



Velocity Update
September 18, 2020

Happy 73rd Birthday, Air Force!



Congressional Schedule. The Senate and House are in session. (*More below.*)

U.S. Economic Outlook

Weekly numbers and long-term outlook. [860,000 people applied for unemployment benefits](#) for the first-time last week, the second week in a row that new unemployment claims have been below a million. Another 659,000 people claimed Pandemic Unemployment Assistance, the program for self-employed or gig workers, for the first time, which is an increase from August numbers. A total of 29.7 million are claiming some kind of unemployment benefits. Department of Commerce numbers show that retail sales rose 0.6-percent in August, the fourth-consecutive month of growth, but that the rate growth rate has significantly slowed from July. The Federal Reserve Board of Governors [met this week](#) and did not announce any major policy changes, though Fed Chairman Jerome Powell did note the importance of additional relief from Congress in order to shore up the economy. The Fed's economic projections show that unemployment should fall to 7.6-percent by the end of 2020, and 5.5-percent by the end of 2021. In other economic news, the Treasury Department announced that the U.S. [budget deficit officially reached \\$3 trillion](#) through the first 11 months of the fiscal year, nearly tripling from the same time period last year. The Congressional Budget Office expects the deficit to reach \$3.3 trillion by the end of September when the fiscal year ends.

Coronavirus government operations update

National perspective. As of Friday afternoon, the number of confirmed cases in the U.S. [is at least 6,676,000 with at least 197,000 deaths](#). On Sunday, the World Health Organization [reported 308,000 new coronavirus](#) cases, the highest one-day increase in the number of new cases across the world, with India, the U.S., and Brazil leading the list of individual countries of reportable cases. Many experts are concerned with the real numbers of infected individuals, especially in countries like China and Russia. In the U.S., 17 states saw an increase in reported cases and 13 states saw a [decrease](#). At a Senate hearing this week, Centers for Disease Control and Prevention Director Dr. Robert Redfield said that health care workers, first responders, and others at high risk would be the first to get any approved vaccine, and that a vaccine would possibly be approved by late this year or early next year, but that wider availability wouldn't happen before late spring or summer next year. He also stressed the importance of wearing masks. President Trump then [called Redfield](#) "confused" and stated once again that, despite the overwhelming evidence to the contrary, a vaccine would be ready by October and mass distributed shortly thereafter. And, on Friday afternoon, the President held a news conference where he said the U.S. is on track to have 100 million doses of an approved vaccine distributed by year end -- the distribution plan, which is overseen by Operation Warp Speed, is going better than the U.S. anticipated.

Washington metro area. Overall coronavirus cases in [D.C., Maryland, and Virginia topped 272,000 by Friday afternoon, with at least 7,000 deaths](#). It is important to note the death rate has dramatically declined and the survival rate has gone up dramatically. A [survey taken in August](#) by the Greater Washington Partnership of 430 employers in the greater Washington region (from Baltimore to Richmond) shows that only a third of companies expect to have workers in the office this fall, while 40-percent of the region's workforce could be back in the office by spring and 72-percent by next summer. One of the main concerns expressed with bringing workers back is the safety of public transit.

Pentagon still in Phase Two operations. There are ongoing discussions within the Pentagon on new policy to support telework and the phasing in of DoD personnel in person. The Pentagon remains in Phase Two (Bravo), which means a maximum of 80-percent of staff allowed on-site, though the actual number of staff on site tends to be much lower. If you are planning to visit, give yourself plenty of time to go through the visitor's center. All visitors should expect to get their temperature checked along with their IDs.

NASA is still relying on mostly telework. All of NASA's facilities are at Stage 3 of its pandemic response plan. (Stage 3 means mandatory telework except for those needed for critical work for missions.)

The White House. While some staff continues to telework or rotate into the office in shifts to handle classified materials, many staff are going physically back into the office on a regular basis. Mask wearing and temperature checks are not comprehensively required.

Access to Congress remains limited. Access to the congressional office buildings and capitol complex continues to be limited, open only to Members, Congressional staff, and credentialed press. Many offices continue to encourage the vast majority of staff to telework. However, an increasing number of staff, especially at the committee and senior level, are coming into the Capitol complex to support their bosses during this active legislative season. Sen. Shelley Moore Capito (R-WV) announced on Tuesday that she tested negative for the coronavirus, but is still opting to quarantine for 14 days since she was exposed to someone with the virus. Sen. Ron Johnson (R-WI) announced the same thing on Thursday.

Congressional activities

There are only a very few work days left to accomplish a long list of legislative priorities before lawmakers go home to campaign, and almost everything in front of Congress right now has the added burden of being a chess piece in the upcoming election. As a reminder, the full House is up for re-election and one-third of the Senate.

House Speaker Nancy Pelosi has said that she is willing to keep the House in session until a deal is reached on a new pandemic relief package, though in practice what that means is members can leave town as long as they are available to return within 24 hours. (As a reminder, proxy voting remains in place in the House through the end of September.) However, there's word that the Senate is trying to leave town as soon as possible so they can go home to campaign. Right now, the Senate is scheduled not to recess until Oct. 9, with two days out on Sept. 28 and 29 in observance of Yom Kippur. However, Senate Majority Whip John Thune (R-SD) said, "I think once we get the CR [continuing resolution] done, I don't know there is going to be a lot more business to be transacted."

The notorious RBG dies. Justice Ruth Bader Ginsburg, the liberal leader of the Supreme Court and a trailblazing champion of women's rights, died Friday, at 87 years old. The Supreme Court said in a statement that Ginsburg died "surrounded by her family at their home in Washington, D.C., due to complications of metastatic pancreas cancer." Seen as a moderate when President Bill Clinton nominated her to the bench in 1993, Ginsburg went on to leave a lasting mark in the realm of gender equality, civil liberties and pay equity,

and grew to achieve improbable late-in-life recognition as a pop culture icon and hero of the progressive movement. Her death sets up a fight over filling a Supreme Court seat with less than 50 days until the election. The development will give President Trump the opportunity to name her successor, and Senate Republicans have promised to try to fill the vacancy even in the waning days of his first term. As a reminder, in 2016, when Justice Antonin Scalia died, Senate Republicans refused to consider President Barack Obama's nomination of Judge Merrick B. Garland, saying that holding hearings in the last year of a president's term would deprive voters of a role in the process. Senator Mitch McConnell of Kentucky, the majority leader, led the effort to block Judge Garland's nomination. But McConnell has already said he will press to fill any vacancy that might arise in the last year of Mr. Trump's first term. The confirmation battle, in the middle of a pandemic and a presidential election, is sure to be titanic. And, on Friday night, moments after the national news erupted about the Ginsberg's passing, Senate Minority Leader Charles Schumer (D-NY) said that the Senate should wait until next year to fill the Supreme Court seat left vacant by Justice Ruth Bader Ginsburg's death. More [here](#), [here](#), [here](#), [here](#), and [here](#).

House leadership races. In the race for House Appropriations Committee chair, Rep. Marcy Kaptur (D-OH) picked up endorsements from five Democrats, including two Members of the Congressional Progressive Caucus, while Rep. Debbie Wasserman Schultz (D-FL) gained the endorsement of two senior Members of the Congressional Black Caucus. Rep. Pete Aguilar (D-CA) announced on Tuesday that he is officially running for vice chair of the House Democratic Caucus.

Nuclear weapons cuts. [In a letter](#) to Senate Armed Services Chair Jim Inhofe (R-OK), Defense Secretary Mark Esper and Pentagon acquisition chief Ellen Lord warn against cuts to nuclear weapons spending and other limits endorsed by the House, which they argue would jeopardize efforts to modernize the U.S. arsenal. Specifically, Esper said House proposals to curb the atomic weapons budget and set conditions on how it is written would put America's nuclear programs at "unacceptable risk. The White House had previously indicated its objections to House actions on the Energy Department's National Nuclear Security Administration budget. But Esper's letter is the most pointed and detailed articulation of the administration response. And Inhofe's rhetoric takes the debate's intensity up a notch. More [here](#).

Nuclear conflict. At a Senate Armed Services Committee hearing on Thursday, committee Chairman Sen. Jim Inhofe (R-OK) [accused Department of Energy officials](#) of undermining the National Nuclear Security Administration and working against nuclear modernization plans. In his opening statement, Inhofe said "I've been given information that individuals from the Department of Energy have worked behind the scenes with the House Democrats on ill-advised legislation." At [issue are proposed changes](#), as included in the House and Senate versions of the NDAA, as to how [budgets are formulated](#) for the Nuclear Weapons Council and National Nuclear Security Administration, and how much influence the Department of Energy and the Pentagon have over those budgets.

AI strategy. Reps. Will Hurd (R-TX) and Robin Kelly (D-IL) have introduced a [resolution](#) in the House to create a national artificial intelligence strategy. "American ongoing and future leadership in AI will be based on today's policies and investments. We need a real and actionable comprehensive plan, as this resolution calls for, to engage all levers of national power to create and preserve American AI superiority," said Rep. Kelly.

Space weather bill. Five years after the first version of the bill was introduced, Congress has [finally passed](#) the Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow (PROSWIFT) Act ([S. 881](#)). The House voted on [the bill](#) on Wednesday by voice vote. The Senate had already passed the bill by unanimous consent on July 27. The legislation – which assigns roles and responsibilities to agencies involved in space weather research and forecasting, ensures coordination within the government, and

calls for coordination between the government and the non-governmental space weather community – now goes to President Trump, who is expected to sign.

Global threats hearing. The Senate Select Committee on Intelligence traditionally holds an annual hearing early in the year with the Director of National Intelligence (DNI) and the chiefs of the National Security Agency, Central Intelligence Agency, and other agencies. However, it [doesn't look like the hearing will happen this year](#), even though DNI John Ratcliffe told lawmakers at his confirmation hearing in May that he would appear for the hearing. Senators Marco Rubio (R-FL) and Mark Warner (D-VA), chair and vice-chair of the committee, respectively, pushed Ratcliffe to testify before the August recess. Ratcliffe only agreed to do a public opening statement and then have the rest of the hearing be closed. The lack of a global threats hearing is yet another norm the administration is circumventing by way of asserting presidential power over that of Congress.

Election security briefings. In a major reversal, Ratcliffe said that he will [reinstate in-person briefings on election security](#) for the House and Senate intelligence committees. Rubio said that Ratcliffe will appear before his committee next week, and Rep. Adam Schiff (D-CA), chair of the House Permanent Select Intelligence Committee, said that Ratcliffe has promised an in-person briefing but that no date or time has been confirmed yet.

The next pandemic relief package. Here's where we are: House Democrats want a \$2.2 trillion relief package. The [White House](#) apparently wants between \$1.3 and \$1.5 trillion. This week, the bipartisan and pragmatic [House Problem Solvers Caucus](#) offered a \$1.5 trillion plan. And House and Senate Republicans want far less than even \$1.3 trillion. Everyone is pointing fingers at everyone else, both for not putting legislation on the floor and for not negotiating. Some House Democrats – especially those from swing districts that voted for Trump in 2016 and elected Democrats in 2018 – are starting to break from the party line of holding out for the greater funding line in favor of getting something done. Rep. Abigail Spanberger (D-VA) said “my conviction is to actually do my goddamn job and come up with a solution for the American people,” while Rep. Kendra Horn (D-OK) said that it is “unacceptable that congressional leadership is not at the table when businesses are closing, Americans are out of work, and families need help.” Treasury Secretary Steven Mnuchin [encouraged](#) Republican lawmakers to not worry about the deficit, saying that “now is not the time.”

FY2021 NDAA. The conference process for the NDAA to work out an agreement between the House and Senate versions of the bill has not yet officially begun. SASC Chairman Sen. James Inhofe (R-OK) said this week that an official conference won't start anytime soon, and HASC Chairman Rep. Adam Smith (D-WA) noted that the committee is still making decisions about their part of the conference. However, committee staff have already starting working out differences in the bills, and the SASC and HASC chairs do have the ability to negotiate outside of the formal conference process. Of interest, the Association of American Universities and the Association of Public and Land-Grant Universities [sent a letter](#) to the HASC and SASC this week supporting the science and technology priorities in the NDAA centered on promoting and protecting U.S. innovation.

FY2021 Appropriations. Negotiations are underway for a continuing resolution to keep the government funded after the fiscal year ends on Sept. 30. The main question is exactly how long the CR will be for, and whether extraneous provisions will also be included. The [reason the end date matters](#) is that the election results could change control of both Congress and the White House. Congressional leaders and the White House seem confident that a shutdown won't happen, although they're still haggling over the end date for a continuing resolution and which funding and policy exceptions to include in the bill. Republicans want to drag out government funding until Dec. 18, while Democrats are pushing for a more advantageous end date on Feb. 26, when they hope to control both chambers of Congress (and possibly also the White House).

There is also a question of which, if any, [White House-requested anomalies](#), will be included in the CR. Speaker Pelosi and Treasury Secretary Mnuchin have reportedly already agreed to a “clean CR,” which typically means no anomalies. However, no bill text for the CR has been seen yet. One of particular interest is the anomaly that would allow the Space Force to transfer money from the Air Force budget so that the new service would have its own separate budget. Chief of Space Operations Gen. John “Jay” Raymond noted this week that a [long-term CR would delay](#) the procurement of two new GPS satellites and upgrades to the National Space Defense Center at Schriever Air Force Base in Colorado Springs, and would cause the need for a mid-year switch on accounting if the Space Force can’t transfer money now. Industry is [expressing concern over a long-term CR](#) as well, noting that it would increase instability for the defense industrial base, which is already facing challenges from the pandemic. House Majority Leader Steny Hoyer [said this week](#) that he wants to put the CR legislation on the House floor next week. “I want to give the Senate at least a week to pass it. I want to make sure government doesn’t shut down.”

On Friday afternoon, it was announced that, on Monday at 1 pm, the House Rules Committee will [meet to formulate a rule](#) on a continuing resolution to fund the government beyond Sept. 30.

For those tracking the funding numbers, [here](#) is where we are on the programs you and we care most about. (Let us know what funding lines of interest to you we are missing from this list, and we will add them!)

FY2021 Intelligence Authorization. We expect the House to move its intelligence bill to the floor as a standalone measure later this month. We do not expect many amendments to be considered when the bill comes to a floor, and it is very possible that the two chambers could opt to include the intelligence bill as an addendum to the conference legislation for the NDAA.

NASA Authorization. The House Science Committee has not scheduled a time for consideration of the [NASA authorization bill](#). As a reminder, the Senate Commerce Committee marked up and reported out [its version of the bill](#) in November 2019. Chairwoman Eddie Bernice Johnson continues to vote by proxy from Texas, and the committee has indicated that they do not intend to mark up this bill remotely. Therefore, at this point in the legislative year, we do not believe there is much likelihood that this bill will see any more movement during this Congress.

A new chairman’s portrait. On Wednesday, lawmakers and other special guests assembled for the unveiling of the official portrait of retiring Texas Rep. Mac Thornberry, a former chairman of the House Armed Services Committee who is retiring at the end of this Congress. The painting will hang in the Armed Services committee hearing room, alongside those of the 14 other past chairmen of the panel. In his remarks, Thornberry echoed another voracious reader, former Defense Secretary James Mattis: “If you don’t read, you are functionally illiterate,” noting that the world, and the national security challenges it poses, are only getting more complex. “If nothing else, I hope that this portrait will remind Armed Services Committee members to read, and study, and try to understand what’s happening in the world as they try to help navigate us through the turbulent times that lie ahead,” Thornberry said.

Upcoming hearings.

- Sept. 23, 2 pm, the Senate Appropriations Committee will hold a hearing on the [FY2021 NASA budget](#)
- Sept. 23, 12 pm, the House Armed Services Committee will hold a hearing on [“Full Committee Hearing: The Role of Allies and Partners in U.S. Military Strategy and Operations”](#)
- Sept. 23, 2:30 pm, the Senate Armed Services Committee will hold a CLOSED briefing on [“Department of Defense Cyber Operations in Support of Efforts to Protect the Integrity of U.S. National Elections from Malign Actors”](#)

- Sept. 24, 10 am, the Senate Commerce Committee will hold a hearing on “[An Evaluation of FirstNet’s Progress](#)”
- Sept. 24, 10 am, the House Small Business Committee will hold a hearing on “[Paycheck Protection Program: An Examination of Loan Forgiveness, SBA Legacy Systems, and Inaccurate Data](#)”
- Sept. 25, 9:30 am, the House Small Business Committee will hold a hearing on “[A Review of PPP Forgiveness](#)”
- We understand the Senate Commerce Committee has tentatively scheduled an oversight hearing with NASA Administrator Jim Bridenstine for September 30, but the hearing has not yet been noticed to members, and the topic for the hearing is not yet know

Personnel changes

The Trump administration has named David Legates as deputy assistant secretary of commerce for environmental observation and prediction at NOAA. Legates is currently a professor at the University of Delaware and is also affiliated with the Heartland Institute, an organization whose goal is to convince Americans that climate change isn’t real. Legates has written papers that question the science behind climate change and has [promoted](#) discredited theories such as the sun being the cause of global warming.

The White House announced hey plan to nominate Nathan Simington, a senior adviser at the National Telecommunications and Information Administration, to replace Republican Commissioner Mike O’Rielly as a member of the Federal Communications Commission.

Dolly Moorhead, who was leading the White House telehealth initiative as part of the Office of Science and Technology Policy, has returned to the office of the surgeon general at HHS as a senior adviser.

The Senate has not yet acted on President Trump’s nominee for the Federal Reserve Board. Sen. John Thune (R-SD) said that [Judy Shelton](#) doesn’t have the votes to clear nomination in a full-Senate vote and that a vote be scheduled before the election only if it was clear she has 51 yes votes.

On Tuesday, the Senate Armed Services Committee advanced the nominations of several appointees including: John Whitley to be director of the Cost Assessment and Program Evaluation office, Shon Manasco to be undersecretary of the Air Force, Bradley Hansell to be deputy undersecretary of defense for intelligence and security, and Lucas Polakowski to be assistant secretary of defense for nuclear, chemical and biological defense programs. The nominations move next to the Senate floor for a full vote, which has not yet been scheduled. The SASC did not advance the nominations of Louis Bremer to oversee special operations forces and Jason Abend for Pentagon inspector general.

Momentum Space announced that Dr. Fred Kennedy has been named president of the company. Most recently, Kennedy served as the first director of the Space Development Agency.

Eric Stallmer is stepping down as president of the Commercial Spaceflight Federation to become executive vice president for government relations and public policy at Voyager, a holding company acquiring a portfolio of space startups.

Former NASA Administrator Dan Goldin has joined startup Astranis, who develops small geostationary satellites, as the chair of the company’s new technical advisory board. More [here](#).

National security update

The first virtual AFA. The Air Force Association’s virtual Air, Space & Cyber Conference was held this week. Air Force and Space Leaders discussed the future of the two services, the coming budget crunch, and how some particular programs are progressing. Air Force Secretary Barbara Barrett said that the service is still working toward a goal of 386 combat squadrons. Chief of Space Operations Gen. John Raymond gave an update on the Space Force organization process, saying that he’s working to eliminate two layers of command, flattening the organization.

Air Force acquisition chief Will Roper caught everyone by surprise by announcing that the Next-Generation Air Dominance has a full-scale prototype now in-flight testing. “All I can say is that the NGAD test flights have been amazing — records have been broken,” Roper said. He also noted that there are still decisions to be made on the future of the highly classified program, including the approval of an acquisition strategy and how NGAD fits into the makeup of the USAF fighter fleet.

Barrett also announced ‘eSeries’ aircraft (and noted that there would eventually be e-satellites), for which systems are designed using digital engineering. It marks the first time systems have been named according to their development process rather than just functionality, and caused some confusion because the USAF already has a E series of aircraft. A clarification from an Air Force spokesperson noted: “Instruction 16-401 is being updated to include the process for determining and assigning the ‘ePlane’ designation. The Service Acquisition Executive (SAE) will determine whether an acquisition program meets the digital acquisition threshold. If the system meets the digital acquisition requirements, the “e” designation will be authorized for use on that program.”

Senior Air Force leaders discussed how the pandemic has changed the idea of how we work. “We’re not going back,” Air Force Vice Chief of Staff Gen. Stephen Wilson said. “We’ve had an 800% increase in our ability to do this teleworking digital experience. Nobody wants to go back to what we were doing. So, how do we take this challenge and use it as an opportunity to move us forward?” “We fully embrace this culture of teleworking,” said Air Force Reserve Chief Lt. Gen. Richard Scobee. They noted that remote work could help with recruiting, freeing up office space and budget, and even fewer permanent changes of station if their job is one where they can telework.

In a pre-recorded video from United Launch Alliance CEO Tony Bruno, we learned that a supplier of software used in machine tools at ULA’s Vulcan Centaur rocket factory turned out to be [partially owned by Chinese interests](#). Bruno stressed that ULA caught the potential problem early on and that the company didn’t have any access to sensitive information or ULA intellectual property. “There was no evidence they attempted to obtain data, however, we have an obligation to our customers as well as our company to ensure we have taken all necessary steps to protect our IP as well as information the government has entrusted us with.” Bruno noted that like all defense contractors, ULA is committed to certifying its suppliers’ ownership, but also said that the government could do more to help companies. “Put a framework in place that helps us find these guys, have potentially legislation that makes it a lot harder for China to either acquire U.S. companies, invest in U.S. supply chains,” he said.

Also during this week’s AFA, Maj. Gen. Edward Thomas Jr., Air Force Recruiting Service’s commander, [told reporters](#) that while the service was able to meet its recruiting goal in 2020, the historic closure of schools across the country during the coronavirus pandemic has leaders bracing for challenges in meeting next year’s mark. “Right now, the trend is in the wrong direction,” Thomas said of recruiting numbers. “I’m confident that we will be able to find ways to meet our goals in ‘21 with qualified recruits, but it’s going to be harder.”

Media roundup of AFA stories:

[Air Force Vice Chief: Nearly One-Third of Employees May Permanently Telework](#)

[Secret NGAD Fighter Flies, Sets Records, Raises Lot Of Questions](#)

[Air, Space Forces Brace for Bumpy Start to Fiscal 2021](#)

[As Cuts Loom, 386 Combat Squadrons—in the USAF and USSF—is Still the Goal](#)

[The Air and Space Forces Want to Break the Mold. Here's How They're Starting.](#)

[CSAF Brown Mulls Streamlining Of Air Force Commands; Barrett Announces 'e' Aircraft](#)

[US Air Force launches new 'eSeries' aircraft designation. The internet has questions.](#)

[Space dominance requires taking technology and policy risks](#) (by Gen. Jay Raymond)

[Esper Signals Importance Of All Domain & ABMS At AFA](#)

[Who is Secretly Building the USAF's New Fighter?](#)

['We're not going back,' Air Force leadership says telework is here to stay](#)

[Air Force is Developing 2 eSats, Service Acquisition Chief Says](#)

[U.S. Military Re-Emphasizing Large Warfighting Exercises](#)

[Space Force Establishing New Office to Bolster International Partnerships](#)

[Ray: Bombers Readiness Surges with Shift to Dynamic Force Employment](#)

[ULA Boss Backs New Career Development Program for Space Industry Workers](#)

[Space Force Official Argues Funding Should Match 'Huge' Space Responsibilities](#)

[Air Force Reserve Helping DOD Assess Space Force Reserve Component Options](#)

U.S. National Technology Strategy. The Center for a New American Security announced the U.S. National Technology Strategy project this week. The project will develop an intellectual framework for a national technology strategy that can serve as a roadmap for successful, long-term American innovation and technological leadership. More on the project [here](#).

Events this week. Brookings on Defense Policy and the 2020 Election (read our summary [here](#)). MITRE hosted a panel discussion on space power (our notes [here](#)). The INSA Intelligence & National Security Summit was this week (notes from some of the panels are [here](#)). Gen. Hyten gave a keynote address on weapons of mass destruction (our summary is [here](#)).

Civil and commercial update

Houston, we have a problem. At a hearing before the House Science, Space and Technology Committee Friday, NASA officials said the agency is facing increasing attempts by foreign hackers to target sensitive information as it works to improve its IT security during the COVID-19 pandemic. “NASA has vast troves of intellectual information capital that it has spent decades amassing. I think country actors are after that information, the innovations that NASA is so famous for around the world,” agency Inspector General Paul Martin testified. When pressed by members of the committee on which countries were involved, Martin acknowledged that China was among the nations targeting the agency. The hearing focused on NASA’s cybersecurity and IT security posture in the midst of the COVID-19 pandemic, which has forced the majority of its employees to quickly transition to working from home. NASA acting Chief Information Officer Jeff Seaton also testified that the variety of work spaces, along with the increased use of personal devices, has led to a spike in malicious phishing emails that NASA has taken steps to address. [More here](#).

Hurricane Alpha? On Monday, we reached the 20th named storm of the 2020 hurricane season with Vicky. There are now three named storms in the Atlantic and one over the southeastern U.S. and 73 days left in the official hurricane season. After Wilfred (which [may have formed](#) by the time you read this report), we move to the Greek alphabet for storm names, something that has only been done once, in 2005, which was previously the most active hurricane season on record. For comparison, Hurricane Vince formed in 2005 on October 8,

meaning we've had at least 20 named storms 25 days before the same point in that record-breaking season. And there are two areas in the eastern Atlantic that have a 30% and 40% respectively chance of being a named storm.

Venus or Bust. A new study in the journal Nature Astronomy is reporting on a fascinating possibility: [life on Venus](#). Using observations from ALMA in Chile in 2019 and the James Clerk Maxwell Telescope in 2017, scientists have detected the gas phosphine in the clouds that cover Venus. On Earth, this kind of gas is produced by some microbes that live in animal intestines. The authors of the report aren't calling the detection of phosphine as absolute evidence of life on Venus, but they did note they haven't been able to come up with a better explanation. (We think we can be certain that it nothing to do with Julie Mao and Miller crash-landing Eros Station full of protomolecules on the planet. Yes, we did just namecheck "The Expanse." Books or tv show, both are outstanding.) It's been just over 30 years since a dedicated NASA spacecraft traveled to Venus, partly because environmental conditions mean spacecraft don't do well on the surface of the planet (see above re: fictional protomolecules). But new technology could allow a probe to survive, and on Monday NASA Administrator Jim Bridenstine expressed support for Venus exploration. NASA has a proposed mission called [DAVINCI+](#) that would study the atmosphere of Venus. Industry is getting in on potential Venus exploration, too, with [Rocket Lab](#) and [Breakthrough Initiatives](#) developing science missions to the planet.

Boeing. The House Committee on Transportation has released its final report on the Boeing 737 Max and it's [not good for Boeing](#). "The facts laid out in this report document a disturbing pattern of technical miscalculations and troubling management misjudgments made by Boeing. It also illuminates numerous oversight lapses and accountability gaps by the FAA that played a significant role in the 737 Max crashes," the report states, calling it a "culture of concealment" and concluding that Boeing hid design flaws from pilots and regulators and that oversight by the Federal Aviation Administration was "grossly insufficient." Read the report [here](#).

AAS Award Nominations. Nominations are now being accepted for multiple American Astronautical Society awards, for individuals or teams in the space community. Deadline for nominations is Oct. 31 and anyone, not just AAS members, may submit nominations. See the links for more info on the awards [criteria](#) and [nomination process](#).

NASA completes HEO reorg. At the Washington Space Business Roundtable on Wednesday (for more on the event, our notes are [here](#)), Kathy Lueders associate administrator for human exploration and operations at NASA announced that the [reorganization](#) for the directorate has finally been completed. Here's the basic structure of the directorate:

- Systems Engineering and Integration – led by Marshall Smith
- Exploration Systems Development – led on an acting basis by Tom Whitmeyer, responsible for Orion, SLS
- Advanced Exploration Systems division – led by Mark Kirasich, responsible for Artemis 3, Gateway, HLS
- Commercial Spaceflight Development division – led by Phil McAlister, responsible for commercial crew, CASIS, and low Earth orbit commercialization
- Human Spaceflight Capabilities division – led by Benjamin Neumann, Rocket Propulsion Testing and Human Research programs

There were no changes to the Space Communications and Navigation and Launch Services Program divisions.

Events this week. The Maryland Space Business Roundtable hosted a discussion with Dr. Stephen Volz from NOAA (find our notes [here](#)). CSIS hosted a look at President Eisenhower's space legacy (find our summary [here](#)).

2020 Election update

It's 46 days to the election and the final campaign push is on. We know you're getting inundated with election and campaign news, so here's the bottom line on what you need to know this week.

Polls.

Presidential. There's been a lot of talk about how polls may or not be accurate measurements of where voters are at, especially since there's a narrative that the 2016 election outcome was a surprise. However, the 2016 polls were actually accurate. National polls, which count votes overall as opposed to electoral college votes, showed Clinton winning by a few points, and she did win the popular vote by the margin predicted by the polls. State polls will be a better predictor of how the electoral college will go, so expect a lot of attention to certain battleground states in these last few weeks of the election, particularly in Florida (where Trump is trailing Biden by five points according to a new [Monmouth University poll](#)), Wisconsin (Biden is up by [10 points](#)), North Carolina (Biden is up by three points), Pennsylvania, and Arizona. While these polls are going to get a lot of attention in the run up to Nov. 3, they may get even more on election night. It's likely that more than a few states won't be able to [announce vote totals on election night](#) because they will still be counting mail in ballots. Both camps may try to "call" the state on their own by saying that even though the vote looks like it's going one way, the polls said something different, especially since more Democrats are saying they will vote by mail while many Republicans are saying they still plan to vote in person.

Senate. A new round of battleground polls from [The New York Times and Siena College](#) has some mostly bad news for Sen. Susan Collins (R-ME), who might be the most vulnerable GOP senator up for reelection this year. And, the poll-aggregate, FiveThirtyEight, has launched its Senate forecast, which finds Dems slightly favored to retake the chamber: 58% likelihood to 42% for the GOP. Here's [their model](#).

Voting has begun. Voters in [Minnesota, Virginia, South Dakota and Wyoming](#) began casting their ballots for the November elections on Friday as the early voting periods got underway in those states.

Bloomberg gets into the race. Michael Bloomberg, former NYC mayor and Democratic presidential candidate, is planning to spend at least [\\$100 million in Florida](#) as part of Biden's campaign. Bloomberg had pledged to spend heavily to get Biden elected, and given how critical Florida's electoral college votes are, and how close the race is, and determined that he can have the most effect now in that state. Bloomberg made a [\\$5.4 million donation](#) this week to a Democratic super PAC to buy air time for ads in Florida.

Foreign interference in the election. Microsoft said last week that Russia is once again targeting the upcoming U.S. election, but this time, China, Iran, and groups within the U.S. are initiating their own attacks. Russia's targets have included political parties in the U.S. and Europe, while Chinese hackers went after people in Biden's campaign, and Iranians attempted to breach the accounts of Trump's campaign staff. The administration's top counterintelligence official, William Evanina, has also stated that there is evidence of influence campaigns by Russia, China, and Iran. We'll note that these attempts aren't (yet, anyway) direct tampering with votes, but are hacking campaigns and people associated with those campaigns, and using social media to spread false information and conspiracy theories, which are helped along by homegrown groups like QAnon. For more, see [this article](#) in Politico that outlines what's happening.

Media roundup of election stories:

Scientific American: [Scientific American Endorses Joe Biden](#)

New York Magazine: [The Most Tremendous Reelection Campaign in American History Ever](#)

The Hill: [More than 200 retired military leaders endorse Trump as 'proven leader'](#)

The Associated Press: [On Western swing, Trump aims to court pivotal Latino voters](#)
The New York Times: [Trump to visit California after criticism over silence on wildfires](#)
The Hill: [The Memo: Warning signs flash for Trump on debates](#)

2020 Election tracking. Velocity has put together an election update – [available here](#) – with all sorts of fabulous details about the 2020 Senate, House, and Presidential races, complete with pundit predictions and polls. This is a living document, and we will keep it updated throughout the campaign season, and until the last race is called. Let us know if there are races not listed here that you would like us to track, and we will add them!

Podcasts we love

Catch up on what happened at AFA this week with the DefAero Report Daily Podcast. Listen to a roundup of Day 1 [here](#), Day 2 [here](#), and their wrap up [here](#).

And now in the 2020 could use some good news category ...

The Sun's solar cycles run in 11-year increments and this week, NASA and NOAA announced that the [previous cycle ended in December 2019](#). We're now headed into another solar maximum, which is expected to peak in 2025. However, scientists think this particular solar cycle is going to be a quiet one, similar to the last cycle. That means fewer sunspots and flares, generally speaking. But it's good to remember that large flares can happen even when the Sun looks quiet, so improving our space weather prediction capabilities is critical, as is figuring out ways to protect satellites in orbit and power grids on the ground.

Upcoming conferences and other events of interest

- 9/21 to 9/24, New America's Future Security Forum 2020 (more [here](#))
- 9/22, Emerging Technology Meets National Security conference hosted by NVCA (registration [here](#))
- 9/22, 9:30 am, Space Power Forum with NASA Administrator Jim Bridenstine and USSF Chief of Space Operations Gen. John "Jay" Raymond (watch [here](#))
- 9/22, 2 pm, Defense One's State of the Airforce, Marcus Weisgerber with General Charles Q. Brown, Jr., Chief of Staff of the Air Force (view [here](#))
- 9/23 to 9/24, Smallsat & Space Access Summit, Alexandria, VA (more info [here](#))
- 9/29 to 9/30, AFWERX EngageSpace (more info [here](#))
- 9/29 to 9/30, Autonomous Capabilities for DoD Summit, Alexandria, VA (more info [here](#))
- 9/29 to 10/2, 2020 Community Meeting on NOAA Satellites Informing the Future of NOAA Satellite Observations (more [here](#))
- 9/29, First presidential debate in Cleveland, OH; Moderator: Chris Wallace, Fox News
- 10/1, 8 to 11:30 am, Strategic Deterrent Coalition (SDC) Virtual Forum (invitation only)
- 10/4 to 10/10, World Space Week (more information [here](#))
- 10/6, 15th Annual Future Leaders Celebration, Space & Satellite Professionals International (more info [here](#))
- 10/6 to 10/7, Stanford-NVCA Venture Capital Symposium (more info and registration [here](#))
- 10/7, Vice presidential debate in Salt Lake City, UT; Moderator: Susan Page, USA Today
- 10/13 to 10/15, Planet Labs Explore 2020 Virtual Conference (more [here](#))
- 10/15, Second presidential debate in Miami, FL; Moderator: Steve Scully, CSPAN
- 10/22, Third presidential debate in Nashville, TN; Moderator: Kristen Welker, NBC News
- 10/26 to 10/28, [2020 AMS Washington Forum](#) (live virtual format)
- 10/26 to 10/28, 2020 AAS von Braun Memorial Symposium (live virtual format) (more info [here](#))
- 11/3 – election day
- 11/16 to 11/19, Ascend, hosted by AIAA (live virtual format, more info [here](#))
- 12/2 to 12/3, Space Resiliency Summit, Alexandria, VA (more info [here](#))

- 1/31/21 to 2/4/21, AAS/AIAA Space Flight Mechanics Meeting, Charlotte, NC (more info [here](#))
- 1/10/21 to 1/14/21, American Meteorological Society 101st Annual Meeting (registration info [here](#))
- 6/4/21, National Space Club's Goddard Memorial Dinner
- 8/22/21 to 8/26/21, [36th Space Symposium – rescheduled](#) from late October 2020

What we're reading

- Sept. 9, *National Defense*: [Global Strike Command Opens New Innovation Hub](#)
- Sept. 10, *Defense Daily*: [Strong U.S. Industrial Base for Small UAS Needed to Counter China, Lord Says](#)
- Sept. 11, *Breaking Defense*: [US, Allies Agree On Threats In Space But Struggle With Messaging](#)
- Sept. 11, *Air Force Magazine*: [Space Force Looks at Readiness Through Fresh Eyes](#)
- Sept. 11, *National Defense*: [Advanced Battle Management System Faces Headwinds](#)
- Sept. 14, *RealClear Defense*: [China as a Faltering Contender](#)
- Sept. 14, *Defense Daily*: [GBSD Program a Model for Acquisition Strategy That Lets U.S. Pace China on Weapons](#)
- Sept. 14, *Air Force Times*: [Meet Nova, the Air Force Academy's new mascot](#)
- Sept. 14, *Voice of America*: [Chinese Nuke Arsenal Next on Beijing's 'To-Do' List, US Commander Warns](#)
- Sept. 14, *Task and Purpose*: [The Air Force successfully tested a mobile laser weapon to protect convoys from enemy drones](#)
- Sept. 14, *Ars Technica*: [Astra finally launches its first orbital rocket, and it flew for 30 seconds](#)
- Sept. 14, *The Washington Times*: [Dan Sullivan: Pentagon slow to realize Alaska's strategic importance](#)
- Sept. 14, *The Washington Times*: [Increasing defense budgets to maintain America's military security a priority](#)
- Sept. 14, *Military.com*: [STRATCOM Admiral Dodges Questions on Alleged Trump Claim of Secret New Nuke](#)
- Sept. 14, *NBC News*: [U.S. commander: Intel still hasn't established Russia paid Taliban 'bounties' to kill U.S. troops](#)
- Sept. 14, *Popular Mechanics*: [How Obscure Satellites Detected an Iranian Missile Attack and Saved American Lives](#)
- Sept. 15, *The Washington Post*: [As the possibility of going to space grows, U.S. astronauts still don't know how they get picked to fly](#)
- Sept. 15, *Politico*: [Esper promised more diversity at the Pentagon. The White House had other ideas.](#)
- Sept. 15, *Aviation Week*: [In-Orbit Asset Defense To Shape France's Space Command](#)
- Sept. 15, *The Washington Post*: [Air Force seeks a radical shift in how jets, missiles and satellites are designed](#)
- Sept. 15, *Breaking Defense*: [Space Chief Targets Red Tape To Speed New Tech](#)
- Sept. 15, *Defense One*: [The Virtual Tools That Built the Air Force's New Fighter Prototype](#)
- Sept. 15, *Air Force Magazine*: [Space Force to Embark on First Basic Training Experiment](#)
- Sept. 15, *C4ISRNet*: [Army to award contract for GPS alternative by end of September](#)
- Sept. 15, *Defense One*: [Revealed: US Air Force Has Secretly Built and Flown a New Fighter Jet](#)
- Sept. 16, *Air Force Magazine*: [Air Force PT Testing Delayed Until Jan. 1, 2021](#)
- Sept. 16, *Politico Pro*: [Esper pushes to boost shipbuilding, but no specific plan is imminent](#)
- Sept. 16, *Space News*: [Northrop Grumman wins \\$298 million contract to develop jam-resistant military satellite](#)
- Sept. 16, *Breaking Defense*: [Cyber Attack Most Likely Space Threat: Maj. Gen. Whiting](#)
- Sept. 16, *Space News*: [Nanoracks finalizing space station airlock and new funding round](#)
- Sept. 16, *Breaking Defense*: [Ray Wants ARRW 'Soonest' For B-52, B-1](#)
- Sept. 16, *C4ISRNet*: [Space Force set to receive sixth anti-jamming satellite by end of year](#)
- Sept. 16, *Space News*: [Military commanders could use more satellites for tactical surveillance](#)
- Sept. 16, *Breaking Defense*: [Military AI Coalition Of 13 Countries Meets On Ethics](#)
- Sept. 16, *Space News*: [Military early warning satellites to begin migration to new ground system](#)
- Sept. 16, *The Washington Post*: [As Pentagon chief shows some independence, Trump launches attacks but leaves him in office](#)
- Sept. 16, *War on the Rocks*: [Space Has Not Been a Sanctuary for Decades](#)

Sept. 16, *Aviation Week*: [Is MQ-9 An Attritable Aircraft Contender?](#)
Sept. 16, *Defense News*: [Air Force needs more data before making a decision on enhanced KC-46 vision system](#)
Sept. 16, *Breaking Defense*: [Congress, Put Politics Aside, Lead & Pass Defense Bills: AIA's Fanning](#)
Sept. 16, *C4ISRNet*: [US Air Force adds electronic warfare to new intel, cyber office](#)
Sept. 16, *Nextgov*: [Defense Innovation Board adopts AI testing, digital workforce recruitment resolutions](#)
Sept. 16, *Washington Post*: [China's third aircraft carrier takes shape, with ambitions to challenge U.S. naval dominance](#)
Sept. 17, *The Hill*: [Justice Dept. charges Iranian nationals for hacking US satellite companies](#)
Sept. 17, *Defense Daily*: [JAIC Holds Virtual Forum with Allied Nations on Artificial Intelligence Principles](#)
Sept. 17, *Defense Daily*: [Nuke Refreshes 'Just Barely in Time,' NNSA 'Challenged' to Deliver, Hyten Says](#)
Sept. 17, *Space News*: [Space Development Agency praised as change agent in Pentagon procurement](#)
Sept. 17, *Air Force Magazine*: [The long road to an independent Air Force](#)
Sept. 17, *Air Force Magazine*: [Space Force Official Argues Funding Should Match 'Huge' Space Responsibilities](#)
Sept. 17, *Defense One*: [Nobody Wants America to Rule the World](#)
Sept. 17, *Politico*: ["Everybody's got leverage": Dreading a 50-50 Senate split.](#)
Sept. 18, *Air Force Magazine*: [AFRL Eyes Multiple Experiments as Next Space 'Vanguards'](#)

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