. So -- and the jobs -- the UI benefits haven't even been pulled back in any state.

So it's a question I'm sure we can have a discussion about in the next couple of months as we see what the impact is on different states, or if that's a factor. But we think the biggest factors overall are more people getting vaccinated, more people being comfortable and feeling safe going out into the workforce, and that's where we feel there's going to be an encouraging upward trend.

Q I guess I'm trying to understand what happened in the last month though. Because last month, you said you didn't see any indication of that, when looking through the data.

MS. PSAKI: I don't think we can evaluate the data that hasn't been applied in states across the country yet. And what we're really talking about from state to state is governors making a decision to pull back on accepting unemployment benefits for six weeks or eight weeks. That's it. It hasn't even started yet.

So I would leave it to all of you and your outside analysts to decide whether that is a big factor in terms of economy and data, or whether that is a political discussion we're having.

Go ahead.

Q Thanks, Jen. Does the White House have any reaction to Facebook's decision to suspend President Trump for two years? Was this a reasonable consequence for what he said?

MS. PSAKI: Well, as always, it's a decision for the company to make and any platform to make. And clearly, they've come out and made their decision.

Our view continues to be, though, that every platform -- whether it's Facebook, Twitter, any other platform that is disseminating information to millions of Americans -- has a responsibility to crack down on disinformation; to crack down on false information, whether it's about the election or even about the vaccine, as we're trying to keep the American public safe and get more people -- or return to normal out in society.

And I think, as we look at it, we learned a lot from President Trump -- the former president -- over the last couple of years about his behavior and how he uses these platforms. It feels pretty unlikely that the zebra is going to change his stripes over the next two years. We'll see.

Q So does this decision validate what President Biden has repeatedly said about Mr. Trump, which is that words matter?

MS. PSAKI: Well, I don't know that it's a validation. I think the President isn't the only one who thinks that. Words do matter. Words do have an impact. We saw the impact, on January 6th, of words on social media platforms, and we've seen the impact of words as it relates to disinformation, traveling, around the vaccine, around election integrity.

So, of course, we think words matter. This is a decision by a private-sector company. We'll see what their evaluation is a couple of years from now and what other steps they can take, most importantly.

Go ahead.

Q Jen, our reporting indicates that the Biden administration is considering counter cyberattacks to stop the ransomware criminals in Russia. How big a factor is the upcoming summit in that decision making? Is there a concern that if you did that before the meeting in Geneva, it could derail the talks? And if it doesn't happen before then, what message does it send to Russia after these multiple cyber intrusions?

MS. PSAKI: Well, let me first say that we always reserve the option of responding to behavior or actions that are unacceptable and are harmful. And some of those responses are seen and some of them are unseen, and we typically don't give a timeline on that in a public capacity.

But I will also note to you that when the President -- when we announced the invitation to have this discussion, it was also in the same time period where we announced the sanctions that we were putting in place in response to harmful actions by the Russian government -- right? -- in response to SolarWinds, in response to their engagement in our own election.

So we expect -- this is -- this is diplomacy in action here, right? We will take action when warranted -- sometimes seen, sometimes unseen. We typically don't predict that ahead of time. And we also will look for areas of opportunity to have a discussion.

But we are not having this summit as a reward. We're not having the summit because we expect to only talk about areas where we agree or disagree.

Q And in the President's budget blueprint, there's only about \$1.3 billion dedicated to bolstering cybersecurity. Given

what we've seen over the last few weeks, is that enough? Are there talks that more resources need to be dedicated to this? Or are you thinking more to leave this to the private sector for those companies that we've seen that have been impacted?

MS. PSAKI: Yeah, it's a really good question. I mean, I will say that we know that the ransomware threat is urgent, it's complex, and it's been increasing over the last several years. And, you know, it feels new to us over the last couple of weeks, but it has been increasing rapidly around the world over the last several years.

One of the reasons that we have initiated a rapid review internally is because we recognize that threat. And we will assess, based on that review, what additional needs there are, both from the federal government -- in coordination with Congress -- or from the private sector. And that review is focused on the disruption of ransomware infrastructure and actors working closely with the private sector; building an international coalition, of course -- which will be a focus of the President -- will be a topic of discussion, I should say, of the President's foreign trip; expanding cryptocurrency analysis, which we know is a factor, given so many of these ransomware attacks are -- you know, if ransom is paid, which, of course, we don't recommend and don't advise from the FBI, but it's often done through cryptocurrency channels; and reviewing our own policy.

So that review is ongoing internally with our national security team, and we'll assess what additional needs might be needed.

Q And one last bit of housekeeping. Last month, you said you didn't have an update but that you maybe expected the President to get his first physical soon. Do you have anything -- any update to provide on that? Should we expect that to happen this summer, or is there anything else you can give us (inaudible)?

MS. PSAKI: It will definitely happen this year. And when he has his next physical, we will provide that information transparently to all of you, but I don't have a date for you.

Go ahead.

Q Thank you, Jen. Would the President support a commission to investigate the initial U.S. response to COVID-19?

MS. PSAKI: A commission in Congress?

Q Or a presidential commission.

MS. PSAKI: I would say, if members of Congress have a discussion and want to have a discussion about that, we're happy to hear from them. But our focus right now, as you know, Peter, is on our own internal investigation -- our own internal process, I should say -- using all of the resources of government, tapping into our data and science experts to see what more we can determine over the next 90 days, or less than 90 days, about the origins of the pandemic.

Q Mike Pompeo is now saying that when he was the Secretary of State and he was trying to investigate the origins of COVID-19 there, the NIH folks were trying to suppress what he was doing. So is there any concern from the White House that there may have been people at the NIH who were making policy decisions based not in science, but based on their personal political beliefs or preferences?

MS. PSAKI: Well, I really don't have any analysis of the last administration's inter-working.

Q Well, a lot of these people are still over there, and you see how they operate.

MS. PSAKI: Here's what we know, Peter: We know that Dr. Fauci and many members of the NIH team -- medical and science experts -- because of their work over the last 10 years, we have developed a focus, an effort, an apparatus to

fight this pandemic, and we are grateful to them for their work. Everybody wants to get to the bottom of the origin: former Secretary Pompeo, President Biden, Democrats and Republicans across the board.

We all share a concern about the challenge -- and that is the intransigence, at times, by the Chinese in providing data and providing information. We share agreement on that. We all want to get to the bottom of what happened here.

Q And you mentioned Dr. Fauci. There have been these emails that have come out through a FOIA request that make it seem like -- we knew that he had his hands full at the time, trying to figure out what to do, but it seems like there were times that he was saying one thing in email and then coming to this microphone and saying something else. If that is the case and if that affected the U.S. policy posture at the time, should he be held accountable?

MS. PSAKI: Well, I've talked a little bit about Dr. Fauci, and Dr. Fauci has been out doing several interviews himself and answering questions on these emails and questions that you all may have.

Dr. Fauci is a renowned public servant -- civil servant, I should say -- career civil servant. He's overseen management of multiple global health crises. And attacks -- and attacks launched on him are certainly something we wouldn't stand by.

I understand there's interest in the emails. He's answered a lot of questions on the emails. I don't think I'm going to have much more to add on them from here.

Q Do you think the attacks are political against Dr. Fauci?

MS. PSAKI: I'm going to let Dr. Fauci speak to his own defense of his emails from 17 months ago, before this President even took office.

Q Okay. And then, finally, does President Biden have a position on gain-of-function research?

MS. PSAKI: Well, we have not -- as Dr. Fauci has actually said repeatedly, we've never approved any funding for gain-of-function research in Wuhan. I know that's, I think, why you're asking the question. I believe some may have been approved, or there was funding approved during the prior administration. There's a framework, I should say. This is not meant to be a criticism of funding and how it's approved through different NIH programs, but I would send you to them to give more of an explanation of the funding mechanisms.

Q And just -- since you mentioned Dr. Fauci again, can you imagine any circumstance where President Biden would ever fire him?

MS. PSAKI: No.

Go ahead.

Q Just to follow up a little bit on Russia: I know you've said repeatedly that this is not a reward to Vladimir Putin, but what can you do in terms of stage management to make sure that it doesn't become that. I mean, become a platform for him to offer alternate facts, alternate analysis of history, of what's going on, and also provide, you know, a way for him to damage the opposition within his own country. Are you thinking through that issue? Are you -- how will you address that?

MS. PSAKI: Well, one thing is we're going to bring all of you with us to report on what he says and doesn't say, and factcheck what he says or doesn't say.

The other piece is: President Biden, as you've heard him talk about, has known, has engaged with President Putin in

the past throughout his career, and he is never one to hold back on areas where he has concern, areas where he feels the actions of the Russian government or Russian leadership are hurting the United States. And he certainly has no intention of holding back during this meeting, publicly or privately.

But at the end of the day, our job, or our focus, is on moving toward a more stable and predictable relationship with Russia. There are areas where we can work together. We've talked a little bit about -- you know, we renewed START - New START, early on in the administration, for five years. That's an area we can work together.

There are ongoing negotiations for the Iran nuclear deal. They just finished their fifth round of discussions. Russia is a member of the P5+1. We can have a discussion there.

At the same time, we also feel that no country should be, you know, harboring -- has responsibility not to harbor criminal individuals who are launching ransomware attacks, and that will certainly be a part of the discussion as well.

So, you're right: When we have conversations with leaders we disagree with, where we have some adversarial components of our relationship, it is important to send the message that we're not validating their actions. In fact, we're calling them out on it. But it is also an opportunity, face to face, to raise those issues and also to hopefully move toward a more stable and predictable relationship moving forward.

Q And on infrastructure -- you know, is the corporate tax hike that was originally proposed, is that pretty much dead now? Can we expect to see it in reconciliation? And is there anything else that President Biden plans to offer when he speaks with the senator today?

MS. PSAKI: Well, since you gave the opportunity, Trevor, I think there's an important note here. One is that we didn't talk a lot about the book line taxes that the President talked about yesterday -- that we've talked about a little bit yesterday -- the 15 percent tax that these companies -- we're asking these companies -- or we think these companies should pay -- that pay no tax -- no tax.

That was in his original American Jobs Plan proposal. It was in the lengthy factsheet. I'm sure Reuters wrote many stories about.

So, that was a component that we didn't get -- we didn't have a lot of a public debate about, but it has been something he talked about on the campaign. It's in our budget. It was in his American Jobs Plan proposal.

In terms of the corporate tax increases that was also proposed and certainly has been more of a public component of our discussion, you know, that's something he continues to believe corporations can pay more money; that that's a way to fund his bold ideas.

There are a lot of ideas that he wants to move forward on, whether it's extending the Child Tax Credit, universal pre-K -- proposals that he has put forward in the American Families Plan, which we are looking forward to having a continued discussion about. And there are also a range of payfors he has proposed.

Q And that 15 percent minimum that you just brought up, is that -- did you bring that up because that's something that Yellen is pursuing on the international stage as well?

MS. PSAKI: No. Separate. I'm glad you asked that question. Separate issue. I know it's confusing because the 15/15. Separate issue. There is a discussion, as you noted, on the global stage about a global minimum tax.

But this is a -- this is a proposal the President talked about on the campaign trail, he proposed in his American Jobs Plan, and also in our budget that would eve- -- would require -- you know, would have companies that didn't pay any tax, wouldn't allow them to pay zero tax.

And so we see it as a separate entity. We still believe the tax rate should be higher than that, as the President has proposed, on a corp- -- for a corporate rate.

Go ahead, Josh.

Q Can you give us a sense of what your expectations are for their discussion? Like, is it by phone, for instance, with Senator Capito (inaudible)?

MS. PSAKI: Oh, sure, sure.

Q Is this -- are we any near a decisional process or a point for the President?

MS. PSAKI: Sure. So they will be talking by phone -- President and Senator Capito -- this afternoon. He'll also be talking with Congressman DeFazio. And we will be doing readouts of those conversations that are happening this afternoon -- as we speak, perhaps. But we will provide readouts.

You know, I'm not going to obviously prejudge conversations, but I would say, for the conversation with Senator Capito, they've had good-faith discussions. There are areas where, of course, you know, the President has priorities, where he'd like to see more, including more investments, but also areas including electric vehicle investments, rebuilding veterans hospitals. And that's part of the discussion -- as well as payfors.

And as Trevor just asked about, but as we talked about a bit yesterday, what the President put forward -- he looked at all of his tax proposals, and what he put forward are ways to pay for an infrastructure proposal that he -- that shouldn't cross any bar or line for Republicans in the Senate who say they won't touch the 2017 tax plan.

So, I think the question, really, on that front is: Do you think these companies should pay no tax at all or 15 percent, which is very viable, supported by 85 per- -- 84 percent of Republicans in the country?

Q Does the President believe he's running out of time to try to reach a deal, or is there runway left?

MS. PSAKI: There's runway left. He's going to have these discussions. There are Democrats and Republicans who are talking with each other. We're going to engage with them as well and continue to have a discussion with a range of interested leaders in Congress about how we can come together to make a historic investment in infrastructure. There are some realities of timelines, including the fact that Congressman DeFazio is leading the markup of key components of the American Jobs Plan next week -- key infrastructure components -- where there is a big overlap. There is a lot of interest and excitement by many Democrats in Congress about that.

So it's not unlimited, but we have an opportunity. He's going to talk to Senator Capito this afternoon. We're going to see how those conversations go. We're going to keep a range of pathways open to move these bold ideas forward.

Q And just briefly, Brian Deese talked about the supply shortage issue. Can you talk about any particular types of supplies that we're talking about, the -- you know, with regards, for instance, to the construction job gains that were pretty sluggish? What are we talking about here? Lumber? Like, what are the powers the government has to try to address those?

MS. PSAKI: Well, you -- I know you've covered this closely, as have others. Lumber is certainly one of the areas, and we've seen an impact on the housing market in part because of a shortage of some of these supplies that's having an impact on new builds, that's then having an impact on the pricing for homes that have been around a longer period of time. I know you know this, but just to catch everybody else up. So --

Q (Inaudible.) (Laughter.)

MS. PSAKI: Okay. So -- so we've seen that impact, and we have been doing this 100-day review. Certainly, looking at how we can address those challenges and issues through the role of the federal government is what we'll talk about when we have more details to share, and hopefully that will be next week.

Q Are tariffs a way that you can address the supply shortages?

MS. PSAKI: I'm just not going to --

Q Or changing tariffs?

MS. PSAKI: I'm not going to get too ahead or ahead at all of where we will come down in our final rollouts of our supply chain review process.

Q Thank you.

MS. PSAKI: Go ahead, Kaitlan.

Q Is the President expecting a counteroffer during this conversation with Senator Capito today?

MS. PSAKI: I think the President is expecting they're going to have a discussion. Part of negotiation is seeing how you can come closer to each other. He's obviously come down quite a bit in what he originally proposed, and hopefully they'll have more they can add to their proposal, but we'll see. But it's a discussion, not an exchange of paper.

Q Well, you described Wednesday as a discussion too, but President Biden made a counteroffer, kind of, to them on Wednesday.

MS. PSAKI: I think that might be over-formalizing the discussion. There's a discussion about where there might be areas of agreement, then, obviously, she'll -- she may have to take things back; he may have to discuss on our end with Democratic leadership.

So, it's more of a discussion and where we can find common ground, hear each other out. And we'll see, you know, if this continues to be a viable path forward, and we'll continue to pursue a range of paths.

Q Thank you. And on these ransomware attacks, does the President view those as a national security threat?

MS. PSAKI: I certainly think the President views those as a rising national concern -- security concern and an area where we need to continue to keep our focus, keep our assets, focus on energy and brainpower on what we can do to address it.

That's why we launched this rapid review to take a look at these four areas of focus, including our approach through the U.S. government, including how we work with the private sector, including cryptocurrency, and also including what role we can have on the global stage.

So, certainly this is a priority to him and an area where we will be spending a significant amount of time in the coming months.

Q Okay. And my last question, just on the -- on the enhanced unemployment benefits, you said that you can't really make a determination because no states have actually cut them off yet -- the states that are pulling out of the program early. But if nothing has changed, shouldn't you be able to maintain the President's pretty unequivocal position, last

month, that they are not encouraging people to stay home?

MS. PSAKI: Well, if we had that concern, we would be ending them. We're not. I mean, we -- there's still 7 million people out of work -- right? -- and we're talking about \$300 benefits for three more months.

I think the point I was trying to make, and I think Brian was trying to make, is that the governors who have made the decision -- which they have every right to do -- to pull back on these benefits are really talking about having them for six weeks or eight weeks less than we would already intend to have them.

So I think the question is: Do you think Americans -- given 7 million are still out of work, or more than that -- could benefit from eight more weeks or 10 more weeks of these \$300 unemployment benefits? Our view is they can, and they should. And that's an extra helping hand we can give to millions of people across this country. Some governors disagree. That's okay. At the end of the day, in early September, these -- these benefits will no longer be a part of the plan.

Q Thank you.

MS. PSAKI: Go ahead.

Q One quick thing -- housekeeping on Russia, and then I have something on Israel.

MS. PSAKI: Sure.

Q You mentioned a few moments ago that the press will be with the President when he attends the summit in Geneva. Can you commit that he will have a press conference, a side-by-side with President Putin, as previous U.S. presidents have done?

MS. PSAKI: I don't know what the format will look like at this point in time. I can certainly commit that he will communicate and speak to all of you, but I don't know what the format looks like yet.

Q I mean, obviously, a press conference would be preferable, but I think --

MS. PSAKI: He will answer questions. I don't know what the format will look like at this point.

Q Yeah. But, I mean, the -- given the history of the -- fairly recent history of side-by-side press conferences between the U.S. president and the Russian president, it would make certainly a -- it would be an opportunity for us to ask the kind of questions of both presidents that I think our President might want to answer.

MS. PSAKI: Well, I know that we will make President Biden available to all of you, and I certainly hope my Russian counterpart makes President Putin available to all of you as well. I don't know what the format will look like at this point.

Q On Israel: We're a couple of clicks closer to the formation of the new government. Have there been any developments here in President Biden's interaction with either the existing government or the new government in formation?

MS. PSAKI: No, not at this point. I think we're going to allow for that process to move forward. And as you know, it may be a little bit more time before the final formation is completed.

Q What is the plan for his interaction with the new government, should it be formed?

MS. PSAKI: Well, we have a long and abiding relationship, strategic relationship with Israel, and that will continue to be the case no matter who is leading the country.

Q But would he call Prime Minister Bennett upon the formation of that government?

MS. PSAKI: I don't have any calls to predict for you, but certainly he will continue to engage with his counterparts in Israel and many countries around the world.

Q And then, lastly, were you able to nail down whether or not he had actually ever met Naftali Bennett before?

MS. PSAKI: You did ask that question. I'm sorry, I did not ask him. I will follow up and see if I can find that out.

He, I know -- well, Naftali Bennett -- you would remember the years he was the chief of staff to Prime Minister Netanyahu. We'll have to do a little data tracing here.

Q Yeah, (inaudible) jobs. But -- (inaudible).

MS. PSAKI: Yeah. Yeah.

Okay. Go ahead.

Q Thanks, Jen. On the vaccine announcement from yesterday --

MS. PSAKI: Yep.

Q -- can you give an idea at all of how many doses we can expect? Are there going to be monthly surplus shipments going out to other countries? And will they follow the same 25 percent, 75 percent, sort of, breakdown? Are there any discussions about that?

MS. PSAKI: Eighty million doses by the end of June.

Q But in future months. I mean, it was said yesterday there -- we can expect more this summer. So (inaudible).

MS. PSAKI: That's right. And we're going to continue to provide part of our supply to the global community. But I don't have anything to predict for you beyond that.

Q And, on infrastructure, can we expect the President to meet with Senators Romney and Manchin at all as one of the pathways that the White House is exploring?

MS. PSAKI: Look, I think, as I -- as I alluded to a little bit earlier, the President is certainly open to and interested in continuing to engage with a range of members who have an interest in making a historic investment in our nation's infrastructure; modernizing our roads, rails, and bridges; and preparing us to compete over the long term.

I know those are two of the members who have expressed that publicly, so we will see what the future days hold.

Q And just on the President's trip: Can we expect him to meet with the Pope at all? There's been some reporting out there that he might be meeting with the Pope.

MS. PSAKI: That's surprising. I don't think you can expect that on this trip.

Go ahead.

Q Thanks, Jen. Again, on the issue of the COVID vaccines: Can you talk a little bit about the timing? I know you said by the end of June, I think.

MS. PSAKI: Yeah.

Q But how soon can the other countries start expecting to receive these vaccines? And also, how are you prioritizing which countries will get them first?

MS. PSAKI: Sure. Well, first, let me say -- I mentioned, a little bit earlier, 80 million by the end of June. Obviously, 25 percent of those are coming -- are going bilaterally to countries. We're going to get those doses out -- those 25 million as quickly as we can, and we'll provide you updates as those doses go out.

So I had an update this morning about the dose -- or this afternoon about the doses that went out to the ROK, and we'll continue to have more updates on that, on those doses.

The additional doses -- the 75 percent, which are going through COVAX -- we've put out, kind of, our prioritization of the regions that those will be going to. And part of our focus right now is on the herculean logistical challenge of getting these vaccines out to the right places. This is one of the reasons that we're doing a large percentage of them through COVAX: because of their capability to do exactly that.

But just to step back, and as a reminder: This is not just, kind of, shipping these doses overseas. This is also ensuring that we can get them to the right places, that they have the ability to put them in arms, that they are at the right temperature. And so, these are all factors we're considering as we're determining how to get them out and the pace in the weeks ahead.

Q One more. The U.S. and the EU have begun discussions on lifting tariffs on steel and aluminum imports. I'm just wondering if you have an update on what kind of progress, if any, has been made in those talks and if you expect this issue to come up during the G7.

MS. PSAKI: Well, we certainly expect that our G7 partners will range -- will raise a range of issues of concern to them and a focus. And, certainly, I'd let them to speak to what those are, but the tariffs could be one of them. I don't have anything to predict for you or preview for you.

I have to wrap this up in a minute, but, Jerry, I'm just going to go to you because I -- you haven't been here since I've been here.

Q I have not.

MS. PSAKI: Okay. Good to see you.

Q Good to see you. Kind of a parochial Buffalo question.

MS. PSAKI: Okay.

Q The Canadian border has been closed for a very long time.

MS. PSAKI: Yeah.

Q There's a lot of concern about that in all the northern tier states right now. And Prime Minister Trudeau has said that he has to get 75 percent of the people in his country vaccinated before the border reopens.

That being the case, would the United States consider opening the American side of the border first, before Prime Minister Trudeau would do that? Or does there have to be a binational agreement?

MS. PSAKI: Well, I'll first say that, as it relates to borders -- Canada or Mexico -- we really rely on the guidance of the CDC and our health and medical experts. So, in terms of how they look at the data and information, I would point you to them and whether they would do that in a preliminary fashion or not.

Certainly, any discussion about reopening a border would be done through -- in part through diplomatic channels. But we really are relying and waiting on the guidance of the CDC before we make any next decision there on the border.

Q And how much concern is there in the White House about the fact that here we are -- it's summer travel season, there's a lot of concern in those northern border states about the economic impact, as well as the personal impact on people who've may -- you know, couples that may be separated by the border?

MS. PSAKI: Yeah, we're very sensitive to that, Jerry. And we certainly know that many people want to not just get back to normal, but be able to travel; be able to see loved ones, some living on different sides of the border; be able to go to restaurants and shop and even do things along those lines. And we're eager to get back to normal, whatever that means, including reopening the border. But we have a responsibility during a global pandemic, which we're still fighting every day, to rely on the advice and guidance of our medical experts.

Okay, I think we have one more question here.

Q Jen, does the administration remain committed to waiving vaccine patents at the WTO? Today, the EU submitted a counterproposal, saying that they don't want to do that. And will the President be pushing for this issue at the G7?

MS. PSAKI: Our position hasn't changed on that.

I think we have one question. Okay. Hello to our virtual Melissa. Hi, Melissa. Thanks for joining us.

Q Hi, thank you. Right now, approximately 16 million public school students in the U.S. live at home that lack Internet - high-speed Internet. The President released a plan to ensure that people in rural areas will have Internet access, but reports show that 13.6 million urban households also do not have Internet; many can't afford it. What does the administration plan to do to increase home Internet service for families in low-income urban neighborhoods?

MS. PSAKI: Well, it's a great question. And, Melissa, thanks for joining us, and hopefully you weren't waiting too long.

I will say that in the pa- -- in the President's American Jobs Plan he's proposed, we're proposing to expand universal broadband access across the country to urban and rural areas to level exactly that playing field: to ensure that kids in cities, as well as in more rural communities where there isn't as expansive broadband access, have -- have access. And we've seen over the last year and a half, during the pandemic, what a disparity it creates, both economically, but for kids who are just trying to get an education.

The Vice President, as the President announced in his joint session address, is leading this effort. It's an important part of the negotiation, and fortunately one where Democrats and Republicans have a lot of agreement about the need to move forward on expanding access to broadband.

Thank you so much. I apologize for this being short today. I have to go do some regional TV. And anyone who has follow-up questions, come up or email me and we'll talk more. Thanks, everyone.

2:34 P.M. EDT

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<<https://gcc02.safelinks.protection.outlook.com/?url=https://whitehouse.us19.list-manage.com/unsubscribe?u=c97630621baff8c44fe607661&id=9634730f96&e=139dd167e3&c=2e19deb589&data=04|01|phillip.m.thompson@nasa.gov|2aa3b9b20c634aa4d2db08d929f0c187|7005d45845be48ae8140d43da96dd17b|0|0|637586936726264253|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQIjojV2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0=|3000&sdata=brdTk3xg1lsVhtKYe1suMpQch3l+fMCK0fkfE1NAfx4=&reserved=0>> | press@who.eop.gov

White House Press Office · 1600 Pennsylvania Ave NW · Washington, DC 20500-0003 · USA · 202-456-1111

Fwd: [EXTERNAL] UAP's off of Florida's SpaceCoast

From: Nelson, Bill (HQ-AA000) </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=3FA5333A4119409284AC2C5CF0B8534D-NELSON, C W>
To: Quinn, Susie Perez (HQ-AH000) <susie.p.quinn@nasa.gov>, Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>
Sent: June 19, 2021 9:51:31 AM EDT
Received: June 19, 2021 9:51:34 AM EDT
Attachments: MUFON CASE 87314 (copy to Rubio).pdf

Begin Forwarded Message:

From: (b) (6)
Subject: [EXTERNAL] UAP's off of Florida's SpaceCoast
Date: 18 June 2021 16:54
To: "Nelson, Bill (HQ-AA000)" <bill.nelson@nasa.gov>

Mr. Nelson,

First congratulations on your appointment with NASA. Your genuine enthusiasm, experience and desire for success is encouraging for NASA's future. I am a (b) (6) --I did get to meet you a few times in (b) (6) through the years at the (b) (6) facility when Governor Bush used to move around the state and hold meetings, and at a few other local functions. Thank you for your years of service in Florida's and the US congress and senate.

I am writing to you as I had captured some anomalies on VHS video in 1994 20 miles offshore fishing, between KSC and Sebastian inlet, and read the sun article (link below) on your interests to find out what these UAP's are. I held this video (who wanted to say out loud they had video of UFO's?) and never shared outside of my family until a few years ago after I saw what appeared to be a similar thing zip by as a space x on the pad exploded into flames. I digitized the original VHS tape and this allowed me to zoom in on the objects--which sent chills throughout my body. I felt compelled to share as a matter of civic duty I shared the attached pdf with info with Senator Rubio and met with one of his staff members well prior to his announcement that we need to learn more about these UAP's. I at least like to think I assisted him in his seeking more info and truths on what could be the most important revelation in man-kinds history, if not just technologically speaking. I have attached all of the documentation I sent to him and the intelligence committee about the matter. My concern is they are not benevolent and not sharing what I captured and saw when the objects were zoomed in on. Getting the detail I did when zoomed in also means these were uncomfortably closer to me than I had realized before as well. The zoomed in object is clearly a technology we are not familiar with. it is fuzzy--my apologies--however its from a VHS tape from my moving boat in the Atlantic ocean--so taking that into account, its not bad as it shows definite structures (I termed these "cluster crafts" as they seem to be composed of several spherical crafts) flying without technologies which we are accustomed to. Most disconcerting is the 2016 on pad space x explosion with the same anomaly flying by, meaning these are not our friends, whomever is flying these.

I'm glad to answer any questions by you or your staff, but I think the attached info covers most.

Thank you for taking these issues seriously,

(b) (6)

(b) (6)

Your recent article that lead me to contact you.

<https://www.the-sun.com/news/3020852/nasa-bill-nelson-ufo-investigating>
<<https://gcc02.safelinks.protection.outlook.com/?url=https://www.the-sun.com/news/3020852/nasa-bill-nelson-ufo-investigating/&data=04|01|bill.nelson@nasa.gov|7ae99b803fe54de9ff3408d9329b312f|7005d45845be48ae8140d43da96dd17b|0|0|637596464404327210|Unknown|TWfPbGZsb3d8eyJWljoimC4wLjAwMDAiLCJQljoiv2luMzliLCJBTil6lk1haWwiLCJXVCi6Mn0=|1000&sdata=2wcJStL5CIE8w3HKHzXs870k26x14mB0h00JpceQaGA=&reserved=0>>

Attachment

1. MUFON CASE 87314 (copy to Rubio).pdf

Type: application/pdf
Size: 1 MB (1,371,470 bytes)

Attachment #1

MUFON CASE 87314 (copy to Rubio).pdf

Original view

10 pages (displayed on pages 5 to 14)

SENATOR RUBIO, THESE ARE REAL—THE TECHNOLOGY IS THERE—THERE IT IS. NOT PHOTOSHOPPED NOT FABRICATED. NOT FLARES OR HELICOPTERS

CONCERNS

1) I felt after seeing and zooming in on these to learn more—the air force lied to the Florida Today and has ignored several FOIA's by MUFON. There was a C-130 flying low prior to the video I assumed looking for survivors of a Cuban exodus by raft at that time in 94—please see full video of these and fishing earlier that afternoon.

2) I am coming to you due to Fox News 35 in Orlando's story—I had no idea that was happening---I am concerned as I believe there is a strong chance these are NOT benevolent. See video of Feb 2018 space X—next slides and two weeks ago offshore North Carolina—similar sighting.

I believe I would be remiss to NOT give you this further info as a citizen for you to investigate. I am NOT saying these are crafts from elsewhere than earth—I believe these are likely technologies another countries or “a group” possibly unfriendly to us. I say as the space x explosion is suspect in my opinion based on what I captured in 94, as well as what both Ben Rich of skunk works and Dr. Von Braun stated on their deathbeds (will provide on request).

(b) (6)

VIDEO OF CRAFTS AT SUNSET 15-20 MILES NE OF SEBASTIAN INLET



This digital copy was made direct from the original VHS using a Walmart off the shelf VHS to DVD by then MUFON [REDACTED] (b) (6)

MUFON CASE (b) (6)

Mufon Case (b) (6)

MUFON Case Management System - SEARCH

The search result is limited to max 50 returned Sighting Reports

Cases Found = 1

Date Submitted	Date/Time of Event	Short Description	Location of Event	Long Description	Attachments
1 2017-10-13	1994-08-31 8:30PM	(cak) First noted with seven lights which grew to groups of 2-4 then faded out just as they appeared	Indialantic, FL, US	VIEW	

[ANOTHER SEARCH](#) [BACK TO MUFON SITE](#)

LONG DESCRIPTION OF SIGHTING REPORT - Google Chrome

Secure | https://mufoncms.com/cgi-bin/report_handler.pl?req=view_long_desc&id=87314&rnd=

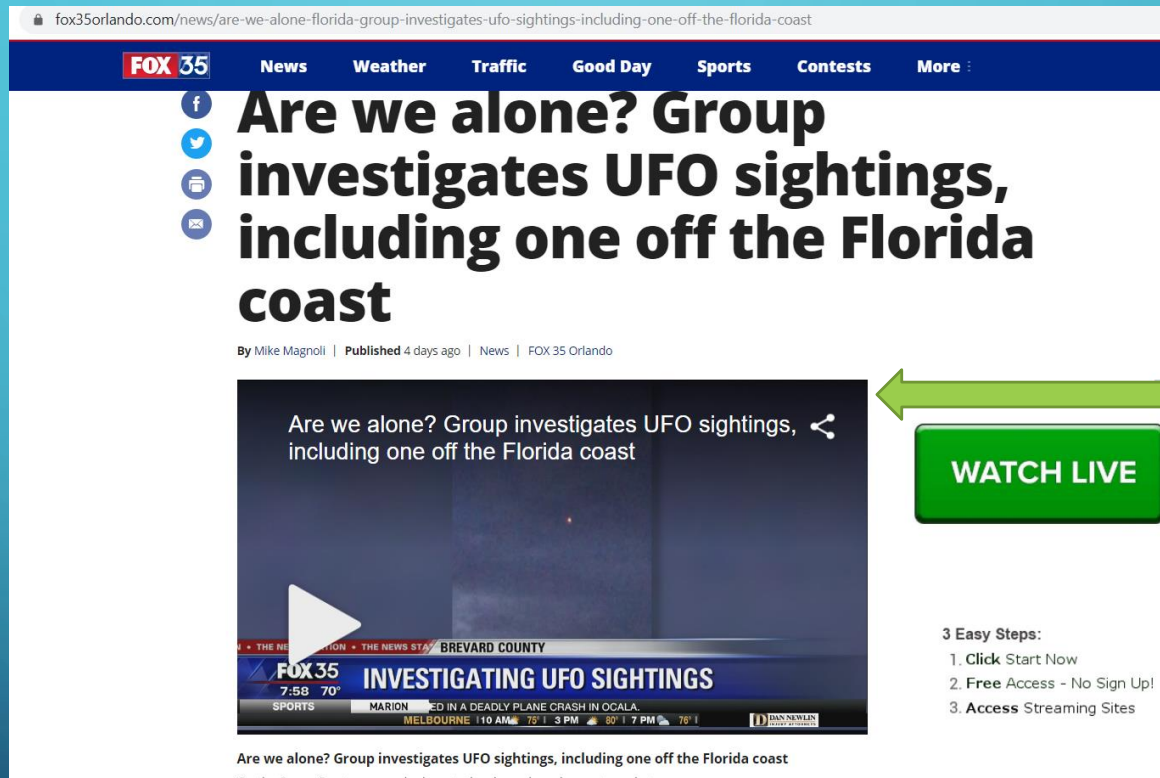
Long Description of Sighting Report

I have a video I took in the early 90's of what the air force said the next day in the Florida Today were helicopters off of indialantic 20 miles offshore dropping flares in an excersize by a squadron that didn't exist any longer. Many people along the beaches apparently called in to the police. The issue with that story is I have video of the incident from 20 miles offshore- time and date documented as well as loran coordinates (before gps). The video shows the loran, the afternoon fishing activities, and clusters (5 clusters I believe) of 2-4 bright lights materializing and disappearing- fading in and out. There were no helicopters anyplace and I know what flares look like, these had no parachutes, no smoke trails and did not lose altitude -- they were not falling. I never shared publicly - I mean claim the airforce was lying??... and still don't want scoffing or ridicule.. however this video clearly shows it's NOT what the Air Force reported that day with an air force squadron that was disparaged years before as publicly announced in The Florida Today Sept 1 1994. I can't say what it was, but shows what it wasn't. An hour or so earlier there was a C-130 making low passes and circling in another area. I did not video that -- we were fishing. I suspect the military did know what this was, but flares they are not, or helicopters. These lights are in the same config as many other lights and sightings including the Phoenix lights and reports going back hundreds and thousands of years.

[CLOSE WINDOW](#)

Three Freedom of information requests (FOIA) made by MUFON have been ignored by the air force

1994 AUGUST 31 CRAFTS OFF MELBOURNE BEACH

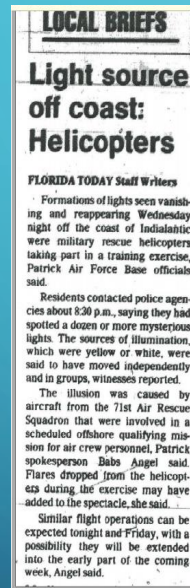


The screenshot shows a news article on the FOX 35 Orlando website. The URL in the address bar is [fox35orlando.com/news/are-we-alone-florida-group-investigates-ufo-sightings-including-one-off-the-florida-coast](https://www.fox35orlando.com/news/are-we-alone-florida-group-investigates-ufo-sightings-including-one-off-the-florida-coast). The article title is "Are we alone? Group investigates UFO sightings, including one off the Florida coast". The byline is "By Mike Magnoli | Published 4 days ago | News | FOX 35 Orlando". Below the title is a video player with a play button and the text "Are we alone? Group investigates UFO sightings, including one off the Florida coast". To the right of the video player is a green button that says "WATCH LIVE". Below the button is a list of "3 Easy Steps": 1. Click Start Now, 2. Free Access - No Sign Up!, 3. Access Streaming Sites. The video player also shows a news ticker at the bottom with the text "INVESTIGATING UFO SIGHTINGS" and "MARION CRASHED IN A DEADLY PLANE CRASH IN OCALA".

Click-hyperlinked to
FOXNews 35 in
Slideshow mode—or
Click link below

<https://www.fox35orlando.com/news/are-we-alone-florida-group-investigates-ufo-sightings-including-one-off-the-florida-coast>

9-1-1994 FLORIDA TODAY NEWS CLIP



This article was in the Florida Today as a release by the airforce

Many witnesses called police from on shore viewing. The crafts Were 20 miles offshore and at dusk/sunset and the air force reply made it for the newspaper morning edition, which is questionable?

Three FOI's made by MUFON have been ignored the last 2 years.

The next photos were taken from the video (VHS) and zoomed in Using an just an I-phone 7 camera. Whatever these crafts are they are not flares and helicopters. No smoke —no movement-faded in and out over a 20+ minute or so period. Spheres in clusters with protruding structures like antennae

LOCATION OF VIDEO AND STILLS FROM VIDEO



We were on our way in to Sebastian inlet from an apogee of approx. 20 miles offshore when the crafts were recorded. Need to convert these loran coordinates to lat and long yet
435.355. (I averaged the 55 as it's not visible with throttles in the way.
619.175

STILLS TAKEN FROM VIDEO AND ZOOMED IN –IPHONE 7



Screen shot from digital
And slightly zoomed in
Shot on iPhone 7

No filtering, no photo
Shop.

*Note dark circles on
Bottom of spheres now
visible in this shot

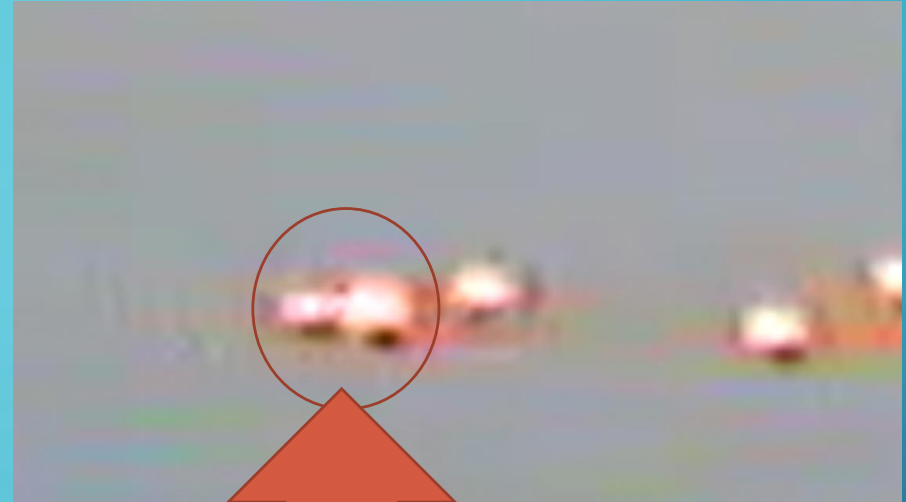
BREAK DOWN AND ZOOM IN OF CRAFTS



Note structure and shape of additional spheres now visible clustered together as these were zoomed in stills on my Iphone7 ---no editing or photoshop—
The lighting was filtered slightly on these which reduced glare from the normal iphone 7 feature--

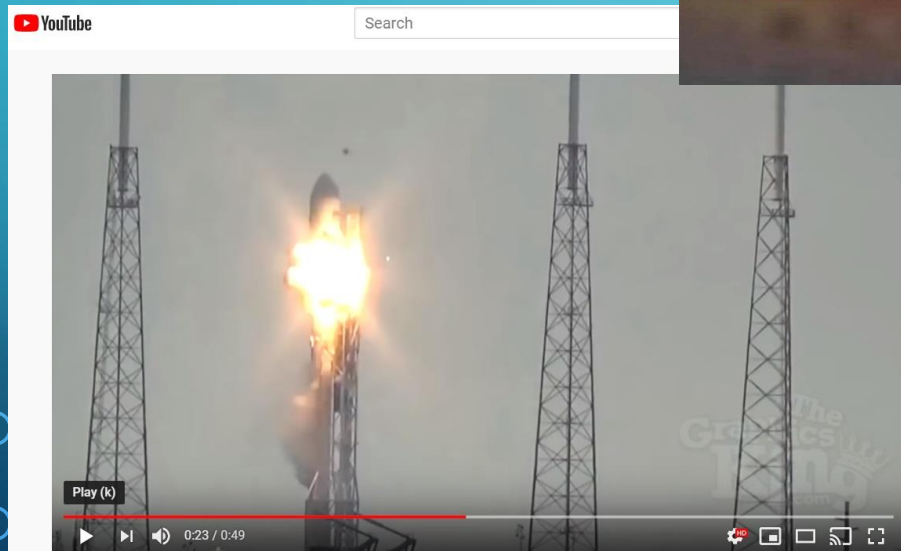


THERE THEY ARE—NOT FLARES
NOT HELICOPTERS. WHOSE
TECHNOLOGY IS THIS?
WHAT IS THE PURPOSE?

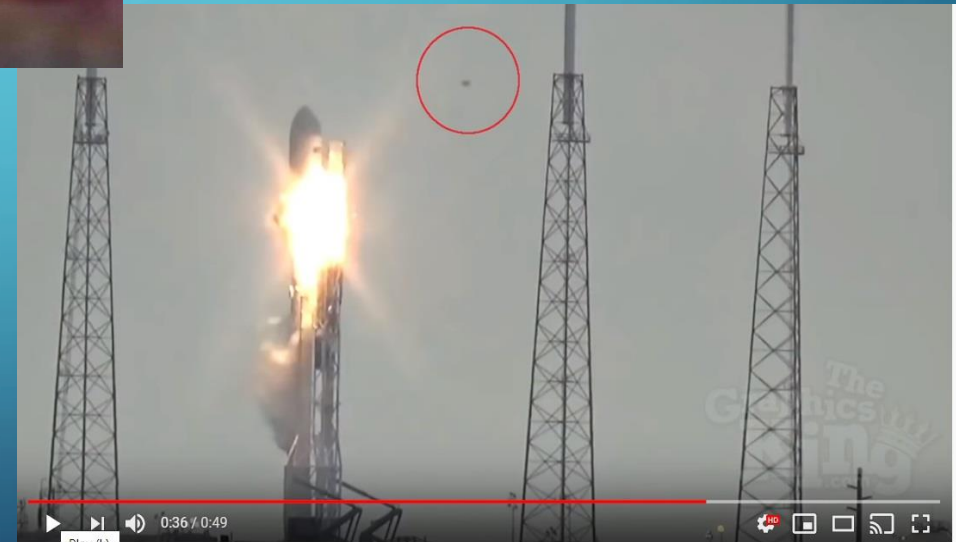


This is further zoomed in and light filtered in the same method on the iphone 7. No smoke not moving, no parachutes, no helicopters. Clearly crafts of undisclosed technologies out of the realm of aerodynamic design. With better equipment than off of the shelf Walmart VHS to DVD and an iphone 7—these should be able to be made more definitive and clearer.

SPACE X EXPLOSION SEPT 1 2016 BENEVOLENT CRAFTS?



SpaceX UFO Explosion - Slow Motion!



<https://www.youtube.com/watch?v=arlc1NIHvV0>

RE: Daily Report for Tuesday, June 22

From: Melroy, Pamela A. (HQ-AB000) </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=19BE8B08686B4A0A9D097936E1A0601A-MELROY, PAM>
To: Potter, Sean (HQ-NA020) <sean.potter@nasa.gov>, Massey, Natalie (HQ-AB000) <natalie.massey@nasa.gov>
Sent: June 22, 2021 9:29:54 AM EDT
Received: June 22, 2021 9:29:00 AM EDT

Sean, thank you!

From: Potter, Sean (HQ-NA020) <sean.potter@nasa.gov>
Sent: Tuesday, June 22, 2021 9:22 AM
To: Massey, Natalie (HQ-AB000) <natalie.massey@nasa.gov>
Cc: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>
Subject: Re: Daily Report for Tuesday, June 22

Hi, Natalie – I've just added her to the distribution list. Please let me know if you need anything else.

And welcome aboard (and back), Pam! Congrats on your confirmation!

Best,

Sean

Sean Potter

Public Affairs Specialist

Office of Communications

NASA Headquarters

sean.potter@nasa.gov <mailto:sean.potter@nasa.gov>

Office: 202-358-1536

Mobile: (b) (6)

From: "Massey, Natalie (HQ-AB000)" <natalie.massey@nasa.gov>
Date: Tuesday, June 22, 2021 at 8:33 AM
To: "Potter, Sean (HQ-NA020)" <sean.potter@nasa.gov>
Cc: "Melroy, Pamela A. (HQ-AB000)" <pamela.a.melroy@nasa.gov>
Subject: Re: Daily Report for Tuesday, June 22

Dear Sean,

Can you add Deputy Melroy to this distribution list - pamela.a.melroy@nasa.gov

Thanks.

--

Natalie L. Massey

Executive Assistant to the Deputy Administrator

Office of the Administrator

Mary W. Jackson

NASA Headquarters

Office: 202-358-1020

E-mail: natalie.massey@nasa.gov

From: "Potter, Sean (HQ-NA020)" <sean.potter@nasa.gov>

Date: Tuesday, June 22, 2021 at 8:01 AM

Subject: Daily Report for Tuesday, June 22

Good morning.

Attached and below is today's Communications Daily Report.

Thank you,

Sean Potter

NASA Communications Daily Report

Tuesday, June 22

Activities

·12:30 to 1:30 pm – NBC interview on NASA's search for life with Planetary Sciences Division Director Lori Glaze

oNBC's Tom Costello will interview Lori Glaze on NASA's ongoing work and research in the search for life beyond our own planet.

·3pm – NASA Administrator Bill Nelson live interview with Newsmax on vision for NASA

·Aviation Week interviews with Webb experts

o4:30 pm – Sandra Irish, Webb lead structures engineer; Begoña Vila, Webb instrument systems engineer; Bill Ochs, Webb project manager at Goddard; Scott Willoughby, Webb program manager at Northrop Grumman interview with Irene Klotz of Aviation Week at Northrop Grumman

o5 to 6 pm – Aviation Week interview of Webb team members Scott Willoughby and Bill Ochs

·7 to 8 pm – Virtual Tour: Space Environments Complex at Glenn

oVirtual tour followed by live Q&A with expert for registered guests. The SEC is home to the world's largest and most powerful Space Simulation Vacuum Chamber, which measures 100 ft. in diameter by 122 ft. high. It also boasts the Reverberant Acoustic Test Facility, which can simulate the noise of a spacecraft launch up to 163 decibels; and the Mechanical Vibration Facility, the world's most powerful spacecraft shaker system, which subjects test articles to the rigorous conditions of launch.

·Deutsche Welle interview with Dr. Ravi Kumar Kopparapu of Goddard for story on the UFO/UAP report.

·External Proctor & Gamble media release on NASA Space Act Agreement

·Webb Launch Readiness Exercise #4 concludes at the Space Telescope Science Institute in Baltimore

·Astronaut Jessica Meir for Emory University and Children's Healthcare of Atlanta

oResults of SpaceX's 20th Resupply Mission Research "How Growing Cardiac Stem Cells in Space Can Benefit our Cardiac Kids" in Atlanta.

·Astronaut Kate Rubins with Fox 40 Sacramento on her recent mission to the space station

NASA Television

On Air

·No new programming scheduled

NASA HQ In-Studio Shoots, Productions:

·12:30 pm – Lori Glaze interview with NBC's Tom Costello via Zoom

Social Media ActivitY

Agency

·Live coverage of Administrator Nelson's testimony before the House Science Committee on NASA's FY2022 Budget will air beginning at 10 a.m. EDT. Programming will air on NASA TV, the NASA App, nasa.gov/live and will be promoted on flagship social media accounts.

·Women@NASA posts with flagship amplification to commemorate science fiction author Octavia E. Butler's birthday. In March, NASA named the landing site of the Perseverance rover "Octavia E. Butler Landing," after the author.

Solar System and Beyond

·Flagship social media accounts will amplify posts for the Ask an Astrobiologist live show featuring Goddard scientist Heather Graham. The program will stream live at 1 p.m. EDT to the NASA Astrobiology Facebook page.

Other

·NASA Knowledge: The Golden Record in English / Johnson

HQ Products

Release

·[TENTATIVE] RFI Public Meeting Registration

oInformation on how to register for the June 29 Mission Equity RFI event

Media Advisory

·NASA to Air Third Spacewalk to Install New Station Solar Arrays

·Northrop Grumman CRS-15 departure coverage advisory

Contract Release

·[TENTATIVE] NASA Extends Cyclone Global Navigation Satellite System Mission Contract (notifications complete; held from Monday)

·4 pm – Contract Mechanical Integration Services and Technologies (MIST) II contract (held from Monday)

Center Products

Blog Post

·10 am – Artemis I LVSA Foaming and Integration / Kennedy

oBlog post on Artemis I Launch Vehicle Stage Adapter (LVSA) will be mated atop the core stage upon completion of thermal protection system (TPS) foaming.

·2 pm – Ingenuity Flight 8 Recap / JPL

oOperations lead Teddy Tzanetos recaps the flight from Sunday, June 20.

Image/Video

·UTM close-out image feature / Ames

oA multi-image feature marks the close-out of the Unmanned Aircraft Systems Traffic Management project, or UTM. One photo is featured from each year of testing for the four technical capability levels achieved.

Web Articles

·10 am – EPSCoR Feature / Kennedy

oFeature highlighting NASA's Established Program to Stimulate Competitive Research program with an overview of two of the recently funded projects.

·1:30 pm -- A Perseverance Scientist's Favorite Image from Jezero Crater / JPL

oAs part of an occasional series, a Perseverance scientist offers details on her favorite image of Jezero Crater. First up is an image of a feature called Delta Scarp.

UAP Report (public)

From: Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>
To: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>
Sent: June 25, 2021 5:40:57 PM EDT
Received: June 25, 2021 5:40:59 PM EDT

The public version is out.

Bhavya Lal, Ph.D.

(b) (6)

Begin Forwarded Message:

From: "Etkind, Marc R. (HQ-NA000)" <marc.r.etkind@nasa.gov>
Subject: FW: FIRST UPDATE - UFO Report
Date: 25 June 2021 17:00
To: "McGuinness, Jackie (HQ-NA000)" <jackie.mcguinness@nasa.gov>, "Brown, Alicia N. (HQ-VA000)" <alicia.n.brown@nasa.gov>, "Gulley, Bryan F. (HQ-NA000)" <bryan.f.gulley@nasa.gov>, "Quinn, Susie Perez (HQ-AH000)" <susie.p.quinn@nasa.gov>, "Lal, Bhavya (HQ-AA000)" <bhavya.lal@nasa.gov>, "Dalton, Bale (HQ-AH000)" <bale.dalton@nasa.gov>

From: "Jacobs, Bob (HQ-NA000)" <bob.jacobs@nasa.gov>
Date: Friday, June 25, 2021 at 4:58 PM
To: "Etkind, Marc R. (HQ-NA000)" <marc.r.etkind@nasa.gov>, "Stephenson, Johnny F. (MSFC-NA000)" <johnny.f.stephenson@nasa.gov>, "Beutel, Allard (HQ-NA020)" <allard.beutel@nasa.gov>, "Thompson, Tabatha T. (HQ-NA020)" <tabatha.t.thompson@nasa.gov>, Brittany Brown <brittany.a.brown@nasa.gov>
Subject: FIRST UPDATE - UFO Report

<https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf>
<<https://gcc02.safelinks.protection.outlook.com/?url=https://www.dni.gov/files/ODNI/documents/assessments/Preliminary-Assessment-UAP-20210625.pdf&data=04|01|pamela.a.melroy@nasa.gov|9392072d83254bbd28ca08d93821eb37|7005d45845be48ae8140d43da96dd17b|0|0|637602540595247005|Unknown|TWfPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=exW8nvSY1TqcSSnhBOKDwZU6ASpdZv4jQ8vdnAd+mA0=&reserved=0>>

We can expect inquiries accordingly.

bj

[EXTERNAL] Invitation to the Galileo Project

From: Avi Loeb (b) (6)
To: bill.nelson@nasa.gov, Nelson, Bill (HQ-AA000) <bill.nelson@nasa.gov>
Sent: July 10, 2021 10:54:43 AM EDT
Received: July 10, 2021 10:58:17 AM EDT
Attachments: hires.pdf, Galileo_Project-Announcement & PR-draft v6.0-10Jul21.pdf

Dear Bill,

Thank you for voicing your view on CNN that scientists should attempt to study the nature of UAP.

A month after the UAP Pentagon report to Congress (June 25, 2021), a group of scientists is coming together under my leadership with a research project to obtain a high resolution image of anomalous objects near Earth, including UAP and interstellar objects like `Oumuamua. Over the past week, we have obtained seed funding at \$1.5M from Frank Laukien (CEO of the Bruker Corporation), Eugene Jhong (Harvard Alum), and Vinny Jain (DE Shaw), and we are hoping to raise \$10M to purchase the appropriate telescope hardware and instrumentation. This ground-based project is complementary to traditional SETI, in that it searches for physical objects, and not electromagnetic signals, associated with extraterrestrial technological equipment.

Attached below is the narrative that will accompany the public announcement of the project on July 26, exactly a month after the date of the UAP report. Would you be willing to serve on the Advisory Board of this project? We would greatly benefit from your wisdom and intellect.

The new data coming out of this project would be interesting irrespective of whether it provides conclusive evidence for extraterrestrial technologies. I also attach my latest commentary to be published in Scientific American on July 26, which defines the ultimate goal of the project.

With warmest wishes,

Avi

Abraham (Avi) Loeb
Frank B. Baird Jr. Professor of Science
Harvard University

Website: <https://web.cfa.harvard.edu/~loeb/>
<<https://gcc02.safelinks.protection.outlook.com/?url=https://web.cfa.harvard.edu/~loeb/&data=04|01|bill.nelson@nasa.gov|1caf0f5a631b4d0ab3ec08d943b2d614|7005d45845be48ae8140d43da96dd17b|0|0|637615258971375251|Unknown|TWFPbGZsb3d8eyJWljojMC4wLjAwMDAiLCJQljojV2luMzliLCJBTiI6Ik1haWwiLCJXVCi6Mn0=|1000&sdata=kMVe+yYI0ZZndg0uZANxk5hgqNilAysu1YhSKTfblbY=&reserved=0>>

Cell: (b) (6)

Attachment

1. hires.pdf

Type: application/pdf
Size: 215 KB (220,842 bytes)

2. Galileo_Project-Announcement & PR-draft v6.0-10Jul21.pdf

Type: application/pdf
Size: 473 KB (484,825 bytes)

Attachment #1

hires.pdf

Original view

2 pages (displayed on pages 4 to 5)

This Attached Report is a Draft, the Final Report
posted at:
<https://lweb.cfa.harvard.edu/~loeb/hires.pdf>

(b) (5)

(b) (5)

Attachment #2

Galileo_Project-Announcement & PR-draft v6.0-10Jul21.pdf

Original view

9 pages (displayed on pages 7 to 15)

This attachment is a Draft--Final Report is posted at:

<https://markets.businessinsider.com/news/stocks/announcing-the-galileo-project-for-the-systematic-scientific-search-for-evidence-of-extraterrestrial-technological-artifacts-1030644167>

(b) (5)

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[EXTERNAL] NASA and the UFO/UAP report

From: (b) (6)
To: bill.nelson@nasa.gov, Nelson, Bill (HQ-AA000) <bill.nelson@nasa.gov>
Sent: July 13, 2021 1:41:18 PM EDT
Received: July 13, 2021 1:41:28 PM EDT

To: NASA Administrator Bill Nelson

From: (b) (6) NASA SETI Signal Detection Analyst 1980 – 1994

Orbit Analyst United States Air Force Space Command 1997 - 2002

(b) (6)

In the search for extraterrestrial intelligence (SETI) in the universe, China has developed Earth's biggest 500-meter Aperture Spherical radio Telescope (FAST) – sometimes called Tianyan, or the Heavenly Eye – that may well empower China to become the first to experience a “close encounter” with aliens, if there are any out there.

In Close Encounters of the Third Kind, first contact takes place at the bottom of a mountain — Devil's Tower, Wyoming.

That was fiction, but in real life, it's very possible that first contact will take place instead at the bottom of a ring of mountains, half the world away, in a remote province of south-west China.

Embedded within a deep circular depression formed by a karst region of towering limestone mountains, the giant Five-hundred-meter Aperture Spherical Telescope (FAST) is the world's most powerful radio telescope. It's also something else: the next great hope in SETI, the search for extraterrestrial intelligence.

Thanks to FAST, China is turning into a major player in the world of SETI — by the end of this decade, it could be the major player.

“China has been very interested in the question, ‘are we alone?’ For a long time,” says Dan Werthimer of the University of California, Berkeley. “But until recently there have been very few people working on SETI in China.”

Now it's full speed ahead. FAST's visionary architect, the late astronomer Nan Rendong, who passed away in 2017, was keenly interested in SETI. So too is Zhang Tong-Jie, who is a Professor of Astronomy at Beijing Normal University and leader of FAST's SETI program.

Yet China's ascendance in the world of SETI has prompted much hand-wringing among some commentators in the West, expressing concerns that the government in Beijing may choose to keep the discovery of an extraterrestrial signal, and any information learned from it, a secret. Worse still, say the commentators, China could potentially act unilaterally and be the point of first contact with an alien society.

Yet when I asked Zhang Tong-Jie about what China's response would be, were FAST to detect a signal, he was very clear.

We and our collaborators use the International Academy of Astronautics (IAA) SETI Post Detection Protocol, which calls for independent verification [of any signal] and for all information to be shared with the public,” he says.

Comments by (b) (6)

The IAA does not have the power of law, it can only make recommendations.

China having control an extraterrestrial transmission that may contain important scientific and technological information was not considered in the recent Senate requested UFO/UAP report by the Director of National Intelligence as a possible national security concern.

For the country making what would be mankind's greatest scientific discovery, prestige and possibly political gain would be forthcoming.

The former NASA SETI project was terminated by Congress in 1993 and has not been reinstated even though the search for life elsewhere is one of NASA's major goals.

OIIR Weekly Update

From: Feldstein, Karen C. (HQ-TA000) <karen.c.feldstein@nasa.gov>
To: Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Cc: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>, Saunders, Melanie (HQ-AA000) <melanie.saunders-1@nasa.gov>, Quinn, Susie Perez (HQ-AH000) <susie.p.quinn@nasa.gov>, Dalton, Bale (HQ-AH000) <bale.dalton@nasa.gov>, Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>, Cremins, Tom (HQ-AJ000) <tom.cremins-1@nasa.gov>, Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>, Stephenson, Johnny F. (MSFC-NA000) <johnny.f.stephenson@nasa.gov>, Jacobs, Bob (HQ-NA000) <bob.jacobs@nasa.gov>, Kerwin, Mary D. (HQ-IA000) <mary.d.kerwin@nasa.gov>, Brown, Alicia N. (HQ-VA000) <alicia.n.brown@nasa.gov>, Flaherty, Christopher J. (HQ-VA030) <christopher.j.flaherty@nasa.gov>, Zurbuchen, Thomas H. (HQ-DA000) <thomas.h.zurbuchen@nasa.gov>, Lueders, Kathryn L. (KSC-CA000) <kathryn.l.lueders@nasa.gov>, McKay, Meredith (HQ-TA000) <meredith.mckay@nasa.gov>, Swails, Casey L. (HQ-LE030) <casey.l.swails@nasa.gov>
Sent: July 25, 2021 5:08:12 PM EDT
Received: July 25, 2021 5:08:14 PM EDT

Bob,

Below is a list of top-level, OIIR-supported activities of interest this week and some upcoming activities.

National Security Council (NSC) Sub-Interagency Policy Committee (sub-IPC) on Quad Critical and Emerging Technology (CET) Working Group: On July 27, the NSC will hold a Sub-IPC on the Quad CET Working Group via secure VTC to address plans for the four Lines of Effort: tech standards, 5G deployment and diversification, horizon-scanning, and technology supply chain security. OIIR will attend with representatives from the Office of the Chief Engineer (OCE) and HEO/SCaN.

NSC Restricted IPC Meeting: On July 28, the NSC will hold its weekly in-person restricted IPC meeting to continue the development of strategic messaging and a diplomatic plan for Department of Defense space activities. OIIR will attend.

OSTP National Science and Technology Council (NSTC) Research Security Meeting: At a meeting on July 28, the NSTC Research Security Subcommittee will continue developing interagency guidance to implement National Security Policy Memorandum (NSPM)-33. NSPM-33 is designed to strengthen protection of USG-supported R&D against foreign interference and exploitation. OIIR will attend.

British and Iraqi Ambassadors at OFT-2 Launch: On July 30, the British Ambassador to the U.S., Karen Pierce, and Iraq's Ambassador to the U.S., Fareed Yasseen, will the Orbital Flight Test 2 (OFT-2) launch at the invitation of the Administrator.

SMD AA Travel to French Guiana: On July 30, Dr. Zurbuchen, on the invitation of Arianespace CEO Stephane Israel, will attend a commercial launch from the Kourou Space Port in French Guiana. While in Kourou, he will visit launch facilities in preparation for the launch of JWST and meet with Mr. Israel and the ESA Director of Space Transportation, Daniel Neuenschwander. While in transit, Dr. Zurbuchen will participate in an airborne science flight of the NASA Laser Vegetation Imaging Sensor (LVIS) mission. Dr. Zurbuchen plans to highlight JWST as well as LVIS on social media.

NSC Homeland and Critical Infrastructure Resilience (HCIR) IPC Meeting: On July 30, the NSC will host the next HCIR IPC meeting via secure VTC. The discussion will focus on the draft National Security Memorandum on "Strengthening the Security and Resilience of United States Food and Agriculture" and other issues including the ongoing ransomware campaign and the planned resilience line of effort, and other matters. Representatives from OIIR, the Office of Protective Services, and the Office of the Chief Information Officer will participate.

NSC Sub-IPC on the Quad Climate Working Group: On July 30, the NSC will hold a Sub-IPC via secure VTC to discuss three pillars papers on Climate: 1) Ambition; 2) Clean Energy Innovation and Deployment; and 3) Adaptation, Resilience and Preparedness. OIIR will attend.

Upcoming Activities

August 2021

Aug 4-5 (Proposed)

Administrator virtual meeting with President, Japan Aerospace Exploration Agency President

Aug 4-5

ISS Advisory Committee joint meeting with Roscosmos Advisory Expert Council (virtual)

Aug 5

Administrator Nelson meeting with Director, National Reconnaissance Office (NRO)

Aug 11 (to be confirmed)

OSTP Director roundtable with academia to discuss implementation of NSPM-33 to strengthen protections of USG-supported R&D against foreign interference & exploitation

Aug 17

Briefing to Administrator on Task Force Report on Unidentified Aerial Phenomena

Aug 18

Administrator Nelson meeting with NOAA Administrator

Aug 22-26

36th Space Symposium, Colorado Springs

Aug 25-Sep 3

UN Committee on the Peaceful Uses of Outer Space (COPUOS)

Aug 30-Sep 4

SMD AA Zurbuchen travel to Europe for meetings with CNES and ESA and remarks at the Swiss Economic Forum

Please let me know if you have any questions or would like additional information.

Regards,

Karen

Karen C. Feldstein

Associate Administrator for

International and Interagency Relations

NASA Headquarters

300 E St SW, Washington DC 20546

Tel: (202) 358-0400

Mobile: (b) (6)

OIIR Weekly Update

From: Feldstein, Karen C. (HQ-TA000) <karen.c.feldstein@nasa.gov>
To: Cabana, Robert D. {HQ-Associate Administrator} (KSC-AI000) <robert.d.cabana@nasa.gov>
Cc: Melroy, Pamela A. (HQ-AB000) <pamela.a.melroy@nasa.gov>, Saunders, Melanie (HQ-AA000) <melanie.saunders-1@nasa.gov>, Quinn, Susie Perez (HQ-AH000) <susie.p.quinn@nasa.gov>, Dalton, Bale (HQ-AH000) <bale.dalton@nasa.gov>, Lal, Bhavya (HQ-AA000) <bhavya.lal@nasa.gov>, Cremins, Tom (HQ-AJ000) <tom.cremins-1@nasa.gov>, Etkind, Marc R. (HQ-NA000) <marc.r.etkind@nasa.gov>, Stephenson, Johnny F. (MSFC-NA000) <johnny.f.stephenson@nasa.gov>, Jacobs, Bob (HQ-NA000) <bob.jacobs@nasa.gov>, Kerwin, Mary D. (HQ-IA000) <mary.d.kerwin@nasa.gov>, Brown, Alicia N. (HQ-VA000) <alicia.n.brown@nasa.gov>, Flaherty, Christopher J. (HQ-VA030) <christopher.j.flaherty@nasa.gov>, Zurbuchen, Thomas H. (HQ-DA000) <thomas.h.zurbuchen@nasa.gov>, Lueders, Kathryn L. (KSC-CA000) <kathryn.l.lueders@nasa.gov>, McKay, Meredith (HQ-TA000) <meredith.mckay@nasa.gov>, Swails, Casey L. (HQ-LE030) <casey.l.swails@nasa.gov>
Sent: July 18, 2021 5:44:33 PM EDT
Received: July 18, 2021 5:44:36 PM EDT

Bob,

Below is a list of top-level, OIIR-supported activities of interest this week and some upcoming activities:

Public Meeting on NASA's Proposal to Withdrawal Land from Railroad Valley (RRV), Nevada: On July 19, NASA will participate in a virtual public meeting with an official from the Department of Interior's Bureau of Land Management to provide an overview of, and hear public comments regarding, NASA's request to withdraw nearly 23,000 acres of land from public use in RRV. NASA initiated the withdrawal application to preserve this land for satellite calibration activities. RRV is the best vicarious calibration site in the U.S. and one of the best in the world for Earth observing satellites because it has ideal and stable land characteristics, is well-instrumented, and can be relatively easily accessed by scientists. Representatives from SMD, OComm, and OIIR will attend.

ISS Multilateral Coordination Board (MCB): On July 19, HEOMD AA Lueders will chair the ISS MCB, the highest-level governing board of the program, with her counterparts from the Canadian Space Agency (CSA), Roscosmos, the European Space Agency (ESA), and Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT).

Norms of Behavior for National Security Space Activities: On July 20, the National Security Council (NSC) will kick off a series of biweekly Sub-Interagency Policy Committee (Sub-IPC) meetings to develop norms of behavior for national security space activities. The principal participants are DOD, the State Department, and the Intelligence Community. Civil departments and agencies are being included for awareness. OIIR will support.

NASA Annual Export Control Program Review: On July 20, the Deputy Administrator will provide welcoming remarks at this OIIR-sponsored agencywide event for 75 NASA civil servants and contractors responsible for assuring agency compliance with U.S. export control regulations. The Deputy Administrator's participation will reinforce the critical importance of protecting the nation's sensitive technologies.

NSC Restricted IPC meeting: On July 21, the NSC will hold the 2nd in a series of weekly in-person restricted IPC meetings to continue the development of strategic messaging and a diplomatic plan for Department of Defense space activities. OIIR will support.

Climate presentation at Japan event: On July 21, NASA Senior Climate Advisor (acting) Dr. Gavin Schmidt will provide a presentation on "NASA's Cooperation in Addressing the Climate Challenge" to a Japan Aerospace Exploration

Agency (JAXA)-hosted virtual event.

Launch of Russia's Nauka Multipurpose Laboratory Module (MLM) to ISS: On July 21, Roscosmos is scheduled to launch the Nauka MLM to ISS from Baikonur, Kazakhstan, on a Proton-M rocket. The Nauka MLM includes a robotic arm provided by the European Space Agency. NASA's Director of Human Space Flight Programs in Russia, Tricia Mack, traveled from Moscow to Baikonur for launch.

Potential Visit by Spain Prime Minister to JPL: On July 22, the mayor of Los Angeles, Eric Garcetti, is scheduled to host the Prime Minister of Spain, Pedro Sanchez, for a meeting and brief tour at JPL. The visit isn't yet confirmed.

Chief Scientist Lecture at Oxford: On July 23, NASA Chief Scientist Dr. Jim Green will give a virtual lecture at the University of Oxford's St. Cross College Center for the History and Philosophy of Physics on "The Future of Space Activities and Preservation on Mars."

Upcoming Activities

July 2021

July 27-Aug 1

Zurbuchen travel to Kourou, French Guiana for Ariane 5 launch

July TBD

Administrator meeting with SBA Administrator

August 2021

Aug 4-5

ISS Advisory Committee joint meeting with Roscosmos Advisory Expert Council (virtual)

Aug 4-5 (proposed)

Administrator meeting with President, Japan Aerospace Exploration Agency (JAXA) President

Aug 5

Administrator Nelson meeting with Director, National Reconnaissance Office (NRO)

August 17

Briefing on Task Force Report on Unidentified Aerial Phenomena

Aug 18

Administrator Nelson meeting with NOAA Administrator

Aug 22-26

36th Space Symposium, Colorado Springs

Aug 25-Sep 3

UN Committee on the Peaceful Uses of Outer Space (COPUOS)

Aug 29-Sep 4

SMD AA Zurbuchen travel to Europe for meetings with CNES and ESA and remarks at the Swiss Economic Forum

Please let me know if you have any questions or would like additional information.

Regards,

Karen

Karen C. Feldstein

Associate Administrator for

International and Interagency Relations

NASA Headquarters

300 E St SW, Washington DC 20546

Tel: (202) 358-0400

Mobile: (b) (6)