



Velocity Update

September 25, 2020

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

U.S. Economic Outlook

Weekly numbers and long-term outlook. [870,000 people applied for unemployment benefits](#) for the first-time last week, a slight increase from last week. Another 630,000 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 26 million are claiming some kind of unemployment benefits, which is good news since that's a drop of more than 3.5 million. On Monday, as Congress began the process of passing a continuing resolution to fund the government after Sept. 30, the director of the Congressional Budget Office released the CBO's [long-term budget forecast](#), which says that the national debt will rise to 98-percent of GDP by the end of this year and reach 195-percent of GDP by 2050 (which far exceeds the previous record of 106-percent just after World War II). As we noted last week, the federal deficit has grown to \$3.3 trillion this year. CBO also projected that mandatory spending will increase from nearly 13-percent of GDP last year to 17.5-percent in 2050, due to health programs and Social Security. CBO also noted that the GDP will be one-percent smaller than it would otherwise be in 2050 because of climate change, decreasing on average 0.03 percentage points per year.

In other news, the [conventional Beltway wisdom](#) is that Federal Reserve Chair Jerome Powell will keep his job no matter who is elected president this fall, for two main reasons: first, removing the Fed chair would rattle world markets, and second, Powell has gathered allies from both sides of the Congressional aisle.

Coronavirus government operations update

National perspective. As of Friday afternoon, the number of confirmed cases in the U.S. [is at least 6,991,000 with at least 203,000 deaths](#). While there haven't been the feared [outbreaks](#) from schools across the country, at least not yet, experts caution that it's still early in the year and [winter is likely to see things get worse](#) again. However, the news still isn't good. On a national level, cases [rose](#) in 22 states over the past week (see [this map](#)), and the number of new daily cases rose by 8.8%, the number of reported deaths rose by 37.9%, and the test positivity rate was 5.2%. Thirteen states now have test positivity rates in the double digits. Late last week, the CDC released new information that stated that the coronavirus is airborne, meaning it's transmitted in smaller aerosol particles than previously thought. Many [doctors and virus experts](#) have been saying the same thing for several months now. However, on Monday the CDC pulled that report saying that it was a draft report and not meant to be published.

Washington metro area. Overall coronavirus cases in [D.C., Maryland, and Virginia topped 281,000 by Friday afternoon, with at least 7,000 deaths](#). On Monday, D.C. Mayor Muriel Bowser announced that the District will spend \$4 million as part of a [program to help restaurants](#) that offer outdoor dining adapt to colder weather by providing grants of \$6,000 for tents, heaters, propane, lighting and furniture. And, on Friday afternoon, we [learned](#) that Virginia Gov. Ralph Northam (D) and first lady Pamela Northam have tested positive for COVID-19. So far, Gov. Northam is asymptomatic, and Pamela has mild symptoms. According to a spokesperson for the Governor, the Northams were tested Thursday afternoon after learning that a member of their official residence staff 'who works closely within the couple's living quarters' had tested positive for the virus on Wednesday. They will isolate for the next 10 days and evaluate their symptoms, per state health guidelines.

The census continues. On Wednesday, a federal judge in California [ordered](#) the Trump administration to continue the 2020 census count past Sept. 30 through Oct. 31, finding that a shortened census schedule is likely to produce inaccurate numbers. The Justice Department, which has argued that the expedited count will allow the Census Bureau to meet the Dec. 31 legal deadline for reporting results, is expected to appeal the order. The census results impact congressional representation and federal funding for many programs across the country.

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. Since May the White House staff have been mandated to wear masks within the Executive mansion.

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. Rep. Jahana Hayes (D-CT) tested positive for the virus this week and is quarantining for 14 days. [She has called for additional safety measures](#) to be taken, including regular testing for Members of Congress.

Congressional activities

Honoring RBG. The late Supreme Court Justice Ruth Bader Ginsburg was honored at the Supreme Court this week as the Court followed tradition and draped a black wool crepe on her chair and the bench in front of it. Her casket lay in repose outside at the top of the Court steps so that the public could pay their respects. On Friday, Ginsburg became the first woman to lie in state in the U.S. Capitol. (Rosa Parks lay in honor at the Capitol after her death in 2005.) Ginsburg will be interred at Arlington National Cemetery with her husband, Marty. (Reader's note: If a casket for a deceased individual is on display inside a government building and the person was a distinguished government official, then the person lies in state. If a casket is inside any other building, then the person lies in repose. And, if the person was not a member of the government, but the casket is on display inside a government building, then the person lies in honor.)

Another SCOTUS confirmation process. President Trump is expected to announce his nomination to fill the Supreme Court seat on Saturday and Senate Majority Leader Mitch McConnell is expected to schedule a confirmation hearing and floor vote for the nominee prior to the election. The nominee has to be approved by the Senate Judiciary Committee, but there aren't expected to be any road blocks to that process, even as Democrats continue to work on procedural steps they might be able to take to slow the process down. On Tuesday, they [invoked](#) the "two hour rule" which says that no committee (with the exception of the appropriations committee) may meet after the Senate has been in session for two hours or after 2 pm. This rule is routinely waived, since the assumption is that Senators can manage their time wisely. However, enforcing the rules is one way to play hard ball and so that's what the Democrats are doing by not allowing committees to meet, including the Judiciary committee which will first have to hold confirmation hearings before a nominee

can be brought to the floor, as long as the Republican express the intent to move forward with the confirming a SCOTUS nominee from President Trump. Only two Senators, Lisa Murkowski of Alaska and Susan Collins of Maine, have said they disagree with voting on a nominee before the election, and many Republican Senators have publicly expressed that they plan to vote in support of the nominee regardless of who it is. As of the issuance of this update, it appears the Republican majority in the Senate very likely has the votes they need to approve a nominee. Senate Minority Whip Sen. Dick Durbin (D-IL), on the conundrum facing Senate Democrats: “I’ve been around here a few years. You can slow things down but you can’t stop them. And there comes a point – we use whatever tools we have available, but ultimately there will be a vote.” The Supreme Court opens back up for their next session the first Monday in October.

And, the nominee is Late Friday night, the media [reported](#) that President Trump was poised to nominate Judge Amy Coney Barrett to the Supreme Court on Saturday. Barrett, who has served on the 7th U.S. Circuit Court of Appeals since late 2017, has been considered the frontrunner to replace the late Justice Ruth Bader Ginsburg because of her strong conservative credentials and the fact that she had already been vetted and interviewed two years ago. Barrett is expected to appear with Trump for an announcement at the White House on Saturday at 5 pm. If confirmed, she would join Trump’s two other appointments, Neil Gorsuch and Brett Kavanaugh, to form a 6-3 conservative majority.

The next pandemic relief package. House Speaker Nancy Pelosi has directed her committee chairs to draft up new pandemic relief legislation, potentially to be introduced and voted on next week. Rep. Richard Neal (D-MA), who chairs the Ways and Means Committee, said the new package will be in the range of \$2.2 trillion. Pelosi spoke with Treasury Secretary Steven Mnuchin on Wednesday about a possible compromise with the White House, but is moving forward with this new legislation in case those negotiations don’t yield positive results. On Thursday, Mnuchin told the Senate Banking Committee during a hearing alongside Federal Reserve Board Chair Jerome Powell, “I’ve probably spoken to Speaker Pelosi 15 or 20 times in the last few days on the [continuing resolution] ... And we’ve agreed to continue to have discussions about the CARES Act.” Moderate Democrats, especially those with tight election races, have been pushing for a new package they can vote on before recessing to go home and campaign. Even if the House passes another package, the number is far higher than anything Senate Republicans have said they would support. Pelosi and House Democrats have [maintained](#) that any deal must be north of \$2 trillion, with the White House and Republicans capping a package at \$1.3 trillion. So it’s not clear that the Senate will act on this new legislation, though you can expect it to become a talking point and potentially a procedural point in the Supreme Court nomination battle in the Senate.

More about the next pandemic relief package:

The Hill: [Anxious Democrats amp up pressure for vote on COVID-19 aid.](#)

The Washington Post: [Pelosi abruptly shifts course, restarts relief push amid signs economy is straining.](#)

Market Watch: [Powell says lack of fiscal package adds to downside risk.](#)

Controversies over DOD use of CARES Act funds. In the most recent negotiations on the relief package, the Pentagon did not receive any additional funding. And a story that broke this week complicates any chance of that happening in the next package. In the CARES Act passed in March, the Pentagon received \$1 billion that was directed to provide funding through the Defense Production Act to produce coronavirus medical supplies, including personal protective equipment like N95 masks. However, the Pentagon [redirected most of the funding](#) to defense contracts that had nothing to do with producing medical equipment, including as jet engine parts, body armor, and dress uniforms. Some of the contractors received this funding and additional funding from the Paycheck Protection Program. This week, the Pentagon defended the move saying that nothing in the bill prevented them from spending the money in other ways. Ellen Lord, undersecretary for acquisition and sustainment, said, “We are thankful the Congress provided authorities and resources that enabled the [executive branch] to invest in domestic production of critical medical resources and protect key defense capabilities from

the consequences of COVID. We need to always remember that economic security and national security are very tightly interrelated and our industrial base is really the nexus of the two.” House Armed Services Committee Chairman Adam Smith (D-WA) [said](#) the administration “carved up this billion-dollar appropriation and spent three dollars on defense contracts for every dollar it spent on acquiring health resources... With the safety and lives of our health care, first responder, and essential workforces at stake, the department must be held accountable to administer the funding in the way Congress intended.” Some Democrats and outside organizations are [calling for an investigation](#) into the redirected spending and for Congress to consider suspending the Pentagon’s authority to use the funding.

Leadership races heating up for the 117th Congress. Rep. Deb Haaland (D-NM) launched a bid this week for vice chair of the House Democratic Caucus, making it a three-way race between her, Rep. Pete Aguilar (D-CA) and Rep. Robin Kelly (D-IL). “I am a 35th generation New Mexican,” Haaland’s “Dear Colleague” letter begins. “I am one of the first Native American women elected to Congress, and more than just representation, we need Indigenous leadership.” The founders of the Republican Study Committee have endorsed Rep. Jim Banks (R-IN) to become the conservative group’s next chairman, after meeting with him earlier this week. Banks, who is running unopposed, also chairs the Guardian Fund PAC this cycle and doled out \$125,000 checks yesterday to GOP candidates that are veterans.

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. The House and Senate passed their competing bills by wide margins in July and must now form a joint conference committee to reconcile their differences. Though staffers have begun informal talks, neither chamber has voted yet to formally begin the conference process and name lawmakers to the panel. The conference process is unlikely to formally kick off until Congress returns after the November election. Despite the delay, House and Senate Armed Services leaders say they’re optimistic a deal on the NDAA can be struck quickly in the lame duck session.

A FY2021 continuing resolution. After a last-minute set of negotiations on aid to farmers and money for nutrition assistance programs, the House [passed](#) a continuing resolution on Wednesday morning (359-57). The CR will fund the government through Dec. 11. It does not include anomalies sought by the administration to fund new accounts for Space Force, nor additional funding for development of the W93, a new submarine-launched warhead. It does, however, include an anomaly to allow the Navy to begin purchasing a new fleet of ballistic missile submarines, and extends a pandemic relief program that covers leave for federal contractors due to the pandemic. On Thursday, Senators left town for a four-day weekend without approving the temporary spending bill, but before heading for the exits, Senators passed (93-2) a motion to proceed to the 10-week funding extension, setting the stage for a likely down-to-the-wire vote just before FY2020 ends on Sept. 30. The Senate has scheduled a procedural vote on the House-passed stopgap spending bill ([H.R. 8337](#)) for Tuesday night, putting final passage likely on Wednesday. President Donald Trump will then have until midnight to sign the CR in order to avert a government shutdown.

For those tracking the FY2021 requested program funding numbers, [here](#) is where the Congress is in approving funds for 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 sometime this fall. 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.

Upcoming hearings.

- September 30, 10 am, Senate Commerce, Science and Transportation Committee will hold a hearing with NASA Administrator Jim Bridenstine on [NASA Missions and Programs: Update and Future Plans](#).
- September 30, 12 pm, House Armed Services Committee will hold a full committee hearing with Dr. James Anderson, Acting Under Secretary of Defense for Policy, Department of Defense, and Lt. Gen. David Allvin, Director for Strategy, Plans, and Policy, Joint Chiefs of Staff, on [U.S. Defense Posture Changes in the European Theater](#).
- October 1, 9:15 am, Senate Armed Services Committee will hold a hearing on [Supply Chain Integrity](#) with Under Secretary Of Defense For Acquisition And Sustainment Ellen Lord.

Personnel changes

President Trump recently nominated Nathan Simington, a Commerce Department staffer, to take over the Federal Communications Commission seat vacated by GOP veteran Mike O’Rielly. Senate Commerce Chair Roger Wicker (R-MS) signaled he plans to move forward with considering the nomination by meeting with Simington on Wednesday. Wicker is urging all panel Republicans to meet with Simington, though no word yet on a possible confirmation hearing or vote. Many Washington insiders wonder whether Congress will have enough time to process the nomination before the end of the year.

Doug Kinkoph was just named as the new acting deputy assistant secretary of Commerce for communications and information. He previously was acting assistant secretary of Commerce for communications and information and acting NTIA administrator.

Additional staffing changes are happening at NOAA. The White House has named Ryan Maue, a meteorologist who has challenged connections between extreme weather and climate change, to serve as NOAA’s new chief scientist. The position does not require Senate confirmation. Maue’s responsibilities as chief scientist include establishing the organization’s oceans and atmosphere research priorities, as well as playing a role in enforcing its scientific integrity policy. And Erik Noble, who had been a White House aide, was recently named as NOAA chief of staff.

President Trump [nominated Allen Souza](#), a former aide to House Intelligence Ranking Member Rep. Devin Nunes (R-CA), to serve as the inspector general of the U.S. intelligence community, where he would replace an official that the president ousted in April. Souza would permanently replace Michael Atkinson, who Trump fired over his handling of the whistleblower complaint that eventually triggered the president’s impeachment last year. Souza currently works on the White House National Security Council (NSC) as a principal deputy senior director for intelligence programs at NSC.

Steve Kitay, who left the Pentagon in late August, has joined Azure Global Space at Microsoft as a senior director. He will co-lead the Azure Space vertical with Chirag Parikh, who is a former director of space policy on the National Security Council.

National security update

GAO expresses concern about GBSB warhead costs, schedule. On Wednesday, the General Accountability Office (GAO) released a declassified version of a classified February report for the House Armed Services Committee and House Appropriations Committee's Energy & Water Subcommittee. The report states that the W87-1, a modified version of an ICBM warhead designed during the Cold War, and being developed by the Department of Energy's National Nuclear Security Administration, could cost up to about \$15 billion which "could make it the most expensive warhead modernization program to date." The warhead is planned to become the business end of the Ground Based Strategic Deterrent missile, which is under development to replace the Air Force's Minuteman missiles. The GAO report also states that it's unclear if NNSA can produce enough of the W87-1's fissile cores in time to meet its planned production schedule. *(The report is available [here](#).)*

Chances fall for New START extension. This week, Russian Deputy Foreign Minister Sergei Ryabkov said that [Russia doesn't see much chance of extending the New START](#) treaty, after Marshall Billingslea, the U.S. Special Presidential Envoy for Arms Control, told the Kommersant newspaper, "I suspect that after President Trump wins re-election, if Russia has not taken up our offer, that the price of admission, as we would say in the U.S., goes up." Ryabkov called the position an ultimatum. "We cannot talk in this manner," he said.

Looking at cis-lunar space. The [Air Force Research Laboratory is designing a satellite](#) called the Cislunar Highway Patrol System (and yes, that does make the acronym CHPS – we're sure Ponch and Jon would be proud) that will be to find and track objects near or orbiting the Moon. It's part of the effort to increase space domain awareness in the area from the outer edge of Earth's orbit to the outer edge of the Moon's orbit. The program may be chosen as one of AFRL's Vanguard programs, giving it an extra push from concept to realization. Part of monitoring this area of space does include planetary defense, or watching for near Earth asteroids. NASA officially has that responsibility, but the Space Force plays a role in finding and tracking objects via their systems. In fact, the new Space Force Space Surveillance Telescope being moved from White Sands Missile Range to Australia will carry a NASA-designed asteroid tracking algorithm. The Space Force is also working to upgrade its Ground-based Electro-Optical Deep Space Surveillance System that track objects in geostationary orbits, awarding a [\\$119.1 million contract to L3Harris Technologies](#) this week for that work.

Future of the Pentagon. Michèle Flournoy, who would be a likely choice for Secretary of Defense in a Biden administration, spoke at an event this week on reinventing national security in the era of Covid-19. *(You can read our summary of the program [here](#).)* Flournoy said that the military is an apolitical institution and that the civil-military relationship is not in a healthy place right now, and it needs to be reset based on these foundational principles. She said need the country needs leadership in the military and government where dissent is heard, respected, and taken into account. She also talked about balancing modernization of existing weapons systems while creating new cutting-edge technologies, with for a baseline force of legacy weapons that will last 30-40 years and new technologies such as AI or unmanned technology teamed with human operations and hypersonics. Flournoy also sat down with [Politico Pro](#) and talked about what the country needs to do to deter China. "The next administration is going to have to turn the crank again and try to get farther down this road, faster... It's about making a series of big bets, investing in new technologies that we think will better safeguard that future advantage," she said. On the nuclear triad, she said, "The nuclear deterrent needs to be modernized to keep it safe and effective. The question is, are there more cost-effective ways to do that? What's the appropriate mix of legacy systems that are already in the pipeline and the new technologies and capabilities that will ensure their future survivability and effectiveness?" She also noted that future defense budgets are likely to be constrained, especially because of the pandemic. "I think no matter who wins the election, you're going to have pressures on the defense budget too that are likely to end that period of fairly substantial growth."

Gen. Hyten forum. On Monday, the vice chairman of the Joint Chiefs of Staff Gen. John Hyten told a virtual audience that these are “exciting times” in space and that the Space Force has wide latitude to define itself. He also cautioned that if they take too long to do so, Congress will do it for them. He also talked about shortening the decision cycle in order to compete with China, and noted that it’s all about the data, network, and information, and the key is how we tie it all together. On hypersonics, he noted that we are investing enormously in hypersonics. We are focused on our conventional capabilities, but our competitors are focusing on hypersonic for conventional and nuclear capabilities which should scare us. (*You can read our notes from the event [here](#) and news coverage [here](#) and [here](#).*)

New EO prohibits government contracts for diversity training. On Tuesday, the President [signed an executive order](#) banning federal contractors from conducting “any form of race or sex stereotyping.” The order also stipulates that contractors that failed to comply “may be declared ineligible for further Government contracts.” An earlier [Sept. 4 memo](#) barring such training in the executive branch has already [led the Air Force](#) to cancel some contracts for diversity training. Eric Fanning, president and CEO of the Aerospace Industries Association, told the press that “aerospace and defense companies are committed to strengthening the diversity and inclusion in our industry, which includes trainings for our employees.” Under the order, federal contractors and subcontractors must report details of their diversity training. A request for information to collect the data is expected to be published within 30 days.

Events this week. On Monday, the U.S. Chamber of Commerce hosted experts to talk about cyber security (read our notes from Sue Gordon’s talk [here](#)). On Tuesday, USAF Chief of Staff Gen. C.Q. Brown gave his State of the Air Force speech (read our summary [here](#)) and Defense One hosted a discussion following the speech (find our notes [here](#)). On Wednesday, Defense One hosted a panel discussion on space and an all-domain future (our summary can be found [here](#)).

Civil and commercial update

NASA economic impact. On Friday, NASA released its first-ever agency-wide economic impact report. The report shows that America’s space agency generated more than \$64.3 billion in total economic output in FY2019, supported more than 312,000 jobs nationwide, and generated an estimated \$7 billion in federal, state, and local taxes throughout the United States. The Administrator shared the news on [Twitter](#).

Space debris concerns in the spotlight. On Tuesday, the International Space Station [maneuvered](#) to avoid a potential collision with a piece of space debris. The station crew sat out the debris fly-by on board the Soyuz spacecraft, just in case. In his hearing on the NASA budget before the Senate appropriations committee on Wednesday, NASA Administrator Jim Bridenstine noted that this is the third time the ISS has had to move this year to avoid debris. (The last maneuver to avoid debris before this year was in 2015). (*You can read our notes from the hearing [here](#).*) On Thursday, the Satellite Industry Association [released](#) a set of recommendations on space traffic management (read the full paper [here](#)), and Space Command announced that it has made [improvements in its SSA](#) data sharing process. And you should take a few minutes to read this excellent article from *The New Yorker* on [The Elusive Peril of Space Junk](#).

Blue Origin launch. Blue Origin’s planned New Shepard launch on Thursday was [scrubbed](#) after they detected a possible problem with the power supply to the science experiments on board the launch vehicle. There’s no new date for the launch yet. In other Blue Origin news, [Space News reported](#) on Tuesday that Blue Origin is considering developing a commercial space station, with NASA as a potential early customer.

NASA and Space Force collaboration. On Monday, NASA and the Space Force [signed](#) a [memorandum of understanding](#) outlining cooperation between the two organizations in research, developing norms of behavior

for space, and protecting the planet from near Earth asteroids. At an event to discuss NASA and NSSF collaboration, NASA Administrator Jim Bridenstine and USSF Chief of Space Operations Gen. John “Jay” Raymond talked about how important it is for the two organizations to cooperate. “The space domain is becoming more challenging and those challenges affect NASA just like they affect the commercial operators,” said Bridenstine. “And that’s really where we rely on the Space Force to be supportive of what we’re trying to achieve.” Raymond said that the Space Force would ensure “freedom of action in space” so that NASA could explore the Moon and Mars. “Space Force looks forward to future collaboration as NASA pushes farther into the universe for the benefit of all,” said Raymond. (*You can read our notes from the event [here](#).*) Bridenstine also noted that nations that damage satellites [could be held liable](#) according to the Outer Space Treaty. “When you think about the Liability Convention of the Outer Space Treaty, it’s really been tested once,” Bridenstine said. “There was a satellite that re-entered and hit Canada, and there were some damages paid from one country to the other, and that was decades and decades ago. Today, we’re seeing satellites break apart, and things get jammed. The question is, ‘Can we test the Liability Convention in a more robust way?’ because the Outer Space Treaty is not just for fun and games. It’s intended to actually modify behavior in space, and, if we’re not testing the Liability Convention, then it’s really not worth the paper that it’s written on so I think we need to be more forward leaning on ensuring the Outer Space Treaty is adhered to.”

More ISS by way of Hollywood news. Space Shuttle Almanac posted a picture on Monday of upcoming crew manifests to the ISS and the sharp-eyed folks at [Deadline](#) found something of silver screen interest. An October 2021 SpaceX Crew Dragon mission notes SpaceX Pilot Lopez Alegria, Tourist 1 Tom Cruise, and Tourist 2 Doug Liman. We learned earlier this year that Cruise is working with Elon Musk on a film, so this mission is either training or actual filming.

Events this week. Aerospace’s Space Policy Show talked about spectrum with the head of the Satellite Industry Association (*read our notes from the event [here](#)*).

2020 Election update

Technically, there are 39 days to the election, but in nine states, early voting has already started and 25 states have started to mail out absentee ballots. Here’s the bottom line on what you need to know this week.

Debates. The first presidential debate is Tuesday at 9 pm EDT. Chris Wallace from Fox News will moderate. Wallace announced the topics for the debate this week, noting that they are subject to change based on last-minute news and events. The topics are Trump and Biden records, the Supreme Court, COVID-19, the economy, race and violence in U.S. cities, and the integrity of the election.

Polls.

Presidential. FiveThirtyEight has Biden’s lead in the national polling average at 7.3 percentage points over Trump. Battleground [state polls](#) continue to show the two candidates running very close, though different polls have different margins (for example, one Iowa poll has Biden leading by three points while another has Trump up by three). Some of the differences happen when polls consider registered voters versus likely voters. The bottom line is that, Biden is still leading in the states he needs to win (Wisconsin, Michigan and Pennsylvania, and even in Florida — all states Trump won in 2016) and is competitive in more than a few red states (Texas, Georgia, Arizona, Iowa and North Carolina, plus Ohio), but particular individual states are closer in margin than either campaign would like. Of interest, neither campaign has bought significant airtime in Ohio to run television ads. The *New York Times*’ Nate Cohn [puts it this way](#): “[A] Biden landslide is just as real a possibility as a Trump victory.”

Senate. New polls suggest Democrats now have a favorable chance of winning the Senate. [Maine](#) and Arizona have both moved to Lean Democrat, Sen. Joni Ernst is [three points behind](#) her Democratic opponent in Iowa, and Lindsey Graham is up by only a point in the latest South Carolina poll. Races are close in Colorado, Georgia, Montana, and North Carolina as well. The Republican effort to fill a Supreme Court is likely to have an effect on the campaign; Democratic candidates in the 10+ competitive Senate races received over \$160 million this week on the Act Blue platform alone, \$100 million of that coming in the first 24 hours after Justice Ginsburg's death.

Peaceful transition of power. When asked by a reporter this week, [President Trump](#) noted he would not commit to a peaceful transition of power and wants to “make sure the election is honest.” This drew a bipartisan reaction from both Republicans and Democrats. Congressional leaders, including Senate Majority Leader Mitch McConnell and House Speaker Nancy Pelosi, rejected Trump's assertion that he'll “see what happens” before accepting any election outcome. The White House press secretary said later in the day that the President would “accept the results of a free and fair election.” The next day, President Trump's top military adviser, Joint Chiefs Chair Gen. Mark Milley, urged service members to “stay apolitical” — but to get out there and vote. “We are right now in the midst of a general election,” Milley said during a virtual town hall. “Each of you have earned your right to vote. So I would strongly encourage you to vote when the time comes and use the right that has been granted to you in the Constitution.” Milley's spokesperson reiterated on Thursday that the chair believes the Department of Defense, and particularly the U.S. military, plays no role in the transition of power after an election. And, the most respected organization focused on presidential transitions, the [Center for Presidential Transition](#), is the go-to bipartisan organization established to understand and improve the transition from one administration to the next.

More support for Biden. 489 retired senior military officers, former Cabinet secretaries, ambassadors, service chiefs and civilian national security officials, have signed an open letter in [support of Joe Biden](#), saying, “While some of us may have different opinions on particular policy matters, we trust Joe Biden's positions are rooted in sound judgment, thorough understanding, and fundamental values” and that Biden has “the character, principles, wisdom and leadership necessary to address a world on fire.” (*Read the full letter [here](#).*)

Foreign interference, again. On Aug. 31, the CIA published an internal, highly-classified report with an assessment of [Russian actions to interfere](#) in the election. The report includes input from the NSA and the FBI, and covers actions to disseminate disparaging information about Biden. For more, the *New York Times* The Daily [podcast](#) has an episode covering this topic. And, on Wednesday, after two classified briefings from top federal officials, multiple Democratic Senators expressed strong concern about foreign threats to U.S. elections, pressing for more information to be made public. “I am very deeply concerned, I think the American people need to know what we heard,” Sen. Richard Blumenthal (D-CT) told reporters after attending a Senate Armed Services Committee classified briefing on election security preparations. The committee was briefed by Gen. Paul Nakasone, head of U.S. Cyber Command and the director of the National Security Agency, and Kenneth Rapuano, assistant secretary of Defense for Homeland Defense and Global Security, on the Pentagon's cybersecurity efforts to secure the Nov. 3 election. Sen. Tim Kaine (D-VA) said in an interview after the briefing that he believed more information should be released to the public. “There is the protecting against the outside threat, but then there's all the inside threats, and whether the outside threat is communicated to the American public, I'm not happy with that,” Kaine said. (*More [here](#).*)

Media roundup of election stories:

Axios: [Former Clinton adviser outlines top election scenarios](#)

Fox News: [NY Gov. Cuomo may use National Guard on Election Day](#)

CNN: [Esper and Milley appear to adopt different strategies to deal with Trump as election approaches](#)

The Atlantic: [The Election That Could Break America](#)

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

We've mentioned Bombshell before, but [this week's show](#) on 21st century order and American grand strategy (plus, an excellent discussion of tea) is definitely one worth listening to.

Christian Trotti and Tate Nurkin of the Atlantic Council discuss the think tank's "[Primer on hypersonic weapons in the Indo-Pacific region](#)" with Defense & Aerospace Report Editor Vago Muradian.

And now for some cool space art

One way to sway public opinion is to show people how something would look. Back in the 50s, 60s, and 70s, NASA used art to sell the idea of going into space. There's a new book called *The Art of NASA* that offers a look at these concepts and ideas, some of which look like the science fiction it was at the time and some of which looks closer to the spaceships we ended up with. This [article](#) in *Smithsonian Magazine* gives a peek inside the book. But space art as design isn't confined to mid-20th century – people are still dreaming up designs for future habitats in space, like [this one](#). And, of course, we can find art in actual pictures from space. These [pictures of Washington and Baltimore](#) taken from the ISS show how different cities can show up in different colors when seen from space (and the mundane reason behind that fact).

Upcoming conferences and other events of interest

- 9/29, 11 am, Former U.S. national security advisor H.R. McMaster joins Washington Post national security reporter Ellen Nakashima (stream [here](#))
- 9/29, 1:30 pm, MSBR hosts "Exploring Maryland's Significant Contributions to NASA's Mission" with U.S. Senator Chris Van Hollen and NASA Administrator Jim Bridenstine (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, 9 pm, First presidential debate in Cleveland, OH; Moderator: Chris Wallace, Fox News
- 9/30, 3 pm, Defense One presents Tech Talks: Hyperspeed – exploring the future of manned hypersonics as they provide a route to space exploration (stream [here](#))
- 10/1, 8 to 11:30 am, Strategic Deterrent Coalition (SDC) Virtual Forum (invitation only)
- 10/1, 11:30 to 12:30, Aspen Institute Webinar: President Trump's National Security Agenda (stream [here](#))
- 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. 16, *National Defense Magazine*: [Esper Touts 5G as Linchpin to All-Domain Command-and-Control](#)
- Sept. 17, *The Atlantic*: [No One Should 'Colonize' Space](#)
- Sept. 18, *Aviation Week*: [Why Did Boeing Opt To Fully Redesign The KC-46 Remote Vision System?](#)
- Sept. 18, *Foreign Affairs*: [The Endless Fantasy of American Power](#)
- Sept. 18, *War on the Rocks*: [The Dangerous Myths About China's Nuclear Weapons](#)
- Sept. 18, *Defense One*: [The Air Force Needs a New Non-Stealthy Bomber](#)
- Sept. 18, *Defense One*: [Esper's Convenient Lie](#)
- Sept. 19, *The Wall Street Journal*: [Where Trump and Biden Stand on Foreign Policy](#)
- Sept. 19, *Task and Purpose*: [Why there's no such thing as 'tactical' nuclear weapons](#)
- Sept. 19, *RealClear Defense*: [Sole Purpose: A Policy Without a Purpose](#)
- Sept. 20, *Military Times*: [Biden would push for less US reliance on nukes for defense](#)
- Sept. 20, *Defense News*: [Thornberry on overseas priorities, funding and advice to his successor](#)
- Sept. 20, *Space News*: [New study looks at space power competition through China's lens](#)
- Sept. 20, *Military Times*: [Russian military says US and NATO flights near Crimea fuel tensions](#)
- Sept. 21, *Defense News*: [Pentagon acquisition boss talks industry, mergers and coronavirus](#)
- Sept. 21, *Space News*: [NGA building 'huge appetite' for commercial geoint](#)
- Sept. 21, *The Hill*: [CIA creates its own federal lab](#)
- Sept. 21, *Defense News*: [After deaths at ammo plants, lawmakers to quiz US Army leaders on modernizing production](#)
- Sept. 21, *CBS News*: [Space Force deploys its first squadron outside of the U.S.](#)
- Sept. 21, *Reuters*: [China to lose access to Australian space tracking station](#)
- Sept. 21, *Defense News*: [Why the new ICBM contract is a bad deal](#)
- Sept. 21, *Aviation Week*: [The Nearly Decade-long Story That Led To NGAD Flight Demonstrator](#)
- Sept. 21, *Air Force Magazine*: [Space Force Focuses on Threat as It Builds Training](#)
- Sept. 21, *Defense One*: [The US Navy Has Drifted Badly Off Course](#)
- Sept. 21, *Air Force Magazine*: [Air Force to Test Weapons Swarming Software in October](#)
- Sept. 21, *C4ISRNet*: [How Relativity Space plans to win the Pentagon's launch contracts](#)
- Sept. 21, *Defense News*: [The Arctic is a strategic hot spot, but Western allies lack good intel](#)
- Sept. 21, *USA Today*: [Trump's ex-national security adviser H.R. McMaster warns Afghan peace talks will fail, leave US vulnerable](#)
- Sept. 21, *Military Times*: [US Space Force deploys to vast new frontier: Arabian Desert](#)
- Sept. 21, *National Interest*: [North Korea's Next Move Worries White House, U.S. Military, Intel and Allied Officials](#)
- Sept. 22, *Defense News*: [A consensus-driven joint concept for all-domain warfare will fall short](#)
- Sept. 22, *RealClear Defense*: [How Congress Can Get Deterrence Right in the Asia-Pacific](#)
- Sept. 22, *Defense One*: [To Deter China, Extend New START](#)
- Sept. 22, *National Geographic*: [The birthplace of the space age isn't where you think](#)
- Sept. 22, *USNI News*: [Pentagon Wants a Process to Field Unmanned Systems, AI Faster](#)
- Sept. 22, *C4ISRNet*: [The military renaissance in high frequency communications](#)
- Sept. 22, *Reuters*: [Saudi Arabia says any nuclear deal with Iran must preserve non-proliferation](#)
- Sept. 22, *Space News*: [Space Force, DoD agencies, NRO try to get on the same page on future acquisitions](#)
- Sept. 22, *Defense One*: [The US Military's Latest Wearables Can Detect Illness Two Days Before You Get Sick](#)

Sept. 22, *The Drive*: [U.S. Strategic Command Tweet Throws Shade On Russia's Long-Range Bomber Mission](#)
Sept. 22, *Bloomberg*: [A Rocket Mogul Is Preparing to Launch a Union of U.S. and Soviet Technology](#)
Sept. 22, *Science Magazine*: [NASA, Space Force partnership aims to make space exploration safe](#)
Sept. 23, *War on the Rocks*: [Space Force Creation Warrants Revisiting Defense Unification](#)
Sept. 23, *Fox News*: [Arctic race heats up as Russia launches flagship nuclear-powered icebreaker](#)
Sept. 23, *Nextgov*: [AI Commission Wants to Know How Government Can Help Industry Boost Commercial Innovation](#)
Sept. 23, *Defense One*: [A \\$13 Billion Contract for ICBMs: What's the Rush?](#)
Sept. 23, *Roll Call*: [Air Force, SpaceX mum about sky-high rocket costs](#)
Sept. 23, *CNN*: [NASA admin warns ISS space junk problem is getting worse after 3 near collisions](#)
Sept. 23, *Defense News*: [Hyten to issue new joint requirements on handling data](#)
Sept. 23, *Stars & Stripes*: [Coronavirus travel rules force tough decisions for military families separated by oceans, time zones](#)
Sept. 23, *Reuters*: [How Trump fell out of love with his generals, and why the feeling is mutual](#)
Sept. 23, *Defense News*: [AIA's Fanning: Civil aviation's nosedive endangers Pentagon supplies](#)
Sept. 23, *Military.com*: [Naval Academy midshipmen not allowed to go home for Thanksgiving, will stay in Annapolis](#)
Sept. 23, *Defense One*: [A \\$13 billion contract for ICBMs: What's the rush?](#)
Sept. 23, *War On The Rocks*: [Space Force creation warrants revisiting defense unification](#)
Sept. 23, *Breaking Defense*: [Pushing data 'from space to mud': Project convergence](#)
Sept. 23, *Breaking Defense*: [Picking 1st ABMS capabilities a top issue at Air Force Corona](#)
Sept. 23, *Stars & Stripes*: [Air Force jumps into esports with new Twitch series](#)
Sept. 23, *Air Force Times*: [Air Force chief makes Time's 100 most influential people list](#)
Sept. 23, *Stars & Stripes*: [Military personnel, families now may travel to more than half of US military installations worldwide](#)
Sept. 24, *Breaking Defense*: [Replacing Spatulas With Robots At Army Ammo Plants](#)
Sept. 24, *Space News*: [SAR Renaissance: Pandemic slows but doesn't stop constellation progress](#)
Sept. 24, *Breaking Defense*: [AFWERX Seeks Next Breakthrough Tech Market For Investment](#)
Sept. 24, *Phys.org*: [NASA chief warns Congress about Chinese space station](#)
Sept. 24, *The Associated Press*: [General becomes 1st Black head of US Air Force Academy](#)
Sept. 24, *Forbes*: [Five ways GAO fails to understand defense industry independent research and development](#)
Sept. 24, *War On The Rocks*: [Kill 'em all? Denial strategies, defense planning, and deterrence failure](#)
Sept. 24, *Breaking Defense*: [Are the days of manned fighters REALLY numbered?](#)
Sept. 24, *Washington Examiner*: [Pompeo: China using nuclear weapons program aid to seduce US allies in Middle East](#)
Sept. 24, *The Drive*: [Blasting the air in front of hypersonic vehicles with lasers could unlock unprecedented speeds](#)
Sept. 24, *Air Force Magazine*: [With an eye on China, Reaper drones train for maritime war](#)
Sept. 24, *Defense News*: [Boeing assembles team to bid for next-gen missile defense interceptor](#)
Sept. 24, *Breaking Defense*: [AFWERX seeks next breakthrough tech market for investment](#)
Sept. 24, *Military.com*: [The Air Force's future tanker planes could be autonomous](#)

#####