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THE FEDERAL AVIATION ADMINISTRATION'S NOTAM SYSTEM FAILURE AND ITS IMPACTS ON A RESILIENT NATIONAL AIRSPACE

HEARING

BEFORE THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

FEBRUARY 15, 2023

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED EIGHTEENTH CONGRESS

FIRST SESSION

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THE FEDERAL AVIATION ADMINISTRATION'S NOTAM SYSTEM FAILURE AND ITS IMPACTS ON A RESILIENT NATIONAL AIRSPACE

WEDNESDAY, FEBRUARY 15, 2023

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., in room SR–253, Russell Senate Office Building, Hon. Maria Cantwell, Chairwoman of the Committee, presiding.

Present: Senators Cantwell [presiding], Klobuchar, Schatz, Markey, Peters, Baldwin, Duckworth, Rosen, Hickenlooper, Warnock, Cruz, Thune, Moran, Fischer, Budd, Schmitt, Vance, Capito, and Lummis.

OPENING STATEMENT OF HON. MARIA CANTWELL, U.S. SENATOR FROM WASHINGTON

The CHAIR. The Senate Commerce Committee will come to order. I appreciate all my colleagues being here this morning. For the United States to be a leader in aviation, we must set the gold standard for aviation safety.

We know there is work to do, and we have a number of recent incidents that highlights the importance of continuing to make safety the top priority. Last week we saw how technology issues can impact airlines and the traveling public.

Today, we welcome acting FAA Administrator Billy Nolen to the Committee to help understand what went wrong with the NOTAM system and what actions the FAA is taking to make sure this never happens again.

How do we make sure the agency has the necessary resources to modernize its IT infrastructure? And how do we ensure a safe, and efficient, and reliable network? How can we ensure our global competitive edge? Mr. Nolen understands these challenges.

On January 11, he ordered the first national ground stop since 9/11, and this was a significant event. More than 1,300 flights were canceled and more than 9,500 were delayed. Prior to leading the FAA, Mr. Nolen served as the head of the FAA's Office of Aviation Safety. With over 1 million registered aircraft, over 1 million active pilots, and over 50,000 flights every day, the Aviation Safety Office has a very big job.

As an experienced airline pilot, Mr. Nolen understands the importance of the NOTAM system. These notices provide real time safety information, flight operations, and without access to this in-

formation, safe aircraft operations really are not possible. This hearing, like last week's, which I believe still shows the investment in technology that needs to be made—Southwest could have updated their system, and didn't, and a critical event happened.

Now we want to make sure a critical event like happened with our NOTAM system also doesn't happen, and how do we keep our economy moving forward. These incidents are concerning. They impact Americans' confidence in our aviation system and our aviation infrastructure is critical to American safety and security.

So, we need to accelerate building a national airspace system for the 21st century, something this committee is going to work on as it relates to the FAA reauthorization bill. And the 2023 authorization bill will give us many opportunities to talk not just about this issue, but other issues that our appropriator colleagues also have to do their job. Over the last several years, Congress has met or exceeded the Administration's budget requests for the FAA facilities and NOTAM.

But Mr. Nolen will talk today about additional funds, why Congress needs to paint—why a clear picture needs to be painted about the needs of our airspace system for the future. To be sure, the FAA must have redundancies and not a single point where a failure can happen in a key system like we just saw.

And we have to have responsibilities to ensure that every taxpayer provides—that every taxpayer is provided a maximum value on return. Therefore, we must see clearly the obstacles ahead and what a path to make sure that we have this most modernized system.

Today's discussion on NOTAM and national airspace are really part of a bigger picture. I am sure there will be other issues that come up today as events of the last several weeks have pointed out the roles of FAA in our airspace system, working with DOD and others.

So, I look forward to the questions and opportunities to have you before the Committee to address these important, timely questions on. I will turn to the Ranking Member, Senator Cruz.

STATEMENT OF HON. TED CRUZ,
U.S. SENATOR FROM TEXAS

Senator CRUZ. Thank you, Madam Chair. And thank you, Acting Administrator Nolen, for being here. While I look forward to hearing from you, I have to say I am disappointed by the absence of a Senate confirmed witness like Secretary Buttigieg who ultimately oversees the agency responsible for the NOTAM failure.

And I would note that Secretary Buttigieg, in my view, instead of engaging in politics, should be focused on the job he has now and addressing the very serious transportation crises we are seeing playing out across the country. On the afternoon of January 10, the FAA's notice to air mission system failed.

About 15 hours later, after failing to reboot the system, the FAA ordered a full ground stop of the national airspace system for the first time since September 11, 22 years ago. The ground stop was because America was under attack. But this time, this ground stop was the result of the Federal agency's inability to modernize despite Congress providing the required resources to do so.

The *Washington Post* called the ground stop, "almost unprecedented" and said the FAA, "learned long ago their systems were dependent on rickety foundations but didn't do enough to update technology." Despite a similar outage in 2008, the FAA still has not improved the system. A technology specialist involved in the 2008 outage blamed, "organizational inertia," something I have heard many times before when people describe problems at the FAA.

The *Wall Street Journal* said, "given the importance of the FAA's mission, this kind of failure is hard to excuse." If glitches happen all the time, why doesn't the FAA have redundancy. Canada's NOTAM system offer—operated by a nonprofit, experienced apparently unrelated problems the same day as the United States.

The planes there kept flying. The NOTAM breakdown last month was clearly a mistake. I fear it is emblematic of a culture afraid to innovate, stuck operating inefficiently, and illustrative of why President Biden needs to choose an administrator for the FAA with a proven ability to manage change within large organizations, and with the requisite aviation and safety experience.

The current nominee that is pending lacks that aviation experience. The FAA safety mission, Mr. Nolen, as you know well, is too important to take for granted. There is a front-page story in *The Wall Street Journal* today on the FAA's inability to modernize NOTAM. In that story, an FAA spokesperson claims that prioritizing NOTAM upgrades wouldn't guarantee funding from Congress. That is simply not true.

Congress has fully funded NOTAM modernization for more than 10 years. Every year since 2013, Congress has given as much or more than the amount requested by the Executive agency for 10 years now. And yet, full modernization is still several years away. After investing millions of dollars, I am wondering why this bureaucracy is taking so long to do its job.

And is the system worth modernizing at this point, because the status quo simply isn't acceptable. There must be accountability when an agency is not using taxpayer funds efficiently. And that, of course, starts with an accountable leader. Now in his third year as Secretary of Transportation, Secretary Buttigieg has failed to deliver any meaningful reform at the FAA.

Although NOTAM modernization started a decade ago, this Administration seems focused on semantics. Whether it is replacing the term mother with birthing person or creating a new checkbox on passports for people who claim to be neither a man or woman, this Administration's desire to signal its virtue seems to know no limits. It has even infected the FAA.

Instead of it focusing on safety, the FAA and DOT were working hard to change NOTAM's name from notice to airmen to notice to air missions. I would suggest instead, the focus should have been on making sure the damn thing worked. Shockingly, renaming NOTAM didn't prevent an outage. You know, way back in 1994, Al Gore proposed to reform the FAA into a self-funding, more efficient organization.

Today, the flying public is stuck with a self-regulating and flailing agency stuck in the 20th century. It is my hope that we can use this hearing and the 2023 FAA reauthorization bill to explore meaningful reforms to the FAA and its air traffic organization. And

let me say finally, in recent weeks, we have seen several very concerning near misses that were almost mass fatality crashes.

We have seen them in New York. We have seen them in Austin, Texas. We just recently saw one outside of Hawaii. I know Texans and Americans across this country are deeply concerned about these near misses.

And I hope, in addition to addressing the failure of the NOTAM system, that Mr. Nolen, you will also address these near misses, why they almost killed hundreds of people, and what more can be done to make sure that the next near miss doesn't become a horrific tragedy. Thank you.

The CHAIR. Thank you, Senator Cruz. Now we will hear from the Ranking Member of the Subcommittee, Senator Moran.

STATEMENT OF HON. JERRY MORAN,
U.S. SENATOR FROM KANSAS

Senator MORAN. Chairwoman, thank you. Thank you, to you and Senator Cruz, for this hearing. I am pleased to work beside you, and with you, and the other members of this committee as the Ranking Member of the Aviation subcommittee on Commerce, Science and Transportation. Kansas is the aviation capital of the world, with over a century's worth of rich aviation history.

Whether manufacturing the first bomber in the B–52 or the next generation bomber in the B–21, Kansas, has driven and carried the aviation industry. Clusters of manufacturing navigation alongside academia and research in Kansas leads the aviation industry into the future. Yet the FAA is at a crucial junction, and we must do everything in our power to ensure the United States remains a leader in the aerospace innovation and safety. It is imperative for this committee to pass a long-term reauthorization.

Prior to 2018, we had short-term reauthorizations totaling 28. It is no wonder there is uncertainty at the FAA and in the industry when we are so challenged in getting our work done. Multi-year reauthorizations is necessary for long-term planning and growth in the civil aviation industry, including maintenance and modernization of aviation infrastructure and technology. I look forward to addressing the current backlog at the FAA.

I agree with Senator Cruz that the FAA needs a Senate confirmed leader. We need to be able to address new technologies that are rapidly advancing so that the United States remains at the forefront and remains competitive in this world.

I have worked with the Chairwoman of this subcommittee on advanced air mobility in the past, and further, we have worked together in advancing the aviation work force. We have significant challenges in the area of general aviation and aviation in general.

The FAA is a significant component of that circumstance. It needs our help, but it also needs to get its act together. Madam Chairman, I have altered my subcommittee assignments within the Committee on Appropriations to add T-HUD, transportation to this opportunity to try to make a difference in this arena.

And so, I look forward to really working with what I think is the kind of both points of view that has been expressed so far, leadership at the FAA, and the necessary resources for them to do their job well. Thank you.

The CHAIR. Thank you. Well, we will definitely look forward to that leadership and working with all of us. I just want to note before we go to the witness that NOTAM stood for notice to airmen. And I know while people are somewhat bothered or think that this is not a change, or some people are saying that it is, you know, being too politically correct, we have a barrier problem here.

We need more women in aviation. And fewer than 10 percent of the licensed pilots are women. About 5 percent of airline pilots, 3.6 percent of airline captains. So, I just want to say how proud I am that the two naval aviators that flew over the Super Bowl were from Whidbey Island and Whidbey Island Air Station.

But I do think the changing is in the right direction, and we need to do more to encourage more women in aviation. So, Mr. Nolen, welcome to today's hearing. Your opening remarks. Thank you.

STATEMENT OF BILLY NOLEN, ACTING ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Mr. NOLEN. Thank you, Madam Chair, Ranking Member Cruz, and members of the Committee. Thank you for the opportunity to provide clarity on the FAA's management of the Notices to Air Mission system, share details on recent events, and explain our efforts to modernize the NOTAM system.

Today is also an opportunity to discuss the modernization needs of the national airspace system overall, some of the challenges we face and some of the opportunities on the horizon. We are experiencing the safest period in aviation history, but we do not take that for granted. Recent events remind us that we cannot and must not become complacent and must continually invest in our aviation system.

I know we are here to discuss the challenges we experienced with our NOTAM system last month, so I want to provide a brief background about what we know so far. Late on January 10, NOTAM applications and services became unreliable.

Technical experts attempted to address the issue by, among other things, switching to the backup data base. While technical experts worked through the night, the FAA activated a hotline to provide real time status updates to airspace users.

During this time, there were no reports of operational impacts. In the early morning, hours of January 11, the system appeared to have been restored, but formatting issues were persistent.

To resolve this, FAA air traffic leadership directed the rebuild of the data bases. As the morning air traffic rush approached and work on the system continued, I ordered a ground stop at approximately 7:15 a.m. eastern time, pausing all departures in the United States in order to maintain safety and preserve predictability.

I did so after consulting with the airlines and safety experts. Once resiliency testing on the system was conducted, I lifted the ground stop at 9:07 a.m. eastern time. The FAA's preliminary findings are that contract personnel unintentionally deleted files while working to correct synchronization issues between the live primary database and the backup data base. We have found no evidence of a cyberattack or other malicious intent.

After the incident, we implemented a synchronization delay to ensure that bad data from one database cannot affect the backup data base.

Additionally, we have implemented a new protocol that requires more than one individual to be present and engage in oversight when work on a database occurs. As part of our review of the root cause of this incident continues, please know that the FAA will keep the Committee apprised of our findings. As you are well aware, 2023 is a big year for aviation.

Our current authorization expires on September 30th and there is sustained energy, from both industry and Government, around the development of ideas and proposals to modernize the NAS and the FAA's approach to managing it. As we delve into that reauthorization process, there are several important points we would like to highlight for the Committee.

Right now, the FAA is managing three airspace systems to serve the diverse users of the NAS. The first is the classic or legacy system that many users still count on. The second is the system that relies on the next generation of technology for improved communication, navigation, and surveillance. The FAA has operationalized the foundational pieces of this system, and we continue to deploy services as operator equipage and Federal resources allow.

The third is the future, a future that has already arrived. It is the system that must accommodate new entrants in all their forms, including drones, advanced air mobility aircraft, commercial spacecraft, and other new aircraft yet to be imagined.

For us to sustain, implement, and plan for all of these systems, we have a lot of work ahead. We look forward to partnering with the Committee to ensure that the FAA's oversight and regulation of the NAS continues to deliver the level of aviation safety and efficiency expected by the American public.

Before we get to questions, I want to take a moment to acknowledge some of the recent incidents that we have talked about, we have seen throughout the system. I am sure that you and the public have seen some of the news reports and close calls on runways and other operational events.

Because I want to make sure we are giving the right amount of attention to all of these recent occurrences, I formed a safety review team to examine the U.S. aerospace system's structure, culture, processes, systems, and integration of safety effort. The initial focus will be to hold a safety summit to examine what additional actions the aviation community needs to take to maintain our safety record.

A group of commercial and general aviation leaders, labor partners, and other will examine what mitigations are working and why others do not appear to be as effective. I can say without reservation that the aviation professionals who comprise the American aerospace industry are proud of our safety record.

But we all know that complacency has no place in air transportation, whether it is on the flight deck, in the control tower, the ramp, or the dispatch center. We are confident that we are taking the right steps here, and we look forward to working with the Committee and this Congress in developing a long-term FAA reauthor-

ization bill that accelerates the next era of aviation, one that is safe, efficient, sustainable, and open to all. Thank you.

[The prepared statement of Mr. Nolen follows:]

PREPARED STATEMENT OF BILLY NOLEN, ACTING ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

Chair Cantwell, Ranking Member Cruz, and members of the Committee, thank you for the opportunity to provide clarity on the Federal Aviation Administration's (FAA) management of the Notice to Air Missions (NOTAM) system, share details on recent events, and explain our efforts to modernize the NOTAM system.

Today is also an opportunity to discuss the modernization needs of the national airspace system (NAS) overall, some of the challenges we face, and some of the opportunities on the horizon.

We are experiencing the safest period in aviation history, but we do not take that for granted. Recent events remind us that we cannot become complacent and that we must continually invest in our aviation system.

NAS Modernization

2023 will be a big year for aviation. Our current authorization expires on September 30th, and there is sustained energy from both industry and government around the development of ideas and proposals to modernize the NAS and the FAA's approach to managing it. As we delve into that reauthorization process, there are several important points we would like to highlight for the Committee. Right now, the FAA is managing three airspace systems to serve the diverse users of the NAS. The first is the classic or legacy system that many users of the NAS still count on. The second is the system that relies on the next generation of technology for improved communication, navigation, and surveillance. The FAA has operationalized the foundational pieces of this system, and we continue to deploy additional services as operator equipage and Federal resources allow. The third is the future—a future that has already arrived. It is the system that must accommodate new entrants in all their forms, including drones, advanced air mobility aircraft, commercial spacecraft, and other new aircraft yet to be imagined. It will involve autonomous aircraft, data exchanges, and a dynamic airspace. For us to sustain, implement, and plan for all of these systems, we have a lot of work ahead. We look forward to partnering with the Committee to ensure that the FAA's oversight and regulation of the NAS continue to deliver the level of aviation safety and efficiency expected by the American public, as new entrants come into service.

On our end, we must work with stakeholders and make strategic investments, and create an agile regulatory structure that maintains safety, ensures efficiency, and facilitates access for new entrants. We are committed to this work and need Congress to be a supportive partner both in terms of enacting a long-term reauthorization measure, and funding our modernization needs. We look forward to working with you on these challenges and assure you that safety will always guide our actions no matter the challenge.

The NOTAM System

A NOTAM contains essential information for airspace users providing safety information about particular aspects of the NAS that are not operating under normal status. FAA's NOTAM system is a dynamic system that captures recent changes to conditions in the NAS. For example, NOTAMs frequently provide pilots and operators with information about an anomaly with a particular navigational aid, airport runway, or taxiway, or about an air space closure or a temporary flight restriction.

The FAA's overall NOTAM system consists of two systems—an older U.S. NOTAM System (legacy system) and a newer Federal NOTAM System. The older portion of the NOTAM system relies on 30-year-old software and architecture. This portion collates NOTAM data from all sources and distributes it to some airspace users. The Federal NOTAM System portion is newer and serves as part of the foundation for the FAA's ongoing NOTAM modernization effort.

NOTAM information comes from a variety of places: an airport or air traffic control tower that observes local changes, an FAA technician planning to work on a system, or an air service provider, to name a few. Airspace users enter and access the information from applications sitting on both portions of the FAA's NOTAM system. Most airlines download NOTAMs from the FAA into their internal databases for dispatching aircraft. Users can also get NOTAMs from third party providers who get it from the FAA, or they can go to the primary source for specific NOTAM infor-

mation, by calling a flight service station, air traffic control tower, or airport, for example.

NOTAM Service Interruption and Response

Late on January 10, 2023, NOTAM applications and services became unreliable. Technical experts attempted to address the issue by, among other things, switching to a backup database. There are three NOTAM backup databases—one in Oklahoma City and two in Atlantic City. While technical experts worked through the night, the FAA activated a hotline to provide real-time status updates to system users. During this time, there were no reports of operational impacts. In the early morning hours of January 11, 2023, the system appeared to have been restored, but formatting issues persisted. To resolve this, FAA's air traffic leadership directed the rebuild of the databases.

As the morning air traffic rush approached, and work on the system continued, I ordered a ground stop at approximately 7:15 a.m. EST, pausing all departures in the United States in order to maintain safety and preserve predictability. I did so after consulting with the airlines and safety experts. Once resiliency testing on the system was conducted, I lifted the ground stop at 9:07 a.m. EST on January 11, 2023.

The FAA's preliminary findings are that contract personnel unintentionally deleted files while working to correct synchronization between the live primary database and a backup database. We have found no evidence of a cyber-attack or other malicious intent. After the incident, we implemented a synchronization delay to ensure that bad data from a database cannot affect a backup database. Additionally, we have implemented a new protocol that requires more than one individual to be present and engaged in oversight when work on the database occurs. As our review of the root causes of this incident continue, please know that the FAA will keep the Committee apprised of our findings.

NOTAM Modernization

Beginning in 2012 with the Pilot's Bill of Rights (Public Law 112–153) and continuing in 2018 with the FAA Reauthorization Act of 2018 (Public Law 115–254), which further amended the Pilot's Bill of Rights, Congress directed the FAA to continue developing and modernizing the NOTAM repository, in a public central location, in a manner that is Internet-accessible, machine-readable, and searchable. Since those enactments, the FAA has made progress modernizing the NOTAM system. This progress includes improvements not only to the NOTAM content and presentation/publication, but also to the information technology architecture that supports and delivers this vital safety information. The nearly decade-long modernization work includes transitioning away from the legacy portion of the system mentioned earlier. We expect that a significant portion of the modernization work will be complete by mid-2025. We continue to assess the feasibility of accelerating the current schedule.

The goal of the FAA's NOTAM modernization effort is to provide NOTAMs that are complete, accurate, timely, and relevant to safe flight operations. The FAA has made great progress in fulfilling the congressional mandates for modernization, including close coordination with industry and the adoption of recommendations from industry stakeholders that use NOTAMs. Specifically, the FAA is working in coordination with the Aeronautical Information Services Reform Coalition (coalition), whose members include representatives from, among others, air carriers, aircraft owners, pilots, airport executives, labor interests of air carriers, general and business aviation, and international operators. Our continued work with the coalition is one of the many examples where a government-industry partnership has helped to significantly inform and improve the direction and quality of our work.

We are working to face the challenges in maintaining our systems while keeping pace with new and emerging technologies and entrants. However, we are committed to improving and securing our systems, finding new ways to be agile in order to face these challenges, and continuing to achieve the highest levels of safety and efficiency. We look forward to working with the Committee and this Congress in developing a long-term FAA reauthorization bill that accelerates the next era of aviation—one that is safe, efficient, sustainable, and open to all.

The CHAIR. Thank you, Acting Director Nolen, and appreciate that. Let's drill down on the NOTAM system. One of the issues, from my understanding and you are saying that this involved an individual deleting the wrong set of files. We have a backup redundant system, why couldn't we just go to that system?

Mr. NOLEN. Thank you, Madam Chair, for the question. So, we do have a backup system. A part of how the system works is that as you do updates to the system, as you delete outdated NOTAMs, it synchronizes across both the primary backup and the other two backups. So, part of that is synchronization, once we realize it, once we come——

The CHAIR. So, the structure of the architecture is not favorable to true redundancy.

Mr. NOLEN. Which is one of the reasons we are in the middle of this whole modernization effort. We have got——

The CHAIR. You are agreeing with me, is that right?

Mr. NOLEN. Yes, ma'am. I am agreeing with you that we have a 30-year-old system. We have a new system. Let me just say to the point. 80 percent of the users are already on our newer system, which is the Federal NOTAM system.

We still have some critical users on the U.S. NOTAM system, which is this 30-year-old. Primarily you have DOD, you have the Alaska, aviation in Alaska, and our international users are still on that system. But again, we are working to be off of that system by Fiscal Year 2025.

The CHAIR. So, I think, you know, the NTSB is—you know, the authorization bill, we wanted to make progress on this, and so they are basically saying that we aren't making progress on this. What is your response to how we are going to fill not waiting until 2025?

I get that you are saying now I am going to back up on the human factor, really, is what you are saying. I am going to back up on the human factor and make sure that this never happens because of an individual, one individual being on the spot.

But really, it is the architecture of the system that doesn't give us true redundancy. So, is there a way to solve that before we, you know, go 2 years into the modernization?

Mr. NOLEN. Yes, we will continue on this journey of modernization. I have asked and I have directed our teams to look at what is our ability to accelerate that timeline. Can we pull it into—?

The CHAIR. I am asking you, what can you do about the existing system today to give you true redundancy? You are trying to give me human factor redundancy in another individual, but when in reality I am pointing out that the architecture of the system isn't true redundancy because if the deletion impacted both systems—

.

Mr. NOLEN. Yes—.

The CHAIR. Then you don't really have redundancy. You don't have a separate, you know, reboot. You know, our electricity goes off on our house, we go to the generator, if you have one, right.

Mr. NOLEN. Yes.

The CHAIR. So, in this case, the backup didn't work either because it was affected by the same deletion. So, you don't have to answer all of it right here, but I need an answer on this issue of redundancy to the system.

Because while we want to modernize, and we want to have the right resources, and we got a pretty good offer from our colleague to drill down with this on the Appropriations side to make sure that we have a clear understanding—and I really do think this has been an issue in the past.

I really do think that appropriators need to understand the technology needs of the FAA and support them. But what can we do now to make sure this doesn't happen again?

Mr. NOLEN. Well, thank you. Several things that we have done. Number one, we have instituted a 1-hour synchronization delay between the primary database and the backup data base.

That gives us time to make sure that we have no issues there. Second, we have increased the level of oversight to ensure the more than one person is available when work or updates are being done on the live data base, along with an upgrading or up leveling our level of oversight within the Command Center to ensure that we have got leadership present.

So those, of course, are more in the area of administrative controls. But the work continues to get off of the U.S. NOTAM system and on to the Federal——

The CHAIR. I am going to come back at you and ask that you work with contractors to find out how to get us true redundancy in the short term in a backup database that is truly independent and could operate at the same instance if this happens again.

Before I—so my sense of this near-miss with Southwest Airlines and a cargo carrier, was Southwest in a position earlier than their slot? Is that what happened?

Mr. NOLEN. Well, what happened in Texas, in Austin, is that something we would not expect to happen during a low visibility operation where Southwest was cleared for take-off, and FedEx, who was cleared for approach, in close proximity to each other.

That investigation is underway by the National Transportation Safety Board and the FAA. So, we are looking at every aspect of it and we will certainly provide updates. But it is not something we expected to have taken place. Rightfully so, the FedEx crew, Southwest——

The CHAIR. I am asking if you have an answer today about why this occurred?

Mr. NOLEN. No, ma'am. That investigation is still ongoing, but we will certainly provide an update.

The CHAIR. Thank you. Senator Cruz.

Senator CRUZ. Thank you, Madam Chair. Acting Administrator Nolen, the FAA has been charged with modernizing NOTAM for 10 years. Why has it taken 10 years, and why isn't it done yet?

Mr. NOLEN. Well, thank you, Senator Cruz, for the question. We have been on a journey of modernization. Starting back in 2009, as we began the scoping and we brought on, in 2013, we brought on the Federal NOTAM system.

So that process, and we have had enhancements along the way. We are about for—the substantive part of that modernization.

Senator CRUZ. Let me ask again, why has it taken 10 years and why is it still not done that?

Mr. NOLEN. It does take a while. These systems—the complexity of our NAS. The NOTAM is just one of thousands of systems that comprise how we oversee the NAS, how we communicate, how we are given NOTAMs. This is how——

Senator CRUZ. And if I heard you right, your current plan is not to have it modernized until Fiscal Year 2025. So, 2 to 3 years from

now. What is to prevent another ground stop in the 2 to 3 years between now and then?

Mr. NOLEN. When I say we are moving to 2025, the work is ongoing. We do have 80 percent of the users onto the Federal NOTAM system. We have added redundancies to ensure that——

Senator CRUZ. But the 80 percent of users, if I understand you correct, that didn't stop a ground stop of everybody, is that correct?

Mr. NOLEN. It did. When we did a ground stop, that was a ground stop for all departing traffic on Des Moines.

Senator CRUZ. So, the 80 percent didn't help. It is not like it was only a 20 percent ground stop. Everyone shut down, the first time since 9/11. Let me ask you, I agree very, very strongly with the questions that the Chairwoman Cantwell raised about redundancy. And do the fixes that you proposed remove the risk of a similar single point of failure for knocking the NOTAM system offline?

Mr. NOLEN. We believe the fixes that we have in place today will prevent a recurrence of the event that we saw on January the 11th.

Senator CRUZ. Mr. Nolen, you are not answering the question. Will the fixes remove the risk of a similar single point of failure from knocking the system out? Is there redundancy being built into it, or can a single screw up ground air traffic nationwide?

Mr. NOLEN. We have—when we think about the age of our system and the age of systems we have, we do have redundancy there. Could I sit here today and tell you there will never be another issue on the NOTAM system?

No, sir, I cannot. What I can say is that we are making every effort to modernize and look at our procedures. In fact, part of this investigation has us working with MITRE and other entities to look at the across the totality of our systems, how they interrelate, what is the level of redundancy, and is there any additional thing that we need to do?

And certainly, we will have more as an investigation ensues.

Senator CRUZ. Well, I think you are going to see, as you have seen, bipartisan interest in assisting the FAA in ensuring redundancy so that we don't see air traffic grounded again. And in focusing more broadly, I hope, on modernization of air traffic control. I want to shift to the near crashes we have had.

And understandably, I am particularly focused on what happened in Austin. Two weeks ago, there was a near collision on the runway at Austin-Bergstrom Airport. A Southwest flight was taking off from that runway, a FedEx plane was preparing to land. They came incredibly close to crashing. Millions of Texans fly every year.

I have flown on Southwest flights out of Austin literally hundreds, if not thousands, of times. I actually have a video that was created that is a reproduction of what happened. It is a recreation, but it is based on the flight data, so if we could play that video and I would like to get your reaction to it.

[Video playing.].

Senator CRUZ. So, I know the incident is under investigation. If you are sitting in that Southwest flight, you knew how close you came to having a plane land on top of you, killing every person on that plane, you would understandably be horrified. It is only

through, as I understand it, the heroism of the pilots being alert and seeing what was happening, that that tragedy was averted.

And yet my question is, how can this happen? How did air traffic control direct one plane onto the runway to take off and another plane to land, and have them both within 100 feet of each other? And what can we do to make sure that doesn't happen again?

Mr. NOLEN. Thank you, Senator Cruz, for the question. Certainly, we are letting the investigation play itself out. Having been an airline captain and having been a pilot for more than 42 years and an accident investigator, we will go where the facts take us.

What is not represented on the video there, it appears to, you know, eye clear, below in 22 days is what we would say in pilot jargon. But actually, when the tower of visibility was zero, it was a low visibility day, it is not what we would expect to have happen.

But when we think about the controls, how we train both our controllers and our pilot, the system works as it is designed to avert what you say could have been a horrific outcome. The pilots saw, the FedEx pilots saw——

Senator CRUZ. Well, let me just underscore the urgency of preventing that sort of incident from happening again.

Mr. NOLEN. Absolutely. Yes, sir.

The CHAIR. Thank you. Senator Schatz. Oh, I am sorry, Senator Klobuchar. I am sorry. Oh, Senator Schatz. OK, thank you.

STATEMENT OF HON. BRIAN SCHATZ,
U.S. SENATOR FROM HAWAII

Senator SCHATZ. Thank you, Madam Chair, Vice Chair—Ranking Member. Administrator Nolen—and I want to welcome Senator Moran to the T-HUD Committee, because I think it is important to note that we did fully fund the budget request for NOTAM modernizations efforts in the last spending bill, but there are efforts to cut Federal spending.

And I want to ask you a very simple question, should we expect flight delays and cancellations going forward if we defund or underfund these transformations?

Mr. NOLEN. Thank you, Senator Schatz for the question. It is clear, as I said in my opening comments, that as we are on this modernization journey, we are on it with you.

So having the funding that we need, and yes, certainly we get to places where either we have got starts and stops, or we are into CRs, et cetera, having that funding there so that that ongoing work can be done. And where we have the capability and ability, we want to be able to accelerate that.

Senator SCHATZ. So here is my question for you, we do our job, you do your job. If we pass a proper appropriations bill, fully funding your request, can you commit to meeting the deadlines and schedules already established for the improvements to NOTAM?

Mr. NOLEN. Yes, sir. We remain on track to get that done.

Senator SCHATZ. Thank you very much. You have got a bunch of ongoing projects, and I want to talk to you about how you prioritize. You have modernizing NOTAM, Next Gen, and then integrating unmanned aircraft commercial space launches, urban air mobility technologies.

How are you—I mean, the money is one thing, but you also have a throughput capacity problem in terms of leadership and analysis and all the rest of it. How are you racking and stacking those priorities? I know you are going to say, look, we got to do it all, but in reality, agencies have to prioritize. I am wondering how you are doing that?

Mr. NOLEN. Well, thank you for the question. You are absolutely right. Our first priority has been and always will be safety, and the safety of the NAS. So, when we think about things that contribute to the safety of the NAS, that is at the top of the list. And then we think about there is a security aspect.

And certainly, we work in partnership with TSA and other authorities to ensure that our airspace is secure. Last, when we think about, you know—or not really last, but when we think about the efficiency.

So those pieces of modernization that provides efficiency, which the flying public enjoys as well, those are the things we work on. So, when we think about Next Gen, what we are doing there, and from a enterprise risk perspective as it relates to the NAS, that is really what informs which programs and priorities rise to the top of our list.

Senator SCHATZ. I want to move to another topic. NORAD has adjusted its radars to be more sensitive to detecting potential UAPs, leading to an uptick in picking up potential incursions. Is the FAA adjusting status of airspace quickly, as regularly as NORAD may need to respond to incidents?

And I guess more generally, can you tell us how you are transforming your systems to be integrated into what we know from our national security folks and the Department of Defense? A lot of this has FAA implications. I do think increasing—and increasing the sensitivity of the radars makes perfect sense.

I also do think that there may be instances now where we are going to—you are going to get a ping on the radar that is a flock of birds or some other not particularly dangerous—I shouldn't say birds are not dangerous.

I am aware of bird strikes. But the point is it doesn't rise to the national security level. And so how are you sorting this and what changes are you currently in the middle of? I don't expect you to have a fully formed answer, but I would like to be reassured that you are working with our partners in DOD to get this right.

Mr. NOLEN. Well, thank you very much for the question. Again, we are indeed. We coordinate, collaborate, partner on everything that you are talking about. We have a liaison officer embedded at NORAD, and we also have DOD folks at our National Operation Command Center.

So, if you were to be at the Command Center, you would see that you have got representatives, certainly from the industry, but you have got representatives from Government. We are looking at cyber.

We are looking at UAS. All the things that you speak about, there is a high level of coordination across the whole of Government when it comes to the security of our airspace.

Senator SCHATZ. Final question. It has been publicly reported, and I don't know that it is true, that the changing the dials on the

sensitivities of the radars is something that can be done retroactively. In other words, for the past that you have data sets that you could actually tweak and then that might inform our national security folks in terms of how many of these UAPs were flying and over what period of time. Can you tell us anything about that?

Mr. NOLEN. We have capabilities within our commands and we have capabilities in terms of our radar, in terms of what we can see, where we don't see. Again, it is a partnership effort and it is a whole of Government approach.

Senator SCHATZ. The specific question is, do you have the capability to go backward?

Mr. NOLEN. Go backward? I am sorry, could you——

Senator SCHATZ. Go backward in time and say, look, I want to know in 2018, let's say, the extent of these UAPs by taking the data that you have, that probably nobody is looking at, understandably, because it is in the past, and changing the sensitivity on the data set. And then that would tell us something about what was happening in the past. Do you know if we have that capability?

Mr. NOLEN. I do not. And certainly, I would be happy follow up.

Senator SCHATZ. If you would get back to us. Thank you.

Mr. NOLEN. Yes.

The CHAIR. Thank you. Senator Moran.

Senator MORAN. Thank you, Chairman. Mr. Nolen, thank you for your presence here today. Thank you for the conversation you had with me by phone on January 11, January 12. I appreciate that.

There has been conversations at the FAA and within the industry whether the agency should change the systems classification from, the NOTAM systems classification, from mission support to safety critical. Comments or thoughts?

Mr. NOLEN. Senator Moran, thank you for that question. Certainly, that is one of the directions that I have given our team. Let's go back.

And so, part of this look is taking a look at all of our enterprises and those we consider critical to the NAS versus the support, so we are absolutely taking a look at the classification there and make sure that we have got it right.

Senator MORAN. And what would be the difference, if it was reclassified? What would be the consequences?

Mr. NOLEN. Some of the differences are just the levels of controls and engineering controls that you would have in place for a critical system, and those added levels of redundancy that you would expect to have given the criticality of them.

Senator MORAN. Senator Klobuchar and I have introduced the NOTAM Improvement Act. Any thoughts on whether that would be of assistance to you and the FAA?

Mr. NOLEN. We fully support the goals that you have both put forward here. And I—it is much of what we are working toward, so we are very supportive of that.

Senator MORAN. Let me talk about a specific technology update. Spotlight on FAA's aging infrastructure. Would you comment on the status of replacing instrument landing systems located at hundreds of airports across the country? My understanding, at the current pace, FAA's current pace of modernization, it will take more than 100 years to replace those critical systems.

Mr. NOLEN. We have undertaken a body of work to say, you know, again, I have talked about these three NASs that we support. And so, when you look at that, we would love to be able to sunset some technology. Sunset systems where that have been replaced by satellite, GPS satellite-based navigation.

And our ability to go do that—so we do have a plan in place to see how can we draw down where we have more than adequate replacement for that. So that is a piece of work that we are undertaking.

Senator MORAN. In 2017, I was part of a bipartisan group that introduced legislation that became law. It is called Modernizing Government Technology Act, and it creates a fund for Federal agencies to use savings obtained through streamlining its IT systems, replacing legacy products, and transition to cloud computing for additional modernization efforts.

So, it allows an incentive for agencies, departments to utilize, take those steps, and then they have the money to acquire additional latest technology. To date, that fund has invested in 35 Government IT modernization projects across 19 Federal agencies. The largest project investment was $187 million.

Considering NOTAM modernization is to—the goal is to transition to entirely new platform, has the—has the Department of Transportation, FAA has ever considered utilizing that modernization fund to improve NOTAM, and is there a why or why not?

Mr. NOLEN. I certainly have to follow up with you on that question, sir.

Senator MORAN. Perhaps I am just pointing out there is an opportunity for assistance.

Mr. NOLEN. Thank you.

Senator MORAN. Thank you. Thank you for your service.

Mr. NOLEN. Thank you, sir.

The CHAIR. Senator Klobuchar.

STATEMENT OF HON. AMY KLOBUCHAR,
U.S. SENATOR FROM MINNESOTA

Senator KLOBUCHAR. Thank you very much, Senator Cantwell. And thank you for this hearing. And thank you, to you, Mr. Nolen. Senator Moran mentioned our work on this bill, which I am going to get to, but I did appreciate you talking to both of us after that 2-hour ground stop and the work that needs to be done with our air traffic system. What do you see as some of the biggest challenges in strengthening the resiliency and reliability of the system right now?

Mr. NOLEN. Our focus is, number one, is always ensure that the system is operating every day. So, every day in our Nation's airspace, we have 45,000 flights. That is just over 16 million a year. And we do it very safely, day in and day out. And we have gone 15 years—14 years, I am sorry, without a fatal accident.

That is nearly 230 million flights, nearly a $1 billion in payments a year. So, our system is very safe. At the same time, we don't take that safety for granted. And we recognize we have to continue this journey of modernization. So, if I—when I look out and I look for risk, overall, I have a good sense about where we are.

Can I say to the American public that we are safe? The answer is that we are. If the question is, can we better be better? The answer is absolutely, and that is the piece we are working on.

Senator KLOBUCHAR. And so, you are looking at transitioning out of this legacy system, and what are your biggest obstacles to do that?

Mr. NOLEN. It is all about ensuring, again, that we have that funding there. And we will look forward to having, you know, what comes forward in the President's budget. Our goal is to take every dollar that we are given, and we are—our goal is to be good stewards of that and move forward to modernization.

So again, we are talking thousands of systems that NOTAM is just one of, and so we don't want to leave the Committee with the impression that if we fix NOTAMs and we are done. And I know, you know, that is not where we are. But we will certainly have a prioritization about how we get there. NOTAMs is a big one. We want to continue to deliver on the benefits of NextGen.

Everything we have done there, even as we stare into the future to say, how do we enable all these new entrants that are coming in?

Senator KLOBUCHAR. Right. And we mentioned, Senator Moran mentioned the bill we have with Senator Capito. And the point there is that it would create a task force, as you know, to bring everyone to the table. It actually passed the House, for my colleagues to note, led by represents Stauber of Minnesota.

He is got the Duluth Airport up there. And it passed the House in the 116th and 117th Congress last time, 424 to 4. So, I am hoping we can get that done, and whatever input you have, I think the sooner we do that, the better. And then as we work toward the FAA reauthorization on a separate track.

And I have the last question. And the focus I want to make here is just the workforce issue. We know that every industry practically in America is having workforce issues, including airlines and including you guys.

And I know that Senators Duckworth, Thune, Moran, Fischer, Kelly, and many others, the leadership of Chair Cantwell, are working to expand the FAA's workplace development grant programs to boost investments. Could you talk about that pipeline of skilled aviation workers, and what you think we should do?

Mr. NOLEN. Yes. It is a great question. We look out and say, how do we become a more inclusive agency? How do we really reach out and touch underrepresented group? It is one of our absolute top priorities for the agency. When we think about it, I know there is part of that narrative, are we seeing a younger work force?

The answer to that is yes. Are we attracting the kind of talent that we need? The answer to that is also yes. As we were looking to bring on more air traffic controllers, we reached out with a campaign of finding folks who are wanting to be part of the FAA and we expect that about 10,000, wound up with about 87,000 applications.

So, we are doing, you know, we are heavily involved in STEM and AVSED, and our outreach to both universities, as well as minority serving institutions, are all part of our ongoing effort across

the agency and the department to ensure that we are really leaning in there.

Senator KLOBUCHAR. All right. Thank you very much. Appreciate it, Mr. Nolen.

The CHAIR. Senator Thune.

STATEMENT OF HON. JOHN THUNE,
U.S. SENATOR FROM SOUTH DAKOTA

Senator THUNE. Thank you, Madam Chair, for holding this important hearing. During my time as Chairman of this committee, we considered and enacted the FAA Reauthorization Act of 2018, which included several provisions related to bolstering the Nation's air traffic control system and improving the experience of the flying public.

As the next FAA reauthorization approaches, it is essential that modernizing the Nation's air traffic control system remains a top priority. As I have said before, I am deeply concerned about the FAA's slow progress on NextGen.

Despite robust funding from Congress and numerous legislative directives from this committee to complete such an essential modernization initiative in a timely manner. Travel disruptions, especially those related to recent ATC issues and the failure of the NOTAM system in January, have only highlighted the critical importance of technology modernization, especially as it relates to improving management of the national airspace system.

So, I look forward to this discussion, and Acting Administrator Nolen, thank you for being here to testify. As I previously mentioned, the implementation of NextGen is going to be crucial in the coming years.

These investments, as well as employing concepts such as dynamic airspace management, will allow the United States and better utilize existing infrastructure, increasing the capacity and efficiency of the NAS.

Recent ATC issues at airports across the country have certainly highlighted the need for modernization. So, could you describe how FAA is working to get back on schedule to implement the various priorities of NextGen in a timely manner?

Mr. NOLEN. Yes, sir. Thank you for the question, Senator Thune. So, we continue to work and to deliver on the benefits of NextGen. When we think about the work we have done, again, around navigation, around communication, one of the—a couple of those successes is by going from voice to data, where we have been able to eliminate, we believe, over 130,000 misread clearances.

And we understand that is a big issue. We continue to work on metroplexes that we have around the country. That has been a big effort. 11 of those in places. When we think about, we have optimized profile descents.

So that ability to descend now the altitude without the stepped downs that were a thing of the past, those have become more a thing of the past now, that allows certainly as a fuel saving and as an efficiency piece.

That ability for us to be able to have airlines know when the push off to the gate so that you are off the gate and to the runway. All of those are efforts that we are doing and we continue to do.

We work closely with the NextGen Advisory Committee. We got the Advanced Aviation Advisory Committee, we have the Drone Advisory Committee, and all of those committees inform the work that we do. And we are looking—we continue to look for opportunities. As I mentioned in my opening remarks, one of the challenges we face and will continue to face with NextGen is that level of equipage.

Not everyone is equipped to the same level. And so that ability to take advantage of all that NextGen can deliver in the moment in many respects will depend on what the industry has equipped to. So that is a challenge for, and we will continue to work through it.

Senator THUNE. So, I mean, and it is just been—it has been a very slow process with lots of delays. And I am concerned that by the time many of these initiatives that you are talking are completed, they are going to be already outmoded or obsolete in comparison to the latest technology. So what actions is the FAA taking to avoid this issue as NextGen implementation continues?

Mr. NOLEN. It is one of continued, you know, partnership and collaboration. We are an ongoing, almost on a daily, weekly basis with the airline industry, and with, you know, partners around the world in terms of how do we get better at that.

The journey we are on is there and airlines, the industry are seeing the benefits of it. There is more work to be done, undoubtedly. Again, back to the equipage piece there, there are just certain things you have to have to be able to do a particular approach, for example.

Our ability to sunset some of the legacy systems, some ILSs, NDVs, things like that, now that we have GPS based navigation, right. So, it is our ability to work collectively and have that—a similar vision between us in the industry about what we want to achieve and how quickly we can get there.

Senator THUNE. So, as this committee looks toward developing this FAA reauthorization bill, do you believe there are opportunities for the FAA to incorporate adaptive or dynamic airspace management technologies into its NextGen initiative, or otherwise enhance real time inter-agency coordination with the Pentagon and other stakeholders?

And I tell you that because we have an Air Force base in a training area, the Powder River Training Complex, and the B–1 currently operates there, B–21 is coming in. We are going to get the first training unit, formal training unit and first operations unit there. And we really need the FAA's help on this. And it is something we have been focused on for a long time. Can you comment on that?

Mr. NOLEN. Yes, I would say we are strong partners, not only with the DOD, to ensure that we can work together and that we are aligned. And when we think about airspace in the airspace uses, we are a strong partner and we really, we welcome the suggestion and we look forward to seeing how do we do more of it.

Senator THUNE. Well, I hope we can count on your help on that, because it has become—it is one of the biggest obstacles to large force training exercises and the types of, you know, capabilities

that we can use or would benefit from in that airspace. So I hope you can help us.

Mr. NOLEN. Thank you, sir.

The CHAIR. Thank you. Senator Hickenlooper, then Senator Fischer, then Senator Markey.

STATEMENT OF HON. JOHN HICKENLOOPER, U.S. SENATOR FROM COLORADO

Senator HICKENLOOPER. Thank you, Madam Chair. Mr. Nolen, thank you for your time and your public service. As space transportation becomes more common in the U.S., integrating space data, international airspace system operations is going to become increasingly more and more important.

Maintaining a safe and efficient shared airspace and mitigating delays caused by commercial space launches become more—increasingly more important, as I said. So, Mr. Nolen, can you describe the FAA's efforts to coordinate with the commercial space industry, to integrate space data into national airspace operations?

Why is the status of the FAA's Space Data Integration Program, or what is the state, status of the FAA's Space Data Integration Program to improve airspace safety and efficiency?

Mr. NOLEN. Yes. Well, thank you very much, Senator, for the question. We, our work there with the space data integrator is ongoing and certainly already bearing fruits. It has provided us, meaning the FAA, the ability to reduce the airspace that we need to block off for flights.

This year, we saw—last year, I am sorry, we saw a record number of space launches and we are expecting to see at least one and a half time, if not double the amount that we saw last year.

So this is a key technology that we are working to make sure—that will help us make our airspace more efficient and reduce the amount of closures, and the ability to reopen airspace faster. So that is a piece that we are working on.

Senator HICKENLOOPER. Great. I appreciate that. Thank you.

Mr. NOLEN. Thank you.

Senator HICKENLOOPER. And I have my requisite NOTAM question as well. At Denver International Airport alone, the NOTAM failure resulted in 800 delayed or canceled flights. Smaller regional airports in Colorado also experienced delays and cancellations, significantly impacting airport operations, airport customers, and commerce.

So, Mr. Nolen, can you describe what technical operational improvements the FAA is taking to make sure this kind of operation disruption does not occur again in those smaller markets, as well as the large airports?

Mr. NOLEN. We attempt to do our very best job, and certainly we will make sure—we will take away the point about how well we communicate and coordinate.

It should be noted for the Committee that on just any given day, every 2 hours, there is an update from the National Command Center that airports, airlines, and others can tune into. We also have stakeholders who are present in the Command Center on the floor. So our goal is to make sure that we have got good communication.

I do know from my team that this particular outage was indeed communicated out to airports and in a timely manner. But we will look for opportunities to say, can we make that even faster and more efficient.

Senator HICKENLOOPER. Got it. Great. I appreciate that. Last, the FAA is facing a number of critical issues ranging including technical upgrades, the new entrance into the national airspace, as I mentioned, growing the aviation work force, a critical issue, making sure that there is more diversity, more equity in that work force.

Based on your experience as Acting Administrator, what skills and experiences do you think are critical to lead an agency like FAA?

Mr. NOLEN. Well, you know, as we think about that, and whoever leads FAA, that choice belongs to the President. And I know the President has made a choice, and I certainly support the President's choice in that.

Senator HICKENLOOPER. Right. I wanted to—giving you an opportunity to do what I will now do and just say that I think Phil Robb—Phil Washington, who is the nominee to become the Administrator, really does have the skills and capabilities necessary to really turn around our aviation system.

He rose to the rank of Command, made Sergeant Major in the Army, 24 years in the Army. And I think he is someone who is used to getting things done, coming in, helping get people all on the same page and really focused. He was the CEO of the Regional Transportation District in metropolitan Denver for almost 12 years and helped turn around a major transportation initiative.

And then he has also been CEO of Los Angeles County Metropolitan Transportation Authority, and for a number of years now, the CEO of Denver International Airport, the third busiest airport in the world.

And I think that array of experience, while not all in aviation, is all transportation connected and so many of these same situations that come up again and again in the aviation sector. Anyway, comment if you want, or I will just leave it there and say, we need to get a permanent Administrator in place as soon as we can.

Mr. NOLEN. Thank you, sir.

The CHAIR. Senator Fischer.

STATEMENT OF HON. DEB FISCHER, U.S. SENATOR FROM NEBRASKA

Senator FISCHER. Thank you, Madam Chairman. Administrator Nolen, welcome. Thank you for your service.

Mr. NOLEN. Thank you.

Senator FISCHER. This past week, we have seen NORAD track numerous unidentified objects in the North American airspace. I served on the Armed Services committee as well, and I am the ranking Republican on strategic forces, which has oversight over missile defense, so I am interested in protocol.

And I visited with NORTHCOM and NORAD about that. But I would like to know if there is any process in place where civilian pilots that detect an unknown object while in flight, do they report

the incident to FAA? Do you have any connection, then, with DOD on it? What are the protocols that you have?

Mr. NOLEN. Well, thank you, Senator Fischer, for the question. I will just relay to, you know, from my own time when I was an airline captain, there have been times of fire where you see a balloon and certainly that typically as a pilot you would report that to air traffic control. It may be something they already know about.

And to the extent of they are worried about, there have been times when I have flown where it would say, be advised that we have a high altitude balloon, yes, x distance, x place. So there are processes in place to report.

And then we have, as I mentioned earlier, an embedded team with NORAD. We have strong connections with the Department of Defense, Homeland Security, TSA, et cetera. So there is this whole of Government approach to protecting the homeland and protecting our skies.

Senator FISCHER. And as far as you know, those protocols are followed?

Mr. NOLEN. The protocols for reporting? It depends. You know, I am going to say that may be spotty. Just, and I take that just from my own personal experience. You know, will everybody report that they saw a balloon? The answer there is probably, no.

Senator FISCHER. Thank you. In 2021, the Inspector General report, it was cited that the FAA struggles to carry out its role to integrate new technologies and capabilities across various offices within the agency.

Integrating new technologies and certification will be a priority as I work on the FAA reauthorization. How is FAA addressing concerns in the IG report in regards to the NextGen office and integrating new technologies? I know you have visited some with Senator Moran about that and also NextGen with Senator Thune, but could you address that specifically?

Mr. NOLEN. Yes, ma'am, I would—firstly, I would push back against the notion that the FAA is in any way wavering on our mission to make our airspace, which is the most complex in the world, as efficient as we can, even as we embrace new entrants.

We have already set in place processes to say, how do we enable new entrants, what is the regulatory framework they will need to operate, and then how do we get them integrated into our airspace.

Senator FISCHER. Is it going as quickly as you had hoped?

Mr. NOLEN. It is going with speed. And I think if you reach—so if you reach out to a couple of the air, advanced mobility companies, they will tell you they feel that we are on step. It is—this is fairly complex work.

And we, what we have said and what we continue to say, technology can never trump safety. And this is one that the public expects and rightfully so, that we get it right. So we are moving.

I can tell you, though, categorically we are moving with a strong sense of purpose to enable these new entrants in the market. And that is one of the things we are truly passionate about.

Senator FISCHER. Will you commit to working with my office, keeping us informed on the integration of those technologies?

Mr. NOLEN. Yes, ma'am. I would be happy to continue to give—provide updates.

Senator FISCHER. Thank you. The FAA has completed its preliminary investigation on the recent NOTAM malfunction. Will a more in-depth investigation and assessment be conducted? And will you share those findings with Congress?

Mr. NOLEN. We do have. We will certainly share as much information as we are able to. But to your point, and I welcome the question, the investigation is ongoing. So a couple of things there. We are working our Office of IT and Technology. We are working with MITRE to assess all of these systems.

Again, we are talking thousands. We are looking at levels of redundancy. What is our, you know, give us a sort of a resiliency score, if you will. So that work is underway. And we are thinking in terms from a safety management system perspective, what are the controls we have in place?

If they—did they work? What should have been done? What didn't happen? What are the areas and opportunities for us to improve?

Senator FISCHER. Have you got in depth on looking at the controls and how quickly they were implemented?

Mr. NOLEN. Yes, ma'am. You know, we have assigned that to a couple of our offices, our Office of Safety Investigations, our Office of Security to say, again, what happened in the moment. It is pretty dynamic.

A lot of things happen that should have happened in terms of reporting. But we certainly look to say, how can we do this better to make sure we don't have a repeat.

Senator FISCHER. OK. Thank you very much. Thank you, Madam Chair.

The CHAIR. Senator Peters. Senator Markey, I had called on him, but Senator Peters was ahead of him, and he has been so gracious to allow Senator Peters to go. So, thank you, Senator Markey. Senator Peters.

STATEMENT OF HON. GARY PETERS,
U.S. SENATOR FROM MICHIGAN

Senator PETERS. Thank you, Madam Chair. And thank you, Senator Markey. Thank you, Mr. Nolen, for being here today before the Committee.

You know, like many Americans and Michiganders, I am certainly concerned as well by the recent incursions into our airspace of a Chinese surveillance balloon, as well as several as yet unidentified objects, the most recent one that flew across the Upper Peninsula of Michigan and was neutralized over Lake Huron.

I have been in contact with the Department of Defense, the Department of Homeland Security, your agency, to monitor these currents. And I have called for greater transparency into these incidents. So I certainly do appreciate some of your comments that you have made here today about FAA's coordination with NORAD.

So I don't want to belabor those points. You have covered those well through the hearing so far. But I did want to ask you one thing related to that. Earlier this week, the White House announced the creation of an interagency team to study the broader policy implications for detection, analysis, and disposition of un-

identified aerial phenomena, and especially those that could pose potential security risks.

So my question for you, does the FAA expect to be a part of that team, and has that task force actually met and is starting to work?

Mr. NOLEN. Well, thank you for the question, Senator Peters. Yes, the FAA is part of that team. Our COO, Tim Morrell, will be our representative on their team, and that team has already met and continues to meet.

Senator PETERS. Good. Good. You also mentioned to Senator Schatz, the FAA currently has people embedded in NORAD to improve coordination. But given these specific events, are there any additional bureaucratic or inoperability improvements that you can share with Congress to ensure that these concerning breaches of airspace are basically met with a seamless and immediate response?

Mr. NOLEN. Well, what I can tell you in an open forum is that there is a whole of Government approach to this from an interagency standpoint to make sure not only that we are aligned on policy, we are aligned on response, that that level of coordination is absolutely there.

Senator PETERS. Good, good. Mr. Nolen, Gerald, our Ford International Airport in Grand Rapids in Michigan, is the second—Michigan's second largest airport. Over 200 aircraft operations per day, and it serves a growing part of the state of Michigan.

However, even as Grand Rapids serves record numbers of passengers, it has been stymied in its efforts to expand and modernize a 60-year-old FAA air traffic control tower.

Last year, I secured $5 million in Congressionally directed spending for the airport to begin the design process and to replace that tower, but it is still not done. And I would just like to ask you, would you commit to working with me and the Grand Rapids Airport to ensure that a plan to replace their tower is done in a timely fashion?

Mr. NOLEN. Yes, sir. What I can commit is, we will definitely work with your staff in terms of, I know there is work that is ongoing there. We will commit to giving you regular updates on it and what our progress is.

Senator PETERS. Right. Well, thank you. The unmanned aerial systems are beyond visual line of sight, Aviation Rulemaking Committee has published its report in March of 2022. The report laid the foundation for providing regulatory certainty to stakeholders looking to safely and swiftly deploy and scale unmanned aerial systems.

However, the FAA's rulemaking agenda notes that a draft rule for UAS deployment outside the visual line of sight isn't expected until February 2024, 23 months from the report to the draft rule.

And that is, as you know, not even a final rule at that point. Between the long wait for this rulemaking and difficult to navigate current exemption and waiver process, I am afraid advancements in commercial drone industry have stalled, frustrating communities and states like Michigan, who are looking to take advantage of this cutting-edge technology and economic opportunity it represents.

So my question for you, Mr. Nolen, do you commit to doing everything you can to ensure that the U.S. maintains its global leader-

ship in advanced aviation? And certainly, this type of aircraft that represents the future, we need to lean into, making sure we are facilitating that.

Mr. NOLEN. Well, thank you, sir, for the question. Let me say, the U.S. is and remains the world's leader when it comes to this type of technology. To date, we have licensed over a million drones. Our projections are that we will have 2.5 million by Fiscal Year 2025. So we are working. With respect to beyond visual line of sight, we stood up an aviation rulemaking arc and a committee.

We received thousands of reports. We are going—comments, if you will. We are going through the process of going through those. But in the meantime, even as we are doing that, we have things like waivers and exemptions that we are using to enable UAS operations, some of which we have already done.

So we will commit that this is, again, part of our top priority for our drones, for advanced air mobility, to make sure that we stay the world's leader.

Senator PETERS. Good. Thank you, Mr. Nolen. Senator Markey and Chair Cantwell, thank you.

The CHAIR. Thank you. Senator Budd.

STATEMENT OF HON. TED BUDD,
U.S. SENATOR FROM NORTH CAROLINA

Senator BUDD. I thank the Chair. Mr. Nolen, welcome. It was good to chat with you earlier. You know, I was listening to a colleague from across the aisle a few minutes ago from Colorado, and, you know, it struck me how much I appreciated your aviation experience, your service to our military.

You know, it would just make sense, common sense seems not so common anymore, but, you know, it would just makes sense that somebody leading the Federal Aviation Administration would actually have aviation experience, so I appreciate the experience that you bring to the table.

You know, on the morning when this issue occurred, an exchange between air traffic control and a pilot at Newark Airport sums up some of the broader issues with the NOTAM system that go beyond this specific outage. ATC was talking to an airplane, that was to a pilot of an airplane that was taxiing out for departure and told the pilot about the nationwide ground stop.

ATC asked the pilot if he had heard anything about the NOTAM issue before departure. The pilot responded, no, nobody reads NOTAMs. Well, maybe that is because the NOTAM system is not designed in a user-friendly way.

The FAA's new Federal NOTAM website, it is a little better, but it does not prioritize important NOTAMs, and it delivers it in a printed code that is optimized for teletype machines instead of plain English. I will give you an example, as you would know, so I printed this out.

No environmental impact study was done before, but I printed out the NOTAM from the Federal NOTAM system for a flight from D.C. back to my home airport near Winston-Salem. It is a 90-page document for a simple flight about an hour long.

If I didn't review the list closely, I might have missed the NOTAM for a runway closure in my designated alternate airport.

The NOTAM is buried on page four, somewhere in here between 13 other runway and taxiway NOTAMs.

So, Chair, I would like to ask for unanimous consent that this briefing be included in the record.

The CHAIR. Without objection.

[The information referred to follows:]

Federal Aviation Administration

NOTAMs for Flight path search on 'GAI INT', Buffer 25 NM. , Alternate airfields 'GSO HKY'
Filter(s) used: None
Query ran at UTC: 14 Feb 2023 1443 UTC

DEPARTURE

GAI - MONTGOMERY COUNTY AIRPARK

!DCA 03/391 GAI AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2003310128-PERM

!DCA 01/603 GAI AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!DCA 02/007 GAI RWY 14 RWY END ID LGT U/S 2302011309-2302172000EST

!DCA 01/037 GAI OBST ANTENNA LGT (ASN 1994-AEA-2109-OE) 390116N0770816W (9.0NM S GAI) 500FT (167FT AGL) U/S 2301041214-2302161900

ARRIVAL

INT - SMITH REYNOLDS

!INT 04/015 INT AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!INT 11/022 INT RWY 15 PAPI U/S 2211302000-2312312000

!FDC 1/5553 INT STAR SMITH REYNOLDS, WINSTON-SALEM, NC. BROOK FOUR ARRIVAL.... GLADE SPRING TRANSITION: ROUTE FROM GLADE SPRING VOR TO BROOK INT NOT AUTH EXC FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS. 2108251700-2308251700EST

!INT 02/004 INT OBST TOWER LGT (ASR 1006902) 361015.30N0802741.60W (11.7NM W INT) 1315.9FT (412.1FT AGL) U/S 2302100606-2305110500

!INT 01/025 INT OBST CRANE (ASN UNKNOWN) 300523N0801612W (3.8NM SW INT) UNKNOWN (275FT AGL) FLAGGED AND LGTD 2301312122-2304302359

!INT 01/005 INT AIRSPACE UAS WI AN AREA DEFINED AS 2NM RADIUS OF 360527N0801622W (3NM SW INT) SFC-300FT AGL SR-SS WED THU FRI MON TUE 1232-2219 2301041232-2303312219

!INT 11/014 INT OBST CRANE (ASN 2022-ASO-1650-NRA) 360818N0801343W (0.4NM NW INT) 1071FT (110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/015 INT OBST CRANE (ASN 2022-ASO-1651-NRA) 360819N0801346W (0.5NM NW INT) 1071FT (110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/016 INT OBST CRANE (ASN 2022-ASO-1652-NRA) 360817N0801344W (0.4NM NW INT) 1071FT (110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/017 INT OBST CRANE (ASN 2022-ASO-1653-NRA) 360818N0801346W (0.4NM NW INT) 1071FT (110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/018 INT OBST CRANE (ASN 2022-ASO-1654-NRA) 360818N0801341W (0.4NM NW INT) 1070FT

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(110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/019 INT OBST CRANE (ASN 2022-ASO-1655-NRA) 360817N0801343W (0.4NM NW INT) 1070FT
(110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/020 INT OBST CRANE (ASN 2022-ASO-1656-NRA) 360817N0801341W (0.4NM NW INT) 1070FT
(110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 11/021 INT OBST CRANE (ASN 2022-ASO-1657-NRA) 360816N0801342W (0.4NM NW INT) 1070FT
(110FT AGL) FLAGGED AND LGTD 2211211200-2303182200

!INT 01/006 INT OBST TOWER LGT (ASR 1022889) 361158.00N0801224.00W (4.0NM NE INT)
1251.0FT (351.0FT AGL) U/S 2301070151-2303062359

!INT 09/002 INT SVC PCL RWY 33 PAPI U/S 2209021314-2303032111EST

!INT 01/023 INT OBST TOWER LGT (ASR 1007578) 360656.50N0802114.80W (6.5NM W INT)
1153.2FT (408.1FT AGL) U/S 2301311918-2303010500

!INT 01/024 INT OBST TOWER LGT (ASR 1007579) 360701.20N0802130.40W (6.7NM W INT)
1193.2FT (408.1FT AGL) U/S 2301311927-2303010500

!INT 02/001 INT OBST TOWER LGT (ASR 1005940) 360359.60N0801055.70W (4.4NM SSE INT)
1159.8FT (236.9FT AGL) U/S 2302022220-2302170500

ALTERNATE AIRFIELDS

GSO - PIEDMONT TRIAD INTL

!FDC 3/5238 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
ILS Y OR LOC/DME Y RWY 32, ORIG-A...
ILS Z OR LOC/DME Z RWY 32, ORIG-A...
VDP AT I-GFN 2.42 DME.
DISTANCE VDP TO THLD 1.40 NM.
2302131850-2509251850EST

!FDC 3/1015 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
ILS OR LOC RWY 5R, AMDT 7C...
S-ILS 5R DA NA ALL CATS. VDP NA.
2301041942-2501041942EST

!FDC 3/1016 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
ILS RWY 5R (SA CAT II), AMDT 7C ...
PROCEDURE NA. 2301041942-2501041942EST

!FDC 3/1017 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
RNAV (GPS) RWY 5R, AMDT 2E...
LPV DA NA ALL CATS. LNAV/VNAV DA NA ALL CATS. VDP NA.
2301041942-2501041942EST

!FDC 2/7568 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
ILS RWY 23L (CAT II), AMDT 9D ...
ILS RWY 05R (SA CAT II), AMDT 7C ...
ILS RWY 05L (CAT II - III), AMDT 0D ...
PROCEDURE NA EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G
C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13
2210060901-2410061329EST

!FDC 2/9101 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
RNAV (GPS) RWY 23L, AMDT 2D...
DISREGARD NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 55).
2210061222-2410061221EST

!FDC 2/7544 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
RNAV (GPS) RWY 23R, ORIG-D...
LPV DA 1064/HAT 200.
LNAV/VNAV DA 1414/HAT 550.
LNAV MDA 1340/HAT 476, CAT C VIS RVR 5000.
TDZE 864.
2210041242-2410041242EST

!FDC 2/2204 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.

RNAV (GPS) RWY 32, AMDT 3A...
MISSED APPROACH: CLIMB TO 4100 DIRECT FAMOV AND HOLD, CONTINUE CLIMB-IN-HOLD TO 4100.
NOTE: RWY 32 HELICOPTER VISBILITY REDUCTION BELOW 3/4 SM NA.
34:1 IS NOT CLEAR.
2209231402-2409231402EST

!FDC 2/2195 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
RNAV (GPS) RWY 5L, ORIG-D...
LNAV CAT C VIS RVR 3500.
2209231357-2409231357EST

!FDC 2/2189 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
RNAV (GPS) RWY 14, AMDT 2A...
TAA SECTOR 233/30 CW 323/30 TO COKIM MINIMUM 3400.
MISSED APPROACH: CLIMB TO 3700 DIRECT IRKUW AND HOLD. CONTINUE CLIMB-IN-HOLD TO 3700.
2209231354-2409231354EST

!GSO 01/057 GSO AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!FDC 1/5551 GSO STAR PIEDMONT TRIAD INTERNATIONAL, GREENSBORO, NC.
BROOK FOUR ARRIVAL....
GLADE SPRING TRANSITION: ROUTE FROM GLADE SPRING VOR TO BROOK INT
NOT AUTHORIZED EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM
WITH GPS.
2108251700-2308251700EST

!GSO 11/020 GSO AIRSPACE UAS WI AN AREA DEFINED AS 2NM RADIUS OF 360204N0802256W (9.3NM SW INT) SFC-400FT AGL DLY 1100-0100 2211061100-2305060100

!GSO 10/028 GSO OBST CRANE (ASN 2022-ASO-23393-OE) 360644N0795727W (1.0NM NW GSO) 1230FT (330FT AGL) LGTD 2210171200-2304141200

!GSO 01/150 GSO RWY 23L PAPI U/S 2301270530-2303312000EST

!GSO 12/024 GSO OBST TOWER LGT (ASR 1005855) 360553.50N0800107.10W (3.8NM W GSO) 1340.6FT (405.8FT AGL) U/S 2212112357-2303310500

!GSO 02/043 GSO OBST TOWER LGT (ASR 1006457) 360347.50N0794920.10W (6.1NM ESE GSO) 1257.9FT (418.0FT AGL) U/S 2302132135-2303132359

!FDC 3/3451 GSO IAP PIEDMONT TRIAD INTL, GREENSBORO, NC.
ILS OR LOC RWY 5L, ORIG-D...
VOR/DME RWY 23L, AMDT 10C...
ILS RWY 5L (CAT II AND III), ORIG-C...
ILS OR LOC RWY 5L, AMDT 7C...
ILS RWY 5R (SA CAT II), AMDT 7C...
ILS OR LOC RWY 23L, AMDT 9D...
ILS RWY 23L (CAT II), AMDT 9D...
ILS OR LOC RWY 23R, ORIG-D...
ILS Y OR LOC/DME Y RWY 32, ORIG...
ILS Z OR LOC/DME Z RWY 32, ORIG...
ALTERNATE MINIMUMS NA,
GSO VORTAC UNMONITORED. 2302090145-2303090145EST

!GSO 12/021 GSO OBST TOWER LGT (ASR 1007117) 360238.60N0794749.70W (7.7NM ESE GSO) 1147.0FT (352.0FT AGL) U/S 2212081730-2303080500

!GSO 12/007 GSO SVC GREENSBORO APP FOR CLR DELIVERY NOW 743-222-6129/121.9 2212021407-2303022359

!GSO 02/040 GSO COM REMOTE COM OUTLET 255.4 U/S 2302160500-2302161000

!GSO 01/155 GSO RWY 23L RVR U/S 2301311802-2302152200EST

!GSO 01/157 GSO RWY 05R PAPI U/S 2301311803-2302152200

!GSO 01/158 GSO NAV ILS RWY 23L U/S 2301311803-2302152200

!GSO 01/159 GSO RWY 05R ALS U/S 2301311803-2302152200

!GSO 02/001 GSO OBST TOWER LGT (ASR 1005956) 360105.00N0800323.60W (7.6NM SW GSO) 1142.1FT (252.0FT AGL) U/S 2302010106-2302150500

!GSO 02/044 GSO RWY 05L ALS U/S 2302141429-2302142100

!GSO 02/045 GSO NAV ILS RWY 05L CAT II NA 2302141430-2302142100

GSO-VORTAC

!GSO 06/061 GSO AIRSPACE UAS WI AN AREA DEFINED AS .45NM RADIUS OF GSO087012.1 SFC-400FT AGL DLY SR-SS 2206231003-2306240040

!GSO 06/060 GSO AIRSPACE UAS WI AN AREA DEFINED AS .45NM RADIUS OF GSO089011.5 SFC-400FT AGL DLY SR-SS 2206231003-2306230040

!GSO 02/041 GSO NAV VORTAC NOT MNT 2302121715-2302172000EST

HKY - HICKORY RGNL

!FDC 2/0568 HKY IAP HICKORY RGNL, HICKORY, NC.
ILS OR LOC RWY 24, AMDT 8C...
RNAV (GPS) RWY 1, AMDT 1C...
RNAV (GPS) RWY 19, AMDT 1B...
CIRCLING CAT D MDA 2040/ HAA 850.
2208161618-2408161618EST

!FDC 2/2775 HKY IAP HICKORY RGNL, HICKORY, NC.
VOR/DME RWY 24, ORIG-F...
PROCEDURE NA.
BZM R-229 UNUSABLE.
2207141443-2407141443EST

!HKY 01/006 HKY AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!FDC 1/0962 HKY IAP HICKORY RGNL, HICKORY, NC.
RNAV (GPS) RWY 19, AMDT 1B...
LPV AND LNAV/VNAV LINES OF MINIMA NA. CHANGE BARO-VNAV NOTE TO READ: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17C OR ABOVE 36C.
2110071700-2310071659EST

!FDC 2/6501 HKY IAP HICKORY RGNL, HICKORY, NC.
ILS OR LOC RWY 24, AMDT 8C...
PROCEDURE NA EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
BZM VOR/DME OUT OF SERVICE AND TAWBA (HK) LOM OUT OF SERVICE.
2212151625-2307271625EST

!HKY 02/019 HKY OBST TOWER LGT (ASR 1004704) 354431.90N0813043.20W (6.0NM W HKY) 1453.1FT (274.0FT AGL) U/S 2302111541-2306111541

!HKY 02/003 HKY RWY 24 HLDG PSN SIGN AT RWY 01/19 LGT U/S 2302061700-2305062359

!HKY 02/004 HKY RWY 06 HLDG PSN SIGN AT RWY 01/19 LGT U/S 2302061701-2305062359

!HKY 02/010 HKY RWY 01/19 CLSD EXC FOR TAX 2302061712-2305062359

!HKY 02/011 HKY RWY 01 PAPI U/S 2302061718-2305062359

!HKY 02/015 HKY RWY 06 RWY END ID LGT U/S 2302061729-2305062359

!HKY 02/005 HKY TWY B1 HLDG PSN SIGN FOR RWY 01/19 LGT U/S 2302061701-2305062359

!HKY 02/006 HKY TWY A HLDG PSN SIGN WEST SIDE FOR RWY 01/19 LGT U/S 2302061702-2305062359

!HKY 02/007 HKY TWY B HLDG PSN SIGN FOR APCH END RWY 01 LGT U/S 2302061707-2305062359

!HKY 02/008 HKY TWY A HLDG PSN SIGN EAST SIDE FOR RWY 01/19 LGT U/S 2302061708-2305062359

!HKY 02/009 HKY TWY A3 HLDG PSN SIGN FOR RWY 01/19 LGT U/S 2302061709-2305062359

!HKY 02/012 HKY TWY B HLDG PSN SIGN BTN TWY B1 AND APCH END RWY 19 LGT U/S

2302061720-2305062359

!HKY 02/013 HKY TWY W HLDG PSN SIGN FOR RWY 01/19 LGT U/S 2302061721-2305062359

!HKY 02/016 HKY TWY B CLSD BTN TWY B1 AND RWY 01/19 2302061732-2305062359

!HKY 02/001 HKY RWY 19 VASI U/S 2302021426-2304042100

!HKY 11/027 HKY NAV ILS RWY 24 NOT MNT 2211301757-2303312000EST

!HKY 01/012 HKY OBST TOWER LGT (ASR 1005416) 355059.00N0812639.00W (7.0NM NNW HKY) 1650.3FT (492.1FT AGL) U/S 2301261453-2302272359

Practice Instrument Approaches at Hickory Municipal (KHKY) Hickory NC

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2550968538525340829

EN-ROUTE

09W - SOUTH CAPITOL STREET

!DCA 01/189 09W AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!DCA 12/023 09W OBST TOWER LGT (ASR 1036610) 385624.00N0770453.00W (5.5NM NW 09W) 1048.9FT (662.1FT AGL) U/S 2212012234-2303082359

0V4 - BROOKNEAL/CAMPBELL COUNTY

!DCA 01/324 0V4 AD AP FUEL NOT AVBL 2101211610-PERM

!DCA 09/443 0V4 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2210010401-2410010401

!DCA 04/150 0V4 OBST TOWER LGT (ASR 1011476) 370519.30N0785414.70W (6.2NM ESE 0V4) 941.9FT (299.9FT AGL) U/S 2204082143-2305010359

!DCA 01/124 0V4 OBST TOWER LGT (ASR 1018679) 371059.60N0785014.30W (8.9NM ENE 0V4) 1065.9FT (328.1FT AGL) U/S 2301091607-2304151600

!DCA 02/201 0V4 OBST TOWER LGT (ASR 1279557) 365945.60N0785835.40W (9.0NM SSE 0V4) 707.0FT (253.0FT AGL) U/S 2302141409-2303011309

Practice Instrument Approaches

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2786601002495645583

18MD - MEDSTAR MONTGOMERY MEDICAL CENTER

!FDC 2/5818 18MD SPECIAL MEDSTAR MONTGOMERY MEDICAL CENTER, OLNEY, MD. COPTER RNAV (GPS) 29, ORIG... RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13.

2207201400-2401190506

2B4 - BUCK'S ELBOW MOUNTAIN

!DCA 02/088 2B4 COM BUCK'S ELBOW MOUNTAIN REMOTE COM OUTLET 255.4 U/S 2302070444-2302272000EST

2W2 - CLEARVIEW AIRPARK

!DCA 01/365 2W2 AIRSPACE SEE FDC 1/1155 ZDC FLT RESTRICTIONS TFR 1801181530-PERM

!FDC 2/2324 2W2 IAP CLEARVIEW AIRPARK, WESTMINSTER, MD.

VOR-A, AMDT 4B...
PROCEDURE NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
EMI VOR R-179 UNUSABLE.
2202081432-2402101432EST

!DCA 01/468 2W2 AD AP FIXED BASE OPR CLSD 2301311508-2401280500

!DCA 01/440 2W2 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!DCA 02/167 2W2 OBST TOWER LGT (ASR 1035850) 392743.50N0765439.60W (4.9NM E 2W2) 888.1FT (309.1FT AGL) U/S 2302122205-2306122205

!DCA 02/160 2W2 OBST TOWER LGT (ASR UNKNOWN) 392713.20N0764342.30W (13.4NM E 2W2) 780FT (150FT AGL) U/S 2302121645-2303291645

36VA - CARILION WESTLAKE CENTER

!FDC 2/8225 36VA SPECIAL CARILION WESTLAKE CENTER HARDY,
VA COPTER RNAV (GPS) 254 ORIG...RDO ALTIMETER UNREL EXC FOR ACFT
USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND
INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13

2301010001-2401312359

!FDC 3/5357 36VA SPECIAL IAP CARILION WESTLAKE CENTER, HARDY, VA
JONTI ONE (RNAV)...CHANGE VFR ROUTE TO READ: VFR CLIMB TO FEVPI,
CROSS FEVPI AT OR ABV 1580. PERIODIC REVIEW. PROCEDURE UPDATED TO
MEET CURRENT CRITERIA
2301200050-2309052359

3VA9 - DANVILLE RESCUE

!FDC 2/4940 3VA9 SPECIAL DANVILLE LIFE SAVING CREW, DANVILLE, VA.
COPTER RNAV (GPS) 16, ORIG...
RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE
METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE
AIRWORTHINESS DIRECTIVES 2021-23-13.

2210170700-2401190506

5NC7 - NC BAPTIST HOSPITAL

!FDC 2/0903 5NC7 SPECIAL NC BAPTIST HOSPITAL, WINSTON-SALEM, NC.
COPER RNAV (GPS) 07, ORIG...
RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE
METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE
AIRWORTHINESS DIRECTIVES 2021-23-13.

2204210600-2401190506EST

60MD - WALTER REED NTL MEDICAL CENTER

X0852/22 NOTAMR X0586/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3859N07705W005
A) 60MD
B) 2212211621
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150; RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

6W4 - YANCEYVILLE MUNI

!FDC 2/4593 6W4 SPECIAL YANCEYVILLE MUNI, YANCEYVILLE, NC. COPTER

RNAV (GPS) 06, ORIG...
RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13.
2201190500-2401190506EST

7MD3 - FREDERICK HEALTH HOSPITAL

!FDC 2/5808 7MD3 SPECIAL FREDERICK HEALTH HOSPITAL, FREDERICK, MD. COPTER RNAV (GPS) 233, ORIG... RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13.

2207201400-2401190506

7W4 - LAKE ANNA

!DCA 02/449 7W4 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!DCA 01/146 7W4 OBST TOWER LGT (ASR 1016983) 380251.00N0773304.00W (10.45NM ENE 7W4) 632FT (352FT AGL) U/S 2301111818-2303112359

80C - LONE HICKORY

!RDU 02/057 80C OBST TOWER LGT (ASR 1004688) 355218.00N0804243.00W (11.4NM S 80C) 1270.0FT (415.0FT AGL) U/S 2302070526-2306070526

!RDU 01/312 80C OBST TOWER LGT (ASR 1200569) 360131.30N0805223.10W (9.2NM WSW 80C) 1342.8FT (256.9FT AGL) U/S 2301261925-2304260500

8A7 - TWIN LAKES

!RDU 01/168 8A7 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!RDU 09/321 8A7 RWY 09 PAPI U/S 2209291537-2304022111EST

8N0 - ROCKINGHAM COUNTY

!RDU 12/440 8N0 OBST TOWER LGT (ASR 1262534) 362246.70N0794010.80W (7.6NM SSE 8N0) 1104.0FT (349.1FT AGL) U/S 2212291358-2308012359

!RDU 01/321 8N0 OBST TOWER LGT (ASR 1212812) 362452.30N0794343.00W (4.8NM S 8N0) 1026.9FT (256.9FT AGL) U/S 2301271525-2304270500

!RDU 12/425 8N0 OBST TOWER LGT (ASR 1003560) 363222.40N0794909.90W (4.7NM NW 8N0) 1184.7FT (403.9FT AGL) U/S 2212280413-2303312359

8VA5 - UNIVERSITY OF VIRGINIA HOSPITAL

!FDC 2/4934 8VA5 SPECIAL UNIVERSITY OF VIRGINIA HOSPITAL, CHARLOTTESVILLE, VA. COPTER RNAV (GPS) 034, ORIG-B...
RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13.

2210170700-2401190506

91MD - UM CAPITAL REGION MEDICAL CENTER

!FDC 2/5810 91MD SPECIAL UM CAPITAL REGION MEDICAL CENTER, LARGO, MD. COPTER RNAV (GPS) 29, ORIG... RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-13.

2207201400-2401190506

ADW - JOINT BASE ANDREWS

M0120/23 NOTAMR M0020/23
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2302101548
C) 2305102359
E) RADIO ALTIMETER UNRELIABLE FOR ILS CATII/III, RNAV (RNP) APPROACHES, AUTOLAND, HUD TO TOUCHDOWN AND ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN NOT AVAILABLE UNLESS UTILIZING A CURRENT APPROVED ALTERNATIVE METHOD OF COMPLIANCE DUE TO POTENTIAL 5G C-BAND INTERFERENCE. PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13.

M0103/23 NOTAMN
Q) ZDC/QMXLC/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2302051401
C) 2305012359
E) TWY W4 CLSD

M0079/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2301271431
C) 2304271430
E) AERODROME TWY W4 DIRECTIONAL SIGN REMOVED FROM RWY/01L.

M1499/22 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2212281620
C) 2303281620
E) CONSTRUCTION EQUIPMENT AND SUPLIES NORTH OF W4 IN THE INFIELDS. MAX HIGHT 10 FT FLAGGED AND LIGHTED

M1471/22 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2212151657
C) 2303142359
E) TAXIWAY W3T IS OPEN, W3T WIDTH IS 75FT ASPHALT PCC PAVEMENT AND HAS 25FT PAVED ASPHALT SHOULDERS

M1481/22 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2212201540
C) 2303012359
E) 4FT TALL SILT FENCE LOCATED 110FT EAST OF W3T TAXIWAY CENTERLINE, AIRCRAFT WITH A WINGSPAN GREATER THAN 170FT REQUIRE WING WALKERS WHILE TAXIING AND BEING TOWED.

M1482/22 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2212201541
C) 2303012359
E) 4FT TALL SILT FENCE LOCATED 88FT NORTH OF W3 TAXIWAY CENTERLINE, AIRCRAFT WITH A WINGSPAN GREATER THAN 126FT REQUIRE WING WALKERS WHILE TAXIING AND BEING TOWED.

L0003/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW

B) 2302101525
C) 2302282359
E) 121 FS RAMP SPOT 1B IS RESTRICTED TO TOW ON/TOW OFF ONLY

!ADW 01/047 ADW RWY 01L RVRM U/S 2301310132-2302280230

!ADW 01/048 ADW RWY 19R RVRM U/S 2301310134-2302280230

M0117/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3848N07652W005
A) KADW
B) 2302101317
C) 2302172359
E) AERODROME RUNWAY 19L WIND CONE UNSERVICABLE

!ADW 02/001 ADW NAV ILS RWY 19R LOC/GP U/S 2302141400-2302141800

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence
Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

ADW-VORTAC

!ADW 01/046 ADW NAV VORTAC U/S 2301270541-2302242000EST

AML-VOR/DME

!IAD 02/069 AML NAV VOR/DME U/S 2302161200-2302162000

!IAD 02/064 AML NAV VOR/DME U/S 2302151200-2302152000

BWI - BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL

!BWI 03/122 BWI AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL
SECURITY INSTRUCTIONS 2003310129-PERM

!FDC 2/8143 BWI SID BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
SWANN THREE DEPARTURE...
DUPONT TRANSITION NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
DQO VORTAC R-233 RESTRICTED BEYOND 22 NM. 2209151817-2409161817EST

!FDC 2/3887 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
ILS OR LOC RWY 15R, AMDT 16A...
ADD NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT.
2209081332-2409081332EST

!FDC 2/2540 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
ILS RWY 10 (SA CAT I), AMDT 21D ...
ILS RWY 10 (CAT II - III), AMDT 21D ...
ILS RWY 33L (SA CAT I - II), AMDT 12B ...
PROCEDURE NA EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G
C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13
2209080901-2409081308EST

!FDC 2/3620 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
ILS OR LOC RWY 15R, AMDT 16A...
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM
WITH GPS.
EMI VOR R-150 RESTRICTED.
2209081235-2409081234EST

!FDC 2/8559 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
RNAV (GPS) Y RWY 15R, AMDT 2A...
RNAV (RNP) Z RWY 15R, AMDT 1...
ADD NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT.
2204151309-2404151309EST

!BWI 01/129 BWI AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT

VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!FDC 2/3436 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
RNAV (GPS) Y RWY 28, AMDT 2D...
LNAV MDA 500/HAT 357 ALL CATS. VISIBILITY CATS C/D RVR 3000.
VDP 0.99 NM TO RW28.
CHANGE NOTE TO READ: FOR INOP ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 4000, INCREASE LNAV VISIBILITY CATS C/D TO RVR 5500.
ANTENNA 232FT MSL 3204FT NORTHEAST OF RWY 28 (2021-AEA-1803-NRA, PERM).
2209081145-2401111145EST

!BWI 01/127 BWI TWY F RUNUP PAD FOR RWY 10 CLSD 2301300200-2401012200

!FDC 2/3472 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
ILS RWY 33L (SA CAT I AND II), AMDT 12B ...
S-ILS 33L, SA CAT I VISIBILITY ALL CATS RVR 1600.
S-ILS 33L, SA CAT II VISIBILITY ALL CATS RVR 1600.
TEMPORARY CRANES 280FT MSL 5118FT NORTHWEST OF RWY 33L (2021-AEA-2706, 2707-NRA).
2209081206-2308151203EST

!FDC 2/3446 BWI IAP BALTIMORE/WASHINGTON INTL THURGOOD MARSHALL, BALTIMORE, MD.
RNAV (GPS) Y RWY 28, AMDT 2D...
LNAV/VNAV DA 427/HAT 284 ALL CATS. FOR INOPERATIVE ALS, INCREASE LNAV/VNAV ALL CATS VISIBILITY TO RVR 4500. TEMPORARY CRANE, 314 MSL, 3819 FT NW OF APCH END RWY 28 (2020-AEA-1521-NRA).
TEMPORARY CRANES 307FT MSL 1937FT NORTHEAST OF BWI AIRPORT (2021-AEA-2502, 2503, 2504, 2505, 2506, 2507-NRA).
2209081152-2306051152EST

!BWI 01/118 BWI OBST TOWER LGT (ASR 1036304) 391715.00N0764537.00W (7.9NM NNW BWI) 1504.9FT (996.1FT AGL) U/S 2301291335-2305291335

!BWI 02/043 BWI RWY 15R/33L CL MARKINGS S SIDE OBSC 2302091704-2304301800

!BWI 10/123 BWI OBST TOWER LGT (ASR UNKNOWN) 391013.59N0763927.62W (1NM SE BWI) 192FT (67FT AGL) U/S 2210171709-2304172359

!BWI 01/053 BWI RWY 33L RAI LGT U/S 2301140023-2303310230

!BWI 02/006 BWI OBST TOWER LGT (ASR 1036305) 391719.00N0764536.00W (7.9NM NNW BWI) 938.0FT (399.9FT AGL) U/S 2302011929-2303012359

!BWI 02/077 BWI SVC MBST/WS DETECTION SYSTEM NOT AVBL 2302201500-2302202300

!BWI 02/064 BWI SVC TAR/SSR U/S 2302181300-2302182200

!BWI 02/063 BWI SVC SMR U/S 2302181300-2302182200

!BWI 02/065 BWI AD AP RWY STATUS LGT SYSTEM U/S 2302181300-2302182200

!BWI 02/053 BWI SVC TAR/SSR U/S 2302171300-2302172200

!BWI 02/060 BWI SVC SMR U/S 2302171300-2302172200

!BWI 02/061 BWI AD AP RWY STATUS LGT SYSTEM U/S 2302171300-2302172200

!BWI 02/047 BWI AD AP RWY STATUS LGT SYSTEM U/S 2302170300-2302171100

!BWI 02/008 BWI OBST TOWER LGT (ASR 1255338) 391055.30N0764224.30W (1.8NM WNW BWI) 280.8FT (90.9FT AGL) U/S 2302020616-2302170516

!BWI 02/052 BWI SVC TAR/SSR U/S 2302151300-2302152200

!BWI 02/058 BWI SVC SMR U/S 2302151300-2302152200

!BWI 02/059 BWI AD AP RWY STATUS LGT SYSTEM U/S 2302151300-2302152200

!BWI 02/078 BWI RWY 15R ALS U/S 2302151600-2302152100

!BWI 02/040 BWI AD AP RWY STATUS LGT SYSTEM U/S 2302151400-2302151800

!BWI 02/081 BWI NAV ILS RWY 33R LOC/GP U/S 2302151400-2302151800

!BWI 02/074 BWI NAV ILS RWY 33L LOC/GP U/S 2302151300-2302151600

VFR Practice Instruction Approaches

The full version of this LTA is available at the following URL.

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FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

CGS - COLLEGE PARK

!CGS 01/008 CGS RWY 15/33 COMMISSIONED 2980FT X 60FT LGTD. DECLARED DIST: RWY 15 TORA 2980FT TODA 2980FT ASDA 2740FT LDA 2176FT. RWY 33 TORA 2980FT TODA 2980FT ASDA 2846FT LDA 2675FT. 2101292139-PERM

!CGS 11/002 CGS TWY NORTH TWY CLSD TO TAX DLY 1700-1100 1911061700-PERM

!CGS 01/005 CGS AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!FDC 3/0373 CGS IAP COLLEGE PARK, COLLEGE PARK, MD.
RNAV (GPS)-A, ORIG...
RNAV (GPS)-B, ORIG-A...
PROCEDURE NA AT NIGHT.
2301031451-2501031451EST

!CGS 07/012 CGS AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2208010401-2408010401

!CGS 02/003 CGS OBST TOWER LGT (ASR 1042694) 390000.00N0770325.00W (6.3NM W CGS) 1050.5FT (754.3FT AGL) U/S 2302130316-2303300315

!FDC 2/0368 CGS ODP COLLEGE PARK, COLLEGE PARK, MD.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 4...
300-1 OR STANDARD WITH MINIMUM CLIMB OF 486 FT PER NM TO 400, OR 1100-3 FOR VCOA. TAKOFF OBSTACLE NOTES: RWY 33, TEMPORARY CRANE, 4065 FT FROM DER, 1344 FT LEFT OF CENTERLINE, 169 AGL/245 MSL (2021-AEA-17934-OE). ALL OTHER DATA REMAINS AS PUBLISHED.
2212061430-2302281430EST

CHO - CHARLOTTESVILLE-ALBEMARLE

!CHO 04/008 CHO AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!CHO 02/010 CHO OBST TOWER LGT (ASR 1025460) 380520.70N0783023.10W (4.0NM SW CHO) 752.3FT (247.4FT AGL) U/S 2302041821-2303152359

!CHO 02/011 CHO OBST TOWER LGT (ASR 1025461) 380523.00N0783024.70W (4.0NM SW CHO) 727.4FT (247.4FT AGL) U/S 2302041822-2303152359

!CHO 01/017 CHO TWY ALL LGT NOT STD 2301191921-2303032230

!CHO 01/021 CHO OBST TOWER LGT (ASR UNKNOWN) 380202.40N0782901.80W (6NM SSW CHO) 866FT (396FT AGL) U/S 2301240353-2302282359

!CHO 02/033 CHO TWY H CLSD 2302141400-2302142230

!CHO 02/034 CHO TWY A BTN TWY B AND TWY C CLSD 2302141401-2302142230

!CHO 02/014 CHO SVC TAR/SSR U/S 2302141400-2302141900

VFR Practice Instruction Approaches

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FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

CJR - CULPEPER RGNL

!CJR 02/007 CJR AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

CSN-VORTAC

!DCA 02/144 CSN AIRSPACE UAS WI AN AREA DEFINED AS 2NM RADIUS OF CSN035008 SFC-2000FT AGL DLY 1200-2359 2302131200-2302172359

DAA - DAVISON AAF

V0593/22 NOTAMN
Q) ZDC/QPICH/I/BO/A/000/999/3842N07710W005
A) KDAA
B) 2212030044
C) 2305182359
E) [US DOD PROCEDURAL NOTAM] INSTRUMENT APPROACH PROCEDURE CHANGED RNAV (GPS) RWY 32 AMDT 2... PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 35.

V0008/23 NOTAMN
Q) ZDC/QPICH/I/BO/A/000/999/3842N07710W005
A) KDAA
B) 2301061605
C) 2305182359
E) [US DOD PROCEDURAL NOTAM] IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES CHANGED RWY 32, 400-2¼ OR STANDARD WITH MINIMUM CLIMB OF 320 FT/NM TO 500 FT.

M0026/23 NOTAMN
Q) ZDC/QFAXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301161223
C) 2304132359
E) AERODROME ALL AIRFIELD SURFACE MARKINGS FADED: RWY 14/32, HELIPAD, TAXIWAYS AND PARKING APRONS

M0025/23 NOTAMR M0005/23
Q) ZDC/QFAXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301161220
C) 2303312359
E) ATC TWR FREQUENCY 126.3 HAS BEEN DECOMMISSIONED, NEW FREQUENCY 124.275 IS IN EFFECT

M0039/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301201420
C) 2303312359
E) DELTA RAMP RENAMED VIPER RAMP.

M0041/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301201422
C) 2303312359
E) ALPHA RAMP RENAMED FREEDOM RAMP.

M0007/23 NOTAMN
Q) ZDC/QOLAS/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301050326
C) 2303312359
E) OBST UNLIT, ILS GLIDESLOPE ANTENNA

V0001/23 NOTAMN
Q) ZDC/QPICH/I/BO/A/000/999/3842N07710W005
A) KDAA
B) 2301061545
C) 2303232359
E) [US DOD PROCEDURAL NOTAM] INSTRUMENT APPROACH PROCEDURE CHANGED ILS OR LOC RWY 32 AMDT 12C... MSA DAA 25 NM 2200 FT.

V0003/23 NOTAMN
Q) ZDC/QPICH/I/BO/A/000/999/3842N07710W005
A) KDAA
B) 2301061553
C) 2303232359
E) [US DOD PROCEDURAL NOTAM] INSTRUMENT APPROACH PROCEDURE CHANGED RNAV (GPS) RWY 14 AMDT 2B... LNAV CAT A/B MDA 680/HAT 620 VISIBILTY 1, CAT C MDA 680/HAT 620 VISIBILITY 1 3/4, CAT D MDA 680/HAT 620 VISIBILITY 2. *RONALD REAGEN WASHINGTON ALTEMITER SETTING MINIMUMS: *LNAV CAT A/B MDA 720/HAT 660 VISIBILITY 1, CAT C/D MDA 720/HAT 660 VISIBILITY 2.

X0813/22 NOTAMR X0545/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2212211554
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150; RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

M1004/22 NOTAMR M0769/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2212210242
C) 2303172359
E) COMPASS ROSE CLSD

M0015/23 NOTAMN
Q) ZDC/QXXXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301100059
C) 2303091000
E) RWY 14 RUNUP AREA CLOSED

M0003/23 NOTAMN
Q) ZDC/QFAXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2301041325
C) 2303060400
E) BASE OPS OPERATING HOURS: MON - THURS 0600L - 0000L (1100Z - 0500Z), FRI - 0600L - 2200L (1100Z - 0300Z). CLSD WEEKENDS. FOR AFTER HOURS ASSISTANCE CONTACT 703-801-2386

M0089/23 NOTAMN
Q) ZDC/QMRXX/IV/NBO/A/000/999/3842N07710W005
A) KDAA
B) 2302101923
C) 2302172359
E) RWY 14/32 EDGE LIGHTS BETWEEN TWY ECHO AND RWY 32 DEPARTURE END OTS. RWY 14/32 CLSD TO FIXED WING TRANSIENT ACFT FROM SUNSET - SUNRISE. LOCAL TENANT UNIT COMMANDERS ARE RESPONSIBLE FOR ESTABLISHING OPERATIONAL PROCEDURES FOR ARRIVALS AND DEPARTURES DURING THE EFFECTIVE TIMES.

M0091/23 NOTAMN
Q) ZDC/QMRXX/IV/NBO/A/000/999/3842N07710W005

A) KDAA
B) 2302101926
C) 2302172359
E) RWY 14 APPROACH END GREEN THRESHOLD LIGHTS AVAILABLE AT STEP 1 ONLY.

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence
Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

DANVILLE RGNL

!FDC 2/4006 DAN IAP DANVILLE RGNL, DANVILLE, VA.
RNAV (GPS) RWY 20, ORIG-C...
LPV DA 765/HAT 200 ALL CATS.
LNAV/VNAV DA 1023/HAT 458 ALL CATS.
LNAV HAT 455 ALL CATS, VIS CAT C 1 3/8.
VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE 3.00/TCH 46.5).
2211171817-2411171817EST

!DAN 01/015 DAN AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13

2201190501-2401190501

!DAN 01/010 DAN APRON MAIN WIP ADJ SW SIDE 2301301555-2306302359

!DAN 02/001 DAN OBST TOWER LGT (ASR 1284216) 365041.60N0792314.00W (16.6NM N DAN) 1075.8FT (294.9FT AGL) U/S 2302061841-2306061841

!DAN 12/005 DAN TWY D BTN TWY A AND SOUTH RAMP CLSD 2212121313-2305312359

!DAN 12/006 DAN TWY E BTN TWY A AND SOUTH RAMP CLSD 2212121315-2305312359

!DAN 12/007 DAN TWY A WIP ADJ 2212121316-2305312359

!DAN 01/003 DAN OBST TOWER LGT (ASR 1243001) 364654.00N0792329.00W (12.8NM NNW DAN) 235.9FT (228.0FT AGL) U/S 2301052323-2304052359

!DAN 09/011 DAN RWY 31 RWY END ID LGT U/S 2209221251-2303222111EST

!DAN 01/009 DAN OBST TOWER LGT (ASR 1236950) 363451.30N0792643.00W (5.2NM W DAN) 736.9FT (211.0FT AGL) U/S 2301261459-2302272359

DC08 - WHC

!FDC 2/5832 DC08 SPECIAL WHC, WASHINGTON, DC. COPTER RNAV (GPS) 16,
AMDT 1... RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED
ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS
SEE AIRWORTHINESS DIRECTIVES 2021-23-13.

2207201430-2401190506

DCA - RONALD REAGAN WASHINGTON NATIONAL

!DCA 08/182 DCA OBST BLDG LGT (ASN 2018-AEA-6441-OE) 385213N0770235W (1.2NM NNW DCA) 78FT (67FT AGL) U/S 1908151000-PERM

!DCA 03/390 DCA AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2003310127-PERM

DCA - RONALD REAGAN WASHINGTON NTL

!DCA 07/567 DCA AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT

USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2208010401-2408010401

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!FDC 2/7746 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
ILS RWY 01 (SA CAT I), AMDT 41C ...
ILS RWY 01 (CAT II), AMDT 41C ...
PROCEDURE NA EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13
2208010402-2407240402EST

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!FDC 2/7747 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
RNAV (RNP) RWY 1, AMDT 1B...
RNAV (RNP) RWY 19, AMDT 2B...
PROCEDURE NA EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13.
2208010402-2407240402EST

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!FDC 2/3502 DCA SID RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
NATIONAL EIGHT DEPARTURE...
TAKEOFF MINIMUMS: RWY 22, 500-2 3/4. RWY 4, 400-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 290FT PER NM TO 600.
ADD TAKEOFF OBSTACLE NOTE: RWY 22, BUILDINGS BEGINNING 3436FT FROM DER, 677FT RIGHT OF CENTERLINE, UP TO 131FT AGL/ 169FT MSL.
TEMPORARY CRANE 270FT MSL 2857FT SOUTHWEST OF RWY 4 (2020-AEA-12494-OE).
TEMPORARY CRANE 75FT FROM DER, 474FT RIGHT OF CENTERLINE, 100FT AGL/ 112FT MSL (2021-AEA-1752-NRA).
RWY 4, TEMPORARY CRANE 385FT MSL 1.99 NM NORTHEAST OF RWY 22, (2020-AEA-3523-OE).
RWY 33, TEMPORARY CRANE 3847FT FROM DER, 600FT LEFT OF CENTERLINE, 101FT AGL/ 136FT MSL (2022-AEA-15914 THRU 15919-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2212121340-2406011340EST

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!FDC 2/3503 DCA ODP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 8B...
TAKEOFF MINIMUMS: RWY 22, 500-2 3/4. RWY 4, 400-2 1/2 OR STANDARD WITH MINIMUM CLIMB OF 290FT PER NM TO 600.
ADD TAKEOFF OBSTACLE NOTE: RWY 22, BUILDINGS BEGINNING 3436FT FROM DER, 677FT RIGHT OF CENTERLINE, UP TO 131FT AGL/ 169FT MSL.
TEMPORARY CRANE 270FT MSL 2857FT SOUTHWEST OF RWY 4 (2020-AEA-12494-OE).
TEMPORARY CRANE 75FT FROM DER, 474FT RIGHT OF CENTERLINE, 100FT AGL/ 112FT MSL (2021-AEA-1752-NRA).
RWY 4, TEMPORARY CRANE 385FT MSL 1.99 NM NORTHEAST OF RWY 22, (2020-AEA-3523-OE).
RWY 33, TEMPORARY CRANE 3847FT FROM DER, 600FT LEFT OF CENTERLINE, 101FT AGL/ 136FT MSL (2022-AEA-15914 THRU 15919-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2212121340-2406011340EST

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!DCA 02/194 DCA AD AP WINDCONE FOR RWY 01 LGT U/S 2302132354-2306302359

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!DCA 02/149 DCA TWY A CL MARKINGS BTN RWY 04/22 AND TWY J NOT STD 2302111748-2305310500

- -

!DCA 02/065 DCA TWY M SFC PAINTED HLDG PSN SIGNS FOR APCH END RWY 22 FADED
2302052200-2304070500

- -

!DCA 02/070 DCA RWY 04/22 CLSD EXC TAX 2302081000-2303311900

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!FDC 3/6239 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
RNAV (GPS) RWY 15, ORIG-C...
LPV DA 592/HAT 578 ALL CATS. VISIBILITY ALL CATS 1 5/8.
LNAV MDA 840/HAT 826 ALL CATS.
CIRCLING CATS A/B MDA 840/HAA 826, CAT C MDA 880/HAA 866. VISIBILITY CAT A 1 1/4.
VDP 2.46 NM TO RW15.
TEMPORARY CRANE 530FT MSL 2.64 NM NORTHWEST OF RWY 15 (2021-AEA-5951-OE).
2301231624-2303231624EST

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!FDC 3/6240 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
LDA Z RWY 19, AMDT 3B...
RNAV (GPS) RWY 33, AMDT 1B...
CIRCLING CATS A/B MDA 800/HAA 786. CAT C MDA 880/HAA 866.
TEMPORARY CRANE 530FT MSL 2.64 NM NORTHWEST OF RWY 15 (2021-AEA-5951-OE).
2301231624-2303231624EST

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!DCA 02/195 DCA TWY M HLDG PSN MARKINGS FOR RWY 01/19 WEST SIDE NOT STD
2302140011-2303172359

!DCA 02/196 DCA TWY J HLDG PSN MARKINGS FOR RWY 15/33 NORTH SIDE NOT STD
2302140026-2303172359

!DCA 02/166 DCA SVC SMR U/S 2302122132-2302281759

!FDC 3/2977 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
ILS OR LOC RWY 1, AMDT 41C...
#S-ILS 1, DA 306/HAT 292, VISIBILITY ALL CATS RVR 2200.
#MISSED APPROACH REQUIRES MINIMUM CLIMB OF 755 FEET PER NM TO 600.
S-ILS 1, DA 357/HAT 343 ALL CATS. VISIBILITY ALL CATS RVR 3000.
S-LOC 1, MDA 560/HAT 546 ALL CATS. VISIBILITY CATS C/D RVR 6000.
VDP NA.
CIRCLING CATS A/B MDA 800/HAA 786, CAT C MDA 880/HAA 866.
CHANGE NOTE TO READ: FOR INOPERATIVE ALS INCREASE S-ILS 1 ALL CATS TO RVR 5500.
TEMPORARY CRANE 313FT MSL 3565FT SOUTHWEST OF RWY 1 (2021-AEA-17448-OE).
TEMPORARY CRANE 530FT MSL 2.64 NM NORTHWEST OF RWY 15 (2021-AEA-5951-OE).
TEMPORARY CRANE 459FT MSL 3498FT WEST OF RWY 19 (2022-AEA-2715-OE).
TEMPORARY CRANE 408FT MSL 3427FT WEST OF RWY 19 (2020-AEA-2527-OE).
2301121434-2302281434EST

!FDC 3/2978 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
ILS RWY 1 (SA CAT I), AMDT 41C ...
MISSED APPROACH: CLIMB TO 420 THEN CLIMBING LEFT TURN TO 2200 ON DCA VOR/DME R-325 TO
GTN NDB/INT/DCA 5.89 DME AND HOLD.
MISSED APPROACH REQUIRES A MINIMUM CLIMB OF 359 FEET PER NM TO 600.
IF UNABLE TO COMPLY PROCEDURE NA.
TEMPORARY CRANE 408FT MSL 3427FT WEST OF RWY 19 (2020-AEA-2527-OE).
TEMPORARY CRANE 459FT MSL 3498FT WEST OF RWY 19 (2022-AEA-2715-OE)
2301121434-2302281434EST

!FDC 3/2979 DCA IAP RONALD REAGAN WASHINGTON NTL, WASHINGTON, DC.
ILS RWY 1 (CAT II), AMDT 41C ...
MISSED APPROACH: CLIMB TO 420 THEN CLIMBING LEFT TURN TO 2200 ON DCA VOR/DME R-325 TO
GTN NDB/INT/DCA 5.89 DME AND HOLD.
MISSED APPROACH REQUIRES A MINIMUM CLIMB OF 468 FEET PER NM TO 600.
IF UNABLE TO COMPLY PROCEDURE NA.
TEMPORARY CRANE 408FT MSL 3427FT WEST OF RWY 19 (2020-AEA-2527-OE).
TEMPORARY CRANE 459FT MSL 3498FT WEST OF RWY 19 (2022-AEA-2715-OE)
2301121434-2302281434EST

!DCA 01/098 DCA OBST POWER LINE LGT (ASN 2012-AEA-3062-OE) 384430N0770955W (9.0NM SW
DCA) 361FT (126FT AGL) U/S 2301080614-2302220614

!DCA 02/107 DCA NAV ASO LOC TYPE DIRECTIONAL AID RWY 19 LOC U/S 2302141900-2302142300

!DCA 02/189 DCA APRON HLDG PAD FOR RWY 15 CLSD 2302141500-2302142100

!DCA 02/199 DCA NAV ILS RWY 01 LOC/GP U/S 2302141500-2302141900

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence
Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

EMI-VORTAC

!DCA 02/179 EMI NAV VOR 300-002 UNUSABLE 2302131602-2305312000EST

!DCA 02/180 EMI NAV VOR 078-088 UNUSABLE 2302131604-2305312000EST

!DCA 02/181 EMI NAV VOR 142-184 UNUSABLE 2302131605-2305312000EST

!DCA 02/182 EMI NAV VOR 276-286 UNUSABLE 2302131606-2305312000EST

!DCA 02/183 EMI NAV TACAN 030-050 UNUSABLE 2302131607-2305312000EST

!DCA 02/184 EMI NAV VORTAC 241-251 UNUSABLE 2302131608-2305312000EST

EXX - DAVIDSON COUNTY

!FDC 2/4002 EXX IAP DAVIDSON COUNTY, LEXINGTON, NC.
RNAV (GPS) RWY 24, ORIG-B...
LPV DA NA ALL CATS. LNAV/VNAV DA NA ALL CATS
TAA STRAIGHT-IN 148/30 CW 328/30 (NOPT) TO 148/10 CW 328/10 MINIMUM ALTITUDE 4600.
2209081440-2409201438EST

!FDC 2/8614 EXX IAP DAVIDSON COUNTY, LEXINGTON, NC.
ILS OR LOC RWY 6, AMDT 1D...
ILS DA 991/HAT 258 ALL CATS. ILS ALL CATS VISIBILITY 3/4 SM..
2208292153-2408292153EST

!FDC 2/8509 EXX IAP DAVIDSON COUNTY, LEXINGTON, NC.
RNAV (GPS) RWY 6, ORIG-B...
LPV DA 991/HAT 258 ALL CATS. LNAV/VNAV DA 1031/HAT 298 ALL CATS. LNAV MDA 1140/HAT 407 ALL CATS..
2208291918-2408291918EST

!EXX 01/003 EXX AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!EXX 02/001 EXX OBST TOWER LGT (ASR 1224961) 354026.50N0801550.00W (6.7NM SSE EXX) 917.0FT (257.9FT AGL) U/S 2302131700-2305140500

!EXX 01/004 EXX OBST TOWER LGT (ASR 1002651) 355304.90N0801441.50W (6.9NM NNE EXX) 1021.0FT (220.1FT AGL) U/S 2301092134-2305092134

!EXX 10/005 EXX COM GND COM OUTLET 135.075 UNREL USE 743-222-6129 2210131715-2304152359

!FDC 3/3452 EXX IAP DAVIDSON COUNTY, LEXINGTON, NC.
ILS OR LOC RWY 6, AMDT 1D...
ALTERNATE MINIMUMS NA,
GSO VORTAC UNMONITORED. 2302090145-2303090145EST

EZF - SHANNON

!EZF 01/012 EZF AIRSPACE SEE FDC 1/1155 ZDC FLT RESTRICTIONS TFR 1801181532-PERM

!FDC 3/3703 EZF IAP SHANNON, FREDERICKSBURG, VA.
NDB RWY 24, AMDT 3A...
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR AIRCRAFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS,
BRV VOR OUT OF SERVICE. 2302091656-2406191656EST

!EZF 02/015 EZF AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!EZF 02/005 EZF OBST POWER LINE LGT (ASN 2008-AEA-4265-OE) 381836N0772911W (3.1NM NNW EZF) 262FT (114FT AGL) U/S 2302141022-2303310612

!EZF 12/008 EZF OBST TOWER LGT (ASR 1227905) 381853.80N0771414.40W (10.4NM ENE EZF) 482.0FT (310.0FT AGL) U/S 2212222140-2303220500

!EZF 02/004 EZF OBST TOWER LGT (ASR 1255020) 380632.20N0770719.90W (17.9NM ESE EZF) 489.8FT (357.9FT AGL) U/S 2302130720-2302280620

!EZF 02/002 EZF OBST TOWER LGT (ASR 1221637) 381832.90N0770644.10W (16.0NM E EZF) 417.7FT (254.9FT AGL) U/S 2302080616-2302230516

!EZF 01/009 EZF OBST TOWER LGT (ASR 1016209) 381957.00N0772340.00W (4.8NM NNE EZF) 634.8FT (423.9FT AGL) U/S 2301211457-2302200001

!EZF 02/001 EZF OBST TOWER LGT (ASR 1246866) 381450.60N0772829.10W (1.7NM SW EZF) 339.9FT (103.0FT AGL) U/S 2302020655-2302170555

FDC

!FDC 2/8967 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART AKL4, PANEL J, EFFECTIVE 30 DEC 2021...
EFFECTIVE 27 JAN 2022. V436 ARCON-SCC MEA 10000 SE AND 2000 NW
MISSING. 2201272219-PERM

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!FDC 2/3309 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-6, PANEL J, EFFECTIVE 27 JAN 2022...
COMM OUTLET FREQ AT RCO GREENWOOD, LOCATED AT GREENWOOD-LEFLORE
(GWO) AIRPORT, SHOULD READ 122.2 AND 255.4. 2202101707-PERM

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!FDC 2/5265 FDC PART 1 OF 2 CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-6, PANEL F,I,J,K, EFFECTIVE 27 JAN 2022...
VORTAC VANCE (END) SHOULD BE CHARTED WITH OUT VOICE.
CHART IS MISSING GREENVILLE 114.25 GLH (VL) (DH) 89(Y) VOR/DME
AT N33 31' 24.7110" W90 58' 58.5760"CHART IS MISSING GREENVILLE
114.25 GLH (VL) (DH) 89(Y) VOR/DME AT N33 31' 24.7110" W90 58'
58.5760"
PANEL F, REPORTING POINT CAVRN MISSING MAKE UP OF DME 39 BEARING
255 DEGREES FROM WINK (INK) VORTAC, AND RADIAL BEARING 145 FROM
CARLSBAD (CNM) VORTAC AT N32 15' 23.8082 W104 13' 33.7354 WHICH IS
ALSO MISSING FROM H-06.
REPORTING POINT CONNE MISSING MAKEUP DME 17 BEARING 300 DEGREES
FROM SALT FLAT (SFL) VORTAC N31 44' 53.2170 W105 05' 12.516", WHICH
IS ALSO MISSING FROM H-06, AND RADIAL MAKE UP OF 354 FROM VORTAC
HUDSPETH (HUP).
REPORTING POINT WLDER, PANEL J, MISSING RADIAL MAKEUP DME19
BEARING 263 FROM MC KELLAR (MKL) VOR/DME N35 36' 12.8354' W088 54'
37.5457", WHICH IS ALSO MISSING FROM H-06, DME 28 BEARING 174
DEGREES FROM DYERSBURG (DYR) VORTAC N36 01' 6.7788 W089 19' 3.6899"
, WHICH IS ALSO MISSING FROM H-06
REPORTING POINT BARFF MISSING DME 53 BEARING 360 FROM GREENVILLE
19.7765 . 2202161934-PERM
END PART 1 OF 2
!FDC 2/5265 FDC PART 2 OF 2 CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
(GLH) VOR/DME.
REPORTING POINT CLOUT, PANEL J, MISSING RADIAL MAKE UP 181 DEGREES
FROM TUPELO (OTB) VOR/DME, WHICH IS ALSO MISSING FROM H-06.
PANEL F
IS MISSING TAOS (TAS) VORTAC N36 36 31.5680 W105 54 22.7530
PANEL I
IS MISSING ELM GROVE (EMG) VORAC N32 24 1.46 W93 35 42.53
PANEL J
IS MISSING MALDEN (MAW) VORTAC N36 33 18.411 W089 54
41.1190
PANEL K
IS MISSING BROOKLEY (BFM) VORTAC N30 36 45.7958 W88 03
19.7765 . 2202161934-PERM
END PART 2 OF 2

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!FDC 2/5008 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-16, PANEL F, EFFECTIVE 24 MAR 2022...
R-2401A, R-2401B, R-2402A, R-2402B, AND R-2402C ARE OMITTED ON L-16
EFF: 24MAR2022. SEE SAFETY ALERT ENR 22-01 SA AT
HTTPS://WWW.FAA.GOV/AIR_TRAFFIC/FLIGHT_INFO/AERONAV/SAFETY_ALERTS/
FOR ADDITIONAL INFORMATION. CHART WILL BE CORRECTED EFF: 19MAY2022.
2203161247-PERM

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!FDC 2/9561 FDC CHART CORRECT U.S. GOVERNMENT

DALLAS-FT. WORTH VFR
SECTIONAL AERONAUTICAL CHART, EFFECTIVE 24 MAR 2022...
PRINTED CHART ONLY. SEE SAFETY ALERT VIS 22-01 SA AVAILABLE AT
HTTPS://WWW.FAA.GOV/AIR_TRAFFIC/FLIGHT_INFO/AERONAV/SAFETY_ALERTS/.
. 2203251811-PERM

!FDC 2/2559 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-8, PANELG, EFFECTIVE 24 MAR 2022...
REPORTING POINT TRADR HAS AN UNCHARTED MAKE UPS: OF RADIAL 268 DME
37 FROM PENSACOLA (NPA) TACAN, RADIAL 171 DME 19 FROM BROOKLEY
(BFM) VORTAC, AND RADIAL 253 FROM SAUFLEY (NUN) VOR. SAUFLEY (NUN)
VOR IS ALSO MISSING FROM THE CHART.. 2204011946-PERM

!FDC 2/5166 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-7, PANEL E, EFFECTIVE 24 MAR 2022...
REPORTING POINT TRADR HAS AN UNCHARTED MAKE UPS: OF RADIAL 268 DME
37 FROM PENSACOLA (NPA) TACAN, RADIAL 171 DME 19 FROM BROOKLEY
(BFM) VORTAC, AND RADIAL 253 FROM SAUFLEY (NUN) VOR. SAUFLEY (NUN)
VOR IS ALSO MISSING FROM THE CHART. MAKE UP BOAT AT REPORTING POINT
PLEBE SHOULD READ 116.35 BFM(L) 110(Y), BFM IS WITH OUT VOICE..
2204272145-PERM

!FDC 2/6759 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-11, PANEL D, EFFECTIVE 11 AUG 2022...
EFFECTIVE MAY 19 2022 THE YQB VORTAC NAVAID INFORMATION BOX IS NOT
BEING SHOWN LEGIBLY DUE TO A PRINTING ERROR. QUEBEC 112.8 NO VOICE,
CHANNEL 75, N46 42.32 W71 37.58. 2205191505-PERM

!FDC 2/8196 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-10, PANEL G, EFFECTIVE 19 MAY 2022...
GOODLAND GLD H-VORTACW ADD COMMUNICATION BOX NAME GOODLAND NO VOICE
FREQ 115.1 IDENT GLD CHAN 98 MORSE CODE GLD N39 DEGREES 23.27' W101
DEGREES 41.54' FSS WICHITA ICT RCO FREQ 255.4 122.4.
2206132105-PERM

!FDC 2/6138 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-26, PANEL I, EFFECTIVE 14 JUL 2022...
REMNANT OF DECOMMISSIONED EVERS MOA REMAINS CHARTED IN EVERS LOW
MOA. DELETE REMAINING EVERS LOW MOA BOUNDARY NEAR LOCATION 38° 24
18 N 079° 57 36 W. CONSULT SAFETY ALERT ENR_22-02_SA_L-26 EVERS
MOA 14JUL FOR REFERENCE. CHART CORRECTION: 08SEP2022..
2206291731-PERM

!FDC 2/0867 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-25, PANEL C, EFFECTIVE 14 JUL 2022...
ADD MCA 5200N FOR V605 AT SPA. 2207121419-PERM

!FDC 2/4387 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-35, PANEL B, EFFECTIVE 14 JUL 2023...
DELETE MCA V70 4400S AT KINSTON (ISO) VORTAC. 2207181058-PERM

!FDC 2/5247 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-15, PANEL C, EFFECTIVE 14 JUL 2023...
V507 MEAS FROM ROLLS TO MMB ARE CHANGED TO 4000 N BND AND 9300 S
BND WITH A 4000 GNSS. 2207191356-PERM

!FDC 2/5575 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART AKL3, PANEL C, EFFECTIVE 14 JUL 2023...
EFFECTIVE 14 JUL 2022 (NOT 2023). CORRECT T225 MEA INFORMATION AS
FOLLOWS: UNK-EDMON 5000G. EDMON-VENCE 5900G. VENCE-GAL 3400G.

GAL-KUHZE 4400G. 2207192046-PERM

- -

!FDC 2/5943 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART AKL4, PANEL I, EFFECTIVE 14 JUL 2023...
EFFECTIVE 14 JUL 2022 (NOT 2023). T229 OTZ-WLK MEA 3000G, MOCA
2500. T231 OTZ-WLK MEA 3400G. 2207201634-PERM

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!FDC 2/7478 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART AKL3, PANEL C, EFFECTIVE 14 JUL 2022...
V453 BET-EDUCE MEA DIRECTIONS REVERSED ON CHART. SHOULD READ 7000
SE BND, 4000 NW BND. 2208102150-PERM

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!FDC 2/4090 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-26, PANEL I, EFFECTIVE 08 SEP 2022...
REMNANT OF DECOMMISSIONED EVERS MOA REMAINS CHARTED IN EVERS LOW
MOA. DELETE REMAINING EVERS LOW MOA BOUNDARY NEAR LOCATION 38°
24'18"N 079° 57' 36"W. CONSULT SAFETY ALERT ENR_22-02_SA_L-26 EVERS
MOA 14JUL FOR REFERENCE. CHART CORRECTION: 03NOV2022..
2206291731-PERM. 2209081604-PERM

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!FDC 2/7601 FDC CHART CORRECT U.S. GOVERNMENT SAN
ANTONIO VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 08 SEP 2022...
CHANGE MEF 21 TO 25 IN QUADRANT 31 30 - 32 00N, 98 00 - 98 30W.
2210041417-PERM

- -

!FDC 2/7617 FDC CHART CORRECT U.S. GOVERNMENT SAN
ANTONIO VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 08 SEP 2022...
CHANGE MEF 10 TO 13 IN QUADRANT 28 30 - 29 00N, 97 30 - 98 00W.
2210041500-PERM

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!FDC 2/0185 FDC CHART CORRECT U.S. GOVERNMENT SAINT
LOUIS VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
CORRECT U.S GOVERNMENT VFR ST. LOUIS SECTIONAL CHART, EFFECTIVE 29
DEC 2022. REVISE CLASS B ALTITUDE 80 OVER SFC TO 80 OVER 30 AT 38
52 00N, 90 35 00W. ADD CLASS B ALTITUDE 80 OVER SFC AT 38 43 00N,
90 25 00W.. 2212301603-PERM

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!FDC 2/0294 FDC CHART CORRECT U.S. GOVERNMENT BETHEL
VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
ADD SOFT SURFACE AIRPORT SYMBOL FOR NEWTOK AIRPORT (EWU), NEWTOK,
AK, LOCATED AT 60 48 37N, 164 29 58W.. 2212311556-PERM

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!FDC 3/1327 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-1, PANEL D, EFFECTIVE 23 FEB 2023...
ON PANEL D DELETE CHANGEOVER POINT ON V495 BETWEEN SEA AND CIDUG.
ON PANEL D ADD CHANGEOVER POINT ON V95 AT JAWBN 50 NM FROM YYJ AND
42 NM FROM SEA.
ON PANEL D DELETE MOCA *4000 FROM ALDEN TO CIDUG, AND *3000 FROM
CIDUG TO SEA ON V495. 2301051916-PERM

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!FDC 3/2587 FDC CHART CORRECT U.S. GOVERNMENT SEATTLE
VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
RAISE ALL OUTBOUND BEARINGS FROM THE WALLA WALLA VORDME (ALW) BY 6
DEGREES, LOCATED IN WALLA WALLA, WA AT 46 05 13N, 118 17 33W..
2301101206-PERM

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!FDC 3/4590 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART AKL3, PANEL B AND D, EFFECTIVE 29 DEC 2022...
DELETE MCA B25 8000SE FROM DELTA JUNCTION (DJN) NDB ON PANEL B AND

FAIRBANKS INSET.
CHANGE GNSS TO 6800 ON T225 SEGMENT FEFCO TO CHOKK ON PANEL D.
2301181550-PERM

!FDC 2/6907 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-15, PANEL D, EFFECTIVE 03 NOV 2022...
ADD MEA CHANGE INDICATORS ON V-507 AT WAXEY. 2211041439-PERM

!FDC 2/6962 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE HIGH ALTITUDE
CHART H-7, PANEL C, EFFECTIVE 03 NOV 2022...
DELETE MON DESIGNATION FROM GLS AIRPORT N29 15 55 W94 51 38..
2211041518-PERM

!FDC 2/8412 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-24, PANEL I, EFFECTIVE 03 NOV 2022...
V53 UNUSABLE CAE TO WILLS N33°51.49' W81°3.30'. 2211081237-PERM

!FDC 3/9560 FDC CHART CORRECT U.S. GOVERNMENT MIAMI
VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
REMOVE THE CONTROL TOWER FREQUENCY 118.6 AND ATIS FREQUENCY 127.65
AT LEONARD M THOMPSON INTL AIRPORT, MARSH HARBOUR, BS LOCATED AT 26
30 36N, 77 05 06W. ALSO REMOVE THE ATIS FREQUENCY 127.8 AT TREASURE
CAY AIRPORT, TREASURE CAY, BS LOCATED AT 26 44 43N, 77 23 29W.
2302011310-PERM

!FDC 3/9565 FDC CHART CORRECT U.S. GOVERNMENT VFR
WORLD AERONAUTICAL CHART
CARIBBEAN 1, EFFECTIVE 29 DEC 2022...
REMOVE THE CONTROL TOWER FREQUENCY 118.6 AND ATIS FREQUENCY 127.65
AT LEONARD M THOMPSON INTL AIRPORT, MARSH HARBOUR, BS LOCATED AT 26
30 36N, 77 05 06W. ALSO REMOVE THE ATIS FREQUENCY 127.8 AT TREASURE
CAY AIRPORT, TREASURE CAY, BS LOCATED AT 26 44 43N, 77 23 29W.
2302011347-PERM

!FDC 3/2515 FDC CHART CORRECT U.S. GOVERNMENT IFR
ENROUTE LOW ALTITUDE
CHART L-13, PANEL C, EFFECTIVE 29 DEC 2022...
ON V247 REMOVE WAUTS, MT FIX MCA 10700E CHANGE TO MEA 13000 MOCA
11200 BETWEEN BAXTA, MT FIX AND WAUTS, MT FIX. 2302071929-PERM

!FDC 3/4514 FDC CHART CORRECT U.S. GOVERNMENT WICHITA
VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
REVISE THE VANCE AFB, ENID, OK CLASS D AIRSPACE: THAT AIRSPACE
EXTENDING UPWARD FROM THE SURFACE TO AND INCLUDING 3,800 FT WITHIN
A 5.1 MILE RADIUS OF VANCE AFB, EXCLUDING THE ENID, OK, CLASS D AND
CLASS E AIRSPACE DESIGNATED AS SURFACE AREAS. THIS CLASS D AIRSPACE
AREA IS EFFECTIVE DURING THE SPECIFIC DATES AND TIMES ESTABLISHED
IN ADVANCE BY A NOTICE TO AIRMEN. THE EFFECTIVE DATE AND TIME WILL
THEREAFTER BE CONTINUOUSLY PUBLISHED IN THE CHART SUPPLEMENT.
AND REVISE THE VANCE AFB, ENID, OK CLASS E SURFACE AIRSPACE: THAT
AIRSPACE WITHIN A 5.1 MILE RADIUS OF VANCE AFB, EXCLUDING THE
ENID,OK, CLASS D AND CLASS E AIRSPACE DESIGNATED AS SURFACE AREAS.
THIS CLASS E AIRSPACE AREA IS EFFECTIVE DURING THE SPECIFIC DATES
AND TIMES ESTABLISHED IN ADVANCE BY A NOTICE TO AIRMEN. THE
EFFECTIVE DATE AND TIME WILL THEREAFTER BE CONTINUOUSLY PUBLISHED
IN THE CHART SUPPLEMENT. VANCE AFB LOCATED IN ENID, OK AT 36 20
23N, 97 55 02W.. 2302101842-PERM

!FDC 3/5084 FDC CHART CORRECT U.S. GOVERNMENT WICHITA
VFR SECTIONAL
AERONAUTICAL CHART, EFFECTIVE 29 DEC 2022...
ADD ELEVATION VALUE 1592 FT MSL TO BOX FOR THE WIND TURBINE FARM
LOCATED AT 36 38 43N, 97 22 47W, SW OF TONKAWA, OK. 2302131653-PERM

!FDC 2/2422 FDC PART 1 OF 2 SPECIAL ADVISORY NOTICE.
A WARNING SIGNAL FOR COMMUNICATING WITH AIRCRAFT IS DEPLOYED AND IS
OPERATING WITHIN THE WASHINGTON DC SPECIAL FLIGHT RULES AREA (SFRA),
INCLUDING THE FLIGHT RESTRICTED ZONE (FRZ). THE SIGNAL CONSISTS OF
HIGHLY FOCUSED RED AND GREEN COLORED LIGHTS IN AN ALTERNATING
RED/RED/GREEN SIGNAL PATTERN. THIS SIGNAL MAY BE DIRECTED AT SPECIFIC
AIRCRAFT SUSPECTED OF MAKING UNAUTHORIZED ENTRY INTO THE SFRA/FRZ
AND ARE ON A HEADING OR FLIGHT PATH THAT MAY BE INTERPRETED AS A
THREAT OR AT THE REQUEST OF THE FAA. THE BEAM IS NOT INJURIOUS TO THE
EYES OF PILOTS/AIRCREWS OR PASSENGERS, REGARDLESS OF ALTITUDE OR
DISTANCE FROM THE SOURCE. IF YOU ARE IN COMMUNICATION WITH AIR
TRAFFIC CONTROL AND THIS SIGNAL IS DIRECTED AT YOUR AIRCRAFT, WE
ADVISE YOU TO IMMEDIATELY COMMUNICATE WITH ATC THAT YOU ARE BEING
ILLUMINATED BY A VISUAL WARNING SIGNAL. IF THIS SIGNAL IS DIRECTED AT
YOU AND YOU ARE NOT COMMUNICATING WITH ATC, WE ADVISE YOU TO TURN TO
A HEADING AWAY FROM THE CENTER OF THE FRZ/SFRA AS SOON AS POSSIBLE
AND IMMEDIATELY CONTACT ATC ON AN APPROPRIATE FREQUENCY, OR IF UNSURE
OF THE FREQUENCY, CONTACT ATC ON VHF GUARD 121.5 OR UHF GUARD 243.0.
BE ADVISED THAT FAILURE TO FOLLOW THE RECOMMENDED PROCEDURES
OUTLINED ABOVE MAY RESULT IN INTERCEPTION BY MILITARY AIRCRAFT AND/OR
THE USE OF FORCE.
END PART 1 OF 2
!FDC 2/2422 FDC PART 2 OF 2 SPECIAL ADVISORY NOTICE.
THIS NOTICE ONLY APPLIES TO VFR AIRCRAFT OPERATING
WITHIN THE SFRA/FRZ, INCLUDING DOD, LAW ENFORCEMENT, AND AEROMEDICAL
OPERATIONS. THIS NOTICE DOES NOT CHANGE PROCEDURES ESTABLISHED FOR
REPORTING UNAUTHORIZED LASER ILLUMINATION AS PUBLISHED IN ADVISORY
CIRCULAR 70-2. "THIS SIGNAL MAY BE DIRECTED AT SPECIFIC AIRCRAFT
SUSPECTED OF MAKING UNAUTHORIZED ENTRY INTO THE SFRA/FRZ AND ARE ON A
HEADING OR FLIGHT PATH THAT MAY BE INTERPRETED AS A THREAT OR THAT
OPERATE CONTRARY TO THE OPERATING RULES FOR THE SFRA/FRZ".
END PART 2 OF 2

!FDC 6/8818 FDC ...SPECIAL NOTICE...IN THE INTEREST OF NATIONAL
SECURITY AND TO THE EXTENT PRACTICABLE, PILOTS AND UAS OPERATORS ARE
STRONGLY ADVISED TO AVOID THE AIRSPACE ABOVE OR IN CLOSE PROXIMITY
TO CRITICAL INFRASTRUCTURE AND OTHER SENSITIVE LOCATIONS SUCH AS
POWER PLANTS (NUCLEAR, HYDRO-ELECTRIC, OR COAL), DAMS, REFINERIES,
INDUSTRIAL COMPLEXES, MILITARY FACILITIES, CORRECTIONAL AND LAW
ENFORCEMENT FACILITIES UNLESS OTHERWISE AUTHORIZED. PILOTS AND UAS
OPERATORS SHOULD NOT CIRCLE AS TO LOITER IN THE VICINITY OVER THESE
TYPES OF FACILITIES.
1603231538-PERM

!FDC 0/0367 FDC PART 1 OF 4 SECURITY SPECIAL SECURITY INSTRUCTIONS
(SSI) FOR SELECT SPORTING EVENTS. THIS NOTAM REPLACES
FDC NOTAM 7/4319 TO CLARIFY ATC AUTHORIZATION OF TRANSITING FLIGHTS.
THIS NOTAM IMPLEMENTS SECTION 352 OF PUBLIC LAW 108-7 AS AMENDED BY
SECTION 521 OF PUBLIC LAW 108-199. PURSUANT TO 49 USC 40103(B)(3),
THE FEDERAL AVIATION ADMINISTRATION (FAA) CLASSIFIES THE AIRSPACE
DEFINED IN THIS NOTAM AS 'NATIONAL DEFENSE AIRSPACE'. PILOTS WHO DO
NOT ADHERE TO THE FOLLOWING PROCEDURES MAY BE INTERCEPTED, DETAINED
AND INTERVIEWED BY LAW ENFORCEMENT/SECURITY PERSONNEL. ANY OF THE
FOLLOWING ADDITIONAL ACTIONS MAY ALSO BE TAKEN AGAINST A PILOT WHO
DOES NOT COMPLY WITH THE REQUIREMENTS OR ANY SPECIAL INSTRUCTIONS OR
PROCEDURES ANNOUNCED IN THIS NOTAM: A) THE FAA MAY TAKE
ADMINISTRATIVE ACTION, INCLUDING IMPOSING CIVIL PENALTIES AND THE
SUSPENSION OR REVOCATION OF AIRMEN CERTIFICATES; OR B) THE UNITED
STATES GOVERNMENT MAY PURSUE CRIMINAL CHARGES, INCLUDING CHARGES
UNDER TITLE 49 OF THE UNITED STATES CODE, SECTION 46307; OR C) THE
UNITED STATES GOVERNMENT MAY USE DEADLY FORCE AGAINST THE AIRBORNE
AIRCRAFT, IF IT IS DETERMINED THAT THE AIRCRAFT POSES AN IMMINENT
SECURITY THREAT.
SECTION I. STADIUM OR SPORTS EVENTS: PURSUANT TO TITLE 14 CFR
SECTION 99.7, SPECIAL SECURITY INSTRUCTIONS, ALL MANNED AND UNMANNED

2001150001-PERM
END PART 1 OF 4
!FDC 0/0367 FDC PART 2 OF 4 SECURITY SPECIAL SECURITY INSTRUCTIONS
AIRCRAFT OPERATIONS ARE PROHIBITED EXCEPT AS SPECIFIED BELOW WITHIN
AN AREA DEFINED AS: 3 NMR OF A QUALIFYING STADIUM OR OTHER SPORTING
VENUE HOSTING A QUALIFYING EVENT UP TO AND INCLUDING 3000FT AGL.
QUALIFYING LOCATIONS AND EVENTS ARE DEFINED AS ANY STADIUM OR OTHER
SPORTING VENUE HAVING A SEATING CAPACITY OF 30,000 OR MORE WHERE: A.
A REGULAR OR POST SEASON MAJOR LEAGUE BASEBALL, NATIONAL FOOTBALL
LEAGUE, OR NCAA DIVISION ONE FOOTBALL GAME IS OCCURRING; OR B. A
NASCAR CUP, INDY CAR, OR CHAMP SERIES RACE IS OCCURRING, EXCLUDING
QUALIFYING AND PRE-RACE EVENTS. THIS FLIGHT PROHIBITION IS IN EFFECT
ONE HOUR BEFORE THE SCHEDULED START UNTIL ONE HOUR AFTER THE END OF
A QUALIFYING EVENT.
SECTION II. OPERATING REQUIREMENTS (BASIC): THIS FLIGHT PROHIBITION
APPLIES TO ALL MANNED AND UNMANNED AIRCRAFT OPERATIONS (INCLUDING
TRAINING, PARACHUTE JUMPING, AND MODEL AIRCRAFT FLIGHTS) UNLESS THE
AIRCRAFT OPERATOR MEETS AT LEAST ONE OF THE FOLLOWING REQUIREMENTS:
A. THE AIRCRAFT OPERATION HAS BEEN AUTHORIZED BY ATC FOR OPERATIONAL
OR SAFETY PURPOSES, INCLUDING AUTHORIZATION OF FLIGHTS SPECIFICALLY
ARRIVING AT OR DEPARTING FROM AN AIRPORT DESIGNATED BY ATC USING
STANDARD ATC PROCEDURES AND ROUTES; B. THE AIRCRAFT OPERATION IS
BEING CONDUCTED FOR OPERATIONAL, SAFETY, OR SECURITY PURPOSES
2001150001-PERM
END PART 2 OF 4
!FDC 0/0367 FDC PART 3 OF 4 SECURITY SPECIAL SECURITY INSTRUCTIONS
SUPPORTING THE QUALIFYING EVENT, AND IS AUTHORIZED BY AN AIRSPACE
SECURITY WAIVER APPROVED BY THE FAA; C. THE AIRCRAFT OPERATION IS
ENABLING BROADCAST COVERAGE FOR THE BROADCAST RIGHTS HOLDER FOR THE
QUALIFYING EVENT, AND IS AUTHORIZED BY AN AIRSPACE SECURITY WAIVER
APPROVED BY THE FAA; D. THE AIRCRAFT OPERATION HAS BEEN AUTHORIZED
BY ATC FOR NATIONAL SECURITY, HOMELAND SECURITY, LAW ENFORCEMENT, OR
AIR AMBULANCE PURPOSES;
SECTION III. RESOURCES: A. PILOTS OPERATING IN THE DEFINED AIRSPACE
ARE REMINDED THAT AN FAA AIRSPACE SECURITY WAIVER DOES NOT RELIEVE
OPERATORS FROM OBTAINING ALL OTHER NECESSARY AUTHORIZATIONS,
INCLUDING THOSE SPECIFIC TO FLIGHTS OVER EVENTS HELD IN STADIUMS AND
OTHER SPORTING VENUES, AND COMPLYING WITH ALL APPLICABLE FEDERAL
AVIATION REGULATIONS. B. PILOTS MUST CONTINUOUSLY SQUAWK AN
ATC-ASSIGNED BEACON CODE AND MAINTAIN 2-WAY RADIO CONTACT WITH ATC
WHILE OPERATING IN THE DEFINED AIRSPACE. C. UAS OPERATORS WHO DO NOT
COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT
PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N,
THE DEPARTMENT OF DEFENSE (DOD), THE DEPARTMENT OF HOMELAND SECURITY
(DHS) OR THE DEPARTMENT OF JUSTICE (DOJ) MAY TAKE SECURITY ACTION
THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR
2001150001-PERM
END PART 3 OF 4
!FDC 0/0367 FDC PART 4 OF 4 SECURITY SPECIAL SECURITY INSTRUCTIONS
DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR
SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS. D.
ALL PREVIOUSLY ISSUED WAIVERS TO FDC NOTAM 7/4319 REMAIN VALID UNTIL
THE SPECIFIED END DATE BUT NOT TO EXCEED 90 DAYS FOLLOWING THE
EFFECTIVE DATE OF THIS NOTAM. INFORMATION ABOUT AIRSPACE SECURITY
WAIVER APPLICATIONS AND TSA SECURITY AUTHORIZATIONS CAN BE FOUND AT
HTTP://WWW.TSA.GOV/STAKEHOLDERS/AIRSPACE-WAIVERS-0 OR BY CALLING TSA
AT 571-227-2071. E. SUBMIT REQUESTS FOR FAA AIRSPACE WAIVERS AT
HTTPS://WAIVERS.FAA.GOV. F. FAA RECOMMENDS THAT ALL AIRCRAFT
OPERATORS CHECK NOTAMS FREQUENTLY FOR POSSIBLE CHANGES TO THIS TFR
PRIOR TO OPERATIONS WITHIN THIS REGION AT HTTP://NOTAMS.AIM.FAA.GOV
AND SELECT NOTAM SEARCH. G.THE SYSTEM OPERATIONS SUPPORT CENTER
(SOSC) IS THE POINT OF CONTACT AND COORDINATION FACILITY FOR ANY
QUESTIONS REGARDING THIS NOTAM AND ARE AVAILABLE DAILY FROM
0700-2300 EASTERN, PHONE 202-267-8276.

2001150001-PERM
END PART 4 OF 4

!FDC 1/3531 FDC PART 1 OF 2 SPECIAL NOTICE OF PUBLIC HEALTH REQUIREMENT FOR ALL
AIR PASSENGERS ENTERING THE UNITED STATES (U.S.) AND ITS TERRITORIES. ALL AIR CARRIERS AND OTHER AIRCRAFT OPERATORS DEPARTING A FOREIGN COUNTRY INTENDING TO LAND IN THE U.S. OR A U.S. TERRITORY ARE ADVISED THE U.S. CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) ISSUED AN ORDER, EFFECTIVE 26 JAN 2021, PROHIBITING THE EMBARKATION OF ANY AIR PASSENGER ON A FLIGHT TO THE U.S. FROM A FOREIGN COUNTRY UNLESS THE PASSENGER, IN ACCORDANCE WITH THE SPECIFIC TERMS OF THE CDC ORDER, PRESENTS DOCUMENTATION OF: 1) A NEGATIVE RESULT FOR A PRE-DEPARTURE TEST FOR SARS-COV-2 (THE VIRUS THAT CAUSES COVID-19) TAKEN NO MORE THAN 3 DAYS IN ADVANCE OF DEPARTURE; OR 2) RECOVERY FROM COVID-19 WITHIN THE PREVIOUS 3 MONTHS OR AS SPECIFIED IN CDC GUIDANCE.
EFFECTIVE IMMEDIATELY, ALL AFFECTED OPERATORS ARE STRONGLY ENCOURAGED TO FAMILIARIZE THEMSELVES WITH THIS CDC ORDER, WHICH PROVIDES IMPORTANT DETAILS, INCLUDING INFO ON: APPLICABILITY; EXEMPTIONS; CRITERIA OF A QUALIFYING TEST; REQUIREMENTS FOR DOCUMENTATION OF RECOVERY, INCLUDING A POSITIVE TEST RESULT FOR SARS COV-2 AND CONFIRMATION FROM A LICENSED HEALTH CARE PROVIDER OR HEALTH OFFICIAL THAT THE INDIVIDUAL IS CLEARED TO TRAVEL; PASSENGER
2102121830-PERM
END PART 1 OF 2
!FDC 1/3531 FDC PART 2 OF 2 SPECIAL NOTICE OF PUBLIC HEALTH REQUIREMENT FOR ALL
ATTESTATIONS; AND COMPLIANCE IMPLEMENTATION, INCLUDING REQUIREMENTS LEVIED DIRECTLY ON OPERATORS. THIS CDC ORDER AND A LINK TO FAQS MAY BE FOUND AT:
HTTPS://WWW.CDC.GOV/QUARANTINE/FR-PROOF-NEGATIVE-TEST.HTML.
NON-URGENT QUESTIONS ABOUT THE CDC ORDER MAY BE REFERRED TO THE CDC AT (800) 232-4636. URGENT QUESTIONS ABOUT THE CDC ORDER MAY BE REFERRED TO THE CDC EMERGENCY OPERATIONS CENTER AT (770) 488-7100. OPERATORS SHOULD ALSO REVIEW FAA SAFO 20009, AS DISCUSSED IN THE CDC ORDER. OTHER QUESTIONS MAY BE REFERRED TO THE FAA WASHINGTON OPERATIONS CENTER AT (202) 267-3333. THE FAA IS ISSUING THIS NOTAM IN SUPPORT OF EXTRAORDINARY PUBLIC HEALTH MEASURES IN THE FACE OF A GLOBAL PANDEMIC.
2102121830-PERM
END PART 2 OF 2

!FDC 1/4156 FDC SPECIAL NOTICE...UNMANNED AIRCRAFT SYSTEM (UAS) OPERATORS ARE STRONGLY ADVISED TO USE CAUTION WHEN OPERATING WITHIN 1/4NM INLAND OF THE U.S./MEXICO BORDER PORTION OF THE CONTIGUOUS UNITED STATES AIR DEFENSE IDENTIFICATION ZONE (ADIZ) AS DEFINED BY 14 CFR 99.43 DUE TO ONGOING HOMELAND SECURITY (DHS), DEPARTMENT OF JUSTICE (DOJ) AND DEPARTMENT OF DEFENSE (DOD) OPERATIONS. OPERATORS WHO INTERFERE WITH OR ARE DEEMED A THREAT TO SUCH OPERATIONS MAY BE MITIGATED PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N. MITIGATION MAY RESULT IN THE INTERFERENCE, INTERCEPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS.
2106161330-PERM

!FDC 2/3929 FDC SPECIAL NOTICE..UNMANNED AIRCRAFT SYSTEM (UAS) OPERATORS ARE STRONGLY ADVISED TO USE CAUTION WHEN OPERATING WITHIN 1/4NM OF THE U.S./CANADA BORDER DUE TO ONGOING HOMELAND SECURITY (DHS), DEPARTMENT OF JUSTICE (DOJ) AND DEPARTMENT OF DEFENSE (DOD) OPERATIONS. OPERATORS WHO INTERFERE WITH OR ARE DEEMED A THREAT TO SUCH OPERATIONS MAY BE MITIGATED PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N. MITIGATION MAY RESULT IN THE INTERFERENCE, INTERCEPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF

UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY
THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS.
2212121820-PERM
- -
A0012/23 NOTAMR A0009/23
Q) KFDC/QKKKK/K/K/K/000/999/
A) KFDC PART 1 OF 44
B) 2302010000 C) 2303010000 EST
E) THE FOLLOWING IS A LIST OF ALL UNITED STATES CLASS ONE NOTAMS
CURRENT AT 2302010000. NOTAMS NOT INCLUDED HAVE EITHER BEEN
CANCELLED OR TRANSFERRED TO PUBLICATION. PLEASE REVIEW THIS LIST
FOR ONLY THOSE NOTAMS THAT YOU ARE SCHEDULED TO RECEIVE.
68ME A0001/22 A0002/22 A0003/22 KABE A0183/23 A0245/22 A0246/22
A1790/22 A2077/21 A2727/22 A2728/22 A3212/22 A3540/22 A3543/22
A3545/22 KABI A0062/23 A0064/23 A0065/23 A0691/22 A0840/22 KABQ
A0036/23 A0037/23 A0038/23 A0039/23 A0040/23 A0041/23 A0042/23
A0043/23 A0044/23 A0047/23 A0064/23 A0076/23 A0094/23 A0106/23
A0108/23 A0114/23 A0115/23 A0116/23 A0747/22 A0749/22 A0968/22
A1114/22 A1374/22 A1682/22 A1683/22 A1684/22 A1685/22 A1764/22
A1781/22 KACK A0014/23 A0027/23 A0029/23 A0047/23 A0056/23 A0073/22
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END PART 11 OF 44
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A0012/23 NOTAMR A0009/23
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END PART 21 OF 44
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END PART 25 OF 44
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END PART 35 OF 44
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END PART 36 OF 44
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A2286/23 A3058/23 A3059/23 A3137/23 A3149/23 A3150/23 A3151/23
A3155/23 A3172/23 A3174/23 A3178/23 A3179/23 A3180/23 A3183/23
A3184/23 A3186/23 A3192/23 A3193/23 A3197/23 A3198/23 A3200/23
A3201/23 A3202/23 A3203/23 A3948/22 A4079/22 A5683/22 PAGK A0006/23
PAHO A0092/23 PAJN A1024/23 A1563/23 A1564/23 A1565/23 A5801/22
PAKN A0055/23 A0379/23 A0383/23 A0392/23 A0393/23 A0394/23 A0396/23
A2008/22 A2042/22 A2043/22 PAKT A0056/23 A0093/23 A0141/23 A0142/23
A0143/23 A0144/23 A0504/22 A0661/22 A0962/22 PAMC A0164/22 A0165/22
PANC A1163/23 A1164/23 A1165/23 A1166/23 A1167/23 A1168/23 A1169/23
A1170/23 A1171/23 A1329/22 A4454/22 A6907/22 PANN A0027/23 A0028/23
END PART 41 OF 44
A0012/23 NOTAMR A0009/23
Q) KFDC/QKKKK/K/K/K/000/999/
A) KFDC PART 42 OF 44
B) 2302010000 C) 2303010000 EST
E)
A0029/23 A0030/23 A0189/22 PAOM A0022/23 A0358/23 A0419/23 A0436/23
A0438/23 A0439/23 A0444/23 A0445/23 A0446/23 A0447/23 A2151/22
A2404/22 A2711/22 A2846/22 A3315/22 PAOR A0016/23 A0021/23 A0086/21
PASC A0121/22 A0206/22 PASI A0489/23 A0490/23 A0491/23 A3802/22
A3808/22 PASY A0002/22 PATK A0052/23 A0053/23 PAYA A0582/23 A0583/23
A0781/23 A0782/23 A0783/23 A1934/22 A2970/22 A4887/22 A5809/22
A5810/22 A5811/22 A5812/22 A6315/22 A7319/22 PAZA A0006/23 A0046/23
A0066/23 A0072/23 A0081/23 A0082/22 A0084/23 A0086/23 A0087/23
A0091/23 A0093/23 A0098/22 A0128/21 A0181/21 A0215/22 A0217/22
A0326/21 A0327/21 A0328/21 A0329/21 A0330/21 A0331/21 A0343/22
A0373/22 A0489/22 A0513/21 A0514/21 A0516/21 A0533/22 A0639/22

A0655/22 A0728/22 A0738/22 A0776/22 A0800/21 A0816/22 A0817/22
A0818/22 A0819/22 A0820/22 A0821/22 A0822/22 A0823/22 A0824/22
A0832/22 A0852/22 A0875/21 A0954/22 A0955/21 A0955/22 A0956/22
A0957/22 A0958/22 A0959/22 A0969/22 A0970/22 A0984/22 A1014/22
A1015/22 A1040/22 A1048/22 A1049/21 A1049/22 A1050/22 A1051/22
A1059/22 A1072/22 PGRO A0014/23 A0015/23 A0016/23 A0071/22 A0072/22
PGSN A0012/23 A0013/23 A0026/22 A0027/22 A0119/21 A0120/21 A0150/22
A0220/22 A0350/15 PGUM A0023/17 A0036/23 A0037/23 A0047/23 A0049/23
A0050/23 A0281/22 A0282/22 A0313/20 A0315/20 A0400/16 A0441/22
END PART 42 OF 44
A0012/23 NOTAMR A0009/23
Q) KFDC/QKKKK/K/K/K/000/999/
A) KFDC PART 43 OF 44
B) 2302010000 C) 2303010000 EST
E)
A0442/22 A0443/22 A0453/22 A0467/22 A0468/22 A0469/22 A0472/22 PGWT
A0043/22 A0044/22 A0060/22 A0061/22 PGZU A0024/23 A0067/23 A0068/23
A0069/23 A0070/23 A0071/23 A0072/23 A0073/23 A0074/23 A0075/23
A0076/23 A0077/23 A0078/23 A0450/22 A0451/22 PHJH A0001/23 A0002/23
A0186/21 PHJR A0005/23 A0178/22 A0179/22 A0180/22 A0181/22 A0182/22
A0183/22 A0184/22 A0186/22 A0188/22 A0193/22 A0195/22 A0196/22
A0204/22 A0234/22 A0235/22 A0236/22 A0238/22 PHKO A0177/22 PHLI
A0029/23 A0030/23 A0614/21 A0923/22 A0924/22 A0925/22 A1039/22
A1068/22 A1070/22 A1139/22 A1140/22 PHMK A0003/23 A0005/23 A0021/23
A0041/23 A0045/23 PHNL A0109/23 A0111/23 A0113/22 A0113/23 A0162/23
A0166/23 A0167/23 A0235/22 A0259/23 A0295/23 A0317/23 A0318/23
A0321/23 A0322/23 A0323/23 A0324/23 A0325/23 A0331/23 A0587/22
A0588/22 A0813/22 A0815/22 A1119/22 A1565/22 A1822/22 A2130/22
A2413/22 A2414/22 A2415/22 A2858/22 A2874/22 A2875/22 A3097/22
A3102/22 A3103/22 A3104/22 A3108/22 A3226/22 A3384/22 A3403/22 PHOG
A0033/23 A0121/23 A0122/23 A0123/23 A1025/22 A1079/22 PHTO A0002/23
A0003/23 A0004/23 A0114/23 A0115/23 A0116/23 A0117/23 A0118/23
A0119/23 A0125/23 A0127/23 A0128/23 A0129/23 A0130/23 A0135/23 PHZH
A0088/23 A0089/23 A0092/23 A0093/23 A0094/23 A0095/23 A0096/23
A0097/23 A0098/23 A0099/23 A0100/23 A0101/23 A0102/23 A0103/23
END PART 43 OF 44
A0012/23 NOTAMR A0009/23
Q) KFDC/QKKKK/K/K/K/000/999/
A) KFDC PART 44 OF 44
B) 2302010000 C) 2303010000 EST
E)
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A0031/14 A0032/14 A0051/15 A0056/15 PMDY A0024/21 PTKK A0005/23
A0006/23 A0007/23 A0008/23 PTPN A0007/23 A0063/15 PTRO A0014/23
PTYA A0024/17 TIST A0036/23 A0037/23 A0038/23 A0039/23 A0073/22
A0266/22 A0678/21 A0680/21 TISX A0029/23 A0046/23 A0055/23 A0057/23
A0061/23 A0062/23 A0166/21 A0787/22 A0860/22 TJBQ A0001/23 A0033/23
A0043/23 A0044/23 A0045/23 A0046/23 A0387/22 A0471/22 A0687/21 TJMZ
A0001/23 A0024/22 A0026/21 A0039/22 A0084/22 A0209/21 TJPS A0148/19
A0216/22 TJSJ A0002/21 A0004/21 A0130/23 A0217/23 A0218/23 A0592/22
A1745/22 A1772/22 A1773/22 A1779/22 A1780/22 A1781/22 A1783/22
A2369/22 TJZS A0020/21 A0027/21 A0035/18 A0084/20 A0112/19
END PART 44 OF 44

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!FDC 3/5103 FDC PART 1 OF 7 LIST 2302131715
FDC 3/4889 FDC LIST 2302121715 FDC 3/4890 CNL 3/4705 FDC
FDC 3/4891 ZHN FDC 3/4892 CNL 3/4885 ZMP
FDC 3/4893 MULTI CNL FDC 3/4894 CNL 3/4767 DTW
FDC 3/4895 DTW FDC 3/4896 CNL 3/4882 OTZ
FDC 3/4897 CNL 3/4772 ZAN FDC 3/4898 CNL 3/0143 ZHU
FDC 3/4899 ZHU FDC 3/4900 TRI
FDC 3/4901 TRI FDC 3/4902 TRI
FDC 3/4903 JFZ FDC 3/4904 LNP

FDC 3/4905 VJI FDC 3/4906 CNL 3/4899 ZHU
FDC 3/4907 ZHU FDC 3/4908 ZAN
FDC 3/4909 ZFW 99.7 FDC 3/4910 CNL 3/9569 ZAN
FDC 3/4911 ZAN FDC 3/4912 CNL 3/0258 ZOA
FDC 3/4913 CNL 3/1262 ZAB FDC 3/4914 CNL 2/8149 ZID
FDC 3/4915 CNL 3/1277 ZAB FDC 3/4916 DAG
FDC 3/4917 CNL 3/4846 LPC FDC 3/4918 CNL 3/4847 SBA
FDC 3/4919 LIH FDC 3/4920 LIH
FDC 3/4921 LIH FDC 3/4922 LIH
FDC 3/4923 HNL FDC 3/4924 LIH
FDC 3/4925 CNL 3/4883 OLM FDC 3/4926 CNL 3/4884 PWT
FDC 3/4927 MWH FDC 3/4928 MWH
FDC 3/4929 YKM FDC 3/4930 PYX
FDC 3/4931 STJ FDC 3/4932 STJ
FDC 3/4933 HXD FDC 3/4934 SAV

END PART 1 OF 7
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FDC 3/4935 CNL 3/4891 ZHN FDC 3/4936 CNL 3/4933 HXD
FDC 3/4937 CNL 3/4934 SAV FDC 3/4938 ZHN
FDC 3/4940 LCH FDC 3/4941 BPT
FDC 3/4942 BPT FDC 3/4943 OTH
FDC 3/4944 OTH FDC 3/4945 OTH
FDC 3/4946 BRL FDC 3/4947 FSW
FDC 3/4948 BTR FDC 3/4949 MSY
FDC 3/4950 HUM FDC 3/4951 MSY
FDC 3/4952 NEW FDC 3/4953 MSY
FDC 3/4954 BOI FDC 3/4955 BOI
FDC 3/4956 BOI FDC 3/4957 BOI
FDC 3/4958 OGG FDC 3/4959 KOA
FDC 3/4960 KOA FDC 3/4961 KOA
FDC 3/4962 MSO FDC 3/4963 RDD
FDC 3/4964 RDD FDC 3/4965 OAK
FDC 3/4966 O37 FDC 3/4967 RDD
FDC 3/4968 RDD FDC 3/4969 RDD
FDC 3/4970 RDD FDC 3/4971 RBL
FDC 3/4972 CIC FDC 3/4973 CIC
FDC 3/4974 RDD FDC 3/4975 XWA
FDC 3/4976 XWA FDC 3/4977 EYW
FDC 3/4978 SBY FDC 3/4979 WAL
FDC 3/4980 SBY FDC 3/4981 OXB

END PART 2 OF 7
!FDC 3/5103 FDC PART 3 OF 7 LIST 2302131715
FDC 3/4982 ZAN FDC 3/4983 CNL 3/9778 PEQ
FDC 3/4984 CNL 3/1607 PEQ FDC 3/4985 CNL 3/1608 PEQ
FDC 3/4986 CNL 3/9966 NUQ FDC 3/4987 CNL 3/9967 NUQ
FDC 3/4988 CNL 3/9968 NUQ FDC 3/4989 CNL 3/9969 NUQ
FDC 3/4990 CNL 3/9970 NUQ FDC 3/4991 CNL 3/9971 NUQ
FDC 3/4992 CNL 3/9972 NUQ FDC 3/4993 CNL 3/9973 NUQ
FDC 3/4994 NUQ FDC 3/4995 NUQ
FDC 3/4996 NUQ FDC 3/4997 NUQ
FDC 3/4998 NUQ FDC 3/4999 NUQ
FDC 3/5000 CNL 2/0097 PHX FDC 3/5001 PHX
FDC 3/5002 PHX FDC 3/5003 PHX
FDC 3/5004 PHX FDC 3/5005 PHX
FDC 3/5006 CNL 2/0350 RQO FDC 3/5007 CNL 3/1661 ZAB
FDC 3/5008 CNL 3/1667 ZAB FDC 3/5009 CNL 3/1677 ZAB
FDC 3/5010 CNL 2/7350 3XA2 FDC 3/5011 3XA2
FDC 3/5012 ABQ FDC 3/5013 SAF
FDC 3/5014 ABQ FDC 3/5015 SDL
FDC 3/5016 ABQ FDC 3/5017 ABQ
FDC 3/5018 ABQ FDC 3/5019 PHX
FDC 3/5020 PHX FDC 3/5021 ABQ

FDC 3/5022 ABQ FDC 3/5023 ABQ
FDC 3/5024 ABQ FDC 3/5025 ABQ
FDC 3/5026 AEG FDC 3/5027 CNL 3/3771 ZLA
END PART 3 OF 7
!FDC 3/5103 FDC PART 4 OF 7 LIST 2302131715
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FDC 3/5030 CNL 3/4902 TRI FDC 3/5031 CNL 3/4903 JFZ
FDC 3/5032 CNL 3/4904 LNP FDC 3/5033 CNL 3/4905 VJI
FDC 3/5034 PNS FDC 3/5035 PNS
FDC 3/5036 CNL 3/4870 BUR FDC 3/5037 CNL 3/4871 LAX
FDC 3/5038 CNL 3/4872 LAX FDC 3/5039 CNL 3/4873 LAX
FDC 3/5040 CNL 3/4874 LAX FDC 3/5041 CNL 3/4875 SMO
FDC 3/5042 CNL 3/4876 TOA FDC 3/5043 CNL 3/4877 VNY
FDC 3/5044 CNL 3/4878 VNY FDC 3/5045 CNL 3/4879 VNY
FDC 3/5046 CNL 3/4880 LAX FDC 3/5047 CNL 2/5730 PNS
FDC 3/5048 CNL 2/5731 PNS FDC 3/5049 CNL 3/4887 FQD
FDC 3/5050 CNL 3/4888 AVL FDC 3/5051 BAF
FDC 3/5052 BDL FDC 3/5053 ALN
FDC 3/5054 BLV FDC 3/5055 TBN
FDC 3/5056 STL FDC 3/5057 SUS
FDC 3/5058 CPS FDC 3/5059 CNL 3/1470 BIH
FDC 3/5060 DPA FDC 3/5062 LOT
FDC 3/5063 LOT FDC 3/5064 ARR
FDC 3/5065 ARR FDC 3/5066 DPA
FDC 3/5067 FMH FDC 3/5068 CNL 3/4948 BTR
FDC 3/5069 CNL 3/4949 MSY FDC 3/5070 CNL 3/4950 HUM
FDC 3/5071 CNL 3/4951 MSY FDC 3/5073 CNL 3/4952 NEW
FDC 3/5074 CNL 3/4953 MSY FDC 3/5075 PMP

END PART 4 OF 7
!FDC 3/5103 FDC PART 5 OF 7 LIST 2302131715
FDC 3/5077 F45 FDC 3/5078 PBI
FDC 3/5079 CNL 3/4849 MGM FDC 3/5080 CNL 3/4850 MGM
FDC 3/5081 CNL 3/4851 MGM FDC 3/5082 CNL 3/4852 MGM
FDC 3/5083 CNL 2/5366 DPA FDC 3/5084 FDC
FDC 3/5085 CNL 3/4855 FLL FDC 3/5086 CNL 3/4856 FLL
FDC 3/5087 CNL 3/4857 FXE FDC 3/5088 CNL 3/4858 FLL
FDC 3/5095 CNL 3/4859 FLL FDC 3/5096 CNL 3/4860 PMP
FDC 3/5097 CNL 3/4861 FXE FDC 3/5098 CNL 3/4862 HWO
FDC 3/5099 CNL 3/4863 OPF FDC 3/5100 CNL 3/4864 MIA
FDC 3/5101 CNL 3/4865 TMB FDC 3/5102 CNL 3/4866 FLL
CANCELLATIONS 2302131715
NUMBER LOC TFR CNLD BY NUMBER LOC TFR CNLD BY
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2/0097 PHX 3/5000 2/0350 RQO 3/5006
2/5366 DPA 3/5083 2/5730 PNS 3/5047
2/5731 PNS 3/5048 2/7350 3XA2 3/5010
2/8149 ZID 3/4914 3/0143 ZHU 3/4898
3/0258 ZOA 99.7 3/4912 3/1262 ZAB 99.7 3/4913
3/1277 ZAB 99.7 3/4915 3/1470 BIH 3/5059
3/1607 PEQ 3/4984 3/1608 PEQ 3/4985
3/1661 ZAB 99.7 3/5007 3/1667 ZAB 99.7 3/5008
3/1677 ZAB 99.7 3/5009 3/3771 ZLA 3/5027
3/4539 ZBW 3/4893 3/4540 ZBW 3/4893
END PART 5 OF 7
!FDC 3/5103 FDC PART 6 OF 7 LIST 2302131715
3/4705 FDC 3/4890 3/4767 DTW 3/4894
3/4772 ZAN 3/4897 3/4846 LPC 3/4917
3/4847 SBA 3/4918 3/4849 MGM 3/5079
3/4850 MGM 3/5080 3/4851 MGM 3/5081
3/4852 MGM 3/5082 3/4855 FLL 3/5085
3/4856 FLL 3/5086 3/4857 FXE 3/5087
3/4858 FLL 3/5088 3/4859 FLL 3/5095
3/4860 PMP 3/5096 3/4861 FXE 3/5097

3/4862 HWO	3/5098	3/4863 OPF	3/5099
3/4864 MIA	3/5100	3/4865 TMB	3/5101
3/4866 FLL	3/5102	3/4870 BUR	3/5036
3/4871 LAX	3/5037	3/4872 LAX	3/5038
3/4873 LAX	3/5039	3/4874 LAX	3/5040
3/4875 SMO	3/5041	3/4876 TOA	3/5042
3/4877 VNY	3/5043	3/4878 VNY	3/5044
3/4879 VNY	3/5045	3/4880 LAX	3/5046
3/4882 OTZ	3/4896	3/4883 OLM	3/4925
3/4884 PWT	3/4926	3/4885 ZMP 99.7	3/4892
3/4887 FQD	3/5049	3/4888 AVL	3/5050
3/4891 ZHN	3/4935	3/4899 ZHU	3/4906
3/4900 TRI	3/5028	3/4901 TRI	3/5029
3/4902 TRI	3/5030	3/4903 JFZ	3/5031
3/4904 LNP	3/5032	3/4905 VJI	3/5033

END PART 6 OF 7
!FDC 3/5103 FDC PART 7 OF 7 LIST 2302131715

3/4933 HXD	3/4936	3/4934 SAV	3/4937
3/4948 BTR	3/5068	3/4949 MSY	3/5069
3/4950 HUM	3/5070	3/4951 MSY	3/5071
3/4952 NEW	3/5073	3/4953 MSY	3/5074
3/9569 ZAN	3/4910	3/9778 PEQ	3/4983
3/9966 NUQ	3/4986	3/9967 NUQ	3/4987
3/9968 NUQ	3/4988	3/9969 NUQ	3/4989
3/9970 NUQ	3/4990	3/9971 NUQ	3/4991
3/9972 NUQ	3/4992	3/9973 NUQ	3/4993

END PART 7 OF 7

!FDC 1/8373 FDC PART 1 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS
FOR UNMANNED
AIRCRAFT SYSTEM (UAS) OPERATIONS IN THE VICINITY OF NAVAL BASE KITSAP AND NAVAL SUBMARINE BASE KINGS BAY. THIS NOTAM REPLACES NOTAM FDC 0/0229.
PURSUANT TO 49 U.S.C. SECTION 40103(B)(3), THE FAA CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AND IN FURTHER DETAIL BY THE FAA WEBSITE IDENTIFIED BELOW AS 'NATIONAL DEFENSE AIRSPACE'. UAS OPERATORS WHO DO NOT COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N, THE DEPARTMENT OF DEFENSE (DOD), DEPARTMENT OF HOMELAND SECURITY (DHS), OR THE DEPARTMENT OF JUSTICE (DOJ) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS. THE DEPARTMENT OF DEFENSE (DOD) AND UNITED STATES COAST GUARD (USCG) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT CONSIDERED TO POSE A SAFETY OR SECURITY THREAT TO PROTECTED DOD OR USCG ASSETS.
PURSUANT TO 14 C.F.R. SECTION 99.7, SPECIAL SECURITY INSTRUCTIONS
2110291430-2310291430
END PART 1 OF 3
!FDC 1/8373 FDC PART 2 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS
FOR UNMANNED
(SSI), ALL UNMANNED AIRCRAFT ARE PROHIBITED FROM FLYING WITHIN A STAND-OFF DISTANCE OF 3000FT LATERALLY FROM AND 1000FT ABOVE A UNITED STATES NAVY (USN) OR USCG OPERATED VESSEL WHEN OPERATING WITHIN THE DEFINED AIRSPACE. THE AIRSPACE IN WHICH UAS OPERATIONS MUST COMPLY WITH THIS SSI IS DEFINED AS THE AIRSPACE, SFC-2000FT MSL, GENERALLY OVERLYING: 1) THE PORTION THE HOOD CANAL AND STRAIT OF JUAN DE FUCA EXTENDING FROM NAVAL BASE KITSAP NEAR BREMERTON, WA, TO THE PACIFIC; AND 2) THE PORTION OF THE CUMBERLAND SOUND EXTENDING FROM NAVAL SUBMARINE BASE KINGS BAY NEAR ST. MARYS, GA, TO THE ATLANTIC. THE AIRSPACE IN WHICH THIS SSI APPLIES IS VISUALLY DEPICTED AND GEOSPATIALLY DEFINED ON THE FOLLOWING FAA WEBSITE:

HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM.
UAS OPERATORS NEEDING TO OPERATE IN THE DEFINED AIRSPACE IN CLOSE PROXIMITY TO USN OR USCG VESSELS FOR OVERRIDING REASONS OF PUBLIC INTEREST OR NECESSITY (SUCH AS IN DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION) MUST COORDINATE AND OBTAIN ADVANCE AUTHORIZATION FROM THE APPROPRIATE DOD OR USCG POINT OF CONTACT IDENTIFIED IN THE FOLLOWING FAA WEBSITE:
2110291430-2310291430
END PART 2 OF 3
!FDC 1/8373 FDC PART 3 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM. OPERATORS UNABLE TO SUCCESSFULLY COORDINATE WITH THESE DOD OR USCG POINTS OF CONTACT MAY CONTACT THE FAA SYSTEM OPERATIONS SUPPORT CENTER (SOSC) AT (202) 267-8276 FOR FURTHER ASSISTANCE.
IF YOU HAVE GENERAL QUESTIONS REGARDING UAS OPERATIONS, PLEASE REFER TO THE FOLLOWING FAA WEBSITE: WWW.FAA.GOV/UAS/CONTACT; OR CONTACT THE FAA VIA EMAIL AT UASHELP@FAA.GOV OR PHONE AT (844) FLY-MY-UA.
IF YOU HAVE QUESTIONS REGARDING THESE UAS SSI, PLEASE REFER TO THE FOLLOWING FAA WEBSITE:HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM; OR CONTACT THE FAAS SOSC AT (202)267-8276.
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END PART 3 OF 3

!FDC 1/8374 FDC PART 1 OF 3 SPECIAL NOTICE...NATIONAL SECURITY ADVISORY FOR
UNMANNED AIRCRAFT SYSTEM (UAS) OPERATIONS IN PROXIMITY TO SELECT LOCATIONS AND MOBILE ASSETS NATIONWIDE. THIS NOTAM REPLACES NOTAM FDC 0/0230.
IN THE INTEREST OF NATIONAL SECURITY, UAS OPERATORS ARE STRONGLY ADVISED TO AVOID FLYING IN CLOSE PROXIMITY (GENERALLY, IN AIRSPACE WITHIN 3000FT LATERALLY AND 1000FT ABOVE UNLESS INDICATED BY THE FAA BY NOTAM OR OTHER MEANS) TO: DEPARTMENT OF DEFENSE (DOD) AND DEPARTMENT OF ENERGY (DOE) FACILITIES AND MOBILE ASSETS, INCLUDING VESSELS AND GROUND VEHICLE CONVOYS AND THEIR ASSOCIATED ESCORTS, SUCH AS UNITED STATES COAST GUARD (USCG) OPERATED VESSELS.
PURSUANT TO 49 U.S.C. SECTION 40103(B)(3), THE FAA CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AND IN FURTHER DETAIL BY THE FAA WEBSITE IDENTIFIED BELOW AS 'NATIONAL DEFENSE AIRSPACE'. UAS OPERATORS WHO DO NOT COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N, THE DEPARTMENT OF DEFENSE (DOD), DEPARTMENT OF HOMELAND SECURITY (DHS), OR THE DEPARTMENT OF JUSTICE (DOJ) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO
2110291430-2310291430
END PART 1 OF 3
!FDC 1/8374 FDC PART 2 OF 3 SPECIAL NOTICE...NATIONAL SECURITY ADVISORY FOR
POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS.
THE FAA RECOMMENDS THAT UAS OPERATORS NEEDING TO OPERATE IN THE INDICATED AIRSPACE FOR OVERRIDING REASONS OF PUBLIC INTEREST OR NECESSITY (SUCH AS IN DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION) COORDINATE IN ADVANCE WITH THE APPROPRIATE DOD, DOE, OR USCG ENTITY, OR BY CONTACTING THE FAA. DOD, DOE, AND USCG POINTS OF CONTACT FOR SPECIFIC COVERED FACILITIES AND MOBILE ASSETS MAY BE AVAILABLE ON THE FOLLOWING FAA WEBSITE:
HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM. OPERATORS UNABLE TO SUCCESSFULLY COORDINATE WITH DOD, DOE, OR USCG POINTS OF CONTACT MAY CONTACT THE FAA SYSTEM OPERATIONS SUPPORT CENTER (SOSC) AT (202) 267-8276 FOR FURTHER ASSISTANCE.

THE FAA APPLIES, TO THE MAXIMUM EXTENT PRACTICABLE, SPECIAL SECURITY
INSTRUCTIONS (SSI) PURSUANT TO 14 C.F.R. SECTION 99.7 OR OTHER
AIRSPACE MEASURES THAT RESTRICT UAS OPERATIONS IN PROXIMITY TO
FACILITIES AND MOBILE ASSETS COVERED BY 10 U.S.C. SECTION 130I AND
50 U.S.C. SECTION 2661. HOWEVER, IMPLEMENTING ADVANCE SSI OR OTHER
2110291430-2310291430
END PART 2 OF 3
!FDC 1/8374 FDC PART 3 OF 3 SPECIAL NOTICE...NATIONAL SECURITY
ADVISORY FOR
AIRSPACE MEASURES MAY NOT BE FEASIBLE FOR ALL COVERED ASSETS AND
MOBILE ASSET OPERATIONS. UAS OPERATORS SHOULD THEREFORE EXERCISE
CAUTION WHEN FLYING IN PROXIMITY OF ALL DOD AND DOE FACILITIES AND
MOBILE ASSETS, AND USCG MOBILE ASSETS.
IF YOU HAVE GENERAL QUESTIONS REGARDING UAS OPERATIONS, PLEASE REFER
TO WWW.FAA.GOV/UAS/CONTACT; OR CONTACT THE FAA VIA EMAIL AT
UASHELP@FAA.GOV OR PHONE AT (844) FLY-MY-UA.
IF YOU HAVE QUESTIONS REGARDING UAS-SPECIFIC SSI, PLEASE REFER TO
THE FOLLOWING FAA WEBSITE:HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM; OR
CONTACT THE FAAS SOSC AT (202)267-8276.
2110291430-2310291430
END PART 3 OF 3

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!FDC 2/1677 FDC ..SPECIAL NOTICE.. GA AND BUSINESS AVIATION ACFT ARE
PROHIBITED FM USING EN ROUTE CPDLC EXC APPROVED TRIAL PARTICIPANTS.
CPDLC DEP CLR OPS ARE STILL PERMITTED. ALL GA AND BUSINESS ACFT, EXC
TRIAL PARTICIPANTS, MUST MODIFY FLT PLAN FIELD 18 DATA CODE TO
REMOVE EN ROUTE CPDLC IMMEDIATELY. FURTHER INFO CTC
DCIT -AT- L3HARRIS.COM
2209221800-2309222359

- -

!FDC 1/0488 FDC PART 1 OF 4 SECURITY..SPECIAL SECURITY INSTRUCTIONS
FOR UNMANNED
AIRCRAFT SYSTEM (UAS) OPERATIONS FOR MULTIPLE LOCATIONS NATIONWIDE.
THIS NOTAM REPLACES NOTAM FDC 0/5116 TO PROVIDE UPDATED
INSTRUCTIONS.
PURSUANT TO 49 U.S.C. SECTION 40103(B)(3), THE FAA CLASSIFIES THE
AIRSPACE DEFINED IN THIS NOTAM AND IN FURTHER DETAIL AT THE FAA
WEBSITE IDENTIFIED BELOW AS 'NATIONAL DEFENSE AIRSPACE'. OPERATORS
WHO DO NOT COMPLY WITH THE FOLLOWING PROCEDURES MAY FACE THE
FOLLOWING ENFORCEMENT ACTIONS: THE UNITED STATES GOVERNMENT MAY
PURSUE CRIMINAL CHARGES, INCLUDING CHARGES UNDER 49 U.S.C. SECTION
46307; AND THE FAA MAY TAKE ADMINISTRATIVE ACTION, INCLUDING
IMPOSING CIVIL PENALTIES AND REVOKING FAA CERTIFICATES OR
AUTHORIZATIONS TO OPERATE UNDER TITLE 49 U.S.C. SECTIONS 44709 AND
46301.
IN ADDITION, PURSUANT TO 10 U.S.C. SECTION 130I, 50 U.S.C. SECTION
2661, AND 6 U.S.C. SECTION 124N, THE DEPARTMENT OF DEFENSE (DOD),
DEPARTMENT OF ENERGY (DOE), DEPARTMENT OF HOMELAND SECURITY (DHS),
OR DEPARTMENT OF JUSTICE (DOJ), RESPECTIVELY , MAY TAKE SECURITY
ACTION AT OR IN THE VICINITY OF SPECIFIC LOCATIONS PRE-COORDINATED
WITH THE FAA WITHIN A SUBSET OF THE DEFINED AIRSPACE, OR IN
2109021035-2309011159
END PART 1 OF 4
!FDC 1/0488 FDC PART 2 OF 4 SECURITY..SPECIAL SECURITY INSTRUCTIONS
FOR UNMANNED
RESTRICTED OR PROHIBITED AIRSPACE ADJACENT TO SUCH LOCATIONS, THAT
RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR
DESTRUCTION OF UNMANNED AIRCRAFT CONSIDERED TO POSE A SAFETY OR
SECURITY THREAT TO FACILITIES OR ASSETS.
PURSUANT TO 14 C.F.R. SECTION 99.7, SPECIAL SECURITY INSTRUCTIONS
(SSI), ALL UAS FLIGHT OPERATIONS ARE PROHIBITED: WITHIN THE DEFINED
AIRSPACE OVER SELECT NATIONAL SECURITY SENSITIVE LOCATIONS EXCEPT AS
PROVIDED FOR BELOW.
REFER TO THE FOLLOWING FAA WEBSITE:
HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM FOR:

A LIST OF THESE SELECTED LOCATIONS AND FACILITIES, AND VISUAL DEPICTIONS, ALTITUDES, AND GEOSPATIAL DEFINITIONS OF THE OVERLYING AIRSPACE IN WHICH UAS OPERATIONS ARE PROHIBITED;
A LIST OF A SPECIFIC SUBSET OF LOCATIONS AND FACILITIES, AND VISUAL DEPICTIONS, ALTITUDES, AND GEOSPATIAL DEFINITIONS OF THE OVERLYING AIRSPACE IN WHICH NON-COMPLIANT UAS OPERATIONS MAY BE SUBJECT TO THE SECURITY ACTION CITED ABOVE;
DESIGNATED FACILITY CONTACTS, WHICH MAY BE CONTACTED BY UAS OPERATORS NEEDING TO OPERATE IN THE DEFINED AIRSPACE FOR OVERRIDING
2109021035-2309011159
END PART 2 OF 4
!FDC 1/0488 FDC PART 3 OF 4 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
REASONS OF PUBLIC INTEREST OR NECESSITY (SUCH AS IN DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION; OR COMMERCIAL ACTIVITY);
AND OTHER IMPORTANT INFORMATION, INCLUDING THE TIMES IN WHICH THE SSI ARE IN EFFECT.
THE SSI APPLIED TO THE DEFINED AIRSPACE ARE CONTINUOUS UNLESS OTHERWISE INDICATED BY THE FAA'S UDDS WEBSITE. SOME SSI ARE ONLY IN EFFECT DURING RECURRING INTERMITTENT PERIODS SPECIFIED BY THE FAA IN THE UDDS WEBSITE. OPERATORS ARE URGED TO CHECK THIS FAA WEBSITE FREQUENTLY BEFORE AND DURING UAS FLIGHTS, ESPECIALLY WHEN OPERATING IN THE VICINITY OF OR WITHIN THE DEFINED AIRSPACE TO WHICH RECURRING INTERMITTENT SSI ARE APPLIED.
SOME OF THE DEFINED SSI AIRSPACE MAY BE NEAR OR ADJACENT TO SPECIAL USE AIRSPACE (SUA), INCLUDING PROHIBITED AREAS AND RESTRICTED AREAS ESTABLISHED PURSUANT TO 14 C.F.R. PART 73. OPERATORS MUST MAINTAIN FAMILIARITY AND COMPLY WITH SUA REQUIREMENTS.
UAS OPERATIONS ARE AUTHORIZED WITHIN THE DEFINED SSI AIRSPACE IF IN COMPLIANCE WITH THE REQUIREMENTS LISTED BELOW AND THE UAS FLIGHT
2109021035-2309011159
END PART 3 OF 4
!FDC 1/0488 FDC PART 4 OF 4 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
OPERATION COMPLIES WITH ALL OTHER APPLICABLE FEDERAL AVIATION REGULATIONS:
THE UAS FLIGHT OPERATION HAS BEEN PRE-APPROVED BY THE DESIGNATED FACILITY CONTACT BASED ON CRITERIA ESTABLISHED BY THE SPONSORING FEDERAL AGENCY IN COORDINATION WITH THE FAA;
OR IF THE UAS FLIGHT OPERATION IS CONDUCTED IN DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION, AND PRIOR NOTIFICATION HAS BEEN PROVIDED TO THE DESIGNATED FACILITY CONTACT;
OR IF THE UAS FLIGHT OPERATION IS CONDUCTED IN DIRECT SUPPORT OF A SIGNIFICANT AND URGENT GOVERNMENTAL INTEREST AND IS APPROVED BY THE FAA'S SYSTEM OPERATIONS SUPPORT CENTER (SOSC) IN ADVANCE OF ENTERING THE DEFINED SSI AIRSPACE.
OPERATORS UNABLE TO SUCCESSFULLY COORDINATE WITH THE DESIGNATED FACILITY CONTACTS MAY CONTACT THE FAA SYSTEM OPERATIONS SUPPORT CENTER (SOSC) AT (202) 267-8276 FOR FURTHER ASSISTANCE.
2109021035-2309011159
END PART 4 OF 4

!FDC 1/5318 FDC PART 1 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
AIRCRAFT SYSTEM (UAS) OPERATIONS WITHIN AND IN THE VICINITY OF AIRSPACE OVERLYING THE TERRITORIAL AND NAVIGABLE WATERS OF THE UNITED STATES OF AMERICA (USA).

PURSUANT TO 49 USC SECTION 40103(B)(3), THE FAA CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AND IN FURTHER DETAIL BY THE FAA

WEBSITE IDENTIFIED BELOW AS 'NATIONAL DEFENSE AIRSPACE'. OPERATORS WHO DO NOT COMPLY WITH THE FOLLOWING PROCEDURES MAY FACE THE FOLLOWING ENFORCEMENT ACTIONS: THE UNITED STATES GOVERNMENT MAY PURSUE CRIMINAL CHARGES, INCLUDING CHARGES UNDER 49 USC SECTION 46307; AND THE FAA MAY TAKE ADMINISTRATIVE ACTION, INCLUDING IMPOSING CIVIL PENALTIES AND REVOKING FAA CERTIFICATES OR AUTHORIZATIONS TO OPERATE UNDER TITLE 49 USC SECTIONS 44709 AND 46301. IN ADDITION, PURSUANT TO 10 USC SECTION 130I, THE DEPARTMENT OF DEFENSE (DOD) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT CONSIDERED TO POSE A SAFETY OR SECURITY THREAT TO PROTECTED DOD ASSETS.

2105131600-2305201400
END PART 1 OF 3
!FDC 1/5318 FDC PART 2 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
PURSUANT TO 14 CFR SECTION 99.7, SPECIAL SECURITY INSTRUCTIONS (SSI), ALL UNMANNED AIRCRAFT ARE PROHIBITED FROM FLYING WITHIN A STAND-OFF DISTANCE OF 3000FT LATERALLY AND 1000FT ABOVE ANY U.S. NAVY (USN) VESSEL OPERATING, TRANSITING, OR AT PORT WITHIN THE TERRITORIAL WATERS AND/OR NAVIGABLE WATERS OF THE USA.
THE AIRSPACE IN WHICH UAS OPERATIONS MUST COMPLY WITH THIS SSI IS DEFINED AS THE AIRSPACE, SFC-2000FT MSL, ABOVE THE TERRITORIAL AND NAVIGABLE WATERS OF THE USA, INCLUDING PORTS, ANCHORAGES AND ADJACENT LAND.
THE TERRITORIAL WATERS OVER WHICH THIS SSI APPLIES ARE VISUALLY DEPICTED AND GEOSPATIALLY DEFINED ON THE FOLLOWING FAA WEBSITE: HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM.

NAVIGABLE WATERS OF THE USA ARE DEFINED BY 33 CFR PART 329.
ADDITIONAL SECURITY-RELATED UAS RESTRICTIONS ARE DEPICTED ON HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM. UAS OPERATORS NEEDING TO OPERATE IN THE DEFINED AIRSPACE IN CLOSE PROXIMITY TO USN VESSELS OPERATING IN TERRITORIAL AND NAVIGABLE WATERS OF THE USA FOR OVERRIDING REASONS OF PUBLIC INTEREST OR NECESSITY (SUCH AS IN
2105131600-2305201400
END PART 2 OF 3
!FDC 1/5318 FDC PART 3 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION; OR COMMERCIAL ACTIVITY) MUST COORDINATE AND OBTAIN ADVANCE AUTHORIZATION FROM THE APPROPRIATE DOD/USN POINT OF CONTACT IDENTIFIED IN THE FOLLOWING FAA WEBSITE:
HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM.
OPERATORS UNABLE TO SUCCESSFULLY COORDINATE WITH THESE DOD OR USN POINTS OF CONTACT MAY CONTACT THE FAA SYSTEM OPERATIONS SUPPORT CENTER (SOSC) AT (202) 267-8276 FOR FURTHER ASSISTANCE.

IF YOU HAVE GENERAL QUESTIONS REGARDING UAS OPERATIONS, PLEASE REFER TO WWW.FAA.GOV/UAS/CONTACT; OR CONTACT THE FAA VIA EMAIL AT UASHELP@FAA.GOV OR PHONE AT (844) FLY-MY-UA. IF YOU HAVE QUESTIONS REGARDING THIS UAS-SPECIFIC SSI, PLEASE REFER TO THE FOLLOWING FAA WEBSITE: HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM; OR CONTACT THE FAA SOSC AT (202) 267-8276.
2105131600-2305201400
END PART 3 OF 3

!FDC 2/8145 FDC PART 1 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
AIRCRAFT SYSTEM (UAS) OPERATIONS IN THE VICINITY OF CAPE CANAVERAL AND THE KENNEDY SPACE CENTER.

PURSUANT TO 49 U.S.C. SECTION 40103(B)(3), THE FAA CLASSIFIES THE AIRSPACE DEFINED IN THIS NOTAM AND IN FURTHER DETAIL BY THE FAA WEBSITE IDENTIFIED BELOW AS 'NATIONAL DEFENSE AIRSPACE'. UAS OPERATORS WHO DO NOT COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT PURSUANT TO 10 U.S.C. SECTION 130I AND 6 U.S.C. SECTION 124N, THE DEPARTMENT OF DEFENSE (DOD), DEPARTMENT OF HOMELAND SECURITY (DHS), OR THE DEPARTMENT OF JUSTICE (DOJ) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS. THE DEPARTMENT OF DEFENSE (DOD) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE, DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT CONSIDERED TO POSE A SAFETY OR SECURITY THREAT TO PROTECTED NATIONAL SECURITY ASSETS.

2203010500-2303010500
END PART 1 OF 3
!FDC 2/8145 FDC PART 2 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED
PURSUANT TO 14 C.F.R. SECTION 99.7, SPECIAL SECURITY (SSI), ALL UNMANNED AIRCRAFT ARE PROHIBITED FROM FLYING WITHIN RESTRICTED AREA R-2932. THE AIRSPACE IN WHICH UAS OPERATIONS MUST COMPLY WITH THIS SSI IS DEFINED AS THE AIRSPACE, SFC-5000FT MSL, GENERALLY OVERLYING: CAPE CANAVERAL AND THE KENNEDY SPACE CENTER TO EXTEND INTO THE ATLANTIC. THE AIRSPACE IN WHICH THIS SSI APPLIES IS VISUALLY DEPICTED AND GEOSPATIALLY DEFINED ON THE FOLLOWING FAA WEBSITE: HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM.

UAS OPERATORS NEEDING TO OPERATE IN THE DEFINED AIRSPACE FOR OVERRIDING REASONS OF PUBLIC INTEREST OR NECESSITY (SUCH AS IN DIRECT SUPPORT OF AN ACTIVE NATIONAL DEFENSE, HOMELAND SECURITY, LAW ENFORCEMENT, FIREFIGHTING, SEARCH AND RESCUE, OR DISASTER RESPONSE MISSION) MUST COORDINATE AND OBTAIN ADVANCE AUTHORIZATION FROM THE APPROPRIATE DOD POINT OF CONTACT IDENTIFIED IN THE FOLLOWING FAA WEBSITE: UNMANNED HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM. OPERATORS UNABLE TO SUCCESSFULLY COORDINATE WITH THESE DOD POINTS OF CONTACT MAY CONTACT THE FAA SYSTEM OPERATIONS SUPPORT CENTER (SOSC) AT (202) 267-8276 FOR FURTHER ASSISTANCE.
2203010500-2303010500
END PART 2 OF 3
!FDC 2/8145 FDC PART 3 OF 3 SECURITY..SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED

IF YOU HAVE GENERAL QUESTIONS REGARDING UAS OPERATIONS, PLEASE REFER TO THE FOLLOWING FAA WEBSITE: WWW.FAA.GOV/UAS/CONTACT; OR CONTACT THE FAA VIA EMAIL AT UASHELP@FAA.GOV OR PHONE AT (844) FLY-MY-UA.
IF YOU HAVE QUESTIONS REGARDING THIS UAS SSI, PLEASE REFER TO THE FOLLOWING FAA WEBSITE:HTTPS://UDDS-FAA.OPENDATA.ARCGIS.COM; OR CONTACT THE FAAS SOSC AT (202)267-8276.
2203010500-2303010500
END PART 3 OF 3

FDK - FREDERICK MUNI

!FDK 01/025 FDK AIRSPACE SEE FDC 1/1155 ZDC FLT RESTRICTIONS TFR 1801181538-PERM

!FDC 2/2763 FDK IAP FREDERICK MUNI, FREDERICK, MD.
ILS OR LOC RWY 23, AMDT 6A...
MISSED APPROACH: CLIMB TO 1300 THEN CLIMBING LEFT TURN TO 3000 DIRECT EMI VORTAC AND HOLD.
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
EMI VORTAC R-295 RESTRICTED BELOW 5500.

2207141438-2407141436EST

!FDK 01/033 FDK AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!FDK 12/014 FDK RWY 05 PAPI U/S 2212131841-2306132111EST

!FDK 12/013 FDK AD AP SELF SERVE 100LL FUEL NOT AVBL 2212131614-2303312359

!FDK 01/014 FDK OBST TOWER LGT (ASR 1260540) 392722.80N0771922.30W (3.4NM NE FDK) 696.9FT (275.9FT AGL) U/S 2301310125-2303312359

!FDK 01/011 FDK SVC AUTOMATED WX BCST SYSTEM UNREL 2301281937-2303022300

!FDK 01/002 FDK OBST TOWER LGT (ASR 1063224) 393002.40N0772951.00W (7.5NM NW FDK) 1917.0FT (205.1FT AGL) U/S 2301101034-2302241033

!FDK 02/004 FDK NAV ILS RWY 23 LOC/GP U/S 2302151200-2302151600

VFR Practice Instrument Approaches

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2531396450680575495

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925707216906360477

FME - TIPTON

!FME 03/001 FME AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2003310130-PERM

!FME 01/015 FME AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO
TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT
A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE
METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-
12, 2021-23-13 2201190501-2401190501

!FME 01/002 FME OBST TOWER LGT (ASR 1038100) 390457.00N0765023.00W (3.7NM W FME) 362.9FT (248.0FT AGL) U/S 2301310127-2303312359

!FME 01/003 FME OBST TOWER LGT (ASR 1038101) 390457.00N0765018.00W (3.7NM W FME) 361.9FT (247.0FT AGL) U/S 2301310128-2303312359

!FME 01/004 FME OBST TOWER LGT (ASR 1038102) 390457.00N0765013.00W (3.6NM W FME) 363.8FT (247.0FT AGL) U/S 2301310128-2303312359

FVX - FARMVILLE RGNL

!FDC 2/5972 FVX IAP FARMVILLE RGNL, FARMVILLE, VA.
RNAV (GPS) RWY 21, ORIG-B...
NOTE: CIRCLING RWY 3 NA AT NIGHT.
2209121516-2409121516EST

!FVX 04/007 FVX AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!FVX 12/021 FVX OBST TOWER LGT (ASR 1237650) 371923.50N0782321.90W (3.1NM SE FVX) 753.9FT (360.9FT AGL) U/S 2212311534-2304012359

!FVX 02/003 FVX OBST TOWER LGT (ASR 1016647) 371936.00N0782308.00W (3.1NM SE FVX)
912.1FT (498.7FT AGL) U/S 2302091012-2303312044

!FVX 02/004 FVX OBST TOWER LGT (ASR 1016647) 371936.00N0782308.00W (3.1NM SE FVX)
912.1FT (498.7FT AGL) U/S 2302091111-2303261111

!FVX 01/001 FVX OBST TOWER LGT (ASR 1246554) 374101.90N0781904.30W (20.6NM NNE FVX)
604.0FT (264.8FT AGL) U/S 2301062144-2302202143

!FVX 02/005 FVX AD AP FUEL NOT AVBL 2302131321-2302142200

Practice Instrument Approaches

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https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2786601002495645583

GVE - GORDONSVILLE MUNI

!DCA 02/450 GVE AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!DCA 01/298 GVE OBST TREES (ASN UNKNOWN) 380936N0780939W (907FT NW APCH END RWY 23)
515FT (61FT AGL) NOT LGTD 2301202352-2303032359

GVE-VORTAC

!DCA 02/193 GVE NAV VORTAC NOT MNT 2302132321-2302162000EST

HEF - MANASSAS RGNL/HARRY P DAVIS FIELD

!HEF 01/046 HEF AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812,
0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

HEF - MANASSAS RGNL/HARRY P DAVIS FLD

!HEF 02/022 HEF AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!HEF 09/040 HEF OBST CRANE (ASN 2022-AEA-48-OE) 384444N0773210W (1.8NM NW HEF) 445FT
(198FT AGL) FLAGGED AND LGTD 2209271755-2306302300

!FDC 3/3121 HEF IAP MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
ILS OR LOC RWY 16L, ORIG-A...
S-LOC 16L MDA 700/HAT 508 ALL CATS. VISIBILITY CATS A/B 3/4.

CIRCLING CATS A/B MDA 780/HAA 588.

CHANGE NOTE TO READ: FOR INOP ALS, INCREASE S-LOC 16L VISIBILITY CATS A/B TO 1 SM AND CATS C/D VISIBILITY TO 1 3/8 SM.
WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE DULLES ALTIMETER SETTING AND INCREASE S-ILS 16L DA TO 441 FEET; INCREASE ALL MDAS 60 FEET AND S-LOC 16L VISIBILITY CATS C/D 1/4 SM, AND CIRCLING VISIBILITY CAT C/D 1/4 SM.
FOR INOP ALS WHEN USING DULLES ALTIMETER SETTING, INCREASE S-LOC 16L CATS A/B VISIBILITY TO 1 SM AND CATS C/D VISIBILITY TO 1 5/8 SM.
TEMPORARY CRANE 421 MSL 1.03NM NE OF HEF AIRPORT (2021-AEA-16381-OE), TEMPORARY CRANE 427 MSL 1.09NM NE OF HEF AIRPORT (2021-AEA-16382-OE), TEMPORARY CRANES 405FT MSL 1.05 NM N OF RWY 16L (2021-AEA-11567, 73, 74, 75, 10589-OE), TEMPORARY CRANE 445FT MSL 1.35 NM NW OF RWY 16L (2022-AEA-48-OE).
2301121915-2303311914EST

!FDC 3/3104 HEF ODP MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 4A...

TAKEOFF MINIMUMS: RWY 34R, 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 250FT PER NM TO 600.
RWY 34L, 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 257FT PER NM TO 600.
TEMPORARY CRANE 445FT MSL 1.35 NM NORTHWEST OF RWY 16L (2022-AEA-48-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2301121833-2303311833EST

!FDC 3/3105 HEF SID MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
ARSENAL FIVE DEPARTURE...
TAKEOFF MINIMUMS:
RWY 34R, 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 250FT PER NM TO 600.
RWY 34L, 300-1 5/8 OR STANDARD WITH MINIMUM CLIMB OF 257FT PER NM TO 600.
TEMPORARY CRANE 445FT MSL 1.35 NM NORTHWEST OF RWY 16L (2022-AEA-48-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2301121833-2303311833EST

!FDC 3/3100 HEF IAP MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
RNAV (GPS) RWY 16R, AMDT 2...
LPV DA NA ALL CATS. LNAV/VNAV DA NA ALL CATS. LNAV MDA 700/HAT 514 ALL CATS. VISIBILITY CATS A/B 1, CATS C/D 1 3/8. VDP 1.44NM TO RW16R. CIRCLING MDA CAT A 740/HAA 548, CAT B 760/HAA 568.
TEMPORARY CRANE 421 MSL 1.03NM NE OF HEF AIRPORT (2021-AEA-16381-OE),
TEMPORARY CRANE 427 MSL 1.09NM NE OF HEF AIRPORT (2021-AEA-16382-OE),
TEMPORARY CRANES 405FT MSL 1.05 NM N OF RWY 16L (2021-AEA-11567, 73, 74, 75, 10589-OE),

TEMPORARY CRANE 445FT MSL 1.33 NM NW OF RWY 16R (2022-AEA-48-OE),
TEMPORARY CRANE 503FT MSL 3.26 NM NW OF RWY 16R (2022-AEA-2440-OE).
2301121820-2303311820EST

!FDC 3/3101 HEF IAP MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
RNAV (GPS) RWY 16L, AMDT 2...
LPV DA 721/HAT 529 ALL CATS. VISIBILITY ALL CATS 1. LNAV/VNAV DA 753/HAT 561 ALL CATS. VISIBILITY ALL CATS 1 1/4.
LNAV MDA 700/HAT 508 ALL CATS. VISIBILITY CATS A/B 3/4, CATS C/D 1.
CIRCLING MDA CAT A 740/HAA 548, CAT B 760/HAA 568. VDP 1.42 NM TO RW16L.
CHANGE NOTE TO READ: FOR INOP ALS, INCREASE LPV ALL CATS VISIBILITY TO 1 1/2 SM, LNAV/VNAV ALL CATS VISIBILITY TO 1 5/8 SM, LNAV VISIBILITY CATS A/B TO 1 SM AND CATS C/D TO 1 3/8 SM.
TEMPORARY CRANES 405FT MSL 1.05 NM N OF RWY 16L (2021-AEA-11567, 73, 74, 75, 10589-OE),

TEMPORARY CRANE 421 MSL 1.03NM NE OF HEF AIRPORT (2021-AEA-16381-OE),
TEMPORARY CRANE 427 MSL 1.09NM NE OF HEF AIRPORT (2021-AEA-16382-OE),
TEMPORARY CRANE 445FT MSL 1.35 NM NW OF RWY 16L (2022-AEA-48-OE),
TEMPORARY CRANE 503FT MSL 3.24 NM NW OF RWY 16L (2022-AEA-2440-OE).
2301121820-2303311820EST

!FDC 3/4544 HEF IAP MANASSAS RGNL/HARRY P DAVIS FLD, WASHINGTON, DC.
RNAV (GPS) RWY 34L, ORIG...
RNAV (GPS) RWY 34R, AMDT 3A...
CIRCLING MDA CAT A 740/HAA 548, CAT B 760/HAA 568.
TEMPORARY CRANES 405FT MSL 1.05 NM N OF RWY 16L (2021-AEA-11567, 73, 74, 75, 10589-OE),
TEMPORARY CRANE 421 MSL 1.03NM NE OF HEF AIRPORT (2021-AEA-16381-OE),
TEMPORARY CRANE 427 MSL 1.09NM NE OF HEF AIRPORT (2021-AEA-16382-OE),
TEMPORARY CRANE 445FT MSL 1.35 NM NW OF RWY 16L (2022-AEA-48-OE),
TEMPORARY CRANE 503FT MSL 3.24 NM NW OF RWY 16L (2022-AEA-2440-OE).
2301181325-2303311325EST

!HEF 01/022 HEF AD AP WINDCONE FOR RWY 34R U/S 2301262119-2302282200

!HEF 01/023 HEF TWY V HLDG PSN SIGN FOR APCH END RWY 16L LGT U/S 2301262119-2302282100

!HEF 02/010 HEF SVC AUTOMATED WX BCST SYSTEM NOT AVBL 2302151430-2302152000

VFR Practice Instrument Approaches

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2531396450680575495

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

HWY - WARRENTON-FAUQUIER

!DCA 01/364 HWY AIRSPACE SEE FDC 1/1155 ZDC FLT RESTRICTIONS TFR 1801181530-PERM

HWY - WARRENTON/FAUQUIER

!DCA 02/451 HWY AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!DCA 12/245 HWY RWY 33 RWY END ID LGT U/S 2212151612-2306162111EST

!DCA 01/326 HWY OBST TOWER LGT (ASR 1206654) 384402.80N0775009.40W (10.6NM NNW HWY) 1391.7FT (299.9FT AGL) U/S 2301231942-2304012359

!DCA 02/043 HWY OBST TOWER LGT (ASR UNKNOWN) 384402N0775007W (10.7NM NW HWY) 1076FT (1171FT AGL) U/S 2302032019-2303312359

!DCA 12/437 HWY NAV ILS RWY 15 LOC/DME U/S 2212300100-2302282359

IAD - WASHINGTON DULLES INTL

!IAD 03/208 IAD AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2003310129-PERM

!FDC 3/8881 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (RNP) Z RWY 19L, ORIG-C...
RNP 0.30 DA 790/HAT 488 ALL CATS.
(PERM BLDGS 2019-AEA-10961 THRU 10999-OE.).
2301311447-2409211447EST

!IAD 07/165 IAD AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2208010401-2408010401

!FDC 2/7745 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS RWY 01L (CAT II - III), AMDT 1C ...
ILS RWY 01R (CAT II - III), AMDT 24C ...
ILS RWY 19C (CAT II - III), AMDT 25B ...
ILS RWY 19R (CAT II - III), AMDT 1B ...
ILS RWY 01C (SA CAT II), AMDT 2D ...
ILS RWY 19L (SA CAT II), AMDT 15D ...
PROCEDURE NA EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13
2208010402-2407240402EST

!FDC 3/3704 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 1R, AMDT 24C...
ILS RWY 1R, (CAT II AND III), AMDT 24C...
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS,
BRV VOR OUT OF SERVICE. 2302091656-2406191656EST

!FDC 2/5268 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 19L, AMDT 15D...
ILS OR LOC RWY 1R, AMDT 24C...
ILS OR LOC/DME RWY 12, AMDT 9C...
ILS OR LOC/DME RWY 19C, AMDT 25B...
ILS OR LOC/DME RWY 19R, AMDT 1B...
ILS OR LOC/DME RWY 1C, AMDT 2D...
ILS OR LOC/DME RWY 1L, AMDT 1C...
RNAV (GPS) RWY 12, AMDT 1D...
RNAV (GPS) RWY 19R, ORIG-C...

RNAV (GPS) RWY 1L, ORIG-D...
RNAV (GPS) Y RWY 19C, AMDT 3E...
RNAV (GPS) Y RWY 19L, AMDT 2C...
RNAV (GPS) Y RWY 1C, AMDT 1D...
RNAV (GPS) Y RWY 1R, AMDT 1D...
VOR/DME RWY 12, AMDT 9D...
CIRCLING CAT D MDA 1180/HAA 867. VIS CAT D 2 3/4.
BUILDING, 878 MSL, 4.58 NM EAST OF KIAD (2017-AEA 8803-OE PERMANENT).
2206071532-2406071532EST

!FDC 2/1111 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 1R, AMDT 24C...
S-LOC 1R MDA 820/HAT 508 ALL CATS. VIS CATS C/D RVR 5500. VDP 1.13 DME FROM I-IAD OR 1.37 NM TO RW01R. TOWER 514 MSL 5.20 NM SOUTH OF RWY 1R.
2202031611-2402021611EST

!FDC 3/3663 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC/DME RWY 19C, AMDT 25B...
S-LOC 19C, MDA 760/HAT 489 ALL CATS. VISIBILITY CATS C/D RVR 5000.
CHANGE NOTE TO READ: FOR INOP ALSF-2, INCREASE S-LOC 19C CATS C/D VISIBILITY TO 1 3/8 SM.
TEMPORARY CRANE 455FT MSL 2.39 NM N OF RWY 19C (2022-AEA-14105-OE).
TEMPORARY CRANE 505FT MSL 2.84 NM N OF RWY 19C (2022-AEA-7372-OE).
TEMPORARY CRANE 466FT MSL 2.38 NM N OF RWY 19C (2023-AEA-1517-OE).
2302091608-2306231608EST

!FDC 3/3664 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (GPS) Y RWY 19C, AMDT 3E...
LNAV MDA 760/HAT 489 ALL CATS. VISIBILITY CAT C RVR 5000.
VDP 1.31 NM TO RW19C.
CHANGE NOTE TO READ: FOR INOP ALSF-2, INCREASE LNAV CATS C/D VISIBILITY TO 1 3/8 SM.
TEMPORARY CRANE 505FT MSL 2.84 NM N OF RWY 19C (2022-AEA-7372-OE).
TEMPORARY CRANE 455FT MSL 2.39 NM N OF RWY 19C (2022-AEA-14105-OE).
TEMPORARY CRANE 500 MSL 1.99 NM NW OF RWY 19C (2022-AEA-15198-OE).
TEMPORARY CRANE 466FT MSL 2.38 NM N OF RWY 19C (2023-AEA-1517-OE).
2302091608-2306231608EST

!IAD 01/096 IAD APRON TXL E CL MARKINGS BTN GATE C28 AND D10 FADED 2301180209-2305311000

!FDC 2/1823 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC/DME RWY 19R, AMDT 1B...
S-LOC 19R, MDA 760/HAT 482 ALL CATS. VISIBILITY CAT C RVR 5000.
VDP AT I-ISU 1.12 DME; DISTANCE VDP TO THLD 1.29 NM.
FOR INOPERATIVE ALS, INCREASE S-LOC 19R CATS C/D VISIBILITY TO 1 3/8 SM.
TEMPORARY CRANE 500 MSL 1.89 NM N OF RWY 19R (2022-AEA-15198-OE).
2212081209-2305151209EST

!FDC 2/1824 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (GPS) RWY 19R, ORIG-C...
LNAV MDA, 760/HAT 482 ALL CATS. VISIBILITY CAT C RVR 5000.
VDP 1.29 NM TO RW19R.
FOR INOPERATIVE ALS, INCREASE LNAV CATS C/D VISIBILITY TO 1 3/8 SM.
TEMPORARY CRANE 500 MSL 1.89 NM N OF RWY 19R (2022-AEA-15198-OE).
2212081209-2305151209EST

!FDC 3/3028 IAD ODP WASHINGTON DULLES INTL, WASHINGTON, DC.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 2...
TAKEOFF MINIMUMS: RWY 1C, STANDARD WITH MINIMUM CLIMB OF 264FT PER NM TO 900. RWY 12, STANDARD WITH A MINIMUM CLIMB OF 307FT PER NM TO 900. RWY 19L, STANDARD WITH A MINIMUM CLIMB OF 317FT PER NM TO 900. TEMPORARY CRANE 661FT MSL 1.95 NM SE OF RWY 30 (2021-AEA-5820-OE). TEMPORARY CRANE 688FT MSL 2.11 NM NE OF RWY 19C (2022-AEA-4626-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2302081537-2305061537EST

!FDC 3/3029 IAD SID WASHINGTON DULLES INTL, WASHINGTON, DC.
CAPITAL ONE DEPARTURE...
TAKEOFF MINIMUMS: RWY 1C, STANDARD WITH MINIMUM CLIMB OF 264FT PER NM TO 900. RWY 12, STANDARD WITH A MINIMUM CLIMB OF 307FT PER NM TO 900. RWY 19L, STANDARD WITH A MINIMUM CLIMB OF 317FT PER NM TO 900. TEMPORARY CRANE 661FT MSL 1.95 NM SE OF RWY 30

(2021-AEA-5820-OE). TEMPORARY CRANE 688FT MSL 2.11 NM NE OF RWY 19C (2022-AEA-4626-OE).
ALL OTHER DATA REMAINS AS PUBLISHED. 2302081537-2305061537EST

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!FDC 2/8141 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 19L, AMDT 15D...
ILS OR LOC/DME RWY 12, AMDT 9C...
ILS OR LOC/DME RWY 19C, AMDT 25B...
ILS OR LOC/DME RWY 19R, AMDT 1B...
ILS OR LOC/DME RWY 1C, AMDT 2D...
ILS OR LOC/DME RWY 1L, AMDT 1C...
RNAV (GPS) RWY 19R, ORIG-C...
RNAV (GPS) RWY 1L, ORIG-D...
RNAV (GPS) Y RWY 19C, AMDT 3E...
RNAV (GPS) Y RWY 19L, AMDT 2C...
RNAV (GPS) Y RWY 1C, AMDT 1D...
CIRCLING CATS A/B/C MDA 1000/ HAA 687, VISIBILITY CAT C 2. TEMPORARY CRANE 661FT MSL
2.67 NM SE OF IAD AIRPORT (2021-AEA-5820-OE).
2211301458-2305061457EST

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!FDC 2/6268 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
VOR/DME RWY 12, AMDT 9D...
S-12 MDA 800/HAT 490 ALL CATS. VISIBILITY CATS C/D RVR 5000. CIRCLING CATS A/B/C/D MDA
1080/ HAA 767, VISIBILITY CAT C 2 1/4. VDP AT AML 2.56 DME; DISTANCE VDP TO THLD 1.32
NM. NOTE: FOR INOP MALSR, INCREASE S-12 CATS C/D VISIBILITY TO 1 3/8 SM. TEMPORARY CRANE
492FT MSL 1.17 NM NW OF RWY 12 (2021-AEA-15220-OE).
2209301259-2305061259EST

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!FDC 2/6269 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (GPS) RWY 12, AMDT 1D...
LNAV/VNAV DA 845/HAT 535 ALL CATS. VISIBILITY ALL CATS RVR 5500. LNAV MDA 800/HAT 490
ALL CATS, VISIBILITY CAT C RVR 5000. VDP 1.33 NM TO RW12. CIRCLING CATS A/B/C/D MDA
1080/ HAA 767, VISIBILITY CAT C 2 1/4. CHANGE NOTE TO READ: FOR INOP MALSR, INCREASE
LNAV CATS C/D VISIBILITY TO 1 3/8 SM. TEMPORARY CRANE 492FT MSL 1.17 NM NW OF RWY 12
(2021-AEA-15220-OE).
2209301259-2305061259EST

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!FDC 2/6270 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (GPS) Y RWY 1R, AMDT 1D...
LNAV/VNAV DA 847/ HAT 535, VISIBILITY ALL CATS 1 1/4. LNAV MDA 940/ HAT 628 ALL CATS,
VISIBILITY CATS C/D 1 1/2. CIRCLING CATS A/B/C/D MDA 1000/ HAA 687, VISIBILITY CAT C 2.
VDP 1.75 NM TO RW1R. ADD NOTE: FOR INOPERATIVE ALS, INCREASE LNAV/VNAV VISIBILITY ALL
CATS TO 1 3/4 SM AND LNAV VISIBILITY CATS C/D VISIBILITY TO 2 SM. TEMPORARY CRANE 661FT
MSL 5310FT SE OF RWY 1R (2021-AEA-5820-OE).
2209301259-2305061259EST

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!FDC 2/6271 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 1R, AMDT 24C...
S-LOC 1R, MDA 880/ HAT 568 ALL CATS, VISIBILITY CATS C/D 1 1/4. CIRCLING CATS A/B/C/D
MDA 1000/ HAA 687, VISIBILITY CAT C 2. VDP AT I-IAD 1.32 DME; DISTANCE VDP TO THLD 1.56
NM. TEMPORARY CRANE 661FT MSL 5310FT SE OF RWY 1R (2021-AEA-5820-OE).
2209301259-2305061259EST

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!FDC 3/3525 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
ILS OR LOC RWY 19L, AMDT 15D...
S-LOC 19L, MDA 940/HAT 638 ALL CATS. VISIBILITY CATS C/D 1 3/8.
VDP AT I-SGC 3.29 DME; DISTANCE VDP TO THLD 1.79NM.
FOR INOPERATIVE ALS, INCREASE S-LOC 19L CAT C/D VISIBILITY TO 1 3/4 SM.
TEMPORARY CRANE 688FT MSL 2.81 NM N OF RWY 19L (2022-AEA-4626-OE).
2301131458-2303311458EST

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!FDC 3/3526 IAD IAP WASHINGTON DULLES INTL, WASHINGTON, DC.
RNAV (GPS) Y RWY 19L, AMDT 2C...
LNAV MDA, 940/HAT 638 ALL CATS. VISIBILITY CATS C/D 1 3/8.
CIRCLING CAT C MDA 1000/HAA 687, VISIBILITY 2.
VDP 1.79NM TO RW19L.
NOTE: FOR INOPERATIVE ALS, INCREASE LNAV CAT C/D VISIBILITY TO 1 3/4 SM.
TEMPORARY CRANE 688FT MSL 2.81 NM N OF RWY 19L (2022-AEA-4626-OE).
2301131458-2303311458EST

!IAD 02/043 IAD OBST TOWER LGT (ASR 1035359) 385118.00N0772227.00W (6.8NM SE IAD) 780.5FT (320.5FT AGL) U/S 2302040641-2303210641

!IAD 02/099 IAD SVC SMR U/S 2302152330-2302160130

!IAD 02/100 IAD AD AP RWY STATUS LGT SYSTEM U/S 2302152330-2302160130

!IAD 02/094 IAD RWY 12 ALS U/S 2302151430-2302151730

!IAD 02/101 IAD RWY 19R ALS U/S 2302141400-2302141600

!IAD 02/102 IAD NAV ILS RWY 19R CAT II NA 2302141400-2302141600

FAA Aircraft Wake Turbulence Re-Categorization (RECAT) Consolidated Wake Turbulence Radar Separation Standards (CWT)

The full version of this LTA is available at the following URL.

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Leesburg Executive Airport (JYO) RWY 17 departures

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2925769976369387194

JPN - PENTAGON AHP

X0855/22 NOTAMR X0589/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2212211623
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150; RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

M0019/23 NOTAMR M0005/23
Q) ZDC/QFAAP/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112236
C) 2303110001
E) LANDING AND DEPARTURES WILL BE TO SOD 3. AIRCRAFT ARE REQUIRED TO HOVER TO AT LEAST 50 FEET AGL PRIOR TO DEPARTING SOD 3 TO ENSURE CLEARANCE OVER OBSTACLES. SOD AREA RESTRICTED TO AIRCRAFT WITH A MAXIMUM TAKEOFF WEIGHT OF 23,000 LB AND MAXIMUM ROTOR DIAMETER OF 62' AND LIMITED TO: H60, H65, H3, H72, VH-92, H1.

M0006/23 NOTAMR M0075/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112221
C) 2303100001
E) AMENDMENT TO TRAINING FLIGHT REQUIREMENT, 24HR PPR RQRD TO ALL TRAINING FLIGHT REQUESTS.

M0007/23 NOTAMR M0077/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112222
C) 2303100001
E) AERODROME HELIPORT LIGHTING UNAVAILABLE DUE TO CONSTRUCTION.

M0008/23 NOTAMR M0071/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112222
C) 2303100001
E) OBST HAZARD, LIGHT POLE LCTD 181' NW OF HELIPAD, 42.7 ELEV. UNLIT/UNMARKED.

M0010/23 NOTAMR M0070/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112224

C) 2303100001
E) OBST HAZARD, LIGHT POLE LCTD 425' W OF HELIPAD. 80' ELEV. UNLIT/UNMARKED.

M0011/23 NOTAMR M0073/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112224
C) 2303100001
E) LIGHT POLE LCTD 410' W OF HELIPAD. 83' ELEV. UNLIT/UNMARKED.

M0012/23 NOTAMR M0080/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112226
C) 2303100001
E) CONSTRUCTION IN PROGRESS. ALL ACFT OPERATIONS ARE NOT AUTHORIZED DURING CLSD HOURS. ALL ACFT AVOID OVERFLIGHT OF KJPN.

M0013/23 NOTAMR M0074/22
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112226
C) 2303100001
E) V22 OPERATIONS SUSPENDED UFN.

M0015/23 NOTAMR M0084/22
Q) ZDC/QFAAH/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112229
C) 2303100001
E) JPN HOURS OF SVC 1230Z TO 2230Z ++ MON - FRI, CLSD SAT - SUN AND HOLIDAYS. RSTD - PPR REQUESTS/CANCELLATION MUST CALL (703) 697-9250. COORDINATIONS FOR OPS AT OTHER TIMES REQUIRES VALIDATION/APPROVAL FROM THE EXECUTIVE TRAVEL OFFICE: 703-545-1262/1263

M0009/23 NOTAMR M0004/23
Q) ZDC/QOBCE/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112223
C) 2303100001
E) OBST CRANES LGT AND FLAGGED APPROXIAMTELY 1NM SW AT APPROXIMATELY 150FT AGL.

M0014/23 NOTAMR M0001/23
Q) ZDC/QFAXX/IV/NBO/A/000/999/3852N07703W005
A) KJPN
B) 2301112228
C) 2302280001
E) HELIPAD, SOD 1, SOD 2 CLOSED UNTIL FEBRUARY 2023.

JYO - LEESBURG EXEC

!JYO 07/005 JYO AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2208010401-2408010401

VFR Practice Instrument Approaches

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Leesburg Executive Airport (JYO) RWY 17 departures

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JYO - LEESBURG EXECUTIVE

!JYO 01/008 JYO AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150003-PERM

LKU - LOUISA COUNTY/FREEMAN FLD

!FDC 2/0494 LKU IAP LOUISA COUNTY/FREEMAN FLD, LOUISA, VA.
RNAV (GPS) RWY 9, AMDT 1...
CIRCLING CAT A MDA 920/HAA 426.
2203291412-2403291412EST

!FDC 2/0492 LKU IAP LOUISA COUNTY/FREEMAN FLD, LOUISA, VA.
LOC RWY 27, AMDT 4...
S-LOC 27 900/HAA 406 ALL CATS. CIRCLING CAT A MDA 920/HAA 426.
2203291410-2403291410EST

!FDC 2/0481 LKU IAP LOUISA COUNTY/FREEMAN FLD, LOUISA, VA.
RNAV (GPS) RWY 27, AMDT 2...
CIRCLING CAT A MDA 920/HAA 426.
2203291407-2403291407EST

!LKU 02/010 LKU AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!LKU 01/003 LKU OBST TOWER LGT (ASR 1018675) 375653.50N0780644.00W (7.7NM WSW LKU) 753.9FT (208.0FT AGL) U/S 2301051443-2305051443

!LKU 01/011 LKU OBST TOWER LGT (ASR 1055310) 380219.00N0775525.00W (2.8NM NE LKU) 794.6FT (323.8FT AGL) U/S 2301302051-2304022359

!LKU 01/008 LKU AD AP JET A FUEL NOT AVBL EXC 24HR PPR 240-271-0258 FRI-MON 2200-1330 2301202200-2302201330

LYH - LYNCHBURG RGNL/PRESTON GLENN FLD

!LYH 09/037 LYH AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2210010401-2410010401

!LYH 01/015 LYH TWY G2 HLDG PSN SIGN FOR RWY 17/35 NOT STD 2301111256-2304302100

!LYH 01/016 LYH TWY G2 TWY DIRECTION SIGN FOR TWY G NOT STD 2301111306-2304302100

!LYH 01/013 LYH TWY G1 TWY DIRECTIONAL SIGN FOR TWY G NOT STD 2301111246-2304302100

!LYH 01/014 LYH TWY G1 HLDG PSN SIGN FOR RWY 17/35 NOT STD 2301111250-2304302100

!LYH 12/063 LYH RWY 35 PAPI U/S 2212301348-2303312100

!LYH 12/064 LYH RWY 17/35 SFC MARKINGS FADED 2212301349-2303312100

!LYH 12/065 LYH TWY G SFC MARKINGS FADED 2212301350-2303312100

!LYH 02/005 LYH OBST TOWER LGT (ASR 1216037) 372819.90N0792226.60W (11.9NM NW LYH) 2871.1FT (201.1FT AGL) U/S 2302012326-2303182315

!LYH 02/001 LYH OBST TOWER LGT (ASN 2017-AEA-9856-OE) 371959N0791050W (1.1NM ENE LYH) 1101FT (121FT AGL) U/S 2302010535-2303022359

!LYH 12/061 LYH OBST TOWER LGT (ASR 1016824) 372056.00N0791003.00W (2.2NM NE LYH) 1439.0FT (80.1FT AGL) U/S 2212261829-2302262359

Practice Instrument Approaches

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MD32 - FORT DETRICK HELIPAD

X0853/22 NOTAMR X0587/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3926N07725W005
A) MD32
B) 2212211621
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150; RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

MTV - BLUE RIDGE

!MTV 04/014 MTV AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!MTV 02/004 MTV OBST TOWER LGT (ASR 1059324) 364724.30N0794305.40W (17.5NM ENE MTV) 1622.0FT (294.9FT AGL) U/S 2302100511-2306100511

!MTV 10/005 MTV NAV ILS RWY 31 BALES LOM NDB U/S 2210121419-2304122111EST

MWK - MOUNT AIRY/SURRY COUNTY

!MWK 04/004 MWK AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!MWK 02/002 MWK OBST TOWER LGT (ASR 1014577) 362231.70N0802217.50W (10.1NM ESE MWK) 2710.0FT (351.0FT AGL) U/S 2302061315-2303262359

!MWK 01/002 MWK OBST TOWER LGT (ASN 2020-ASO-541-OE) 363255N0804428W (10.4NM WNW MWK) 1675FT (305FT AGL) U/S 2301170514-2303030513

N63 - MEADOW BROOK FLD

!RDU 04/252 N63 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2204300401-2404300401

!RDU 02/072 N63 RWY 16/34 WIP CONST ADJ 2302081800-2310312359

!RDU 01/320 N63 AD AP CLSD TO TRANSIENT 2301271437-2305022359

!RDU 01/236 N63 OBST STACK (ASN UNKNOWN) 361555N0800330W (4.6NM ESE N63) UNKNOWN (450FT AGL) NOT LGTD 2301190335-2302192359

N83 - DS BUTLER FARM AND AIRFIELD

!RDU 02/124 N83 OBST TOWER LGT (ASR 1006625) 361614.90N0795641.00W (5.5NM NNE N83) 1180.1FT (250.0FT AGL) U/S 2302132010-2306132010

!RDU 01/108 N83 OBST TOWER LGT (ASR 1300573) 360735.00N0800206.70W (4.4NM SSW N83) 1315.9FT (379.9FT AGL) U/S 2301091258-2303102359

!RDU 02/036 N83 OBST TOWER LGT (ASR 1232190) 361430.10N0800503.80W (4.7NM NW N83) 1076.8FT (216.9FT AGL) U/S 2302032348-2302180500

NYG - QUANTICO MCAF (TURNER FLD)

X0814/22 NOTAMR X0546/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3830N07718W005
A) KNYG
B) 2212211554
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150;

RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

M0746/22 NOTAMN
Q) ZDC/QOBXX/IV/M/AE/000/999/3830N07718W005
A) KNYG
B) 2211211424
C) 2302172359
E) OBSTACLE CRANE 383209N0772010W
(2.43NM NORTHWEST KNYG) 360FT MSL
(180FT AGL) NOT LGTD

M0051/23 NOTAMN
Q) ZDC/QMNHW/IV/NBO/A/000/999/3830N07718W005
A) KNYG
B) 2302131400
C) 2302172200
E) SOUTH RAMP (GREEN SIDE) CONSTRUCTION AREA SW CORNER OF APRON. TOW-IN/TOW OUT OPS ONLY TO/FROM SOUTHERNMOST PARKING SPOT

M0055/23 NOTAMN
Q) ZDC/QFAXX/IV/NBO/A/000/999/3830N07718W005
A) KNYG
B) 2302141443
C) 2302142359
E) AERODROME ASOS OUTAGE TILL FURTHER NOTICE

M0054/23 NOTAMN
Q) ZDC/QFAXX/IV/NBO/A/000/999/3830N07718W005
A) KNYG
B) 2302141600
C) 2302141900
E) AERODROME - UAS ACTIVITIES 400 FT AGL AND BELOW AT EAST EDGE OF SHORELINE. UAS OPERATORS WILL REMAIN WITHIN THE FOLLOWING BOUNDARIES DURING AIRCRAFT FLIGHT OPERATIONS:38° 28' 51.228" N, 77° 22' 9.194" W

OMH - ORANGE COUNTY

!OMH 01/001 OMH AIRSPACE SEE FDC 1/1155 ZDC FLT RESTRICTIONS TFR 1801181537-PERM

!FDC 2/6371 OMH IAP ORANGE COUNTY, ORANGE, VA.
RNAV (GPS) RWY 26, ORIG-A...
PROCEDURE NA.
2203181348-2403181348EST

!OMH 02/005 OMH AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!FDC 1/8537 OMH IAP ORANGE COUNTY, ORANGE, VA.
RNAV (GPS) RWY 8, ORIG-A...
VDP NA.
DISREGARD PROFILE VIEW NOTE: VGSI AND DESCENT ANGLES NOT COINCIDENT, (VGSI ANGLE 4.00/TCH 42).
2107131730-2307131730EST

RMN - STAFFORD RGNL

!RMN 09/008 RMN RWY 15/33 COMMISSIONED 6000FT X 100FT LGTD. DECLARED DIST: RWY 15 TORA 6000FT TODA 6000FT ASDA 6000FT LDA 6000FT RWY 33 TORA 6000FT TODA 6000FT ASDA 6000FT LDA 6000. 2209161600-PERM

!RMN 01/009 RMN AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812,
0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!FDC 2/8300 RMN ODP STAFFORD RGNL, STAFFORD, VA.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1...
TAKEOFF MINIMUMS: RWY 33, 300-2 OR STANDARD WITH MINIMUM CLIMB OF 453FT PER NM TO 500.

ALL OTHER DATA REMAINS AS PUBLISHED. 2209160501-2409151923EST

!FDC 2/9173 RMN IAP STAFFORD RGNL, STAFFORD, VA.
ILS OR LOC RWY 33, ORIG-B...
RNAV (GPS) RWY 33, AMDT 1B...
VOR RWY 33, AMDT 1A...
NOTE: CIRCLING RWY 15 NA AT NIGHT. NOTE: RWY 15 HELICOPTER VISIBILITY REDUCTION BELOW 1SM NOT AUTHORIZED.
2210061257-2409151257EST

!FDC 3/3702 RMN IAP STAFFORD RGNL, STAFFORD, VA.
ILS OR LOC RWY 33, ORIG-B...
MISSED APPROACH: CLIMB TO 600 THEN CLIMBING LEFT TURN TO 2000 DIRECT EZF NDB AND HOLD NE, LT, 237.00 INBOUND. ADF REQUIRED.
RADAR REQUIRED FOR PROCEDURE ENTRY EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS,
BRV VOR OUT OF SERVICE. 2302091656-2406191656EST

!RMN 02/019 RMN AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!FDC 2/6132 RMN ODP STAFFORD RGNL, STAFFORD, VA.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1...
DEPARTURE PROCEDURE NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
BRV VOR OUT OF SERVICE. 2209121926-2304241924EST

!RMN 01/006 RMN OBST TOWER LGT (ASR 1016485) 382802.90N0772737.30W (4.2NM N RMN) 629.9FT (299.9FT AGL) U/S 2301301640-2303012359

!RMN 12/006 RMN RWY 15 PAPI U/S 2212291840-2302282300EST

!RMN 12/008 RMN NAV ILS RWY 33 LOC/GP/DME U/S 2212291843-2302282300

!RMN 12/007 RMN RWY 15 RWY END ID LGT U/S 2212291841-2302282100EST

!RMN 02/002 RMN OBST TOWER LGT (ASR 1222696) 382452.40N0772508.10W (2.0NM ENE RMN) 466.9FT (250.0FT AGL) U/S 2302120616-2302270516

SIF - ROCKINGHAM COUNTY NC SHILOH

!FDC 2/5425 SIF IAP ROCKINGHAM COUNTY NC SHILOH, REIDSVILLE, NC.
VOR/DME-A, AMDT 9C...
CHANGE NOTE TO READ: RWY 31 HELICOPTER VISIBILITY REDUCTION BELOW 1 SM NOT AUTHORIZED.
CHANGE NOTE TO READ: CIRCLING RWY 31 NA AT NIGHT.
ALTERNATE MINIMUMS: STANDARD - CAT D 800-2 1/4; NA WHEN LOCAL WEATHER NOT AVAILABLE.
2212141251-2412141250EST

!FDC 2/5129 SIF IAP ROCKINGHAM COUNTY NC SHILOH, REIDSVILLE, NC.
NDB RWY 31, AMDT 5C...
RNAV (GPS) RWY 31, ORIG-C...
CIRCLING CAT B MDA 1340/HAA 646.
STRAIGHT-IN RWY 31 NA AT NIGHT; CIRCLING RWY 31 NA AT NIGHT.
2212132053-2412132052EST

!FDC 2/5122 SIF IAP ROCKINGHAM COUNTY NC SHILOH, REIDSVILLE, NC.
RNAV (GPS) RWY 13, ORIG-B...
CIRCLING CAT B MDA 1340/HAA 646.
CHANGE TDZE TO READ: 686.
LNAV HAT 614 ALL CATS.
CIRCLING RWY 31 NA AT NIGHT.
2212132007-2412132006EST

!SIF 01/001 SIF AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!SIF 01/002 SIF SVC AUTOMATED WX BCST SYSTEM DP/T NOT AVBL 2301041617-2304192359

!FDC 3/3453 SIF IAP ROCKINGHAM COUNTY NC SHILOH, REIDSVILLE, NC.
VOR/DME-A, AMDT 9C...
ALTERNATE MINIMUMS NA,
GSO VORTAC UNMONITORED. 2302090145-2303090145EST

!SIF 01/003 SIF OBST TOWER LGT (ASR 1004595) 362603.50N0795809.20W (5.7NM W SIF)
1273.0FT (315.0FT AGL) U/S 2301071015-2303072359

VA29 - UVA CULPEPER MEDICAL CENTER

!FDC 2/4936 VA29 SPECIAL UVA CULPEPER MEDICAL CENTER, CULPEPER, VA.
COPTER RNAV (GPS) 170, AMDT 1C...
RDO ALTIMETER UNREL EXC FOR ACFT USING APPROVED ALTERNATIVE
METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE
AIRWORTHINESS DIRECTIVES 2021-23-13.

2210170700-2401190506

VG93 - FORT BELVOIR COMMUNITY HOSPITAL

X0854/22 NOTAMR X0588/22
Q) ZDC/QXXXX/IV/NBO/A/000/999/3842N07708W005
A) VG93
B) 2212211622
C) 2303210500
E) DUE TO POTENTIAL 5G INTERFERENCE, RADIO ALTIMETER MAY BE UNUSABLE. REFER TO 5G &,150;
RADIO ALTIMETER TAB ON DAIP FOR MORE INFORMATION AND REPORTING INSTRUCTIONS.

VKX - POTOMAC AIRFIELD

!DCA 12/403 VKX RWY 24 LEFT TFC PATTERN 2301010500-PERM

!DCA 12/402 VKX RWY 06 LEFT TFC PATTERN 2301010500-PERM

!DCA 01/190 VKX AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812,
0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!DCA 02/453 VKX AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT
VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER
AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT
USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE
AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2203010501-2403010501

!DCA 02/197 VKX OBST TOWER LGT (ASR 1255583) 384505.10N0765839.60W (1.0NM W VKX) 334.0FT
(103.0FT AGL) U/S 2302140616-2303010516

W00 - FREEWAY

!DCA 01/187 W00 AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812,
0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!DCA 07/568 W00 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT
VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER
AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT
USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE
AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2208010401-2408010401

!DCA 02/141 W00 RWY 36 PAPI U/S 2302101743-2302282359

!DCA 02/152 W00 OBST TOWER LGT (ASR 1061173) 385233.00N0764122.00W (5.5NM SE W00)
618.8FT (498.7FT AGL) U/S 2302120729-2302270629

W13 - EAGLE'S NEST

!DCA 05/443 W13 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT
VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER
AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT

USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2206010401-2406010401

!DCA 02/169 W13 OBST TOWER LGT (ASR 1018299) 380235.70N0791941.50W (18.2NM W W13) 3029.5FT (199.8FT AGL) U/S 2302122345-2304122359

W24 - FALWELL

!DCA 09/446 W24 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2210010401-2410010401

!DCA 10/396 W24 RWY 10 CLSD TO LDG 2210231557-2310232359

!DCA 10/395 W24 RWY 28 CLSD TO TKOF 2210231556-2310231555

!FDC 1/5891 W24 ODP FALWELL, LYNCHBURG, VA.
TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 1...
TAKE-OFF MINIMUMS RWY 10 , 1200-3 FOR CLIMB IN VISUAL CONDITIONS.
DEPARTURE ROUTE DESCRIPTION RWY 10, FOR CLIMB IN VISUAL CONDITIONS: CROSS FALWELL AIRPORT AT OR ABOVE 2000 BEFORE PROCEEDING ON COURSE.
ALL OTHER DATA REMAINS AS PUBLISHED. 2106021707-2306021707EST

!DCA 01/176 W24 OBST TOWER LGT (ASR 1061949) 372305.70N0790236.50W (3.79NM E W24) 989FT (195FT AGL) U/S 2301130113-2304302359

!DCA 01/344 W24 OBST TOWER LGT (ASR 1061949) 372305.70N0790236.50W (3.8NM E W24) 988.8FT (194.9FT AGL) U/S 2301241754-2304242359

Practice Instrument Approaches

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W32 - WASHINGTON EXEC/HYDE FLD

!DCA 01/385 W32 AD AP CLSD 2301261534-PERM

!DCA 02/153 W32 OBST TOWER LGT (ASN 2019-AEA-6881-OE) 384035N0765009W (6.2NM SE W32) 1049FT (824FT AGL) U/S 2302120918-2303290918

!FDC 2/4052 W32 IAP WASHINGTON EXEC/HYDE FLD, CLINTON, MD.
RNAV (GPS) RWY 5, ORIG-C...
CIRCLING CAT A MDA 800/HAA 551. TEMPORARY CRANE 436 MSL 3717FT NE W32 AIRPORT (2019-AEA-14431-OE).
2209081535-2303091534EST

W50 - DAVIS

!DCA 01/191 W50 AIRSPACE SEE FDC 1/1155, 9/1811, 0/0053, 9/1812, 0/3929 ZDC SPECIAL SECURITY INSTRUCTIONS 2001150002-PERM

!DCA 01/599 W50 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2201190501-2401190501

!DCA 02/114 W50 OBST TOWER LGT (ASR 1032932) 391905.90N0770132.40W (7.4NM NE W50) 1017.1FT (323.2FT AGL) U/S 2302090611-2306090611

W88 - AIR HARBOR

!RDU 01/007 W88 OBST TOWER LGT (ASR 1031381) 361450.00N0793909.00W (8.6NM ENE W88) 1016.7FT (259.8FT AGL) U/S 2301022033-2304302359

!RDU 02/130 W88 OBST TOWER LGT (ASR 1001557) 360559.00N0794546.00W (4.8NM SSE W88) 1547.9FT (757.9FT AGL) U/S 2302140318-2303302359

!RDU 02/113 W88 OBST TOWER LGT (ASR 1005963) 361653.30N0793807.50W (10.5NM NE W88)
1065.0FT (319.9FT AGL) U/S 2302122321-2302270500

W90 - NEW LONDON

!DCA 09/447 W90 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2210010401-2410010401

!DCA 01/074 W90 OBST TOWER LGT (ASR 1231750) 371900.70N0792846.60W (7.3NM WNW W90)
1086.9FT (194.9FT AGL) U/S 2301060340-2304050500

Practice Instrument Approaches

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W91 - SMITH MOUNTAIN LAKE

!DCA 09/448 W91 AD AP RDO ALTIMETER UNREL. AUTOLAND, HUD TO TOUCHDOWN, ENHANCED FLT VISION SYSTEMS TO TOUCHDOWN, HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE HOVER AUTOPILOT MODES AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVES 2021-23-12, 2021-23-13 2210010401-2410010401

!DCA 01/471 W91 OBST TOWER LGT (ASR 1025915) 365838.00N0795344.00W (16.6NM WSW W91)
1496.4FT (376.3FT AGL) U/S 2301311947-2303032359

!DCA 03/024 W91 OBST TOWER LGT (ASR 1018532) 365532.00N0791949.00W (16.5NM SE W91)
1015.1FT (285.1FT AGL) U/S 2203021541-2303022359

Practice Instrument Approaches

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ZDC ARTCC

!DCA 09/499 ZDC COM CPDLC AVBL EN ROUTE WITH KUSA 2009302100-PERM

!DCA 09/516 ZDC AIRSPACE PJE WI AN AREA DEFINED AS 5NM RADIUS OF 360516N0782211W (4NM NNW LHZ) SFC-14000FT 2209282152-PERM

!FDC 1/1155 ZDC DC .. FLIGHT RESTRICTIONS, WASHINGTON, DC.
EFFECTIVE 1101102040 UTC UNTIL FURTHER NOTICE.
THIS NOTICE WILL REPLACE NOTAM 0/9463 DUE TO TECHNICAL ERROR, NO CHANGES IN RESTRICTIONS.
PURSUANT TO TITLE 14 CFR SECTION 99.7, SPECIAL SECURITY INSTRUCTIONS.
A. EXCEPT FOR FAA APPROVED DOD, LAW ENFORCEMENT, AND WAIVERED LIFEGUARD/AIR AMBULANCE FLIGHTS, ALL VFR AIRCRAFT OPERATIONS WITHIN 30NM OF 385134N/0770211W OR THE WASHINGTON /DCA/ VOR/DME, FROM THE SURFACE UP TO BUT NOT INCLUDING FL180, ARE RESTRICTED TO AN INDICATED AIRSPEED OF 180 KNOTS OR LESS, IF CAPABLE. IF UNABLE, THE PILOT MUST CONTACT THE APPROPRIATE ATC FACILITY AND ADVISE THEM OF THE AIRCRAFT'S OPERATIONAL LIMITATIONS.
B. ALL VFR AIRCRAFT OPERATIONS WITHIN THE AIRSPACE BETWEEN 30 NMR AND 60 NMR OF 385134N/0770211W OR THE WASHINGTON /DCA/ VOR/DME, FROM THE SURFACE UP TO BUT NOT INCLUDING FL180, ARE RESTRICTED TO AN INDICATED AIRSPEED OF 230 KNOTS OR LESS, IF CAPABLE. IF UNABLE THE PILOT MUST CONTACT THE APPROPRIATE ATC FACILITY AND ADVISE THEM OF THE AIRCRAFT'S OPERATIONAL LIMITATIONS PRIOR TO ENTERING THE 60 NMR OF THE WASHINGTON /DCA/ VOR/DME.

!FDC 8/3984 ZDC SECURITY..SPECIAL SECURITY INSTRUCTIONS..WASHINGTON DC FLIGHT RESTRICTED ZONE (DC FRZ) FLIGHT PLANS MUST BE FILED WITH THE WASHINGTON CENTER FLIGHT DATA UNIT (ZDC FDU) INSTEAD OF FLIGHT

SERVICE AS REFERRED TO IN NOTAM 6/7196: LEESBURG AUTOMATED FLIGHT SERVICE STATION AS REFERRED TO IN 49 CFR 1562.3, OR WASHINGTON HUB FLIGHT SERVICE STATION (FSS) AS REFERRED TO IN 14 CFR 93.343, AND POTOMAC (PCT) LETTER TO AIRMEN 19 (LTA-PCT-19). THIS NOTICE AMENDS NOTAM 6/7196, 49 CFR 1562.3, 14 CFR 93.343, AND POTOMAC (PCT) LETTER TO AIRMEN 19 (LTA-PCT-19) UNTIL SUCH TIME THESE INDIVIDUAL DOCUMENTS ARE FORMALLY REVISED TO REFLECT THE CHANGE TO WASHINGTON CENTER FLIGHT DATA UNIT (ZDC FDU) FROM REFERENCES TO FLIGHT SERVICE, LEESBURG AUTOMATED FLIGHT SERVICE STATION, AND WASHINGTON HUB FLIGHT SERVICE STATION (FSS). THERE ARE NO OTHER CHANGES TO DC FRZ OPERATIONS OR PROCEDURES.
1803290401-PERM

!FDC 9/1811 ZDC PART 1 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS, WASHINGTON, DC. THIS NOTAM AND COMPLEMENTARY NOTAMS REPLACE FDC 6/1117 TO PROVIDE UPDATED INSTRUCTIONS. SPECIAL SECURITY INSTRUCTIONS FOR UNMANNED AIRCRAFT OPERATIONS (UAS) IN THE DC SPECIAL FLIGHT RULES AREA (SFRA), INCLUDING THE DC FLIGHT RESTRICTED ZONE (FRZ), ARE IN EFFECT PURSUANT TO 14 CODE OF FEDERAL REGULATIONS (CFR) SECTIONS 93.335, 93.337, 93.339, 93.341, AND 99.7, AND 49 UNITED STATES CODE (USC) SECTION 40103(B)(3). THIS NOTAM CLARIFIES AND SUPPLEMENTS THE OPERATING REQUIREMENTS FOR THE DC SFRA, INCLUDING THE DC FLIGHT RESTRICTED ZONE (FRZ), AND THOSE PRESCRIBED BY 14 CFR SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, 93.345, AND 99.7.
SECTION I. SPECIAL NOTES ON UAS OPERATIONS IN THE DC SFRA:
A. THIS NOTAM SUPPLEMENTS THE DC SPECIAL FLIGHT RULES AREA (SFRA), INCLUDING THE DC FLIGHT RESTRICTED ZONE (FRZ) FDC NOTAMS WITH SPECIAL SECURITY INSTRUCTIONS, INCLUDING OPERATING REQUIREMENTS, THAT ARE SPECIFIC TO UAS OPERATIONS, INCLUDING OPERATIONS BY MODEL AIRCRAFT (HOBBYIST OR RECREATIONAL USE), CIVIL (INCLUDING COMMERCIAL), AND PUBLIC OPERATORS, IN THE DC SFRA.
B. THE FAA HAS ESTABLISHED THE DC SFRA, INCLUDING THE DC FRZ, PURSUANT TO 49 USC 40103(B)(3). PERSONS OPERATING UAS IN THE DC SFRA
2001150001-PERM
END PART 1 OF 7
!FDC 9/1811 ZDC PART 2 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS, WHO DO NOT ADHERE TO THE PROCEDURES PRESCRIBED BY 14 CFR SECTIONS 93.335, 93.337, 93.339, 93.341, AND 99.7, AND THE FOLLOWING UAS-SPECIFIC SUPPLEMENTAL SPECIAL SECURITY INSTRUCTIONS MAY FACE RESPONSE AND ENFORCEMENT ACTIONS AS DESCRIBED IN THE DC SFRA AND DC FLIGHT RESTRICTED ZONE (FRZ) FDC NOTAMS.
C. UAS OPERATIONS ARE PROHIBITED IN THE DC FRZ UNLESS AN AIRSPACE WAIVER IS GRANTED IN ACCORDANCE WITH SECTION V, B. BELOW.
D. UAS OPERATORS WHO DO NOT COMPLY WITH APPLICABLE AIRSPACE RESTRICTIONS ARE WARNED THAT PURSUANT TO 18 U.S.C. SECTION 3056A, 10 U.S.C. SECTION 130I,
AND 6 U.S.C. SECTION 121 (AS AMENDED), THE DEPARTMENT OF HOMELAND SECURITY (DHS), UNITED STATES SECRET SERVICE (USSS), AND THE DEPARTMENT OF DEFENSE (DOD) MAY TAKE SECURITY ACTION THAT RESULTS IN THE INTERFERENCE, DISRUPTION, SEIZURE,
DAMAGING, OR DESTRUCTION OF UNMANNED AIRCRAFT DEEMED TO POSE A CREDIBLE SAFETY OR SECURITY THREAT TO PROTECTED PERSONNEL, FACILITIES, OR ASSETS.
SECTION II. OPERATING REQUIREMENTS FOR DC SFRA (MODEL AIRCRAFT UAS OPERATIONS): ALL MODEL AIRCRAFT (FOR HOBBYIST OR RECREATIONAL USE ONLY) UAS OPERATIONS ARE PROHIBITED WITHIN THE DC SFRA UNLESS IN
2001150001-PERM
END PART 2 OF 7
!FDC 9/1811 ZDC PART 3 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS, COMPLIANCE WITH ALL OF THE REQUIREMENTS LISTED BELOW. REFER TO SECTION VI OF THIS NOTAM FOR THE APPLIED DEFINITION OF MODEL AIRCRAFT OPERATIONS.
A. THE UAS IS REGISTERED AND MARKED AS REQUIRED BY THE FAA. REFER TO

INSTRUCTIONS PROVIDED AT WWW.FAA.GOV/UAS/REGISTRATION.
B. THE UAS WEIGHS LESS THAN 55 LBS, INCLUDING ALL ADDED EQUIPMENT (SUCH AS CAMERAS) ATTACHED TO THE AIRCRAFT.
C. OPERATIONS MUST REMAIN AT OR BELOW 400 FEET ABOVE GROUND LEVEL (AGL) UNLESS ISSUED A SITE SPECIFIC WAIVER BY SYSTEM OPERATIONS SECURITY.
D. OPERATIONS MUST REMAIN WITHIN VISUAL LINE OF SIGHT OF THE OPERATOR AND IN COMPLIANCE WITH THE FOLLOWING:
1. OPERATIONS MUST BE CONDUCTED UNDER VISUAL METEOROLOGICAL CONDITIONS (VMC).
2. OPERATIONS MUST NOT BE CONDUCTED DURING NIGHT AS DEFINED IN 14 CFR SECTION 1.1.
3. FLIGHTS UNDER SPECIAL VISUAL FLIGHT RULES (SVFR) ARE NOT AUTHORIZED.
E. OPERATIONS MUST COMPLY WITH ALL RESTRICTIONS AND LIMITATIONS UNDER 49 USC 44809(A), (B) AND (C), EXCEPTIONS FOR LIMITED
2001150001-PERM
END PART 3 OF 7
!FDC 9/1811 ZDC PART 4 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS, RECREATIONAL OPERATIONS OF UNMANNED AIRCRAFT.
F. OPERATIONS MUST NOT INTERFERE WITH AND MUST GIVE WAY TO MANNED AIRCRAFT.
G. MODEL AIRCRAFT UAS OPERATIONS ARE PROHIBITED IN THE DC FRZ.
SECTION III. OPERATING REQUIREMENTS FOR DC SFRA (CIVIL, INCLUDING COMMERCIAL, UAS OPERATIONS): ALL CIVIL, INCLUDING COMMERCIAL, UAS OPERATIONS ARE PROHIBITED WITHIN DC SFRA UNLESS IN COMPLIANCE WITH TITLE 14 CFR PART 107 OR THE OPERATOR'S APPLICABLE FAA GRANT OF EXEMPTION PURSUANT TO PUBLIC LAW 112-95, SECTION 333, AND FAA CERTIFICATE OF AUTHORIZATION OR WAIVER (COA) REFER TO SECTION VI OF THIS NOTAM FOR THE APPLIED DEFINITION OF CIVIL, INCLUDING COMMERCIAL, UAS OPERATIONS.
SECTION IV. OPERATING REQUIREMENTS FOR DC SFRA (PUBLIC UAS OPERATIONS): ALL PUBLIC UAS OPERATIONS ARE PROHIBITED WITHIN DC SFRA, UNLESS IN COMPLIANCE WITH THE OPERATOR'S APPLICABLE CERTIFICATE OF AUTHORIZATION (COA) OR WAIVER OR OPERATING UNDER TITLE 14 CFR PART 107. REFER TO SECTION VI OF THIS NOTAM FOR THE APPLIED DEFINITION OF PUBLIC UAS OPERATIONS.
SECTION V. ADDITIONAL GENERAL OPERATING REQUIREMENTS AND GUIDANCE FOR DC SFRA (ALL TYPES OF UAS OPERATIONS):
2001150001-PERM
END PART 4 OF 7
!FDC 9/1811 ZDC PART 5 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS,
A. UAS OPERATIONS IN THE DC SFRA MUST NOT PENETRATE RESTRICTED AREAS, PROHIBITED AREAS, OR TEMPORARY FLIGHT RESTRICTIONS (TFR). RESTRICTED AND PROHIBITED AREAS ARE DEPICTED ON CHARTS AVAILABLE THROUGH THE FAA - REFER TO WWW.FAA.GOV/AIR_TRAFFIC/FLIGHT_INFO/AERONAV. INFORMATION ON CURRENT TFR'S CAN BE OBTAINED AT HTTP://TFR.FAA.GOV
B. UAS OPERATIONS IN THE DC SFRA MUST NOT PENETRATE THE DC FRZ. UAS OPERATIONS ARE PROHIBITED IN THE DC FRZ UNLESS SPECIFICALLY AUTHORIZED VIA THE TSA/FAA AIRSPACE WAIVER PROCESS. CERTAIN COMMERCIAL AND PUBLIC UAS OPERATIONS ARE ELIGIBLE TO REQUEST AIRSPACE WAIVERS TO OPERATE IN THE DC FRZ. APPLICATION GUIDELINES CAN BE FOUND AT:
WWW.TSA.GOV/SITES/DEFAULT/FILES/UAS_FRZ_WAIVER_APPLICANTS_TSA_GUIDELINES.PDF.
C. UAS OPERATORS SHOULD BE AWARE OF OTHER NOTAMS, WHICH ADDRESS SECURITY SENSITIVE INCIDENTS, EVENTS, OPERATIONS, AND/OR LOCATIONS SUCH AS MILITARY OR OTHER FEDERAL FACILITIES, CERTAIN STADIUMS, POWER PLANTS, ELECTRIC SUBSTATIONS, DAMS, OIL REFINERIES, NATIONAL PARKS, EMERGENCY, SERVICES AND OTHER INDUSTRIAL COMPLEXES. IN ADDITION TO THE PREVIOUSLY MENTIONED LINK, INFORMATION REGARDING
2001150001-PERM
END PART 5 OF 7

!FDC 9/1811 ZDC PART 6 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS,
PUBLISHED NOTAMS CAN BE FOUND AT:
WWW.FAA.GOV/AIR_TRAFFIC/PUBLICATIONS/NOTICES/
D. UAS OPERATIONS MUST NOT INTERFERE WITH AND MUST GIVE WAY TO
MANNED AIRCRAFT.
SECTION VI. DEFINITIONS:
A. MODEL AIRCRAFT UAS: UAS MUST MEET THE REQUIREMENTS PRESCRIBED BY
PUBLIC LAW 112-95, SECTION 336, TO QUALIFY AS A MODEL AIRCRAFT,
WHICH IS USED EXCLUSIVELY FOR HOBBYIST OR RECREATIONAL PURPOSES. UAS
USED FOR COMMERCIAL ACTIVITY DO NOT QUALIFY AS MODEL AIRCRAFT.
B. CIVIL, INCLUDING COMMERCIAL UAS: CIVIL UAS OPERATIONS GENERALLY
COMPRISE FLIGHTS CONDUCTED BY PRIVATE SECTOR ENTITIES FOR COMMERCIAL
PURPOSES. REFER TO TITLE 14 CFR PART 107 OR PUBLIC LAW 112-95,
SECTION 333, FOR ADDITIONAL DETAILS ON UAS OPERATIONS THAT ARE
ADDRESSED BY SECTION III OF THIS NOTAM.
C. PUBLIC UAS: PUBLIC UAS OPERATIONS GENERALLY INCLUDE GOVERNMENTAL
OPERATIONS, INCLUDING DEPARTMENT OF DEFENSE (DOD) AND NATIONAL GUARD
(NG) FLIGHTS. REFER TO 49 USC SECTION 40102(A) (41), WHICH PROVIDES
THE DEFINITION OF "PUBLIC AIRCRAFT" AND 49 USC SECTION 40125
PROVIDES THE QUALIFICATIONS FOR PUBLIC AIRCRAFT STATUS.
SECTION VII. RESOURCES:
2001150001-PERM
END PART 6 OF 7
!FDC 9/1811 ZDC PART 7 OF 7 SECURITY...SPECIAL SECURITY INSTRUCTIONS,
A. THE CODE OF FEDERAL REGULATIONS CAN BE FOUND ON THE GOVERNMENT
PRINTING OFFICE WEBSITE AT WWW.ECFR.GOV.
B. ANY UAS OPERATOR QUESTIONS REGARDING DC SFRA OR FRZ PROCEDURES
SHOULD BE DIRECTED TO THE FAA UNMANNED AIRCRAFT SYSTEM PROGRAM
OFFICE AT 202-267-7540.
C. FAA INFORMATION TO HELP UAS OPERATORS UNDERSTAND REQUIREMENTS AND
RESTRICTIONS, WHICH COULD BE IN EFFECT AT THEIR INTENDED OPERATING
LOCATION, IS AVAILABLE THROUGH THE FAA'S B4UFLY SMARTPHONE
APPLICATION - SEE:
HTTPS://WWW.FAA.GOV/UAS/RECREATIONAL_FLIERS/WHERE_CAN_I_FLY/B4UFLY/
2001150001-PERM
END PART 7 OF 7

!FDC 9/1812 ZDC PART 1 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
THIS NOTAM AND COMPLEMENTARY NOTAMS REPLACE FDC 6/7201 TO PROVIDE
UPDATED INSTRUCTIONS. THIS NOTAM REFERENCES THE WASHINGTON DC
SPECIAL FLIGHT RULES AREA (SFRA) ONLY. A SEPARATE NOTAM REFERENCES
THE WASHINGTON DC FLIGHT RESTRICTED ZONE (FRZ) PROCEDURES AND
OPERATIONS BY UNMANNED AIRCRAFT SYSTEMS (UAS), INCLUDING MODEL
AIRCRAFT (HOBBYIST OR RECREATIONAL USA ONLY), CIVIL AND COMMERCIAL
OPERATIONS, AND PUBLIC OPERATIONS WITHIN THE SFRA.
SPECIAL SECURITY INSTRUCTIONS FOR AIRCRAFT OPERATIONS IN THE DC SFRA
ARE IN EFFECT PURSUANT TO 14 CODE OF FEDERAL REGULATIONS (CFR)
SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, 93.345, AND 99.7,
AND 49 UNITED STATES CODE (USC) SECTION 40103(B)(3). THIS NOTAM AND
THREE RELATED NOTAMS REGARDING THE: DC FLIGHT RESTRICTED ZONE (FRZ);
LEESBURG MANEUVERING AREA (LMA); AND UNMANNED AIRCRAFT SYSTEM (UAS)
OPERATIONS IN THE DC SFRA, CLARIFY AND SUPPLEMENT THE OPERATING
REQUIREMENTS PRESCRIBED BY THE CITED 14 CFR SECTIONS.
SECTION I. RESPONSE AND ENFORCEMENT: PURSUANT TO 49 USC 40103(B)(3),
THE FAA HAS ESTABLISHED THE DC SFRA AS 'NATIONAL DEFENSE AIRSPACE'.
PERSONS WHO DO NOT ADHERE TO THE PROCEDURES PRESCRIBED BY THE CITED
14 CFR SECTIONS AND THIS NOTAM MAY FACE THE FOLLOWING RESPONSE AND
2001150001-PERM
END PART 1 OF 8
!FDC 9/1812 ZDC PART 2 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
ENFORCEMENT ACTIONS:
A. PILOTS OF AIRCRAFT THAT DO NOT ADHERE TO THE PROCEDURES IN THE

SPECIAL SECURITY REQUIREMENTS CONTAINED IN THIS NOTAM MAY BE
INTERCEPTED, AND/OR DETAINED AND INTERVIEWED BY FEDERAL, STATE, OR
LOCAL LAW ENFORCEMENT, OR OTHER GOVERNMENT PERSONNEL.
B. PILOTS OF AIRCRAFT THAT DO NOT ADHERE TO THE PROCEDURES IN THE
SPECIAL SECURITY REQUIREMENTS CONTAINED IN THIS NOTAM MAY FACE FAA
ADMINISTRATIVE ENFORCEMENT ACTIONS, INCLUDING IMPOSING CIVIL
PENALTIES AND THE SUSPENSION OR REVOCATION OF AIRMEN CERTIFICATES.
C. ANY PERSON WHO KNOWINGLY OR WILLFULLY VIOLATES THE RULES
CONCERNING OPERATIONS IN THIS AIRSPACE MAY BE SUBJECT TO CRIMINAL
PENALTIES UNDER 49 USC SECTION 46307.
D. THE U.S. GOVERNMENT MAY USE DEADLY FORCE AGAINST AN AIRCRAFT
OPERATING IN THE DC SFRA, INCLUDING THE DC FRZ, IF IT IS DETERMINED
THAT THE AIRCRAFT POSES AN IMMINENT SECURITY THREAT.
SECTION II. OPERATING REQUIREMENTS: ALL AIRCRAFT FLIGHT OPERATIONS
ARE PROHIBITED WITHIN THE DC SFRA UNLESS IN COMPLIANCE WITH 14 CFR
SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, AND 93.345, AND THE
FOLLOWING SUPPLEMENTAL SPECIAL SECURITY INSTRUCTIONS REQUIRED
2001150001-PERM
END PART 2 OF 8
!FDC 9/1812 ZDC PART 3 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
PURSUANT TO 14 CFR SECTION 99.7 AND 49 USC SECTION 40103(B)(3):
A. APPLICATION OF DEFINITIONS IN 14 CFR SECTION 93.335:
1. A DC SFRA FLIGHT PLAN DOES NOT FULFILL THE REQUIREMENTS FOR
VISUAL FLIGHT RULES (VFR).
2. A DC FRZ FLIGHT PLAN IS REQUIRED FOR VFR OPERATIONS IN THE DC
FRZ. PILOTS MAY NOT FILE A DC FRZ FLIGHT PLAN WHILE AIRBORNE.
B. ADDITIONS TO REQUIREMENTS IN 14 CFR SECTION 93.339 - DC SFRA:
1. AIRCRAFT OPERATING IN THE DC SFRA MUST BE EQUIPPED WITH AN
OPERABLE TWO WAY RADIO CAPABLE OF COMMUNICATING WITH AIR TRAFFIC
CONTROL (ATC) ON APPROPRIATE RADIO FREQUENCIES OR UNICOM. IT IS
HIGHLY RECOMMENDED THAT A PILOT CONTINUOUSLY MONITOR VHF FREQUENCY
121.5 OR UHF FREQUENCY 243.0 FOR EMERGENCY INSTRUCTIONS WHEN
OPERATING AN AIRCRAFT IN THE DC SFRA, EITHER IN AN AIRCRAFT THAT IS
SUITABLY EQUIPPED, OR BY USE OF PORTABLE EQUIPMENT.
2. ANY PERSON OPERATING AN AIRBORNE AIRCRAFT UNDER VFR TO OR FROM,
WITHIN, OR TRANSITING THE DC SFRA/FRZ WHO BECOMES AWARE OF AN
INABILITY TO COMPLY WITH THE REQUIREMENT TO MAINTAIN RADIO CONTACT
WITH AIR TRAFFIC CONTROL (ATC) MUST IMMEDIATELY SQUAWK 7600 AND EXIT
THE DC SFRA/FRZ BY THE MOST DIRECT LATERAL ROUTE EXCEPT WHEN THE
2001150001-PERM
END PART 3 OF 8
!FDC 9/1812 ZDC PART 4 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
DEPARTURE POINT IS WITHIN THE DC SFRA AND THE DEPARTURE POINT IS
CLOSER THAN THE DC SFRA BOUNDARY, THE PILOT MAY RETURN TO THE
DEPARTURE POINT BY THE MOST DIRECT ROUTE.
3. ANY PERSON OPERATING AN AIRBORNE AIRCRAFT UNDER INSTRUMENT FLIGHT
RULES (IFR) TO OR FROM, WITHIN, OR TRANSITING THE DC SFRA/FRZ WHO
BECOMES AWARE OF AN INABILITY TO COMPLY WITH THE REQUIREMENT TO
MAINTAIN RADIO CONTACT WITH ATC MUST CONTINUE THE FLIGHT IN
COMPLIANCE WITH THE TWO-WAY RADIO COMMUNICATIONS FAILURE PROCEDURES
FOUND IN THE FAA AERONAUTICAL INFORMATION MANUAL (AIM) AND/OR
APPLICABLE FEDERAL AVIATION REGULATIONS (FAR).
4. ANY PERSON OPERATING AN AIRCRAFT TO OR FROM, WITHIN, OR
TRANSITING THE DC SFRA WHO BECOMES AWARE OF AN INABILITY TO COMPLY
WITH THE REQUIREMENT TO CONTINUOUSLY SQUAWK AN ATC ASSIGNED
TRANSPONDER CODE MUST IMMEDIATELY ADVISE ATC AND COMPLY WITH ALL
INSTRUCTIONS FROM ATC. IF UNABLE TO CONTACT ATC, PILOTS MUST EXIT
THE DC SFRA/FRZ BY THE MOST DIRECT LATERAL ROUTE EXCEPT WHEN THE
DEPARTURE POINT IS WITHIN THE DC SFRA AND THE DEPARTURE POINT IS
CLOSER THAN THE DC SFRA BOUNDARY, THE PILOT MAY RETURN TO THE
DEPARTURE POINT BY THE MOST DIRECT ROUTE.
2001150001-PERM

END PART 4 OF 8
!FDC 9/1812 ZDC PART 5 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
5. THE PROCEDURES IN SECTION II, SUBSECTION A, B, AND C DO NOT
AUTHORIZE PENETRATION OF RESTRICTED AREAS OR PROHIBITED AREAS.
6. AIRCRAFT DEPARTING AIRPORTS WITHIN THE DC SFRA WITH LIMITED
TWO-WAY RADIO COMMUNICATIONS MUST ESTABLISH TWO-WAY COMMUNICATIONS
AS SOON AS FEASIBLE, NORMALLY WITHIN 2NM OF THE DEPARTURE POINT.
7. PATTERN WORK OPERATIONS AT UN-CONTROLLED AIRPORTS WITHIN THE DC
SFRA (BUT NOT WITHIN THE DC FRZ) MUST BE CONDUCTED IN ACCORDANCE
WITH 14 CFR SECTION 93.339 (C) AND THE PROCEDURES SPECIFIED IN THE
MOST CURRENT POTOMAC TRACON LETTER TO AIRMEN (LTA) ON THE SUBJECT.
THE LETTER CAN BE FOUND AT: HTTPS://NOTAMS.AIM.FAA.GOV/NOTAMSEARCH/
(SEARCH LOCATION PCT).
(A) ALL PILOTS WHO INTEND TO CONDUCT VFR TRAFFIC PATTERN WORK AT AN
AIRPORT WITHIN THE DC SFRA (NOT WITHIN THE DC FRZ) WHICH DOES NOT
HAVE AN OPERATING CONTROL TOWER OR WHEN THE CONTROL TOWER IS CLOSED
MUST:
(1) INCLUDE "PATTERN" IN SFRA FLIGHT PLAN REMARKS.
(2) PRIOR TO DEPARTURE, CONTACT POTOMAC TRACON VIA TELEPHONE NUMBER
SPECIFIED IN LTA TO OBTAIN TRANSPONDER CODE AND ADVISE TRACON OF
INTENT TO CONDUCT PATTERN WORK.
2001150001-PERM
END PART 5 OF 8
!FDC 9/1812 ZDC PART 6 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
(3) INFORM ATC OF INTENT TO CONDUCT PATTERN WORK PRIOR TO CHANGING
TO COMMON TRAFFIC ADVISORY FREQUENCY (CTAF).
(B) UPON COMPLETION OF PATTERN WORK, PILOTS MUST CONTACT POTOMAC
TRACON VIA TELEPHONE NUMBER SPECIFIED IN LTA TO ADVISE PATTERN WORK
IS COMPLETE.
8. OPERATIONS BY UNMANNED AIRCRAFT SYSTEMS (UAS), INCLUDING MODEL
AIRCRAFT (HOBBYIST OR RECREATIONAL USE ONLY), CIVIL AND COMMERCIAL
OPERATIONS, AND PUBLIC OPERATIONS, ARE ONLY AUTHORIZED WITHIN THE DC
SFRA, EXCLUDING THE DC FRZ, IF IN COMPLIANCE WITH THE SEPARATE FAA
NOTAM, WHICH PRESCRIBES UAS-SPECIFIC OPERATING REQUIREMENTS IN THE
DC SFRA NOTAM FDC 9/1811.
SECTION III. RESOURCES:
A. THE CODE OF FEDERAL REGULATIONS CAN BE FOUND ON THE GOVERNMENT
PRINTING OFFICE WEBSITE AT WWW.ECFR.GOV.
B. ANY PILOT QUESTIONS REGARDING DC SFRA OR FRZ PROCEDURES SHOULD BE
DIRECTED TO THE FAA SYSTEM OPERATIONS SECURITY REPRESENTATIVE AT THE
NATIONAL CAPITAL REGION COORDINATION CENTER (NCRCC) AT
9-ATO-NCRCC@FAA.GOV OR (866) 598-9522.
C. FOR THOSE WAIVERS AND REQUIREMENTS IN THIS NOTAM THAT REQUIRE
2001150001-PERM
END PART 6 OF 8
!FDC 9/1812 ZDC PART 7 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
NOTIFICATION TO THE TSA AT THE NCRCC, CALL (866) 598-9520.
D. FOR THOSE WAIVERS AND REQUIREMENTS IN THIS NOTAM THAT REQUIRE
NOTIFICATION TO THE FAA AT THE NCRCC, CALL (866) 598-9522.
E. THE LATEST POTOMAC TRACON (PCT) LETTER TO AIRMEN CAN BE FOUND AT:
HTTPS://NOTAMS.AIM.FAA.GOV/NOTAMSEARCH/ (SEARCH LOCATION PCT).
F. INFORMATION ABOUT FAA/TSA AIRSPACE WAIVER APPLICATIONS AND TSA
SECURITY AUTHORIZATIONS CAN BE FOUND AT
WWW.TSA.GOV/FOR-INDUSTRY/GENERAL-AVIATION OR BY CONTACTING TSA AT
(571) 227-2071.
G. SPECIAL AWARENESS TRAINING FOR THE WASHINGTON DC METROPOLITAN
AREA IS MANDATORY FOR ALL PILOTS THAT FLY UNDER VFR WITHIN 60 NM OF
THE DCA VOR/DME (14 CFR PARTS 61 AND 91, EFFECTIVE FEBRUARY 9,
2009). THIS TRAINING IS AVAILABLE IN THE AVIATION LEARNING CENTER AT
WWW.FAASAFETY.GOV. IT IS STRONGLY RECOMMENDED THAT ALL PILOTS FLYING
UNDER VISUAL FLIGHT RULES (VFR) WITHIN 100 NM OF THE DCA VOR/DME

ALSO COMPLETE THIS TRAINING.
H. INDIVIDUALS MAY SUBMIT A REQUEST FOR A FAA WAIVER AT WAIVERS.FAA.GOV. AFTER NORMAL BUSINESS HOURS, FOR EMERGENCY OR SHORT NOTICE REQUESTS, CONTACT TSA AT THE NCRCC AT (866) 598-9520.
2001150001-PERM
END PART 7 OF 8
!FDC 9/1812 ZDC PART 8 OF 8 ...SPECIAL SECURITY INSTRUCTIONS, WASHINGTON, DC.
I. THE TRANSPONDER REQUIREMENTS DESCRIBED IN THIS NOTAM ARE ESTABLISHED SOLELY FOR SECURITY TRACKING PURPOSES AND DO NOT IMPLY THE PROVISION OF ATC RADAR SERVICES, UNLESS ATC SERVICES ARE REQUESTED AND APPROVED.
J. THE COMMUNICATIONS REQUIREMENTS DESCRIBED IN THIS NOTAM ARE ESTABLISHED TO MAINTAIN THE ABILITY TO IMMEDIATELY COMMUNICATE SECURITY-BASED INSTRUCTIONS, NOT NECESSARILY FOR ATC SERVICES, UNLESS ATC SERVICES ARE REQUESTED AND APPROVED.
2001150001-PERM
END PART 8 OF 8

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!FDC 0/0053 ZDC PART 1 OF 10 ...SPECIAL SECURITY INSTRUCTIONS, WASHINGTON, DC. THIS NOTAM AND COMPLEMENTARY NOTAMS REPLACE FDC 8/3032 TO PROVIDE UPDATED INSTRUCTIONS. THIS NOTAM REFERENCES THE WASHINGTON DC FLIGHT RESTRICTED ZONE (FRZ) PROCEDURES. A SEPARATE NOTAM REFERENCES THE WASHINGTON DC SPECIAL FLIGHT RULES AREA (SFRA) PROCEDURES. SPECIAL SECURITY INSTRUCTIONS FOR AIRCRAFT OPERATIONS IN THE DC FLIGHT RESTRICTED ZONE (FRZ), A PART OF THE DC SPECIAL FLIGHT RULES AREA (SFRA), ARE IN EFFECT PURSUANT TO 14 CODE OF FEDERAL REGULATIONS (CFR) SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, 93.345, AND 99.7, AND 49 UNITED STATES CODE (USC) SECTION 40103(B)(3). THIS NOTAM AND THREE RELATED NOTAMS REGARDING THE: DC SFRA, EXCLUDING THE DC FRZ, WHICH IS ADDRESSED BY THIS NOTAM; THE LEESBURG MANEUVERING AREA (LMA); AND UNMANNED AIRCRAFT SYSTEM (UAS) OPERATIONS IN THE DC SFRA CLARIFY AND SUPPLEMENT THE OPERATING REQUIREMENTS PRESCRIBED BY THE CITED 14 CFR SECTIONS.
SECTION I. RESPONSE AND ENFORCEMENT: PURSUANT TO 49 USC 40103(B)(3),THE FAA HAS ESTABLISHED THE DC FRZ, A PART OF THE DC SFRA, AS 'NATIONAL DEFENSE AIRSPACE'. PERSONS WHO DO NOT ADHERE TO THE PROCEDURES PRESCRIBED BY THE CITED 14 CFR SECTIONS AND THIS NOTAM MAY FACE THE FOLLOWING RESPONSE AND ENFORCEMENT ACTION OUTLINED:
2001150001-PERM
END PART 1 OF 10
!FDC 0/0053 ZDC PART 2 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
A. PILOTS OF AIRCRAFT THAT DO NOT ADHERE TO THE PROCEDURES IN THE SPECIAL SECURITY REQUIREMENTS CONTAINED IN THIS NOTAM MAY BE INTERCEPTED, AND/OR DETAINED AND INTERVIEWED BY FEDERAL, STATE, OR LOCAL LAW ENFORCEMENT, OR OTHER GOVERNMENT PERSONNEL.
B. PILOTS OF AIRCRAFT THAT DO NOT ADHERE TO THE PROCEDURES IN THE SPECIAL SECURITY REQUIREMENTS CONTAINED IN THIS NOTAM MAY FACE FAA ADMINISTRATIVE ENFORCEMENT ACTION, INCLUDING IMPOSING CIVIL PENALTIES AND THE SUSPENSION OR REVOCATION OF AIRMEN CERTIFICATES.
C. ANY PERSON WHO KNOWINGLY OR WILLFULLY VIOLATES THE RULES CONCERNING OPERATIONS IN THIS AIRSPACE MAY BE SUBJECT TO CRIMINAL PENALTIES UNDER 49 USC SECTION 46307.
D. THE U.S. GOVERNMENT MAY USE DEADLY FORCE AGAINST A FLIGHT OPERATING IN THE DC SFRA, INCLUDING THE DC FRZ, IF IT IS DETERMINED THAT THE AIRCRAFT POSES AN IMMINENT SECURITY THREAT.
SECTION II. OPERATING REQUIREMENTS: ALL AIRCRAFT FLIGHT OPERATIONS ARE PROHIBITED WITHIN THE DC FRZ, A PART OF THE DC SFRA, UNLESS IN COMPLIANCE WITH 14 CFR SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, AND 93.345, AND THE FOLLOWING SUPPLEMENTAL SPECIAL SECURITY INSTRUCTIONS REQUIRED PURSUANT TO 14 CFR SECTION 99.7 AND 49 USC SECTION 40103(B)(3):
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END PART 2 OF 10
!FDC 0/0053 ZDC PART 3 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
A. APPLICATION OF DEFINITIONS IN 14 CFR SECTION 93.335:
1. A DC FRZ FLIGHT PLAN MUST BE FILED WITH THE WASHINGTON CENTER
FLIGHT DATA UNIT (ZDC FDU) AT 703-771-3476. 2. A DC FRZ FLIGHT PLAN
IS REQUIRED FOR VISUAL FLIGHT RULES (VFR)OPERATIONS IN THE DC FRZ.
PILOTS MAY NOT FILE A DC FRZ FLIGHT PLAN WHILE AIRBORNE.
B. ADDITIONS TO REQUIREMENTS IN 14 CFR SECTION 93.341-DC FRZ:
1. AIRCRAFT OPERATING IN THE DC FRZ MUST BE EQUIPPED WITH AN
OPERABLE TWO WAY RADIO CAPABLE OF COMMUNICATING WITH AIR TRAFFIC
CONTROL (ATC) ON APPROPRIATE RADIO FREQUENCIES OR UNICOM. IT IS
HIGHLY RECOMMENDED THAT A PILOT CONTINUOUSLY MONITOR VHF FREQUENCY
121.5 OR UHF FREQUENCY 243.0 FOR EMERGENCY INSTRUCTIONS WHEN
OPERATING AN AIRCRAFT IN THE DC FRZ, EITHER IN AN AIRCRAFT THAT IS
SUITABLY EQUIPPED, OR BY USE OF PORTABLE EQUIPMENT. 2. AIRCRAFT
OPERATING VFR WITHIN OR TRANSITING THE DC FRZ WHO BECOME AWARE OF AN
INABILITY TO MAINTAIN RADIO CONTACT WITH ATC MUST IMMEDIATELY SQUAWK
7600 AND EXIT THE DC FRZ BY THE MOST DIRECT LATERAL ROUTE. A. IF THE
DEPARTURE POINT IS WITHIN THE DC FRZ AND THE AIRCRAFT IS WITHIN 5 NM
OF THE DEPARTURE POINT, THE PILOT MAY RETURN TO THE DEPARTURE POINT
BY THE MOST DIRECT ROUTE. OTHERWISE,THE PILOT MUST EXIT THE DC FRZ
VIA THE MOST DIRECT ROUTE. 3. ANY INSTRUMENT FLIGHT RULES (IFR)
2001150001-PERM
END PART 3 OF 10
!FDC 0/0053 ZDC PART 4 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
AIRCRAFT OPERATING WITHIN OR TRANSITING THE DC FRZ WHO BECOME AWARE
OF AN INABILITY TO MAINTAIN RADIO CONTACT WITH ATC MUST CONTINUE THE
FLIGHT IN COMPLIANCE WITH THE TWO-WAY RADIO COMMUNICATIONS FAILURE
PROCEDURES FOUND IN THE FAA AERONAUTICAL INFORMATION MANUAL (AIM)
AND/OR/ APPLICABLE FEDERAL AVIATION REGULATIONS (FAR). 4. AIRCRAFT
OPERATING WITHIN OR TRANSITING THE DC FRZ WHO BECOME AWARE OF AN
INABILITY TO SQUAWK AN ASSIGNED TRANSPONDER CODE MUST IMMEDIATELY
ADVISE ATC AND COMPLY WITH ALL INSTRUCTIONS. IF UNABLE TO CONTACT
ATC, PILOTS MUST EXIT THE DC FRZ WHEN THE DEPARTURE POINT IS WITHIN
THE DC FRZ AND THE AIRCRAFT IS WITHIN 5 NM OF THE DEPARTURE POINT,
THE PILOT MAY RETURN TO THE DEPARTURE POINT BY THE MOST DIRECT
ROUTE. OTHERWISE, THE PILOT MUST EXIT THE DC FRZ VIA THE MOST DIRECT
ROUTE. 5. THE OPERATIONS LISTED BELOW ARE NOT AUTHORIZED WITHIN THE
DC FRZ.IN LIMITED CASES, EXCEPTIONS TO THESE PROHIBITIONS MAY BE
AUTHORIZED THROUGH THE FAA/TSA AIRSPACE WAIVER APPLICATION PROCESS.
(A) FLIGHT TRAINING. (B) AEROBATIC FLIGHT. (C) PRACTICE INSTRUMENT
APPROACHES. (D) GLIDER OPERATIONS. (E) PARACHUTE OPERATIONS (F)
ULTRA LIGHT, HANG GLIDING. (G) BALLOON OPERATIONS. (H) TETHERED
BALLOONS. (I) AGRICULTURE/CROP DUSTING (J) ANIMAL POPULATION CONTROL
FLIGHT OPERATIONS. (K) BANNER TOWING OPERATIONS. (L) MAINTENANCE
2001150001-PERM
END PART 4 OF 10
!FDC 0/0053 ZDC PART 5 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
TEST FLIGHTS. (M) UAS (INCLUDING MODEL AIRCRAFT, CIVIL, AND PUBLIC
OPERATIONS). (N) MODEL ROCKETRY. (O) FLOAT PLANE OPERATIONS. (P)
AIRCRAFT/HELICOPTERS OPERATING FROM A SHIP OR PRIVATE/CORPORATE
YACHT. 6. TRANSIT FLIGHTS ARE PROHIBITED EXCEPT FOR APPROVED
OPERATORS LANDING OR DEPARTING AIRPORTS WITHIN THE SFRA ON
ESTABLISHED ATC PROCEDURES.7. ALL STATE, AND LOCAL LAW ENFORCEMENT
AND AIRCRAFT AIR AMBULANCE FLIGHTS MUST OBTAIN AND COMPLY WITH A
FAA/TSA WAIVER FOR OPERATIONS WITHIN THE DC FRZ. 8. DEPARTMENT OF
DEFENSE (DOD), AND NATIONAL GUARD OPERATORS CONDUCTING VFR, ROTARY
WING FLIGHTS IN THE DC FRZ MUST OBTAIN APPROVAL FROM THE FAA AT THE
NCRCC AT 866-598-9525 PRIOR TO ENTERING THE FRZ. 9. APPROVED DOD,
NATIONAL GUARD, LAW ENFORCEMENT, AND LIFEGUARD/AIR AMBULANCE
OPERATORS MAY CONDUCT TRAINING/MAINTENANCE FLIGHTS WITHIN THE DC FRZ
WITH PRIOR APPROVAL AND COORDINATION WITH THE FAA AT THE NCRCC AT
866-598-9522. THESE OPERATIONS ARE TO BE KEPT TO A MINIMUM
CONSISTENT WITH FLIGHT SAFETY AND PILOT PROFICIENCY.

10. THE FAA OFFICE OF SYSTEM OPERATIONS SECURITY MAY EXEMPT
OPERATORS FROM THE OUTLINED DC FRZ REQUIREMENTS BASED ON SAFETY,
CRITICALITY, AND URGENCY OF THE PROPOSED FLIGHT.
C. ADDITIONS TO REQUIREMENTS IN 14 CFR SECTION 93.341 - OPERATIONS
2001150001-PERM
END PART 5 OF 10
!FDC 0/0053 ZDC PART 6 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
AT RONALD REAGAN WASHINGTON NATIONAL AIRPORT (DCA):
1. PART 121 AND 129 REGULARLY SCHEDULED AIR CARRIER FLIGHTS
OPERATING IN COMPLIANCE WITH A TRANSPORTATION SECURITY
ADMINISTRATION (TSA) STANDARD SECURITY PROGRAM - THE APPROVED
AIRCRAFT OPERATOR STANDARD SECURITY PROGRAM (AOSSP), MODEL SECURITY
PROGRAM (MSP) OR FULL ALL CARGO AIRCRAFT OPERATOR STANDARD SECURITY
PROGRAM (FACAOSSP) - AND HAVE SPECIFIC AUTHORIZATION FROM THE
DEPARTMENT OF TRANSPORTATION (DOT), MAY LAND AND DEPART RONALD
REAGAN WASHINGTON NATIONAL AIRPORT (DCA), AND ARE HEREIN REFERRED TO
AS DCA APPROVED AIR CARRIERS. 2. DCA APPROVED AIR CARRIERS MAY
OPERATE UNSCHEDULED, CHARTERS,NON-REVENUE, REPOSITIONING OR
ADDITIONAL SEGMENTS WITHOUT A WAIVER UNDER THE FOLLOWING CONDITIONS:
(A) ALL SECURITY MEASURES CONTAINED IN THE APPROVED TSA FULL PROGRAM
(AOSSP) MUST BE APPLIED TO THE FLIGHT OPERATION.
(B) ALL PASSENGERS AND CREW MUST ENPLANE FROM A STERILE AREA WHERE
TSA CONDUCTS THE SCREENING, AND ALL INACCESSIBLE PROPERTY MUST BE
SCREENED BY TSA. ALL AIRCRAFT MUST BE INSPECTED PRIOR TO ARRIVAL AT
DCA. (C) THE TSA NCRCC MUST BE NOTIFIED BY TELEPHONE PRIOR TO
DEPARTURE AT 866-598-9520. (D) ALL OTHER FLIGHTS MUST OBTAIN AN
FAA/TSA WAIVER OR DCA ACCESS STANDARD SECURITY PROGRAM (DASSP)
2001150001-PERM
END PART 6 OF 10
!FDC 0/0053 ZDC PART 7 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
SECURITY AUTHORIZATION. ELIGIBLE OPERATIONS FOR A FAA/TSA WAIVER ARE
LIMITED TO: (1) U.S. GOVERNMENT OPERATIONS (GOV). (2) ELECTED
OFFICIALS (ELO). (3) SPECIAL OPERATIONS (SPO). (4) LAW ENFORCEMENT.
(5) MEDEVAC/AIR AMBULANCE FLIGHTS.(6) FLIGHTS BEING OPERATED IN
COMPLIANCE WITH ALL SECURITY MEASURES CONTAINED IN THE APPROVED TSA
AOSSP BUT NOT OPERATED BY A DCA APPROVED AIR CARRIER. ALL PASSENGERS
AND CREW MUST ENPLANE FROM A STERILE AREA WHERE TSA CONDUCTS THE
SCREENING, AND ALL INACCESSIBLE PROPERTY MUST BE SCREENED BY TSA.
ALL AIRCRAFT MUST BE INSPECTED PRIOR TO ARRIVAL AT DCA. (7).
UNSCHEDULED OPERATIONS AT DCA REQUIRE A SLOT RESERVATION. ADDITIONAL
INFORMATION MAY BE OBTAINED IN ADVISORY CIRCULAR (AC) 93-1. (8). PER
DOD REGULATIONS, RONALD REAGAN WASHINGTON NATIONAL AIRPORT (DCA) IS
AN EMERGENCY USE ONLY FIELD FOR ALL DOD OWNED AND OPERATED AIRCRAFT.
(9). DOD, NATIONAL GUARD, AND FEDERALLY OWNED AND OPERATED AIRCRAFT
WITH A SPECIFIC DIRECTED MISSION REQUIREMENT TO LAND/DEPART DCA MUST
OBTAIN APPROVAL FROM THE FAA NCRCC AT LEAST ONE HOUR PRIOR TO
DEPARTURE VIA TELEPHONE AT 866-598-9522. (10). FOREIGN STATE OR
DIPLOMATIC AIRCRAFT ARE NOT AUTHORIZED TO LAND OR DEPART AT DCA.
D. ADDITIONS TO REQUIREMENTS IN 14 CFR SECTION 93.341 - OPERATIONS
AT ANDREWS AFB (ADW) AND DAVISON ARMY AIRFIELD (DAA):
2001150001-PERM
END PART 7 OF 10
!FDC 0/0053 ZDC PART 8 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
1. DOD AND NATIONAL GUARD OWNED AND OPERATED AIRCRAFT MAY OPERATE AT
ADW OR DAA WITHOUT AN FAA/TSA WAIVER AND ARE RESPONSIBLE FOR THE
SECURITY OF THEIR AIRCRAFT, CREW, AND PASSENGERS. 2. FEDERALLY OWNED
AND OPERATED AIRCRAFT MAY OPERATE AT ADW OR DAA WITHOUT AN FAA/TSA
WAIVER. THE APPROVED GOVERNMENT OPERATORS ARE RESPONSIBLE FOR THE
SECURITY OF THEIR AIRCRAFT, CREW, AND PASSENGERS AND ARE REQUIRED TO
NOTIFY THE FAA AT THE NCRCC ONE HOUR PRIOR TO DEPARTURE AT
866-598-9522. 3. DCA APPROVED CARRIERS, OPERATING UNSCHEDULED OR
CHARTER FLIGHTS INTO ADW OR DAA, IN SUPPORT OF U.S. GOVERNMENT
OPERATIONS MAY OPERATE WITHOUT A WAIVER UNDER THE FOLLOWING
CONDITIONS: (A) ALL OPERATIONS MUST BE CONDUCTED IN ACCORDANCE WITH

THEIR TSA AIRCRAFT OPERATORS STANDARD SECURITY PROGRAM (AOSSP), INCLUDING DEPARTING FROM A TSA OR EQUIVALENT SCREENED TERMINAL. (B) NOTIFICATION TO THE TSA AT THE NCRCC VIA TELEPHONE AT 866-598-9520 IS REQUIRED PRIOR TO DEPARTURE. 4. A FAA/TSA WAIVER IS REQUIRED FOR ALL: (A) STATE GOVERNMENT AIRCRAFT. (B) LOCAL GOVERNMENT AIRCRAFT. (C) DOD CONTRACT OR NATIONAL GUARD CONTRACT INCLUDING CONTRACT AIRCRAFT USING MILITARY CALL SIGNS. (D) ON DEMAND PASSENGER OR CARGO OPERATIONS. (E) INCLUDING ALL PART 121, 125, 129, 135 FLIGHTS LANDING AND DEPARTING ADW OR DAA THAT ARE NOT OPERATED
2001150001-PERM
END PART 8 OF 10
!FDC 0/0053 ZDC PART 9 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
BY A DCA APPROVED CARRIER IN COMPLIANCE WITH A TSA APPROVED AOSSP. 5. NOTIFICATION TO THE TSA NCRCC VIA TELEPHONE AT 866-598-9520 IS REQUIRED PRIOR TO DEPARTURE. 6. 14 CFR SECTION 93.341 (C)(4) STATES THAT PRIOR PERMISSION MAY BE REQUIRED TO LAND OR DEPART ADW OR DAA. (A) A PRIOR PERMISSION REQUIRED (PPR) APPROVAL DOES NOT AUTHORIZE ENTRY INTO THE DC FRZ OR SUPERSEDE THESE NOTAM REQUIREMENTS. 7. FOREIGN OPERATED MILITARY OR FOREIGN STATE AIRCRAFT OPERATIONS WITH A U.S. STATE DEPARTMENT DIPLOMATIC CLEARANCE AND A PPR MAY LAND AND DEPART ONLY AT ADW WITHIN THE DC FRZ. DAA IS NOT AUTHORIZED FOR FOREIGN DIPLOMATIC FLIGHTS. E. ADDITIONS TO REQUIREMENTS IN 14 CFR SECTION 93.343: 1.OPERATIONS TO OR FROM COLLEGE PARK AIRPORT (CGS), POTOMAC AIRFIELD (VKX), OR WASHINGTON EXECUTIVE/HYDE FIELD AIRPORT (W32): (A) ALL AIRCRAFT ARRIVING/DEPARTING COLLEGE PARK AIRPORT (CGS) MUST ENTER/EXIT THE DC FRZ BETWEEN THE WASHINGTON /DCA/ VOR/DME 345 RADIAL AT 15 NM (390517N/771001.47W) AND THE WASHINGTON /DCA/ VOR/DME 105 RADIAL AT 13 NM (385011.25N/764538.40W). (B) ALL AIRCRAFT ARRIVING/DEPARTING POTOMAC AIRFIELD (VKX), OR WASHINGTON EXECUTIVE/HYDE FIELD AIRPORT (W32) MUST ENTER/EXIT THE DC FRZ BETWEEN THE WASHINGTON /DCA/ VOR/DME 123 RADIAL AT 13 NM (384615.51N/764700.13W) AND THE WASHINGTON /DCA/ VOR/DME 202 RADIAL
2001150001-PERM
END PART 9 OF 10
!FDC 0/0053 ZDC PART 10 OF 10 ...SPECIAL SECURITY INSTRUCTIONS,
AT 13 NM (383853.26N/770555.13W).
SECTION III. RESOURCES:
A. ALL QUESTIONS REGARDING THESE PROCEDURES SHOULD BE DIRECTED TO THE FAA SYSOPS REPRESENTATIVE AT THE NCRCC AT 9-ATO-NCRCC@FAA.GOV OR (866) 598-9522.B. ALL WAIVERS, NOTAM REQUIREMENTS QUESTIONS AND EMERGENCY SHORT NOTICE REQUESTS CAN CONTACT THE TSA AT THE NCRCC, CALL (866) 598-9520. C. INDIVIDUALS MAY SUBMIT A REQUEST FOR A FAA WAIVER AT HTTP://WAIVERS.FAA.GOV FOR BOTH MANNED AND UNMANNED AIRCRAFT OPERATIONS. D. FOR OPERATIONS IN THE DC FRZ, PILOTS WITH A WAIVER OR CONFIDENTIAL PILOT IDENTIFICATION CODE MUST CALL THE WASHINGTON CENTER FLIGHT DATA UNIT (ZDC FDU) AT 703-771-3476 TO FILE A DC FRZ FLIGHT PLAN. E. SPECIAL AWARENESS TRAINING FOR THE WASHINGTON DC METROPOLITAN AREA IS MANDATORY FOR ALL PILOTS THAT FLY UNDER VFR WITHIN 60 NM OF THE DCA VOR/DME (14 CFR PARTS 61 AND 91, EFFECTIVE FEBRUARY 9, 2009). THIS TRAINING IS AVAILABLE IN THE AVIATION LEARNING CENTER AT WWW.FAASAFETY.GOV.
2001150001-PERM
END PART 10 OF 10

!FDC 0/3929 ZDC PART 1 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WASHINGTON, DC.
THIS NOTAM REPLACES FDC 9/1815 TO PROVIDE UPDATED INSTRUCTIONS. SPECIAL SECURITY INSTRUCTIONS FOR AIRCRAFT OPERATIONS IN THE LEESBURG MANEUVERING AREA (LMA) OF THE DC SPECIAL FLIGHT RULES AREA (SFRA) ARE IN EFFECT PURSUANT TO 14 CODE OF FEDERAL REGULATIONS (CFR) SECTIONS 93.335, 93.337, 93.339, AND 99.7, AND 49 UNITED STATES CODE (USC) SECTION 40103(B)(3). THIS NOTAM CLARIFIES AND SUPPLEMENTS THE OPERATING REQUIREMENTS FOR THE DC SFRA, INCLUDING THE DC FLIGHT RESTRICTED ZONE (FRZ), AND THOSE PRESCRIBED BY 14 CFR

SECTION 93.339.
SECTION I. SPECIAL NOTES ON LMA:
A. THE OPERATING REQUIREMENTS PRESCRIBED BY THIS NOTAM ARE SPECIFIC TO THE LMA. COMPLIANCE WITH LMA REQUIREMENTS DOES NOT AUTHORIZE OPERATIONS IN THE DC SFRA OUTSIDE OF THE LMA, WHICH MUST BE IN COMPLIANCE WITH DC SFRA NOTAM AND 14 CFR SECTIONS 93.335, 93.337, 93.339, 93.341, 93.343, 93.345, AND 99.7.
B. THE LMA IS THE AREA DEFINED IN SECTION V OF THIS NOTAM.
C. THE LMA IS PART OF THE DC SFRA, WHICH THE FAA HAS ESTABLISHED AS 'NATIONAL DEFENSE AIRSPACE' PURSUANT TO 49 USC 40103(B)(3).
D. PERSONS OPERATING IN THE LMA WHO DO NOT ADHERE TO THE PROCEDURES
2001150001-PERM
END PART 1 OF 8
!FDC 0/3929 ZDC PART 2 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
PRESCRIBED BY 14 CFR SECTIONS 93.335, 93.337, 93.339, AND 99.7, AND THE FOLLOWING LMA-SPECIFIC SUPPLEMENTAL SPECIAL SECURITY INSTRUCTIONS MAY FACE RESPONSE AND ENFORCEMENT ACTIONS DESCRIBED BY THE DC SFRA AND DC FRZ NOTAMS.
SECTION II. OPERATING REQUIREMENTS (BASIC): ALL AIRCRAFT FLIGHT OPERATIONS ARE PROHIBITED WITHIN THE LMA, UNLESS IN COMPLIANCE WITH 14 CFR SECTIONS 93.335, 93.337, AND 93.339, AND THE FOLLOWING SUPPLEMENTAL SPECIAL SECURITY INSTRUCTIONS FOR THE LMA REQUIRED PURSUANT TO 14 CFR SECTION 99.7 AND 49 USC SECTION 40103(B)(3):
A. BASIC OPERATING REQUIREMENTS: AIRCRAFT ARE AUTHORIZED TO OPERATE IN THE LMA IF IN COMPLIANCE WITH ALL OF THE FOLLOWING CONDITIONS:
1. BE EQUIPPED WITH AT LEAST ONE OPERABLE TWO-WAY RADIO CAPABLE OF COMMUNICATING WITH POTOMAC TRACON (PCT) OR, WHEN OPERATIONAL, JYO TOWER ON APPROPRIATE RADIO FREQUENCIES.
2. BE EQUIPPED WITH AN OPERATING TRANSPONDER WITH AUTOMATIC ALTITUDE REPORTING CAPABILITY AS SPECIFIED UNDER 14 CFR SECTION 91.215.
3. MONITOR VHF GUARD 121.5 OR UHF GUARD 243.0, IF ABLE.
4. SQUAWK THE AIR TRAFFIC CONTROL (ATC) ASSIGNED TRANSPONDER CODE OR APPROPRIATE LMA BEACON CODE AT ALL TIMES. CODE 1200 IS NOT PERMITTED AT ANY TIME WITHIN THE LMA OR DC SFRA.
2001150001-PERM
END PART 2 OF 8
!FDC 0/3929 ZDC PART 3 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
B. OPERATIONS BY UNMANNED AIRCRAFT SYSTEMS (UAS), INCLUDING MODEL AIRCRAFT (FOR HOBBYIST OR RECREATIONAL USE ONLY), CIVIL AND COMMERCIAL OPERATIONS, AND PUBLIC OPERATIONS, ARE ONLY AUTHORIZED IN THE LMA IF IN COMPLIANCE WITH THE SEPARATE UAS FAA NOTAM, WHICH PRESCRIBES UAS-SPECIFIC OPERATING REQUIREMENTS IN THE DC SFRA, INCLUDING THE DC FRZ.
C. EXCEPT FOR FAA APPROVED DEPARTMENT OF DEFENSE (DOD), NATIONAL GUARD (NG), LAW ENFORCEMENT, AND WAIVERED MEDEVAC/AIR AMBULANCE OPERATIONS, ALL AIRCRAFT OPERATING UNDER VISUAL FLIGHT RULES (VFR) IN THE LMA ARE RESTRICTED TO AN INDICATED AIRSPEED OF 180 KNOTS OR LESS. IF UNABLE, THE PILOT MUST CONTACT POTOMAC TRACON (PCT) AND ADVISE THEM OF THE AIRCRAFT'S OPERATIONAL LIMITATIONS PRIOR TO OPERATING IN THE LMA OR THE REST OF THE DC SFRA.
SECTION III. OPERATING REQUIREMENTS (VFR AT JYO): AIRCRAFT OPERATING UNDER VFR AT JYO MUST COMPLY WITH ALL OF THE FOLLOWING CONDITIONS:
A. AIRCRAFT DEPARTING FROM OR LANDING AT JYO MUST:
1. SQUAWK TRANSPONDER CODE 1226;
2. WHEN JYO TOWER IS OPEN, PRIOR TO TAXING, ESTABLISH AND MAINTAIN TWO-WAY RADIO COMMUNICATIONS WITH THE GROUND CONTROL;
3. WHEN JYO TOWER IS OPEN, PRIOR TO ENTERING THE LEESBURG
2001150001-PERM
END PART 3 OF 8
!FDC 0/3929 ZDC PART 4 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
MANEUVERING AREA, ESTABLISH AND MAINTAIN TWO-WAY RADIO COMMUNICATIONS WITH THE TOWER;
4. WHEN JYO TOWER IS CLOSED, PRIOR TO DEPARTING JYO ANNOUNCE THE AIRCRAFT CALL SIGN, TYPE, AND INTENDED DEPARTURE RUNWAY ON THE

PUBLISHED CTAF;
5. AFTER DEPARTING JYO, EXIT THE LMA VIA THE MOST DIRECT LATERAL ROUTE AND AVOID ENTERING THE REST OF THE DC SFRA;
6. WHEN JYO TOWER IS CLOSED, PRIOR TO ENTERING THE LMA PILOTS LANDING AT JYO MUST ANNOUNCE THE AIRCRAFT CALL SIGN, TYPE, AND INTENDED LANDING RUNWAY ON THE PUBLISHED CTAF.
7. PILOTS MUST ENTER THE LMA VIA THE MOST DIRECT ROUTE AND AVOID ENTERING REST OF THE DC SFRA.
8. PILOTS DEPARTING FROM OR LANDING AT JYO UNDER VFR OPERATIONS ARE NOT REQUIRED TO CONTACT PCT UNLESS OTHERWISE DIRECTED.
B. AIRCRAFT CONDUCTING TRAFFIC PATTERN OPERATIONS AT JYO MUST:
1. OBTAIN AND SQUAWK THE ASSIGNED TRANSPONDER CODE 1234 FROM JYO TOWER FOR PATTERN WORK OPERATIONS WHEN OPEN (OR OBTAIN A DISCREET CODE FROM PCT WHEN JYO TOWER IS CLOSED);
2. ESTABLISH AND MAINTAIN TWO-WAY RADIO COMMUNICATIONS WITH JYO TOWER, OR ON THE PUBLISHED CTAF FREQUENCY WHEN JYO TOWER IS CLOSED;
2001150001-PERM
END PART 4 OF 8
!FDC 0/3929 ZDC PART 5 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
3. OBTAIN ATC AUTHORIZATION TO PERFORM PRACTICE APPROACHES FROM JYO TOWER OR PCT WHEN JYO TOWER IS CLOSED. AUTHORIZATIONS WILL BE GRANTED WORKLOAD PERMITTING.
SECTION IV. OPERATING REQUIREMENTS (RADIO OR TRANSPONDER FAILURE WHILE OPERATING IN THE LMA): AIRCRAFT OPERATING IN THE LMA, WHICH EXPERIENCE RADIO OR TRANSPONDER PROBLEMS, MUST COMPLY WITH ALL OF THE FOLLOWING CONDITIONS:
A. ANY PERSON OPERATING AN AIRBORNE AIRCRAFT UNDER VFR TO OR FROM, WITHIN, OR TRANSITING THE DC SFRA/FRZ, INCLUDING THE LMA, WHO BECOMES AWARE OF AN INABILITY TO COMPLY WITH THE REQUIREMENT TO MAINTAIN RADIO CONTACT WITH ATC, MUST IMMEDIATELY SQUAWK 7600 AND EXIT THE DC SFRA/FRZ BY THE MOST DIRECT LATERAL ROUTE EXCEPT WHEN THE DEPARTURE POINT IS WITHIN THE DC SFRA AND THE DEPARTURE POINT IS CLOSER THAN THE DC SFRA BOUNDARY, THE PILOT MAY RETURN TO THE DEPARTURE POINT BY THE MOST DIRECT ROUTE.
B. ANY PERSON OPERATING AN AIRCRAFT UNDER INSTRUMENT FLIGHT RULES (IFR) IN OR TRANSITING THE DC SFRA, INCLUDING THE LMA, WHO BECOMES AWARE OF AN INABILITY TO COMPLY WITH THE REQUIREMENT TO MAINTAIN RADIO CONTACT WITH ATC OR CTAF MUST CONTINUE THE FLIGHT IN COMPLIANCE WITH THE TWO-WAY RADIO COMMUNICATIONS FAILURE PROCEDURES
2001150001-PERM
END PART 5 OF 8
!FDC 0/3929 ZDC PART 6 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
FOUND IN THE FAA AERONAUTICAL INFORMATION MANUAL (AIM) AND/OR APPLICABLE FEDERAL AVIATION REGULATIONS (FAR). THESE PROCEDURES DO NOT AUTHORIZE PENETRATION OF RESTRICTED OR PROHIBITED AIRSPACE.
C. ANY PERSON OPERATING AN AIRCRAFT TO OR FROM, WITHIN, OR TRANSITING THE DC SFRA, INCLUDING THE LMA, WHO BECOMES AWARE OF AN INABILITY TO COMPLY WITH THE REQUIREMENT TO CONTINUOUSLY SQUAWK THE ATC ASSIGNED TRANSPONDER CODE MUST IMMEDIATELY ADVISE ATC AND COMPLY WITH ALL INSTRUCTIONS FROM ATC. IF UNABLE TO CONTACT ATC, PILOTS MUST EXIT THE DC SFRA/FRZ BY THE MOST DIRECT LATERAL ROUTE EXCEPT WHEN THE DEPARTURE POINT IS WITHIN THE DC SFRA AND THE DEPARTURE POINT IS CLOSER THAN THE DC BOUNDARY, THE PILOT MAY RETURN TO THE DEPARTURE POINT BY THE MOST DIRECT ROUTE.
D. THE PROCEDURES IN SECTION IV, SUBSECTIONS A, B, AND C DO NOT AUTHORIZE PENETRATION OF RESTRICTED AREAS OR PROHIBITED AREAS.
SECTION V. DEFINITIONS:
A. FOR PURPOSES OF THIS NOTAM, A DC SFRA FLIGHT PLAN IS DEFINED IN 14 CFR PART 93.335.
B. THE LMA IS THE AREA, WHICH IS SITUATED WITHIN THE DC SFRA AND AROUND THE LEESBURG EXECUTIVE AIRPORT (JYO), BOUNDED BY A LINE BEGINNING AT THE WASHINGTON /DCA/ VOR/DME 299 DEGREE RADIAL AT 30 NM
2001150001-PERM
END PART 6 OF 8

!FDC 0/3929 ZDC PART 7 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
390139.1N/0773826.7W; THENCE CLOCKWISE ALONG THE DCA 30 NM ARC TO
THE 391242N/0772930W OR THE ARMEL /AML/ VORTAC 004 DEGREE RADIAL AT
16.6 NM; THENCE SOUTH VIA A LINE DRAWN TO THE 390303N/0772837W OR
THE ARMEL /AML/ VORTAC 004 DEGREE RADIAL AT 7NM; THENCE
COUNTERCLOCKWISE ALONG THE AML 7 NM ARC TO THE AML 331 DEGREE RADIAL
AT 7 NM 390139.3N/0773325.5W; THENCE WEST VIA A LINE DRAWN TO THE
POINT OF BEGINNING.
SECTION VI. RESOURCES:
A. THE CODE OF FEDERAL REGULATIONS CAN BE FOUND ON THE GOVERNMENT
PRINTING OFFICE WEBSITE AT
WWW.GPO.GOV/FDSYSACCESS.GOV/CFR/INDEX.HTML, OR WWW.ECFR.GOV.
B. ANY PILOT QUESTIONS REGARDING DC SFRA OR FRZ PROCEDURES SHOULD BE
DIRECTED TO THE FAA SYSTEM OPERATIONS SECURITY REPRESENTATIVE AT THE
NATIONAL CAPITAL REGION COORDINATION CENTER (NCRCC) AT
9-ATO-NCRCC@FAA.GOV OR (866) 598-9522.
C. INFORMATION ABOUT FAA/TSA AIRSPACE WAIVER APPLICATIONS AND TSA
SECURITY AUTHORIZATIONS CAN BE FOUND AT
WWW.TSA.GOV/STAKEHOLDERS/AIRSPACEWAIVERS OR BY CONTACTING TSA AT
(571) 227-2071.
D. INDIVIDUALS MAY SUBMIT A REQUEST FOR A FAA WAIVER AT
2001150001-PERM
END PART 7 OF 8
!FDC 0/3929 ZDC PART 8 OF 8 ...SPECIAL SECURITY INSTRUCTIONS,
WAIVERS.FAA.GOV. AFTER NORMAL BUSINESS HOURS, FOR EMERGENCY OR SHORT
NOTICE REQUESTS, CONTACT TSA AT THE NCRCC AT (866) 598-9520.
E. THE TRANSPONDER REQUIREMENTS DESCRIBED IN THIS NOTAM ARE
ESTABLISHED SOLELY FOR SECURITY TRACKING PURPOSES AND DO NOT IMPLY
THE PROVISION OF ATC RADAR SERVICES, UNLESS ATC SERVICES ARE
REQUESTED AND APPROVED.
F. THE COMMUNICATIONS REQUIREMENTS DESCRIBED IN THIS NOTAM ARE
ESTABLISHED TO MAINTAIN THE ABILITY TO IMMEDIATELY COMMUNICATE
SECURITY BASED INSTRUCTIONS, NOT FOR NECESSARILY FOR ATC SERVICES,
UNLESS ATC SERVICES ARE REQUESTED AND APPROVED.
G. SPECIAL AWARENESS TRAINING FOR THE WASHINGTON DC METROPOLITAN
AREA IS MANDATORY FOR ALL PILOTS THAT FLY UNDER VFR WITHIN 60 NM OF
THE DCA VOR/DME (14 CFR PARTS 61 AND 91, EFFECTIVE FEBRUARY 9,
2009). THIS TRAINING IS AVAILABLE IN THE AVIATION LEARNING CENTER AT
WWW.FAASAFETY.GOV. IT IS STRONGLY RECOMMENDED THAT ALL PILOTS FLYING
UNDER VISUAL FLIGHT RULES (VFR) WITHIN 100 NM OF THE DCA VOR/DME
ALSO COMPLETE THIS TRAINING.
2001150001-PERM
END PART 8 OF 8

!FDC 3/4353 ZDC MD..AIRSPACE LAUREL, MD..LASER LGT RESEARCH WI AN
AREA DEFINED AS 390114N0764940W (BAL230012) SFC-FL600 AGL.
NASA/GODDARD SPACE CENTER GEOPHYSICAL AND ASTRONOMICAL OBSERVATORY.
THE SYSTEM IS INTERMITTENT, WITH POSSIBLE OPS OCCURRING 24HRS A DAY,
7 DAYS A WEEK. THE LASER BEAM MAY BE INJURIOUS TO
PILOTS/AIRCREWS AND PASSENGERS EYES FOR A DISTANCE FM SFC-FL600
AGL. HOWEVER, THIS SYSTEM USES A LASER HAZARD REDUCTION RADAR
SYSTEM THAT IS SLAVED TO THE TELESCOPE MOUNT, TO ENSURE THE LASER
IS DEACTIVATED IN THE EVENT AN ACFT APPROACHES. THE AREA WILL ALSO
BE MONITORED BY OBSERVERS AND THE LASER BEAM WILL BE TERMINATED IF
NONPARTICIPATING ACFT ARE DETECTED. LASER IRRADIANCE LEVELS WILL
NOT EXCEED THE MAXIMUM PERMISSIBLE EXPOSURE LEVELS WI THE LASER
FREE, CRITICAL, AND SENSITIVE ZONES. OTHER VISUAL EFFECTS, E.G.,
FLASHBLINDNESS, AFTER IMAGE, GLARE, AND DISTRACTION MAY OCCUR AT
GREATER DISTANCES. THE POTOMAC (PCT) TRACON TELEPHONE 540-349-7541
IS THE FAA COORDINATION FACILITY. 2302110000-2512312359

!FDC 2/8657 ZDC WV..ROUTE ZDC.
V37 HAWKI, WV TO ELKINS (EKN) VORTAC, WV MEA 6500.
2212231830-2512231830EST

!DCA 02/137 ZDC AIRSPACE UAS WI AN AREA DEFINED AS 1.1NM RADIUS OF ILM068025 (6NM NE N21) SFC-1200FT AGL 2302101300-2502102359

!FDC 3/4257 ZDC WV..ROUTE ZDC ZOB.
V44 KEYER, WV CROSS KEYER AT 6000 WHEN USING DME FROM MGW VORTAC EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
MGW VORTAC UNUSABLE BELOW 6000 AT KEYER. 2302101439-2502081436EST

!FDC 3/4067 ZDC MD..ROUTE ZDC.
V438 HAGERSTOWN (HGR) VOR, MD TO LUCKE, VA MOCA 3600.
2301171246-2501171246EST

!FDC 3/1821 ZDC MD..ROUTE ZDC.
V44, V93 BALTIMORE (BAL) VORTAC, MD TO PALEO, MD MOCA NA.
2301061704-2501061704EST

!FDC 3/1815 ZDC WV..ROUTE ZDC ZOB.
V44 MORGANTOWN (MGW) VOR/DME, WV TO KEYER, WV MEA 5400.
2301061653-2501061653EST

!FDC 2/5694 ZDC WV..ROUTE ZDC.
V4 KESSEL (ESL) VOR/DME, WV TO ARMEL (AML) VOR/DME, VA MEA 5300.
2211211918-2411211918EST

!DCA 10/428 ZDC AIRSPACE RDO ALTIMETER UNREL WI WASHINGTON ARTCC AIRSPACE EXC BEYOND 17NM FROM COASTLINE SFC-5000FT AGL. HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE OFFSHORE INSTRUMENT OPS, HOVER AUTOPILOT MODES, SAR AUTOPILOT MODES, AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVE 2021-23-13 AND DOMESTIC NOTICE 2211010401-2411010401

!FDC 2/1041 ZDC ROUTE ZDC.
V615 RALEIGH/DURHAM (RDU) VORTAC, NC TO DUFFI, NC MEA 5000.
2207121954-2407121954EST

!FDC 2/1039 ZDC ROUTE ZDC.
V66 RALEIGH/DURHAM (RDU) VORTAC, NC TO DUFFI, NC MEA 5000.
2207121950-2407121949EST

!FDC 2/6965 ZDC ROUTE ZDC.
V290 FLAT ROCK (FAK) VORTAC, VA MCA 4000 NORTHWESTBOUND.
2207011432-2407011431EST

!FDC 2/6952 ZDC ROUTE ZDC.
V3 FLAT ROCK (FAK) VORTAC, VA MCA 4000 NORTHWESTBOUND.
2207011420-2407011417EST

!FDC 2/6949 ZDC ROUTE ZDC.
V3 FLAT ROCK (FAK) VORTAC, VA TO GORDONSVILLE (GVE) VORTAC, VA MEA 4000.
2207011416-2407011416EST

!FDC 2/6945 ZDC ROUTE ZDC.
V155 FLAT ROCK (FAK) VORTAC, VA MCA 5000 SOUTHBOUND.
2207011413-2407011412EST

!FDC 2/6943 ZDC ROUTE ZDC.
V155 MANGE, VA TO FLAT ROCK (FAK) VORTAC, VA DISREGARD MOCA 1800.
2207011410-2407011410EST

!FDC 2/3059 ZDC MD..ROUTE ZDC.
V308 BILIT, MD TO WATERLOO (ATR) VOR/DME, DE MEA 2000 EASTBOUND 6000 WESTBOUND.
2206231417-2406231417EST

!FDC 2/9988 ZDC NJ..ROUTE ZDC.
V123, V157 WOODSTOWN (OOD) VORTAC, NJ TO ROBBINSVILLE (RBV) VORTAC, NJ MOCA 2100.
V213 SMYRNA (ENO) VORTAC, DE TO ROBBINSVILLE (RBV) VORTAC, NJ MOCA 2100.
2203281512-2403281512EST

!FDC 2/2555 ZDC MD..ROUTE ZDC ZNY.
J211 WESTMINSTER (EMI) VORTAC, MD R-300 TO BUSTR, PA NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
EMI VORTAC R-300 UNUSABLE. 2202082029-2402102029EST

!FDC 2/2554 ZDC MD..ROUTE ZDC ZNY.

V268 WESTMINSTER (EMI) VORTAC, MD R-151 TO BALTIMORE (BAL) VORTAC, MD R-334 USE BAL VOR R-334.
EMI VORTAC R-151 UNUSABLE. 2202082029-2402102029EST

!FDC 1/7809 ZDC NC..ROUTE ZDC.
V128 SWIFT INT, WV TO BITES, WV MEA 7000.
HVQ VOR/DME UNUSABLE BELOW 7000 AT BITES. 2111152102-2311152359EST

!FDC 1/5732 ZDC WV..ROUTE ZDC.
V38 ELKINS (EKN) VORTAC, WV MCA 4800 EASTBOUND.
2109101353-2309101353EST

!SUAE 12/405 ZDC AIRSPACE W110 ACT SFC-FL230 2301010000-2305312359

!SUAE 01/021 ZDC AIRSPACE W72A ACT SFC-UNL 2301030500-2305312359

!FDC 1/6975 ZDC NC..ROUTE ZDC ZTL.
V454 GIZMO, NC TO LIBERTY (LIB) VORTAC, NC MEA 3100.
2105172033-2305152033EST

!FDC 1/6031 ZDC NJ..ROUTE ZDC.
V166 DUPONT (DQO) VORTAC, DE TO WOODSTOWN (OOD) VORTAC, NJ MEA 2100.
V469 DUPONT (DQO) VORTAC, DE TO WOODSTOWN (OOD) VORTAC, NJ MEA 2100.
2105142200-2305122200EST

!FDC 1/8299 ZDC NJ..ROUTE ZDC.
V479 MENGE, NJ TO YARDLEY (ARD) VOR/DME, PA MEA 4000 SOUTHBOUND 2000 NORTHBOUND.
2104301429-2304281429EST

!FDC 2/3256 ZDC ROUTE ZDC ZJX. Q409 JROSS, SC TO WHITE, NJ NA. 2209080852-2304200901EST

!FDC 2/3262 ZDC ROUTE ZDC ZJX. Q135 JROSS, SC TO CUDLE, NC NA. 2209080855-2304200901EST

!FDC 2/3264 ZDC ROUTE ZDC ZJX. Q113 RAYVO, SC TO RIDDN, VA NA. 2209080857-2304200901EST

!FDC 2/3268 ZDC ROUTE ZDC ZJX. Q109 PANDY, SC TO DFENC, NC NA. 2209080859-2304200901EST

!FDC 2/3288 ZDC ROUTE ZDC ZJX. Q99 POLYY, NC TO HURLE, VA NA. 2209080900-2304200901EST

!FDC 2/3290 ZDC ROUTE ZDC ZJX ZBW.
Q97 CAKET, SC TO PRESQUE ISLE (PQI) VOR/DME, ME NA.
2209080902-2304200901EST

!FDC 2/3298 ZDC ROUTE ZDC ZJX. Q87 JROSS, SC TO HURTS, VA NA. 2209080904-2304200901EST

!FDC 2/3300 ZDC ROUTE ZDC ZJX. Q85 IGARY, SC TO CRPLR, VA NA. 2209080905-2304200901EST

!FDC 2/3301 ZDC ROUTE ZDC. Q60 JAXSN, VA TO HURTS, VA NA. 2209080907-2304200901EST

!FDC 2/3302 ZDC ROUTE ZDC. Q101 SKARP, NC TO TUGGR, VA NA. 2209080908-2304200901EST

!FDC 2/3304 ZDC ROUTE ZDC ZJX. Q107 GARIC, NC TO HURTS, VA NA. 2209080910-2304200901EST

!FDC 2/3311 ZDC ROUTE ZDC. Q111 ZORDO, NC TO ALXEA, VA NA. 2209080911-2304200901EST

!FDC 2/3312 ZDC ROUTE ZDC. Q117 YLEEE, NC TO SAWED, VA NA. 2209080912-2304200901EST

!FDC 2/3313 ZDC ROUTE ZDC ZJX. Q131 ZILLS, NC TO ZJAAY, MD NA. 2209080914-2304200901EST

!FDC 2/3316 ZDC ROUTE ZDC ZNY ZBW.
Q133 CHIEZ, NC TO PONCT, NY NA.
2209080915-2304200901EST

!FDC 2/3320 ZDC ROUTE ZDC ZBW. Q167 ZJAAY, MD TO SSOXS, MA NA. 2209080917-2304200901EST

!FDC 2/3323 ZDC ROUTE ZDC ZBW. Q445 PAACK, NC TO KYSKY, NY NA. 2209080918-2304200901EST

!FDC 2/3325 ZDC ROUTE ZDC ZNY ZBW.
Q481 CONFR, MD TO DEER PARK (DPK) VOR/DME, NY NA.
2209080919-2304200901EST

!FDC 2/8570 ZDC ROUTE ZDC.
Q64 TAR RIVER (TYI) VORTAC, NC TO SAWED, VA NA.
2208292045-2304200900EST

!FDC 1/8513 ZDC NC..ROUTE ZDC.
V139 NEW BERN (EWN) VOR/DME, NC TO PEARS, NC GNSS MEA 2100 MOCA 2100.
2104122103-2304102103EST

!DCA 02/118 ZDC OBST TOWER LGT (ASR UNKNOWN) 374942.00N0761639.00W (30NM E XSA) UNKNOWN
(185FT AGL) U/S 2302091508-2303092359
!CARF 02/262 ZDC AIRSPACE FALCON STNR ALT RESERVATION WI AN AREA
DEFINED AS 352404N0791345W (SDZ069020.8) TO 352352N0790619W
(SDZ076026.1) TO 351942N0790148W (SDZ087028.2) TO 351019N0790048W
(SDZ106028.4) TO 350952N0790730W (SDZ109023.0) TO 351245N0791447W
(SDZ102016.8) TO 350721N0792232W (SDZ121011.8) TO 352024N0791645W
(SDZ075016.9) TO POINT OF ORIGIN.

13000FT-FL200. R5311 AIRSPACE IS EXCLUDED. MULTIPLE MIL ACFT. IN THE
INTEREST OF SAFETY ALL NONPARTICIPATING PILOTS AVOIDANCE ADZ.

2303091500-2303091630
!CARF 02/261 ZDC AIRSPACE FALCON STNR ALT RESERVATION WI AN AREA
DEFINED AS 352404N0791345W (SDZ069020.8) TO 352352N0790619W
(SDZ076026.1) TO 351942N0790148W (SDZ087028.2) TO 351019N0790048W
(SDZ106028.4) TO 350952N0790730W (SDZ109023.0) TO 351245N0791447W
(SDZ102016.8) TO 350721N0792232W (SDZ121011.8) TO 352024N0791645W
(SDZ075016.9) TO POINT OF ORIGIN.

13000FT-FL200. R5311 AIRSPACE IS EXCLUDED. MULTIPLE MIL ACFT. IN THE
INTEREST OF SAFETY ALL NONPARTICIPATING PILOTS AVOIDANCE ADZ.

2303081800-2303081930
!CARF 02/260 ZDC AIRSPACE FALCON STNR ALT RESERVATION WI AN AREA
DEFINED AS 352404N0791345W (SDZ069020.8) TO 352352N0790619W
(SDZ076026.1) TO 351942N0790148W (SDZ087028.2) TO 351019N0790048W
(SDZ106028.4) TO 350952N0790730W (SDZ109023.0) TO 351245N0791447W
(SDZ102016.8) TO 350721N0792232W (SDZ121011.8) TO 352024N0791645W
(SDZ075016.9) TO POINT OF ORIGIN.

13000FT-FL200. R5311 AIRSPACE IS EXCLUDED. MULTIPLE MIL ACFT. IN THE
INTEREST OF SAFETY ALL NONPARTICIPATING PILOTS AVOIDANCE ADZ.

2303081500-2303081630
!CARF 02/259 ZDC AIRSPACE FALCON STNR ALT RESERVATION WI AN AREA
DEFINED AS 352404N0791345W (SDZ069020.8) TO 352352N0790619W
(SDZ076026.1) TO 351942N0790148W (SDZ087028.2) TO 351019N0790048W
(SDZ106028.4) TO 350952N0790730W (SDZ109023.0) TO 351245N0791447W
(SDZ102016.8) TO 350721N0792232W (SDZ121011.8) TO 352024N0791645W
(SDZ075016.9) TO POINT OF ORIGIN.

13000FT-FL200. R5311 AIRSPACE IS EXCLUDED. MULTIPLE MIL ACFT. IN THE
INTEREST OF SAFETY ALL NONPARTICIPATING PILOTS AVOIDANCE ADZ.

2303071800-2303071930
!FDC 1/9242 ZDC NC..ROUTE ZDC.
V54 FAYETTEVILLE (FAY) VOR/DME, NC TO KINSTON (ISO) VORTAC, NC NA.
2103011733-2303011733EST
!SUAE 01/516 ZDC AIRSPACE R6602A ACT SFC-3999FT 2302010500-2303010459
W0138/23 NOTAMN
Q)ZDC/QAPCH/////3702N07719W005
A) KZDC
B) 2302032038
C) 2302230001
E) [US DAFIF AND/OR FLIP CHANGE] US DOD DAFIF ONLY: WPT RANAY; CHG COORDS TO: N352651.66
W0774825.11. REST DATA UNCHG.
!DCA 02/138 ZDC AIRSPACE AIRDROP WI AN AREA DEFINED AS RDU240030 TO RDU166027 TO
FAY252026 TO SDZ161008 TO POINT OF ORIGIN SFC-3000FT AGL DLY 1630-2330

2302151630-2302162330
!SUAE 02/176 ZDC AIRSPACE R6602B ACT 4000FT-10999FT 2302151230-2302152230
!SUAE 02/110 ZDC AIRSPACE R5303A ACT SFC-6999FT 2302142301-2302151059
!SUAE 02/111 ZDC AIRSPACE R5304A ACT SFC-6999FT 2302142301-2302151059
!SUAE 02/059 ZDC AIRSPACE R6602B ACT 4000FT-10999FT 2302141230-2302142230
!SUAE 02/169 ZDC AIRSPACE EVERS SOUTH MOA ACT 11000FT UP TO BUT NOT INCLUDING FL180
2302141830-2302142005
!SUAE 02/170 ZDC AIRSPACE EVERS LOW MOA ACT 1000FT AGL-10999FT 2302141830-2302142005
!SUAE 02/171 ZDC AIRSPACE EVERS NORTH MOA ACT 11000FT UP TO BUT NOT INCLUDING FL180
2302141830-2302142005
!SUAE 02/172 ZDC AIRSPACE EVERS EAST MOA ACT 1000FT AGL UP TO BUT NOT INCLUDING FL180
2302141830-2302142005
!SUAE 02/173 ZDC AIRSPACE EVERS CENTER MOA ACT 11000FT UP TO BUT NOT INCLUDING FL180
2302141830-2302142005
!SUAE 02/154 ZDC AIRSPACE AR207NE(NE) ACT FL260-FL280 2302141745-2302141845
!SUAE 02/148 ZDC AIRSPACE AR202A(N) ACT FL250-FL280 2302141645-2302141715
Coordination for Special Activities Mission Support

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2806110712449996660

ZNY ARTCC

A0017/13 NOTAMN
Q) KZNY/QRACA/////
A) KZNY PART 1 OF 3
B) 1302051200
C) UFN
E) QRACA CHANGE IN NEW YORK CENTER OCEANIC CLEARANCE PROCEDURES
BEGINNING ON 5 FEBRUARY 2013 AT 1200Z, NEW YORK CENTER WILL MODIFY
THE PROCEDURES THAT ARE USED TO ISSUE OCEANIC CLEARANCES TO
EASTBOUND AIRCRAFT ENTERING MINIMUM NAVIGATION PERFORMANCE STANDARD
(MNPS) AIRSPACE. THESE PROCEDURES ONLY APPLY TO AIRCRAFT ENTERING
THE NEW YORK CENTER OCEANIC CTA FROM A FAA FACILITY. THE PURPOSE OF
THIS NOTAM IS TO EXPLAIN THESE CHANGES.
NORTH ATLANTIC (NAT) DOCUMENT 007, TITLED GUIDANCE CONCERNING AIR
NAVIGATION IN AND ABOVE THE NORTH ATLANTIC MNPS AIRSPACE IS A
GUIDANCE DOCUMENT PUBLISHED BY ICAO TO ASSIST USERS IN THE PROPER
PROCEDURES TO BE USED WHEN OPERATING IN THE NAT. CHAPTER 5 OF
DOCUMENT 007, TITLED OCEANIC ATC CLEARANCES, IS THE CHAPTER TO WHICH
THESE CHANGES PERTAIN.
THERE ARE THREE COMPONENTS TO AN OCEANIC CLEARANCE. THEY ARE ROUTE,
END PART 1 OF 3
A0017/13 NOTAMN
Q) KZNY/QRACA/////
A) KZNY PART 2 OF 3
B) 1302051200
C) UFN
E) ALTITUDE AND SPEED. IT IS THE DELIVERY METHOD OF THESE THREE
COMPONENTS WHICH IS CHANGING. BEGINNING ON 5 FEBRUARY 2013, THE FAA
WILL CONSIDER THE AIRPORT CLEARANCE WHICH AN AIRCRAFT RECEIVES ON
THE GROUND AT ITS DEPARTURE AERODROME TO BE THE ROUTE PORTION OF THE
OCEANIC CLEARANCE. ALTITUDE AND SPEED ASSIGNMENT WILL OCCUR PRIOR TO
ENTRY INTO THE NEW YORK CENTER OCEANIC CTA. AS IS THE CURRENT
OPERATING PROCEDURE, UNSOLICITED EN-ROUTE ROUTE, ALTITUDE OR SPEED
CHANGES MAY OCCUR DUE TO CHANGING TRAFFIC SITUATIONS. AT ALL TIMES,
THE LAST ASSIGNED ROUTE, ALTITUDE AND SPEED ARE TO BE MAINTAINED AND
SHOULD BE CONSIDERED YOUR NEW OCEANIC PROFILE. HAVING RECEIVED ALL

THREE COMPONENTS, THE REQUIREMENT TO RECEIVE AN OCEANIC CLEARANCE
WILL HAVE BEEN MET.
FOR EXAMPLE:
AN AIRCRAFT HAS FILED AN FPL FROM MDSD TO EDDF. THIS WOULD TAKE THE
FLIGHT FROM THE SANTO DOMINGO FIR, THROUGH THE MIAMI FIR AND THEN
THE NEW YORK FIR BEFORE ENTERING SANTA MARIA. THE AIRPORT CLEARANCE
END PART 2 OF 3
A0017/13 NOTAMN
Q) KZNY/QRACA//////
A) KZNY PART 3 OF 3
B) 1302051200
C) UFN
E) PROVIDED ON THE GROUND AT MDSD WOULD FULFILL THE ROUTE REQUIREMENT
OF THE OCEANIC CLEARANCE. ONCE AIRBORNE AND IN THE MIAMI FIR, FINAL
SPEED AND ALTITUDE ASSIGNMENT WILL BE GIVEN AFTER THE FLIGHT IS
COORDINATED BETWEEN MIAMI AND NEW YORK.
IF A ROUTE, SPEED OR ALTITUDE CHANGE EN-ROUTE IS DESIRED, THEN
AIRCRAFT SHOULD MAKE A REQUEST FROM THE ATC UNIT IN WHICH THEY ARE
OPERATING. AT ALL TIMES, THE LAST ASSIGNED ROUTE, ALTITUDE AND SPEED
ARE TO BE MAINTAINED.
TRACK MESSAGE IDENTIFICATION NUMBER (TMI) CONFIRMATION FOR AIRCRAFT
FILING AN ABBREVIATED CLEARANCE IN LIEU OF THE TRACK COORDINATES
WILL BE ACCOMPLISHED PRIOR TO REACHING THE TRACK ENTRY POINT.
USERS ARE REMINDED OF THE REQUIREMENT TO FILE AN FPL AND ANY
SUBSEQUENT CHANGES WITH NEW YORK OCEANIC AT KZWYZOZX, ALONG WITH ANY
OTHER ATC FACILITIES THAT MAY REQUIRE SUCH FILING.
F) FL055
G) UNL
END PART 3 OF 3

A0258/10 NOTAMN A) KZNY PART 1 OF 2 B) 1003121253 C) UFN E)
QXXXX THIS NOTAM REVISES NOTAM A0379/09. NO PROCEDURAL CHANGES
HAVE BEEN MADE. IT HAS BEEN EDITED FOR BREVITY.
WESTBOUND OCEANIC FLIGHT CLEARANCE PROCEDURES.
DUE TO REGIONAL AIR TRAFFIC CONTROL AUTOMATION SYSTEM COMPATIBLY
PROBLEMS THE FOLLOWING MODIFICATION WERE MADE TO WESTBOUND OCEANIC
FLIGHT CLEARANCE AND RECLEARANCE PROCEDURES IN THE NORTH ATLANTIC
REGION ON MAY 11, 2009. THESE PROCEDURES ARE ONLY APPLIED WITHIN THE
SHANWICK, GANDER, AND NEW YORK AREA CONTROL CENTERS AND CONTINUE IN
FORCE AS FOLLOWS:
AIRCRAFT THAT WILL PROCEED SOUTH OF LATITUDE 39 NORTH AND WEST OF
LONGITUDE 67 WEST WILL BE CLEARED TO THE FIRST NAMED FIX IN THE
NEW YORK OCA THAT IS SPECIFIED IN THE AIRCRAFT'S FILED FLIGHT
PLAN, FOLLOWED BY THE PHRASEOLOGY - VIA FLIGHT PLANNED ROUTE TO
DESTINATION.
AIRCRAFT THAT WILL PROCEED SOUTH OF LATITUDE 20 NORTH AND EAST OF
LONGITUDE 60 WEST WILL BE CLEARED TO THE LAST SET OF COORDINATES
SPECIFIED IN THE AIRCRAFT'S FILED FLIGHT PLAN PRIOR TO LATITUDE
20 NORTH FOLLOWED BY THE PHRASEOLOGY - VIA FLIGHT PLANNED ROUTE
TO DESTINATION.
END PART 1 OF 2
A0258/10 NOTAMN A) KZNY PART 2 OF 2 B) 1003121253 C) UFN E)
AIRCRAFT THAT HAVE BEEN TAKEN OFF THEIR FLIGHT PLANNED ROUTE WILL
BE RECLEARED TO A FIX SPECIFIED IN THE AIRCRAFT'S FILED FLIGHT
PLAN FOLLOWED BY THE PHRASEOLOGY VIA FLIGHT PLANNED ROUTE TO
DESTINATION.
IT IS IMPERATIVE THAT OPERATORS FILE FLIGHT PLANS (FPL) AND FLIGHT
PLAN CHANGE (CHG) MESSAGES THROUGH THE NEW YORK OCEANIC CTA/FIR USE
THE ADDRESS KZWYZOZX. IT MUST BE NOTED THAT THE NEW YORK OCEANIC
ADDRESS IS SEPARATE FROM THE NEW YORK DOMESTIC ADDRESS (KZNYZRZX).
OPERATORS MAY FORWARD QUESTIONS TO:
SHANWICK ACC, FINLAY SMITH, (FINLAY.SMITH@NATS.CO.UK),
00-44-1292-692663
GANDER ACC, ROBERT FLEMING, (FLEMINR@NAVCANADA.CA),

(001)-709-651-5233
NEW YORK ACC, PETER EHRLEIN, (PETER.C.EHRLEIN@FAA.GOV),
(001)-631-468-1021
F) SFC
G) UNL
END PART 2 OF 2

A0346/11 NOTAMR A0345/11
A) KZNY
B) 1106300400
C) UFN
E) QXXXX THREE WAYPOINTS NAMED JISEL, EXXES AND CEETE HAVE BEEN ESTABLISHED IN WARNING AREA 107. THEY ARE PUBLISHED, BUT NOT CHARTED, AND EXIST IN AIRCRAFT S FLIGHT MANAGEMENT SYSTEMS. DUE TO THE FACT THAT WARNING AREA AIRSPACE IS NOT ALWAYS AVAILABLE FOR AIR TRAFFIC CONTROL USE, ROUTING OVER JISEL, EXXES OR CEETE MAY NOT BE FLIGHT PLANNED BY PILOTS OR OPERATORS. FOR ADDITIONAL INFORMATION REGARDING THESE WAYPOINTS, CONTACT CHRIS WINKELEER AT 631-468-1018 OR VIA E-MAIL AT CHRIS.WINKELEER@FAA.GOV. THIS NOTAM REPLACES NOTAM A0791/10
F) SFC
G) UNL

A0429/09 NOTAMR A0151/03
A) KZNY B) WIE C) UFN
E) QXXXX BEACON CODE PROCEDURES IN THE WEST ATLANTIC ROUTE SYSTEM (WATRS) AREA
EFFECTIVE IMMEDIATELY, ALL AIRCRAFT TRANSITIONING INTO THE WEST ATLANTIC ROUTE SYSTEM (WATRS) VIA FIXED ATS ROUTES SHALL REMAIN ON THE LAST ATC-ASSIGNED BEACON CODE.

A0580/11 NOTAMN
Q) KZNY/QXXXX//////
A) KZNY
B) WIE
C) UFN
E) QXXXX WHENEVER AN EASTBOUND NORTH ATLANTIC TRACK IS PUBLISHED THAT ORIGINATES AT JAROM OR TALGO, AIRCRAFT TRANSITIONING THE NEW YORK OCEANIC CTA AND PLANNING TO JOIN THE JAROM/TALGO TRACK MUST FILE A ROUTE FROM A POINT 42N OR SOUTH DIRECT TO 44N050W.
FOR EXAMPLE, NORTH ATLANTIC TRACK (NAT) X-RAY IS PUBLISHED VIA JAROM TALGO 44N050W 46N040W 48N030W 50N020W SOMAX ATSUR. THE FOLLOWING ROUTES WOULD BE FILED TO JOIN NATX:
1. AN AIRCRAFT WISHES TO JOIN NATX FROM M201. THE CORRECT ROUTE TO FILE IN THE NEW YORK CTA IS M201 DRYED 41N060W 44N050W NATX.
2. AN AIRCRAFT WISHES TO JOIN NATX FROM M202. THE CORRECT ROUTE TO FILE IN THE NEW YORK CTA IS M202 MUNEY 41N060W 44N050W NATX.
3. AN AIRCRAFT WISHES TO JOIN NATX FROM M203. THE CORRECT ROUTE TO FILE IN THE NEW YORK CTA IS M203 SELIM 40N060W 44N050W NATX.

!FDC 3/4339 ZNY NY..AIRSPACE HARLEM, NY..LASER LGT RESEARCH WI AN AREA DEFINED AS 404917N0735653W (LGA316004) SFC-FL360. SCIENTIFIC AND RESEARCH LASER OPS WILL BE CONCUCTED AT THE CITY COLLEGE OF NEW YORK AT AN AGNLE OF 90 DEGREES. THE SYSTEM IS IN INTERMITTENT, WITH POSSIBLE OPS OCCURRING 24HRS A DAY, 7 DAYS A WEEK. THE LASER BEAM MAY BE INJURIOUS TO PILOTS/AIRCREWS AND PASSENGERS EYES FOR A DISTANCE FM SFC-FL360 AGL. HOWEVER, THIS SYSTEM USES A LASER HAZARD REDUCTION RADAR SYSTEM TO ENSURE THE LASER IS DEACTIVATED IN THE EVENT AN ACFT APPROACHES. THE AREA WILL ALSO BE MONITORED BY OBSERVERS AND THE LASER BEAM WILL BE TERMINATED IF NONPARTICIPATING ACFT ARE DETECTED. OTHER VISUAL EFFECTS, E.G. FLASHBINDNESS, AFTER IMAGE, GLARE, AND DISTRACTION MAY OCCUR AT GREATER DISTANCES. LAGUARDIA (LGA) ATCT, TEL 781-779-7901 IS THE FAA CDN FACILITY. 2302110000-2512312359

!FDC 3/4248 ZNY PA..ROUTE ZNY.
V162 EAST TEXAS (ETX) VOR/DME, PA R-260 TO COP NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE

RNAV SYSTEM WITH GPS.
ETX VOR RADIALS 255 - 265 UNUSABLE. 2302101343-2502081340EST

!FDC 3/1739 ZNY NY..ROUTE ZNY.
V99 OUTTE, CT TO SORRY, CT MOCA 2700.
2302061952-2502061952EST

!FDC 2/8104 ZNY ROUTE ZNY.
V139, V268, V308 DRIFT, NJ MCA 12000 NORTHEASTBOUND.
2211301249-2411291246EST

!FDC 2/5724 ZNY PA..ROUTE ZNY.
V576 PHILIPSBURG (PSB) VORTAC, PA TO WILLIAMSPORT (FQM) VOR/DME, PA MEA 4900.
2211212005-2411212005EST

!ISP 10/205 ZNY AIRSPACE RDO ALTIMETER UNREL WI NEW YORK ARTCC AIRSPACE EXC BEYOND 17NM FROM COASTLINE SFC-5000FT AGL. HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE OFFSHORE INSTRUMENT OPS, HOVER AUTOPILOT MODES, SAR AUTOPILOT MODES, AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVE 2021-23-13 AND DOMESTIC NOTICE 2211010401-2411010401

!FDC 2/5864 ZNY NY..ROUTE ZNY ZOB.
V252 GENESEO (GEE) VOR/DME, NY TO GIBBE, NY MEA 4500.
2209121214-2409121214EST

!FDC 2/3625 ZNY PA..ROUTE ZNY.
V39 BOYER, PA TO EAST TEXAS (ETX) VOR/DME, PA MOCA 2500.
2206031519-2406031515EST

!FDC 2/2766 ZNY NY..ROUTE ZNY.
V29 VESPE, NY TO SYRACUSE (SYR) VORTAC, NY MEA 4700.
2207141438-2402231438EST

!FDC 2/2760 ZNY NY..ROUTE ZNY.
V147, V29 SLATT, PA TO WILKES-BARRE (LVZ) VORTAC, PA MEA 4600.
2207141436-2402231436EST

!FDC 2/2552 ZNY MD..ROUTE ZNY.
V166 WESTMINSTER (EMI) VORTAC, MD R-088 TO COP NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
EMI VORTAC R-088 UNUSABLE. 2202082029-2402102029EST

!FDC 2/2553 ZNY MD..ROUTE ZNY ZDC.
V268 WESTMINSTER (EMI) VORTAC, MD R-151 TO BALTIMORE (BAL) VORTAC, MD R-334 USE BAL VOR R-334.
EMI VORTAC R-151 UNUSABLE. 2202082029-2402102029EST

!FDC 2/2556 ZNY MD..ROUTE ZNY ZDC.
J211 WESTMINSTER (EMI) VORTAC, MD R-300 TO BUSTR, PA NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
EMI VORTAC R-300 UNUSABLE. 2202082029-2402102029EST

!FDC 1/6998 ZNY ROUTE ZNY.
V139, V268, V308 MANTA, NJ MCA 12000 SOUTHWESTBOUND.
2111121548-2311121546EST

!FDC 1/2605 ZNY PA..ROUTE ZNY.
J227 MICAH, PA TO TYMAN, PA NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS. AML VDME R-009 UNUSABLE BEYOND 74 NM, AND ULW VDME R-205 UNUSABLE BEYOND 74NM.
2111041318-2311041318EST

!FDC 1/2583 ZNY PA..ROUTE ZNY.
J220 MICAH, PA TO COP NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
AML VDME R-009 UNUSABLE BEYOND 74 NM.
2111041315-2311041315EST

!FDC 1/0918 ZNY NY..ROUTE ZNY.
V29 SCOFF, PA TO BINGHAMTON (CFB) VOR/DME, NY MEA 3800.
2111012041-2310282041EST

!FDC 1/9083 ZNY NY..ROUTE ZNY.
V147 ELMIRA (ULW) VOR/DME, NY TO GENESEO (GEE) VOR/DME, NY MEA 4600.

2110281502-2310281502EST
!FDC 1/2384 ZNY NY..ROUTE ZNY ZBW.
J55 HAMPTON (HTO) VORTAC, NY R-236 TO MANTA INT, NJ NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
HTO VOR R-236 UNUSABLE. 2110121729-2310121727EST
!FDC 1/7051 ZNY PA..ROUTE ZNY.
T218 STONYFORK (SFK) VOR/DME, PA TO LAAYK, PA GNSS 4900.
2109131723-2309131723EST
!FDC 1/7052 ZNY PA..ROUTE ZNY.
V116 STONYFORK (SFK) VOR/DME, PA TO WILKES-BARRE (LVZ) VORTAC, PA MEA 4900.
2109131723-2309131723EST
!FDC 1/7053 ZNY PA..ROUTE ZNY.
V147 WILKES-BARRE (LVZ) VORTAC, PA TO ELMIRA (ULW) VOR/DME, NY MEA 4900.
2109131723-2309131723EST
!FDC 1/6880 ZNY PA..ROUTE ZNY.
T221 ALLENTOWN (FJC) VORTAC, PA TO LAAYK, PA GNSS MEA 4700.
2108271129-2308271129EST
!FDC 1/6879 ZNY PA..ROUTE ZNY.
V149 ALLENTOWN (FJC) VORTAC, PA TO LAAYK, PA MOCA 4700.
2108271128-2308271128EST
!FDC 1/6091 ZNY PA..ROUTE ZNY.
T216 PHILIPSBURG (PSB) VORTAC, PA TO WILLIAMSPORT (FQM) VOR/DME, PA GNSS MEA 4900.
T216 WILLIAMSPORT (FQM) VOR/DME, PA TO ELEXY, PA GNSS MEA 4900.
T216 ELEXY, PA TO LAAYK, PA GNSS MEA 4900.
2108261453-2308261453EST
!ISP 12/174 ZNY OBST WIND TURBINE FARM WI AN AREA DEFINED AS 3NM RADIUS OF
412654N0760553W (8.2NM SW 76N) 2758FT (492FT AGL) NOT LGTD 2212311017-2306302359
!ISP 12/175 ZNY OBST WIND TURBINE FARM WI AN AREA DEFINED AS 3NM RADIUS OF
413005N0760315W (4.9NM SW 76N) 2772FT (492FT AGL) NOT LGTD 2212311017-2306302359
!FDC 1/6795 ZNY NY..ROUTE ZNY.
V576 HANCOCK (HNK) VOR/DME, NY TO DELANCEY (DNY) VOR/DME, NY MEA 4900.
2106032043-2306012043EST
!FDC 1/6794 ZNY NY..ROUTE ZNY.
V576 WILLIAMSPORT (FQM) VOR/DME, PA TO HANCOCK (HNK) VOR/DME, NY MEA 4500.
2106032038-2306012038EST
!FDC 1/4992 ZNY NY..ROUTE ZNY.
V184 FALON, NJ MRA FLAG AT FALON 4000.
JFK VOR/DME R-210 RESTRICTION. 2106011402-2306011355EST
!FDC 2/6197 ZNY NY..AIRSPACE NOTICE ARRIVALS INTO EAST HAMPTON, NY
AP PILOTS AND OPR ARE ADZ TO CTC THE AP FOR CURRENT STATUS OF AD
FIELD COND AND AP OPS

2205190901-2305190901
!FDC 1/4419 ZNY NJ..ROUTE ZNY.
V433 METRO, NJ TO GRITY, NJ MOCA 1900.
2105121356-2305101356EST
!FDC 1/1318 ZNY PA..ROUTE ZNY.
V457 KATVE, PA TO BROADWAY (BWZ) VOR/DME, NJ NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
BWZ VOR R-250 UNUSABLE. 2105051858-2305031858EST
!FDC 1/7162 ZNY NY..ROUTE ZNY.
V99 LA GUARDIA (LGA) VOR/DME, NY TO OUTTE, CT MOCA 1900.
2104282048-2304282048EST
!FDC 1/2856 ZNY NY..ROUTE ZNY ZBW.
V139, V268, V308 HAMPTON (HTO) VORTAC, NY R-236 TO MANTA INT, NJ NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
HTO VOR R-236 UNUSABLE. 2104211547-2304231547EST

!FDC 2/3317 ZNY ROUTE ZNY ZDC ZBW.
Q133 CHIEZ, NC TO PONCT, NY NA.
2209080915-2304200901EST

!FDC 2/3326 ZNY ROUTE ZNY ZDC ZBW.
Q481 CONFR, MD TO DEER PARK (DPK) VOR/DME, NY NA.
2209080919-2304200901EST

!FDC 1/1151 ZNY NY..ROUTE ZNY.
V374 BINGHAMTON (CFB) VOR/DME, NY TO GAYEL, NY GNSS 4700 MOCA 4700.
2103261955-2303241955EST

!FDC 1/0410 ZNY NY..ROUTE ZNY ZBW.
V374, V39 VOLLU, NY TO CARMEL (CMK) VOR/DME, NY MEA 6500 EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
V39 SPARTA (SAX) VORTAC, NJ TO VOLLU, NY MEA 6500 EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
CMK VOR R-266 UNUSABLE , SAX VTAC R-084 UNUSABLE BELOW 6500. 2103252115-2303232115EST

!FDC 1/0399 ZNY NY..ROUTE ZNY ZBW.
V3, V405, V419 FALLZ, NJ TO CARMEL (CMK) VOR/DME, NY NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
CMK VOR R-255 UNUSABLE. 2103252110-2303232110EST

!FDC 1/0403 ZNY NY..ROUTE ZNY ZBW.
V188 NYACK, NY TO CARMEL (CMK) VOR/DME, NY NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
CMK VOR R-255 UNUSABLE. 2103252110-2303232110EST

!ISP 02/078 ZNY OBST WIND TURBINE FARM WI AN AREA DEFINED AS 5.37NM RADIUS OF
390538N1030152W (18.2NM SE 7CO4) 5092FT (500FT AGL) NOT LGTD
2302140702-2303141730

A0043/23 NOTAMN
Q) KZNY/QXXXX/////
A) KZNY
B) 2302171300
C) 2302182300
D) DLY 1300-2300
E) THE FOLLOWING RESTRICTIONS ARE IN PLACE WI THE NEW YORK OCEANIC CTA/FIR:

1) M201 CLSD SWB
2) Y485 CLSD NB BTN SAUCR AND HOBOH
3) L453 CLSD NB
4) ONLY ACFT EQUIPPED WITH OPERATIONAL ADS-260B OUT MAY USE:
NORTHBOUND:
Y494
SOUTHBOUND:
Y493
Y488 BTN HOBOH AND SAUCR

ALL ADS 260-B OUT ACFT MUST FILE AN ICAO FLT PLAN IAW AC 90-114 AS WELL AS AIM APPENDIX 4 SECTIONS 4 THRU 6

!SUAE 02/190 ZNY AIRSPACE R5802B ACT SFC-13000FT 2302161400-2302162200

!SUAE 02/191 ZNY AIRSPACE R5802C ACT 500FT AGL-16999FT 2302161400-2302162200

!SUAE 02/192 ZNY AIRSPACE R5802A ACT 200FT AGL-5000FT 2302161400-2302162200

!SUAE 02/177 ZNY AIRSPACE R5206 ACT SFC-5000FT 2302161300-2302162130

A0051/23 NOTAMR A0042/23
Q) KZNY/QXXXX/////
A) KZNY
B) 2302141300
C) 2302152300
D) DLY 1300-2300

E) THE FOLLOWING RESTRICTION IS IN PLACE WI THE NEW YORK OCEANIC CTA/FIR:

1) M201 CLSD SWB
2) ONLY ACFT EQUIPPED WITH OPERATIONAL ADS-260B OUT MAY USE Y493 AND Y494

ALL ADS 260-B OUT ACFT MUST FILE AN ICAO FLT PLAN IAW AC 90-114 AS WELL AS AIM APPENDIX 4 SECTIONS 4 THRU 6
F) SFC
G) UNL

!SUAE 02/067 ZNY AIRSPACE R5802B ACT SFC-13000FT 2302151400-2302152200

!SUAE 02/068 ZNY AIRSPACE R5802C ACT 500FT AGL-16999FT 2302151400-2302152200

!SUAE 02/069 ZNY AIRSPACE R5802A ACT 200FT AGL-5000FT 2302151400-2302152200

!SUAE 02/063 ZNY AIRSPACE R5206 ACT SFC-5000FT 2302151300-2302152130

!SUAE 02/025 ZNY AIRSPACE R5802C ACT 500FT AGL-16999FT 2302141400-2302142200

!SUAE 02/026 ZNY AIRSPACE R5802B ACT SFC-13000FT 2302141400-2302142200

!SUAE 02/027 ZNY AIRSPACE R5802A ACT 200FT AGL-5000FT 2302141400-2302142200

Unmanned Free Balloon Release Support

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2870618968165455157

Photo Mission Support

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2870617357301060916

VFR Practice Instrument Approaches to L. F. Wade Intl. Airport (TXKF)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2870612553212368177

VFR Practice Instrument Approaches to University Park Airport (KUNV)

The full version of this LTA is available at the following URL.

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VFR Practice Instrument Approaches to Williamsport Regional Airport, (KIPT)

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2870615632452261171

New York ARTCC Boundaries and Frequencies

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2881532156306265635

ZTL ARTCC

!MCN 04/297 ZTL COM ATLANTA REMOTE COM A/G 369.9 CHANGED TO 346.35 2204071320-PERM

!FDC 3/2287 ZTL GA..ROUTE ZTL ZJX.
V325 VESTO, GA TO BLANE, SC NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
2302071400-2502071400EST

!FDC 3/9589 ZTL GA..ROUTE ZTL.
V222 LAGRANGE (LGC) VORTAC, GA TO TIROE, GA MEA 3100.
2302011629-2502011628EST

!FDC 3/3177 ZTL ROUTE ZTL.
V466 GLADE SPRING (GZG) VOR/DME, VA TO DORFF, VA MEA 6900.
2301121952-2501121952EST

!FDC 3/3175 ZTL ROUTE ZTL.
V466 YUMMY, VA TO GLADE SPRING (GZG) VOR/DME, VA MEA 6400.
2301121950-2501121950EST

!FDC 2/8655 ZTL NC..ROUTE ZTL.
V37 JOTTA, NC TO DOILY, VA MOCA 5900.
2212231817-2412231817EST

!FDC 2/5553 ZTL TN..ROUTE ZTL ZME.
V67 CHOO CHOO (GQO) VORTAC, TN TO SHELBYVILLE (SYI) VOR/DME, TN MEA 4400.
2212141703-2412141703EST

!MCN 10/515 ZTL AIRSPACE RDO ALTIMETER UNREL WI ATLANTA ARTCC AIRSPACE SFC-5000FT AGL.
HEL OPS REQUIRING RDO ALTIMETER DATA TO INCLUDE OFFSHORE INSTRUMENT OPS, HOVER AUTOPILOT MODES, SAR AUTOPILOT MODES, AND CAT A/B/PERFORMANCE CLASS TKOF AND LDG NOT AUTHORIZED EXC FOR ACFT USING APPROVED ALTERNATIVE METHODS OF COMPLIANCE DUE TO 5G C-BAND INTERFERENCE PLUS SEE AIRWORTHINESS DIRECTIVE 2021-23-13 AND DOMESTIC NOTICE
2211010401-2411010401

!FDC 2/2271 ZTL GA..ROUTE ZTL.
V155, V20 COLUMBUS (CSG) VORTAC, GA TO SMARR INT, GA MEA 4000.
CSG VORTAC AIRWAY NOTAM. 2207140635-2407140635EST

!FDC 2/0518 ZTL GA..ROUTE ZTL ZJX.
V70 OCONE, GA TO MILEN INT, GA MEA 3500.
2202021229-2402021229EST

!FDC 1/9599 ZTL AL..ROUTE ZTL.
V20, V56 TUSKEGEE (TGE) VOR/DME, AL TO MARVO, AL MEA 2200.
2112102028-2312082028EST

!FDC 1/0536 ZTL AL..ROUTE ZTL.
V70 EUFAULA (EUF) VORTAC, AL TO VIENNA (VNA) VORTAC, GA MEA 3000.
2111221640-2311221640EST

!FDC 3/3422 ZTL VA..ROUTE ZTL.
V519 GLADE SPRING (GZG) VOR/DME, VA TO TELOC, VA NA.
GZG VOR R-058 UNUSABLE. 2302082359-2309202359EST

!FDC 1/0934 ZTL AL..ROUTE ZTL ZJX.
V521, V7 SKIPO, AL TO BANBI, AL MOCA 2000.
2109021851-2309021851EST

!FDC 1/7179 ZTL SC..ROUTE ZTL ZJX.
V70 ALLENDALE (ALD) VOR, SC R-248 TO COP NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
ALD VOR UNUSABLE ALL ALTITUDES. 2108271443-2308311443EST

!FDC 1/4915 ZTL TN..ROUTE ZTL.
V466, V519 FARLI, TN TO YUMMY, VA NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.
GZG VOR/DME RESTRICTED R-248, 53 DME, All Altitudes.. 2108242000-2308222000EST

!FDC 1/3639 ZTL GA..ROUTE ZTL.
V155 SINCA, GA MCA 5000 NORTHEASTBOUND.
IRQ VOR RESTRICTION. 2105271854-2305271852EST

!FDC 1/6974 ZTL NC..ROUTE ZTL ZDC.
V454 GIZMO, NC TO LIBERTY (LIB) VORTAC, NC MEA 3100.
2105172033-2305152033EST

!MCN 01/655 ZTL OBST WIND TURBINE FARM WI AN AREA DEFINED AS 7NM RADIUS OF 451036N0970223W (16.1NM NE ATY) 2012FT (498FT AGL) NOT LGTD 2301250000-2304242359

!FDC 2/9213 ZTL ROUTE ZTL.
T414 GENOD, NC TO SWENK, NC MEA 5200.
T414 SWENK, NC TO VAESE, NC MEA 4900.
T414 VAESE, NC TO BONZE, NC MEA 4500.
2208301749-2304111749EST

!FDC 1/6860 ZTL GA..ROUTE ZTL.
V466, V519 FARLI, TN TO YUMMY, VA NA EXCEPT FOR ACFT EQUIPPED WITH SUITABLE RNAV SYSTEM WITH GPS.

GZG VOR R248 UNUSABLE BEYOND 32 NM. 2104081258-2304081258EST

!FDC 1/6859 ZTL GA..ROUTE ZTL.
V466 DORFF, VA TO PULASKI (PSK) VORTAC, VA MEA 6200.
2104081253-2304081253EST

!FDC 3/2980 ZTL AIRSPACE ADS-B, AUTO DEPENDENT SURVEILLANCE REBROADCAST (ADS-R), TFC INFO SERVICE BCST (TIS-B), FLT INFO SERVICE BCST (FIS-B) SERVICES MAY NOT BE AVBL WI AN AREA DEFINED AS 52NM RADIUS OF 350013N0831403W. AP AIRSPACE AFFECTED MAY INCLUDE CEU, GYH, GSP, GMU, LQK, RHP.
1000FT-6000FT
2302081257-2302202200EST

!MCN 02/276 ZTL COM DOMESTIC CPDLC AVBL ON KUSA DLY 1300-2300 2302131300-2302162300

!SUAE 02/149 ZTL AIRSPACE R3004A ACT SFC-3499FT 2302151100-2302160400

!SUAE 02/050 ZTL AIRSPACE R3004A ACT SFC-3499FT 2302141100-2302150400

!SUAE 02/142 ZTL AIRSPACE AR633A ACT FL180-FL230 2302141600-2302141800

!SUAE 02/151 ZTL AIRSPACE AR328 ACT FL180-FL230 2302141700-2302141800

!SUAE 02/152 ZTL AIRSPACE AR216(NE) ACT FL260-FL280 2302141715-2302141800

!SUAE 02/146 ZTL AIRSPACE AR216(SW) ACT FL260-FL280 2302141630-2302141715

Practice Instrument Approaches at Hickory Municipal (KHKY) Hickory NC

The full version of this LTA is available at the following URL.

https://notams.aim.faa.gov/lta/main/viewlta?lookupid=2550968538525340829

ZZZ - FDC

!FDC 1/5060 ZZZ SECURITY...SPECIAL SECURITY INSTRUCTIONS (SSI) CONCERNING NATIONAL SECURITY AND REQUIREMENTS FOR CIVIL AND FOREIGN STATE ACFT OPS INTO, WI, OR ACROSS UNITED STATES TERRITORIAL AIRSPACE. IN ACCORDANCE WITH 14 CODE OF FEDERAL REGULATIONS (CFR) 99.7, SPECIAL SECURITY INSTRUCTIONS (SSI), AND 49 USC 40103 AND 41703, IN ADDITION TO THE REQUIREMENTS PRESCRIBED IN 14 CFR PART 99, SECURITY CONTROL OF AIR TRAFFIC, THE AERONAUTICAL INFORMATION PUBLICATION (AIP) (PART II. ENROUTE, ENR 1.12) AND AERONAUTICAL INFORMATION MANUAL (AIM) (CHAPTER 5, SECTION 6) PRESCRIBE THE SSI PROCEDURES FOR CIVIL AND FOREIGN STATE ACFT OPS INTO, WI, OR ACROSS UNITED STATES TERRITORIAL AIRSPACE.
2109291637-PERM

!FDC 2/8783 ZZZ PART 1 OF 2 SECURITY...SPECIAL SECURITY INSTRUCTIONS (SSI) FOR
IDENTIFICATION OF CIVIL AIRCRAFT (ACFT) OPERATING INTO OR OUT OF THE UNITED STATES, INTO, WITHIN (WI), OR ACROSS THE UNITED STATES CONTIGUOUS AIR DEFENSE IDENTIFICATION ZONE (ADIZ). IN ADDITION TO THE REQUIREMENTS PRESCRIBED IN 14 CFR PART 99.13, TRANSPONDER ON REQUIREMENTS, THE FOLLOWING SPECIAL SECURITY REQUIREMENTS ARE IN EFFECT, PURSUANT TO 14 CFR SECTION 99.7, SSI, AND AGREEMENT BETWEEN THE FEDERAL AVIATION ADMINISTRATION (FAA), THE DEPARTMENT OF DEFENSE (DOD), AND THE DEPARTMENT OF HOMELAND SECURITY (DHS). THIS NOTAM CANCELS FDC NOTAM 0-9801, SSI FOR TRANSPONDER OPS OF CIVIL ACFT OPERATING INTO OR OUT OF THE UNITED STATES.

A. UNLESS OTHERWISE AUTH BY THE FAA, CIVIL ACFT OPERATING INTO OR OUT OF THE UNITED STATES ACROSS THE CONTIGUOUS U.S. ADIZ, INTO THE CONTIGUOUS U.S. ADIZ, OR WI THE CONTIGUOUS U.S. ADIZ, MUST BE EQUIPPED WITH AN OPERABLE RADAR BEACON (BCN) TRANSPONDER AND THAT TRANSPONDER MUST BE TURNED ON AND SET TO REPLY ON THE DISCRETE BCN CODE ASSIGNED BY AIR TRAFFIC CONTROL (ATC) OR ISSUED BY FLIGHT SERVICE (FSS). USE OF BCN CODE 1200 IS NOT AUTHORIZED. USE OF THE UAT ANONYMITY MODE IS NOT AUTHORIZED. THE RADAR BCN TRANSPONDER MUST
9-ATOR-HQ-IFOS@FAA.GOV. 2202281915-PERM

END PART 1 OF 2
!FDC 2/8783 ZZZ PART 2 OF 2 SECURITY...SPECIAL SECURITY INSTRUCTIONS
(SSI) FOR
HAVE ALT REPORTING CAPABILITY.

B. FOR AIR DEFENSE PURPOSES, AIRCRAFT EQUIPPED WITH AN OPERABLE 1090ES (DO-260B) ADS-B SYSTEM OPERATING OUTBOUND ACROSS THE CONTIGUOUS U.S. ADIZ MAY ALSO BE IDENTIFIED BY THE ICAO AIRCRAFT ADDRESS (OTHERWISE KNOWN AS THE AIRCRAFT MODE S CODE). THEREFORE, OUTBOUND AIRCRAFT USE OF A PRIVACY ICAO AIRCRAFT ADDRESS IS NOT AUTHORIZED.

C. OUTBOUND VFR AIRCRAFT OPERATORS NOT FILING AN AUTOMATED FLIGHT PLAN MUST CONTACT FSS TO RECEIVE A DISCRETE BEACON CODE.

D. ALL CIVIL ACFT THAT OPERATE IN ANY ADS-B OUT RULE AIRSPACE DESIGNATED BY 14 CFR 91.225 MUST MEET THE REQUIREMENTS OF THE ADS-B OUT RULE. NOTHING IN THIS NOTAM CHANGES OR ALTERS THOSE REQUIREMENTS IN ANY WAY.

E. IF YOU HAVE QUESTIONS REGARDING THIS SSI, CONTACT THE FAA AT 9-ATOR-HQ-IFOS@FAA.GOV. 2202281915-PERM
END PART 2 OF 2

!FDC 2/5919 ZZZ PART 1 OF 2 SECURITY...SPECIAL SECURITY INSTRUCTIONS
(SSI)
PROHIBITION ON RUSSIAN FLIGHT OPERATIONS IN THE TERRITORIAL AIRSPACE OF THE U.S.
PURSUANT TO 49 USC SECTIONS 40103 AND 40113(A), ALL RUSSIAN AIR CARRIERS AND COMMERCIAL OPERATORS, REGARDLESS OF THE STATE OF REGISTRY OF THE AIRCRAFT; ALL AIRCRAFT REGISTERED IN THE RUSSIAN FEDERATION; ALL RUSSIAN STATE AIRCRAFT, REGARDLESS OF THE STATE OF REGISTRY OF THE AIRCRAFT; AND ALL AIRCRAFT, REGARDLESS OF THE STATE OF REGISTRY, OWNED, CHARTERED, LEASED, OPERATED OR CONTROLLED BY, FOR, OR FOR THE BENEFIT OF, A RUSSIAN PERSON OR ENTITY IDENTIFIED BY THE INTERNATIONAL TRADE ADMINISTRATION'S CONSOLIDATED SCREENING LIST (HTTPS://WWW.TRADE.GOV/CONSOLIDATED-SCREENING-LIST), ARE PROHIBITED FROM OPERATING TO, FROM, WITHIN, OR THROUGH U.S. TERRITORIAL AIRSPACE, EXCEPT FOR: 1) AIRCRAFT ENGAGED IN HUMANITARIAN OR SAR OPERATIONS SPECIFICALLY AUTHORIZED BY THE U.S. FEDERAL AVIATION ADMINISTRATION (FAA) THAT HAVE FIRST RECEIVED ANY NECESSARY ECONOMIC AUTHORIZATION FROM THE U.S. DEPARTMENT OF TRANSPORTATION (DOT) PURSUANT TO DOT ORDER 2022-3-2; 2) STATE AIRCRAFT OPERATIONS GRANTED A DIPLOMATIC CLEARANCE BY THE U.S. DEPARTMENT OF STATE (DOS); 3) AIRCRAFT EXPERIENCING IN-FLIGHT EMERGENCIES. THIS NOTAM REPLACES
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END PART 1 OF 2
!FDC 2/5919 ZZZ PART 2 OF 2 SECURITY...SPECIAL SECURITY INSTRUCTIONS
(SSI)
NOTAM FDC 2/0476 (A0093/22). RUSSIAN AIR CARRIERS AND/OR OTHER AIRCRAFT OPERATORS SUBJECT TO DOT ORDER 2022-3-2 SEEKING DOT APPROVAL FOR HUMANITARIAN AND/OR SEARCH AND RESCUE OPERATIONS MAY DIRECT SUCH REQUESTS TO SCHEDULEFILING@DOT.GOV. DOT WILL CONSIDER SUCH REQUESTS ON A CASE-BY-CASE BASIS, AND REQUESTORS MUST EXPLICITLY RECEIVE AFFIRMATIVE DOT APPROVAL BEFORE CONDUCTING SUCH OPERATIONS. AIRCRAFT OPERATORS SUBJECT TO THIS NOTAM WHO DO NOT COMPLY WITH THESE INSTRUCTIONS MAY BE INTERCEPTED, AND THEIR PILOTS AND OTHER CREWMEMBERS MAY BE DETAINED AND INTERVIEWED BY LAW ENFORCEMENT OR SECURITY PERSONNEL, AS APPROPRIATE.
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END PART 2 OF 2

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Senator BUDD. Thank you. Your pilots can consult other free resources provided by the FAA-like Leidos' Flight Service. That system does have a summary of important NOTAMs, like temporary flight restrictions or TFRs, and runway closures.

But that system missed the runway closure NOTAM on the summary page. Here is the summary page, and it doesn't have that important NOTAM.

So I would have had to find that runway closure NOTAM on page 53 of a 276 page briefing. So, Mr. Nolen, aside from the issues faced last month, what is the FAA doing to bring NOTAMs into the 21st century?

[The information referred to follows:]

leidos

Flight Service

Certified Flight Service Briefing, ID: AH4GCA

Briefing Time: Feb 13, 15:05 EST / 20:05 UTC

Overview

Flight Plan Summary

Flight Rules: VFR
Aircraft ID / Type: N23GV / C172
Cruising Speed / Level: 110 knots / 5000 feet
Departure Date & Time: 02/13/2023 1600 EST
Departure: KGAI
Route: DCT
Destination / Alt1 / Alt2: KINT / KGSO / KHKY

Briefing Customization

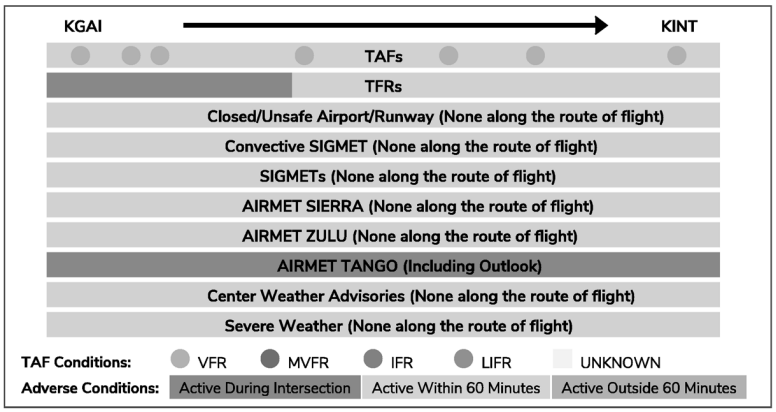
Briefing Type: Standard / Route
Time Estimates Based On: Forecast Winds and User-Defined Aircraft Performance
Route / Winds Aloft Corridor: 50 nm / 200 nm
Include Graphics: Yes **Include NextGen Content:** Yes **Include Plain Text Translations:** Yes

Briefing Content Filters:
Only include most recent METARs

Weather Stations

Departure: KGAI 128.275
Destination: None within 10 NM
ALT1: KGSO 128.55
ALT2: KHKY 118.325

Evaluate Departure Time Details



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Mr. NOLEN. Well, thank you, Senator Budd, for the question. This is exactly—you know, again, we share that we are both pilots, so we operate in the Nation's airspace here. This is part of our modernization effort.

We committed that we will align our NOTAM with the ICAO standard. That we will make them timely, we will make them relevant, and the ability to prioritize by, as you say, by route of flight. So that is a part of the work is ongoing. Where we are today, we are—call it half way there. They are searchable.

You can find the ones that are relevant to your flight. But this is a one we have just got to do better, and that better means getting off of the U.S. NOTAM system, onto the Federal NOTAM system, and the last part of that is ensuring now that our NOTAM systems comports to the ICAO standard.

Senator BUDD. Thank you very much for that answer. So it makes sense to have flight restrictions around major games like last week in Super Bowl or, you know, the upcoming Daytona 500. And those TFRs are announced well in advance and cover much more airspace to provide appropriate security for those special events.

But stadium TFRs and the exception of those TFRs, they seem designed to trip up small planes flying VFR. So, Mr. Nolen, are you aware of any instances where a 3 mile, 3,000 foot TFR thwarted a threat from the air?

Mr. NOLEN. I am not.

Senator BUDD. OK. Well, Mr. Nolen, my time is short, but again, I want to just again, thank you for what you bring to the table, for your expertise in the aviation field, and your leadership of the FAA.

As a pilot myself, I am glad that a fellow aviator is at the helm of this important agency, and I hope that we can get a permanent head of the FAA that has a deep understanding of the issues facing aviation today. Thank you so much. I yield back.

Mr. NOLEN. Yes, sir.

The CHAIR. Thank you. Senator Markey.

STATEMENT OF HON. EDWARD MARKEY,
U.S. SENATOR FROM MASSACHUSETTS

Senator MARKEY. Thank you, Madam Chair. Thank you for your service, sir. Obviously, the outage of the NOTAM system just shows how fragile our aviation system has become. And we heard in testimony last week that Southwest Airlines suffered its own operational meltdown due to inadequate amounts of winter equipment, which was exacerbated by its own limited technological system.

Southwest told us that they didn't have enough deicing equipment in Chicago or in Denver, which is like saying you don't have enough baseballs to open the season at Fenway Park. You know, so obviously, they didn't anticipate what was unfolding. And a lot of it is as a result of climate change, as a result of global warming.

Burlington, Vermont, for example, in a report out just this past month, but it is a good example of what is happening across the country, is seven degrees warmer in the winter than it was just 50 years ago.

Burlington, Vermont, seven degrees warmer. So it is not just global warming, it is global weirding that is taking place, and therefore, you have to adjust, adapt the system to the craziness of the weather. And the aviation system has to make the investment in order to deal with this dramatically changing weather environment due to global warming, due to climate change.

So there is a dangerous connection between climate change and outdated technology and infrastructure, with extreme weather events like winter storm Elliot stressing the IT systems at the core of our aviation system. So, Administrator Nolen, do you agree that climate change poses new challenges for airlines, airports, and the FAA?

Mr. NOLEN. Senator Markey, thank you for the question. Just given my long time airline experience, I can say, number one, I have operated in all kind of conditions. The airlines, when we think about how they operate, they all have what they call winter operation plan. I am not an expert on climate. I certainly believe there are things we must do to continue as we think about what——

Senator MARKEY. Do you think you have to become an expert on climate? Do you think the aviation system has to become expert on climate? What do you think?

Mr. NOLEN. Absolutely. The more we know, the better.

Senator MARKEY. So that is what I would like to hear. I would like to hear that there is an understanding, appreciation, you know. That if you are not an expert, other people have to be experts.

Mr. NOLEN. We do have—we do that have that level of expertise within the agency.

Senator MARKEY. And that, I think, is very important because we are going to obviously have to harden our aviation systems against extreme storms, heat, and other weather events. Do you think that the FAA needs to require a greater investment in resiliency at airports?

Mr. NOLEN. That is certainly the path we are on. And so, you know, and that is a wonderful way of describing it, right. It is how resilient are our systems. And the extent to which we build that in and bake that in, certainly the industry globally is investing in technology to be more resilient. And it is an absolute priority for us.

Senator MARKEY. And I am working on legislation to improve the resiliency of our aviation system, particularly at our airports. We worked hard to include $25 billion for our airports in the bipartisan infrastructure law.

But these critical investments will be wasted if we don't address the climate related risks. And we are just going to have to work together in order to make sure that they are not in denial about what is happening. And just one final point, which is related to airport resiliency, which is airport service workers.

These individuals are the unsung heroes of our aviation system, but they often are overworked and underpaid. And just as our aviation system literally came to a stop due to a NOTAM outage, our airports would similarly stop functioning if the airport workers, the wheelchair attendants, the concessions workers, ramp agents, baggage handlers did not do their jobs.

So I just think it is absolutely essential that we recognize, and you do agree, they are essential to keeping these airports functioning?

Mr. NOLEN. I do, indeed.

Senator MARKEY. Yes, and I think it is important for us, which is why I introduced the Good Jobs for Good Airports Act, which would ensure that airport workers are paid a living wage and benefits. They are underappreciated, underpaid, under supported, they are black, brown, immigrant disproportionately. And during the pandemic, they showed up. They couldn't zoom to work. And we just have to make sure they get the resources which they need. So thank you, sir, for the work that you do.

Mr. NOLEN. Thank you, sir.

Senator MARKEY. Thank you.

The CHAIR. Thank you. Before I go to our next member to ask questions, I just want to clarify that the video that we saw earlier was a simulation done by Senator Cruz, I think, and his team. That was not a real video of the incident. There seems to be some confusion about that, so.

Mr. NOLEN. No, ma'am. I knew it was a simulation.

The CHAIR. Yes, OK. You clearly stated that, but not everybody may have captured that, so we just want to reiterate that. Next, I have Senator Vance.

STATEMENT OF HON. J.D. VANCE,
U.S. SENATOR FROM OHIO

Senator VANCE. Thank you, Madam Chair. Mr. Nolen, thank you for being here. I am going to ask just a little bit about some of the unusual increases in obsession with the vocabulary and language that we are seeing in some of the FAA guidance and related documents related to our aviation industry. I want to ask, did the FAA issue a 176 page guidance document changing notices to airmen to notices of air mission in December 2021?

Mr. NOLEN. We did.

Senator VANCE. This was in part to avoid using the gender term airmen, correct?

Mr. NOLEN. Yes, sir, I believe so.

Senator VANCE. OK. On November 10, 2021, the FAA held an inclusive language summit. Are you familiar with this effort?

Mr. NOLEN. I am familiar with it.

Senator VANCE. During the summit, which had a solicitation published in the *Federal Register,* Deputy Administrator Mims stated that when we use terms like airman or unmanned aircraft, so I am laughing because this has to be a joke, we are sending a message that only men belong in the aerospace community. Do you agree with that statement?

Mr. NOLEN. Well, Senator, what I could say is that having been a pilot for 42 years and seeing the evolution of our aerospace industry, I started out in helicopters and have flown as a captain in big jetliners. Not everyone is a pilot today. We have drones. We have spaceships—spacecraft, I am sorry.

And so I do believe going to notices to air missions is absolutely the right thing to do. It is a accurate reflection of where airspace system is today. Fully supportive of that. And none of that, by the

way, detracts from our mission, which is the safety of our airspace. And that will always be our North Star.

Senator VANCE. The point is, if it makes sense for some aviation reason, that is fine. If it makes sense purely to avoid gendered language, it seems like an unnecessary preoccupation with the words that you are using and that we are using rather than the work that we are doing.

I want to just ask a couple of additional questions about this summit. The public notice for the meeting stated, "if any individual employer, contractor, or industry partner feels excluded or marginalized because of language or words, the work of the agency suffers." Do you agree that the feelings of FAA employees about language are this important?

Mr. NOLEN. What I agree is that as we seek to attract the next generation of people into aerospace, mostly they won't look like the people sitting in this room. And so it is our ability to say, how do we bring tomorrow into today into an industry that is evolving right before our eyes. So our ability to find inclusive ways of reaching underrepresented groups is a right path to be on.

Senator VANCE. OK. I guess unanimous consent enter into the record the Drone Advisory Committee Public E-Book. I have it right here. This document uses the term wife as an example of the type of language that we need to eliminate. Is that something you support?

Mr. NOLEN. I am sorry, could you restate the question? I am sorry, sir.

Senator VANCE. So I am asking to give consent, first of all, to enter this into the record. But it explains that wife, the word wife is an example of the type of language that we need to eliminate. And I am just asking if that is something you think is necessary or something you support?

Mr. NOLEN. I would have to give that one some more thought.

Senator VANCE. Well, I would hope that the word wife is not something that we—or is something that we could all agree is a reasonable vocabulary word that most Americans use in their daily life. It is not something that we need to eliminate.

I don't have much time here, so let me just ask here, at this same summit, during a panel called, How the FAA is Pushing Gendered Language Boundaries, the panelists stated that FAA leadership brought us to where we are here today. We see the recommendations from the Committee as a foundation, but it is also just the beginning of the conversation?

It strikes me that preoccupying ourselves so much with the words that we use rather than the work that we do, especially as our infrastructure appears to be crumbling and we have had major flight outages in the last couple of years, is at best a distraction, and at worst a thing that takes attention away from focusing on the real problems.

I worry—well, I especially I represent the people of Ohio, and I am very confident that the majority of Ohioans, if there is a pilot who is offended by the word wife or the word cockpit, maybe that person shouldn't be a pilot.

So rather than kowtowing to people who are fragile, maybe we should actually say, if you are so worried about the words that we

are using, you shouldn't be flying, you know, multi-ton metal engines through the sky.

And I just ask all of us to maybe try to focus as much on real problems, like the fact that our aviation system seems to not be working as well as it used to, than the fact that we may use uninclusive or under inclusive language. Thank you, Mr. Nolen. I appreciate it.

The CHAIR. Senator Baldwin.

STATEMENT OF HON. TAMMY BALDWIN,
U.S. SENATOR FROM WISCONSIN

Senator BALDWIN. Thank you, Madam Chair. So welcome, Administrator Nolen. Thank you for coming before the Committee and I know you will be back again, although that will not stop me from going beyond the stated topic of this hearing. But I am going to start with the stated topic of this hearing.

So the NOTAM failure happened right on the heels of a failure with Southwest Airlines. We had Southwest leadership testify last week about their meltdown during the holidays. And I want to raise a similar concern for the FAA that I raised with Southwest.

When something goes wrong and flights are canceled or delayed to the degree that they were during both of these situations, airports need to hear from you. They need to hear, in the case of Southwest, from Southwest, I learned from several Wisconsin airports, they just did not receive any type of proactive communication from the agency about the impacts of the NOTAM failure.

They only received information necessary to respond to confused and frustrated travelers after reaching out, you know, themselves to FAA's local regional office. It is my expectation in situations like these that FAA should provide proactive and real time updates and guidance to our Nation's airports.

Can you commit to that moving forward, and tell me how you would approach that, should we ever have a failure like this or similar disruption that requires this type of communication?

Mr. NOLEN. Well, Senator Baldwin, thank you so much for the question there. Let me say, just to set the record straight, throughout the course of every day, there are industry calls from our National Command Center every 2 hours.

In addition, on the January 10th, we also opened up a hotline at 8 p.m. on the night of January 10th, and we had anyone could call into that, meaning airlines, airports, and other users of the system.

So that was open. And then we were talking with our industry stakeholders throughout the night. On the following morning, when I instituted the ground stop, that information also went out nationwide to all airports. And we have roughly 5,000 airports in the country.

And so all of that, and as well, our office of airports also reached out to provide updates on the NOTAM outages that morning, early that morning of January 11th. And certainly we also updated that once the NOTAM was canceled. But your point is well taken.

We will go back and just scrub to say, can we even improve our communication process, and we will commit to you that we will do just that.

Senator BALDWIN. I appreciate that. Congress took action in the last FAA reauthorization or the 2018 FAA reauthorization to move airports away from firefighting foams that contain PFAS, yet airports are still without any approved alternatives. Airports in my state are eager to transition away toward safer alternatives and are anxiously awaiting an approved alternative from the FAA.

I will note that there are now numerous communities in Wisconsin whose groundwater has been contaminated with PFAS, and they are, in many cases, immediately adjacent to an operating airport.

I am aware that the Department of Defense, which has a strong role to play here, of course, recently released a military specification outlining its requirement for firefighting foams that do not contain PFAS.

So given that update, what can you tell me and what do you see as the likely timeline for finally giving airports PFAS-free alternatives? And how does the agency see its role in assisting airports throughout this transition process that we hope will be forthcoming?

Mr. NOLEN. Good question there. We are still working through that. So our Associate Administrator for Airports is on point in terms of working through this issue with PFAS. We recognize is one of supply as we look to an alternative.

As you mentioned, the new mil-spec is out. Airports are allowed to use for an actual emergency, and then we have got procedures where they can test without discharging PFAS onto the ramp and, you know, keeping that from getting into the water tables.

So we are working through the process of how we get there. We recognize it will take us some time. What I can commit to you is, we will follow up with you, with your staff in terms of what that those actual timelines are as they become available to us.

Senator BALDWIN. I just would want to stress and press for all due but considered speed on this. The resources that we are committing at the Federal level to try to assist communities with getting a clean and safe water supply after contamination are in the billions, and we shouldn't be prolonging this in any way.

So I certainly want to press for, you know, timely action on this. I know at the local fire department's—fire department level, which obviously is different than aviation firefighting, but they are finding various firefighting foams that are working very effectively that do not contain PFAS.

It seems to me that those tests—that that testing can be happening at the Federal level and get something in the queue as soon as possible.

The CHAIR. Thank you, Senator Baldwin. Senator Schmitt.

STATEMENT OF HON. ERIC SCHMITT,
U.S. SENATOR FROM MISSOURI

Senator SCHMITT. Thank you, Madam Chair. I have a couple of questions. And you may have addressed this already, but I do want to ask because I get a lot of questions about this from back home.

So you were aware of this the night before on the NOTAM failure in January, but the public was not made aware until the next morning, right, including when people were sitting on planes and

flights were delayed? I mean, there was no real transparency with the public, you would agree with that?

Mr. NOLEN. What I would agree with, sir, is that we, the system on the night before was operating, and also airlines were not reporting that there were any operational impacts on the night of the 10th.

Senator SCHMITT. OK. So how long until you knew that this actually wasn't working, until the public knew?

[Technical problems.]

The CHAIR. I think that was one of our colleagues trying to—next in line———

Senator SCHMITT. That is OK. Can I have my 10 seconds back?

The CHAIR. Yes, sure.

Senator SCHMITT. I am just kidding.

[Laughter.].

Senator SCHMITT. Right. OK, I just want to move on to something else. So in the President's budget that has been submitted, there is $2.4 million proposed to address climate change.

In the conclusion of that budget, it says, and I quote, "the FAA's budget request for Fiscal Year 2023 embodies the Administration's priorities of mitigating climate change and increasing equity."

Do you believe that that is your mission at the FAA, to mitigate climate change and increase equity? Is that your job at the FAA?

Mr. NOLEN. I believe it is all of our jobs here to address climate change, and is one that we take seriously.

Senator SCHMITT. OK. In that report, there is further commentary about it as a response to the accelerating climate crisis. Do you believe we have a climate crisis?

Mr. NOLEN. I was just at the ICAO convention where the majority in an overwhelming fashion supported moving to net zero carbon emissions by 2050. So if you look out across the global community, it is one that is staring us in the face and it is one we must address.

Senator SCHMITT. I am not really interested in the global community's view. I am interested in the FAA's view, whose mission is supposed to be safe and affordable travel for the American public.

And what I have noticed with agencies, and this was particularly heightened in COVID and I think is now the playbook, we went from global warming to climate change to now a climate crisis. And as you have indicated, words matter. And in my view, that is meant to stoke fear and empower unelected bureaucrats to do things that are not authorized by law because it is an "emergency."

And so I have deep concerns with spending $2.4 million on—it is not really clear, but I want to read you something from this. It says the FAA, this is the same budget request, the FAA will need to continue supporting maintenance and implementation of ICAO's Carbon Offsetting And Reduction Scheme for International Aviation, CORSIA, the international standard.

CORSIA is a market based measure that allows international operators to achieve carbon neutral growth through the use of carbon offsets and sustainable aviation fuel. Is the FAA currently supportive of CORSIA?

Mr. NOLEN. Of course, Yes, sir, we are. And we are supportive of our move to sustainable aviation fuels.

Senator SCHMITT. OK. I am distressed and troubled that the Secretary Buttigieg, Pete Buttigieg, is not here today. Do you know if Pete Buttigieg, when he flies private, uses that same system, that same measurement of CORSIA?

Mr. NOLEN. Well, first, let me say, sir, that what you speak of is private Government aircraft that are used across the Government. We use aircraft for testing. The FAA has a fleet of 42 aircraft that are primarily used for en route testing, et cetera. And so in those, without having to sort of qualify this, we are talking about public resources and not private resources.

Senator SCHMITT. Right. Does he, does the Secretary use market based carbon offsets when he flies private?

Mr. NOLEN. Sir, I can't speak to that.

Senator SCHMITT. Can you get back to me on that, because I am very interested. Or maybe actually, if you could get the message to the Secretary the next time we have a hearing dealing with the Department of Transportation, the FAA, we would like to see him here. And if he could give an answer to that.

Because he flies private a lot. He tells hardworking Americans they need to pay more for things that he is not willing to pay for, and people are frustrated. Could you relay that message to him?

Mr. NOLEN. Yes, sir.

Senator SCHMITT. Thank you.

The CHAIR. Thank you. Senator Duckworth.

STATEMENT OF HON. TAMMY DUCKWORTH, U.S. SENATOR FROM ILLINOIS

Senator DUCKWORTH. Thank you, Madam Chair. As a Senator from the great state of Illinois where we produce a lot of ethanol, my farmers are very supportive of the aviation fuel, sustainable aviation fuel movement.

As a pilot, and we both actually started off as rotor heads, so welcome. It is good to see a fellow the rotor head. And I know your background in aviation actually also includes a long history of aviation safety.

Mr. NOLEN. Yes, ma'am.

Senator DUCKWORTH. All the way back to your days as an Army pilot. One of the things that you learn is that a safety system should never be left vulnerable to a single point of failure, never.

Redundancy saves lives. We know that. That is why I am very alarmed that a single contractor could crash the automated NOTAM system by simply deleting files. That sounds like a single point of failure to me and I would love to understand it better.

And this is on the heels of the deadly Boeing 737 MAX crashes that were caused by the grossly irresponsible decision to place passengers' lives at risk at the mercy of a single angle of attack sensor.

What is striking about these incidents is that America's largest commercial aircraft manufacturer, and the world's most important aviation regulator, both betrayed a fundamental aviation safety principle, operational redundancy.

It is the FAA's job to keep our airspace safe, but it is impossible for FAA to do this unless its systems have appropriate redundancies, and you generally have redundancies across the system.

Administrator Nolen, when was the last time that the FAA reviewed its air traffic organization's facilities and equipment to ensure that there are no potential single points of failure?

Mr. NOLEN. Well, thank you, Senator Duckworth. And I applaud you for your service as well. It is great to talk to a fellow Army person. Let me just say, we have an ongoing look in terms of where we are.

So the whole journey of modernization for the FAA is exactly to what you are describing, how do we continue to build in redundancy and resiliency in the system, and expand it to be able to accommodate new entrants in what we have today? That work is ongoing.

Senator DUCKWORTH. When was the last time before the NOTAM system crashed that a review was conducted?

Mr. NOLEN. We did reviews in 2020, 2021, and we have done three reviews in 2022.

Senator DUCKWORTH. I would love to see any report from those reviews, if possible.

Mr. NOLEN. We will certainly follow up with them.

Senator DUCKWORTH. Thank you. The Boeing 737 MAX investigation discovered that at least one employee specifically cautioned against relying on a single angle of attack sensor in the airframe, but that concern went unheeded. How often, if ever, are you briefed on concerns that FAA employees may have about the resiliency of the air traffic organization's facilities and equipment? Do you get those briefings? Do those come up to you at your level?

Mr. NOLEN. We do. We have several processes. Certainly, we have a whistleblower program. We have got a for our safety organization. We have a voluntary safety confidential reporting program.

So there are multiple avenues for FAA employees to get information to me. I have a biweekly with my audit team in terms of——

Senator DUCKWORTH. And they lift up individual?

Mr. NOLEN. They do come to me for individual reports.

Senator DUCKWORTH. OK. I am going to go to my next question just simply because I have a limited amount of time. As you know, last week, Airlines for America urged FAA to extend its proposed deadline to June 2024 to retrofit aircraft with altimeters that won't experience interference from 5G wireless technology.

While a 4-month delay may not be a huge disruption, it is a reminder that this process has been and remains a seat of the pants operation. Had the FAA and FCC better cooperated during the development of 5G, wireless customers would have benefited from a smooth, predictable rollout of this new technology without risks to air passengers.

Instead, we were treated to delays, negotiations, and uncertainty, all because the FAA and the FCC failed to meaningfully collaborate with each other early and often over the years. We should never have reached a situation where the FAA had to seriously consider halting flights at certain airports because it could not rule out the risk of 5G interference causing a crash, even if such a risk was low.

I have several questions I think I am going to ask you—I am going to submit for the record. But really, you know, what I need to know is, is the FAA receiving all the technical information it

needs from the FCC and the wireless carriers to ensure that 5G does not interfere?

Does the FAA have the resources that it needs to ensure that all passenger aircraft are equipped with the technology to prevent 5G from interfering with flight operations? And this is both commercial but also general aviation.

Is the FAA sharing all relevant information with FCC and air carriers to prevent 5G from interfering with flight operations? So I have a series of questions I am going to submit for the record, and I will ask for you to please submit your answers in writing.

Mr. NOLEN. Thank you. I would be happy to respond.

Senator DUCKWORTH. Thank you.

The CHAIR. Thank you. Senator Capito.

STATEMENT OF HON. SHELLEY MOORE CAPITO, U.S. SENATOR FROM WEST VIRGINIA

Senator CAPITO. Thank you, and welcome, Mr. Nolen. Thank you for your service, and long years of service. Let me ask just a quick question. Is your—is the FAA workforce in the office 5 days a week now?

Mr. NOLEN. No, ma'am, they are not.

Senator CAPITO. Do you know how that breaks out? 20 percent are?

Mr. NOLEN. I don't have the numbers. I would be happy to follow up with you on that. But we do have, we have got folks who are in the office and there is coverage every day. Let me qualify that. Our operational people are indeed in the office every day or, you know, in their control rooms every day.

Senator CAPITO. Do you anticipate the rest of the workforce will come back every day?

Mr. NOLEN. We are working through, I believe, across all of Government to, say, as we come out of the back side of the pandemic to make sure that we have got that tempo. What I want to make sure for the American public is that the what the work we do is accomplished no matter where the person is sitting.

Senator CAPITO. Understood. Yes. I would hope everybody would eventually get back there. As you know, and I think this was addressed, Senators Klobuchar and Moran and I have introduced the Note of Improvement Act, S. 66, I think you have addressed this, establishing a task force of experts to come up with recommendations to make the important pilot notification system better.

While I know you have been trying to improve the system for years, can you tell us the benefits of having this legislation and assembling these experts with a clear list of objectives and deadlines to give recommendations? Could you address that?

Mr. NOLEN. Well, thank you. What I can say about that is we support the goals of this legislation, and we are working in that level. We are working with industry, stakeholders, we work with an earlier group as we started the journey of modernizing our NOTAM system.

Senator CAPITO. Do you think that having that stronger NOTAM system would cut down on this 1,732 runway incursions we saw in 2022?

Mr. NOLEN. I certainly think getting to that advanced system, prioritizing all the things that we have talked about here this morning, will make the system more resilient. And so, I would love to see us get there quicker.

Senator CAPITO. Let me ask you this about contractors. We have noticed, and you have you noted, cybersecurity are a major issue. And we are also concerned that as Senator Duckworth was talking about, the contractor unintentionally deleting files, causing the outage.

And on January the 11th, you say to that new protocol requires more than one person to be present when database work occurs. Can you tell us how many contracts or have contractors have access to the NOTAM system? And does the other person that needs to be present? Is that an FAA person or is it—could they be a contractor?

Mr. NOLEN. Yes, ma'am. So let me say firstly, for the contractors that were directly involved in the unintentional deletion, they no longer have access to either FAA facilities or the NOTAM system. So we do have other contractors. I don't have the exact number in front of me, but would be happy to follow up there. And we also have a level of FAA oversight. And so part of that——

Senator CAPITO. So it could be either/ or?

Mr. NOLEN. Yes, ma'am. No, there will always—there is always FAA oversight.

Senator CAPITO. OK. OK. I was going to ask you a question about 5G. We have had hearings in this committee on the issues between the FAA and the FCC. And I note Senator Duckworth introduced some questions for the record, but what is your communications strategy with the FCC on this so we don't run up against another deadline, and have another hearing, and then everything seems to break down?

Mr. NOLEN. Thank you for the question. We are working very closely with the FCC and the NTIA, as well as the industry on all things 5G. We have got a regular cadence of meetings with the FCC on this, and we are in a position where we have better alignment and we have got an absolute sense of transparency going there.

Senator CAPITO. Well, I would encourage that. Let me ask you a question coming from a rural state with smaller airports. What would you say the biggest challenge moving forward the next 10 to 20 years is going to be for our smaller regional airports?

Mr. NOLEN. What gives me, you know, a lot of hope is as we start to see advanced air mobility, I mean, it really excites me. And that ability to not only go between cities, but to connect smaller cities as well.

When we think about urban air taxis and what the possibilities are there, I think is fascinating, to be quite honest. We continue to look at how, you know, what is that level of support. I can't speak to the economics of it.

That is not my, within my purview. But we are a strong supporter of our system. We look for ways how do we support certainly from a Federal Aviation Administration.

Senator CAPITO. Thank you. And I would like to just thank you and your representatives that are in West Virginia. We have a lot

of contact with them. We have some—you have probably flown into West Virginia.

Mr. NOLEN. I have.

Senator CAPITO. It takes a little bit of skill, I think. And in some cases a lot of skill. So they are very responsive to us and reply and help us in a short period of time. So I please convey my appreciation.

Mr. NOLEN. Yes's, ma'am. Thank you for the feedback. We will certainly pass it on.

Senator CAPITO. Thank you.

Mr. NOLEN. Thank you.

Senator CAPITO. Thank you, Madam Chair.

The CHAIR. Thank you so much. So my intention is to ask a follow up question, and if anybody else shows up, we will give them an opportunity to ask a question. If they don't, we are going to close out the hearing and move on.

But, Mr. Nolen, I found it very concerning that the same day we had this NOTAM system issue, so did Canada. I just feel like this can't be a coincidence, that we have no incidents, and then on the same day, the same system has a problem in two different countries. Do you know about the Canadian outage, and what is your make of this situation?

Mr. NOLEN. Yes, ma'am. I do know about the Canadian outage. We have talked with our counterparts at NAV, Canada. Absolutely, there was no connection between what they experienced based on everything they told us and what we experienced.

That being said, one of the very first things I directed our investigation teams to do, to look at this from both a human error, but also from a cyber. We also had the Department of Homeland Security working with us to—what is our level of cyber resilience there. So, again, the investigation is ongoing.

Everything we have to date showed no sign of this being cyber related, but the investigation still continues there.

The CHAIR. And so what is—what was the outage in Canada? What was the——

Mr. NOLEN. There was in a—my understanding from them, theirs was a database, but they have a different system, different architecture. It was not related to our system in any way, shape, or form.

The CHAIR. I am sure it wasn't related to our system, but I still find it ironic that two, you know, of the biggest systems in the world are outed at the same time. And there has been no problems with these NOTAM systems, and all of a sudden, on the same day, there was a problem.

Just I think we will look forward to more data and information from you on that. Back to the question, though, on redundancy. I don't think we have true redundancy here. So I want to see a plan from the FAA that examines the fact that the backup systems are still subject to the same kind of, if you want to call it human error, of deletion of files.

You are building a system to try to firewall that from not happening again, but it could be a different problem, and we still have a backup system that would be affected.

So until we get the true modernization system, I would like you to go back and see what level of redundancy that you really have a truly separate system that would not be impacted by this.

Mr. NOLEN. We appreciate the concern, and that is indeed one of the first paths I directed as well, is to this overarching look by our IT team working with MITRE is to do exactly what you are asking for.

The CHAIR. And so, what did you come up with since you went down this road sooner than I did? What did you come up with?

Mr. NOLEN. That is still ongoing. They have got still a bit to do because, you know, as I said, we have got thousands of systems, and so our ask for them is to once that work is done, we will certainly be happy to provide an update to the Committee.

The CHAIR. You mean we have contractors with too much stuff and they can't get things done, is that what you are saying?

Mr. NOLEN. No, ma'am.

The CHAIR. Oh, OK. So why can't they give us an analysis of the system and keeping a duplicate system.

Mr. NOLEN. That's the body of work that is ongoing. It is not just the NOTAM system, but I think what you are asking for is looking across all of our critical systems that underpin our national airspace and the levels of redundancy there. That is the work that we have, our IT and MITRE.

The CHAIR. No, I am asking just now. Not the NOTAM system. I want to get an answer within a week about the NOTAM system having a separate backup, totally separate backup, that could be used.

You are saying what happened here is somebody infected the file and basically ended up deleting something that then caused the outage to the system. So, the question is, you are now trying to put human redundancy there so that this won't happen again.

But if the same system is a network, including the backup to servers and other places, and whatever action somebody mistakenly takes on files still affects the whole system, what would be important to understand is can the FAA set up a true redundant server system that would allow for that file corruption that happened not to happen across the entire system? And that is what we need to know the answer to.

So, I do see you a few colleagues have arrived, which means we have some questions to answer. So, I am going to go and vote and I will turn it over to my colleague from Wyoming, Ms. Lummis, and then my colleague from Georgia, Mr. Warnock, and then we will see who else shows up. But thank you very much.

Mr. NOLEN. Thank you, ma'am.

The CHAIR. Senator Lummis.

STATEMENT OF HON. CYNTHIA LUMMIS,
U.S. SENATOR FROM WYOMING

Senator LUMMIS. Thank you, Chairman Cantwell. This is an important hearing. We appreciate your being here very much. Looking forward to your testimony today and your willingness to serve and continuing this important dialog. Before I go to my questions, I want to highlight several issues that I believe should be at the

top of this committee's priority list as we look to reauthorize the FAA.

Obviously, there is no doubt that both the Southwest and the NOTAM system failures have shown the need for a reliable air service ecosystem, both in the public and the private sector. But I must note that reliability of air service is an issue that my home state of Wyoming faces every day, whether there is a system outage or not.

Factors such as a lack of pilots, high jet fuel prices, a consolidation of air carriers, and the up gauging of aircraft capacity have left many rural communities across the country at risk of losing their air service.

So, as we move into this FAA reauthorization, this committee must not lose sight of the main goal of our national aviation policy, creating a truly national network that safely connects all regions together.

So, I am looking forward to the discussions today. Acting Administrator Nolen, it is my understanding that many in the aviation industry feel that NOTAM system does not provide useful information. I happened to be sitting on an airplane when NOTAM went down and the pilot was trying to explain to us what NOTAM does.

Often air crews are bombarded with information, some of which is critical, while others are repetitive or even irrelevant for the specific route the aircraft will be flying.

As the FAA looks to recover from this outage and modernize the IT infrastructure, I am curious to hear if the FAA has heard similar concerns, and if there are plans to simultaneously modernize NOTAM so that it can better prioritize the information it is sending to air crews?

Mr. NOLEN. Yes, ma'am. Thank you for the question. What I would say—so, two things. Number one, the journey that we are on, and we are about halfway through it in terms of our modernization of the NOTAM system, is designed to do exactly what you are describing and what the general concern is, how do we ensure that the NOTAMs deliver to pilots? Being a pilot myself, are relevant, they are timely, they are prioritized, and they speak to the route of flight.

Now, there are times when you may have to divert, so we can't always say they are irrelevant. And, you know, if you are deviating around the weather system sometime, that could take you hundreds of miles off your present course. And there might be a relevant NOTAM there.

But we are moving. We have already got some functionality built into the system today, especially on the Federal NOTAM system. And by the time we get to 2025, when we will have everybody onto the Federal NOTAM system, we will continue to improve that. And following that, we will ultimately get to an ICAO standard.

All of that takes time, of course, but we are working through it very purposefully.

Senator LUMMIS. So how would it work if it's a more localized issue? For example, I have been on planes in Wyoming where there were antelope on the runway or a coyote on the runway. So, it only affects a few planes in a very localized area. Can NOTAM be calibrated to address those sort of very isolated individual issues?

Mr. NOLEN. Yes, so maybe to speak a little bit about NOTAMs, right. So, for your flight that you are on departure, yes, you have got NOTAM's that are appended to the flight plan if you are on a commercial flight.

But the other thing you do as a pilot is you would call for DH's automatic thermal information, which gives you weather, which gives you taxiway closures, which gives you other things relevant that may not be working in the moment. In the same thing for your route of flight and the same thing for your destination airport.

Pilots, you would call prior to the top of the descent and say what is happening at my airport? It may say it is in Booz or in Montana, or it is in, you know, Jackson Hole, Wyoming. Those are the "in the moment" types of information, relevant information you would get from the airport itself.

Our goal is to, again, to continue down this journey of streamlining the NOTAM system, making it ICAO compliant, and getting it to a point where it is indeed relevant to each route of flight.

Senator LUMMIS. So recently you announced that upgrades to the NOTAM system would not be completed for almost a decade. And I assume it is because of the complexity of making the updates. But is there a way to expedite that timeframe?

Mr. NOLEN. Yes, that is one of the directions I have given my team, is come back to me with what it would take resources wise for us to accelerate. And we would love this to see if that is possible.

Right now, we substantially, the bulk of the work will be done by Fiscal Year 25. I would like to see if we could bring that forward, and then there are some other pieces that work into that.

Senator LUMMIS. One more quick question. I understand the FAA has taken steps to prevent another NOTAM malfunction, such as decoupling the system and requiring that two people be presented when performing work on the system or be present.

Since the issue with NOTAM was caused by contractors accidentally deleting critical code, does the FAA plan to restrict access to the NOTAM system moving forward to FAA employees?

Mr. NOLEN. No, ma'am, we do not. So, we have a NOTAM system that is overseen by the FAA and maintained by contractors. These folks are indeed the experts there. What I have ensured that we have is the level of oversight for the FAA team, and that the requisite level of leadership that oversees that.

Senator LUMMIS. Thank you very much, Acting Director Nolen. We appreciate your being here. I yield to the gentleman from Georgia, Senator Warnock.

Senator WARNOCK. Far be it for me to go ahead of the gentlewoman from Nevada.

STATEMENT OF HON. JACKY ROSEN,
U.S. SENATOR FROM NEVADA

Senator ROSEN. Thank you, Senator Warnock. [Technical problems]—and thank you for being here today for this really important hearing. I am just going to go quickly right into it, because for Nevada, of course, you know, big tourism destinations all up and down our state, robust, safe, and reliable air travel, it is, like I said, essential for our tourism driven economy to thrive.

In 2022, passenger volume at Harry Reid International Airport, it broke an all-time record. The airport welcomed more than 52.6 million passengers. And while business travel, of course, still recovering in 2022, leisure travel to Las Vegas exceeded expectations with visitors drawn to our newly expanded sports offerings, I am just saying Super Bowl next year, Las Vegas, and other large scale entertainment events.

And the NOTAM system's outage last month, it did make clear to actually all Americans how dependent the world's largest economy is on air travel and how dependent air travel is on antiquated computer systems.

Fortunately for our Harry Reid International Airport, the immediate impacts of the outage were manageable as we have amazing and dedicated employees, and the NOTAM outage happened on a Wednesday, which is actually one of our lighter travel days. I worry, however, about this happening again and our ability as a nation to deal with it.

So, I want to talk about preparing for a cyber-attack. The incidents spanning January 10th and 11th was determined not to be a result of a cyber-attack, but it did publicly really reveal critical vulnerabilities like some of the other Senators have mentioned, in our security and our system architecture, and we just have to continue raising these concerns.

So, do you feel in your estimation, that the FAA systems, that they are resilient enough to detect, to counter, and defeat a major cyberattack, including by other nation states? And does the FAA, do you have the proper infrastructure, and most importantly, the properly trained cyber workforce to swiftly support that effort?

Mr. NOLEN. Yes, we do. So, thank you for the question, Senator Rosen. We have a very capable cyber resilience staff. We undertake biannual cyber response plan, when we practice that plan on a biannual basis.

We work in close concert in coordination with our other agencies, TSA, Homeland Security, et cetera, and we continue it. And certainly, the work of modernizing the FAA, which is——

Senator ROSEN. I was going to ask, what investments are you planning for? What can we expect to see in the coming months to maintain this level?

Mr. NOLEN. Well, certainly we want to get on to the Federal NOTAM system. That has increased levels of redundancy versus the U.S. NOTAM system, but we still got some critical users who are using the U.S. NOTAM system.

So that is the work that will take us to get there. But back to the question of cyber resilience. We are. We look forward to that. And we think the controls we have in place will prevent a repeat of the event that happened on January 11.

Senator ROSEN. And thank you for that. And I want to ask, as we move forward into IT modernization, not just in this area, but in really every area, we have to do that, how are you working with other Federal agencies to manage and prevent cyberthreats? And is there something that we can do? Any Congressional support you need in order to be sure that those collaborations are taking place?

Mr. NOLEN. I would say at a high level, I know the Committee has been briefed on many things in and around cyber. Currently,

well, it has been a while, but we have a whole of Government approach to that.

So, we are working across every agency and every department within the Government, around cyber, around cyber resilience. That there is that level of interconnectivity is absolutely there, and it is one of our top priorities, one of the top priorities for the Administration.

Senator ROSEN. And I want to build on that a little bit because we know that we are using telephones as a backup, right. And so, like the outage again in January, the flight crews, they utilized this backup phone system.

Now, I would say that is—I love my phone and but I would say that that is not the best use of our technology. And so, considering the added time requirement, the potential for error, and inherent in using outdated rudimentary system, is it sufficient that a phone is the reliable backup in 2023 to the NOTAM system? And what can we do to have a more reliable backup?

Mr. NOLEN. Well, a phone is—there are multiple streams of getting NOTAMs. One is by calling, one is talking to air traffic control, one is talking to the facilities that you may be going to or are en route. So that backup that is there, our goal is indeed to have a system that is highly resilient and redundant, and that is the piece that we are working toward.

Senator ROSEN. Thank you. I think I yield to—let me yield to Senator Sullivan from Alaska.

STATEMENT OF HON. DAN SULLIVAN,
U.S. SENATOR FROM ALASKA

Senator SULLIVAN. Thank you, Madam Chair. And, Mr. Nolen, thank you for being here. You know, my state has very unique problems and challenges, 258 communities with no roads, think about that, 82 percent of the communities in my state you can't get to by a road, so you need an airplane.

And yet we have the oldest infrastructure and technology of any state in the country when it comes to FAA issues. We have remote mountainous terrain. We know it presents technical challenges for the FAA in installing and maintaining robust communications and navigation and satellite systems.

In the FAA's own words in 2021, the FAA, Alaska Aviation Safety Initiative, they said, "maintaining the extensive Alaska national airspace infrastructure, which consists of a mixture of old and new components, is a daunting task for FAA engineers and technicians."

Now, I know we are focused on modernizing the NOTAM system, but can I ask you, will the FAA—would the FAA, recognizing the huge needs in Alaska, with this Alaska Aviation Initiative, which we appreciate from the FAA, are any of these going to be addressed in the effort to modernize the NOTAM system?

Mr. NOLEN. Senator Sullivan, thank you so much for the question. Yes, indeed. We recognize the criticality of our systems with respect to Alaska and all of the challenges that you spoke to.

And Alaska is still one of the areas that remain on the U.S. NOTAM system. So that is a part of our goal as well. When you think about Alaska international operator, or some parts of the

DOD, is to get everybody onto the Federal NOTAM system. And, you know, that will happen by 2025 unless we can accelerate it, and we are looking at what that might take.

Senator SULLIVAN. OK. Well, this effort then will result in more timely NOTAMs, outages of navigational aids and communications. So, will you be able to be able to surge that capacity that we need there?

Mr. NOLEN. That is our expectation that we will have, you know, better stream, better reliability there.

Senator SULLIVAN. Let me ask more specifically, what is the FAA focused on in terms of doing soon to address the challenges to maintain navigational aids and communications equipment in Alaska and then upgrade it?

Mr. NOLEN. We are still working through that. I mean, there are things we are doing like around runways, around approaches. We have done a lot in terms of GPS approaches. We have got some you know, some other approaches, other approaches that we are doing in Alaska.

So, our commitment there is high and everything that we are doing, the FAASI, is working and we are making the kind of progress.

Senator SULLIVAN. OK. Again, I appreciate the FAASI effort. I mentioned, 350 communities. All this technology I also mentioned, unfortunately, you know, highest death rate per capita in terms of flying for all these reasons. Can the FAA, and this is a simple idea, store more spare parts in the state and provide more technicians?

Mr. NOLEN. Well thank you for the idea, sir. Let me, if you allow me to take that back to our team, and we are certainly happy to follow up.

Senator SULLIVAN. OK, good. Let me ask one final question. I know we have a vote here. I want to be respectful to my colleague, Senator Warnock. The FAA has a policy that we are kind of baffled by right now that is requiring—and to be honest, I still don't even really understand it.

A shorter runways throughout the state of Alaska. That is antithetical to what we need right now, which is actually longer runways. Remember these communities, the airport is off—is the only thing that connects them to, unless you are on a river and then it is a boat.

But the river is frozen in the winter, so why are we requiring, in order to be eligible to reconstruct runways using Federal funds, that the FAA is forcing Alaska to shorten the length of its runways?

To be honest, you should be helping us lengthen runways. This is baffling to me. And my team has tried to explain it to me and I don't understand. So, what is happening? This is nuts.

Mr. NOLEN. Well, thank you, sir, for the question. Let me just caveat, correct a couple of things here. There is a caveat in the AIP funding that, you know, that requires—when we talk about an additional 500 feet is what we are talking about. We are working through in Noatak, if I have got that right, Alaska.

Senator SULLIVAN. Yes.

Mr. NOLEN. So that work is in progress. There is—it is also caveated that if it provides critical services——

Senator SULLIVAN. Or how about there is no road to that——

Mr. NOLEN. Exactly. So those are things that play into that. So that piece is underway.

Senator SULLIVAN. Well, I would like to work with you and your team with my team to make sure we are not—we are not telling Alaskan communities they have got to shorten the runway when it is their only lifeline to the rest of the state in the rest of the world. OK, thank you.

Mr. NOLEN. Thank you, sir.

STATEMENT OF HON. RAPHAEL WARNOCK,
U.S. SENATOR FROM GEORGIA

Senator WARNOCK. Thank you so very much, Administrator Nolen, for being here. Families rely on the FAA to ensure their flights will take off safely and efficiently. The FAA's NOTAM system plays a critical role in this effort, and its recent outage is concerning, to say the least, as me and my colleagues have already said, and unacceptable.

I think you know that. It doesn't just hurt passengers, it also poses a national security risk, signaling to our adversaries that even a minor computer error can bring down domestic commercial flights for hours.

According to your testimony, this outage resulted from a contractor accidentally deleting files that were necessary to maintain the synchronization between the live and backup NOTAM data bases.

Administrator Nolen, as of January 10th—and if you can answer yes or no, I have got to go and vote. They are always doing multiple things around here. We are always doing multiple things, I should say. Did FAA staff understand that deleting these files could cause this outage as of January 10?

Mr. NOLEN. There was an understanding. If the question is, did they understand the result of deleting files, yes, the Administrator knew that it was an unintentional deletion. And so, as they were working to repair that error, they did understand the magnitude of what they had done.

Senator WARNOCK. How many contractors had security permission to access and delete those files that day?

Mr. NOLEN. On that day, the contractors all had—just let me say that our NOTAM system is overseen by the FAA and maintained by contractors. They were our database administrators, so they had access. The ones directly involved in this event on January 10 and 11 no longer have access to our system while the investigation is underway. And we are taking a look at that.

Senator WARNOCK. So how many had access that day?

Mr. NOLEN. That day, I don't have an exact number at the moment. That day there were two people working in the system.

Senator WARNOCK. So, can you follow up with me and answer it in writing?

Mr. NOLEN. Yes, sir.

Senator WARNOCK. How many contractors had access that day? How many contractors still can disrupt the database connection?

Mr. NOLEN. If you think about it, whether it is a contractor or an FAA employee, our goal is to build in a level of resilience no

matter who is in the system. And we have put controls in place to make sure that we have the levels of redundancy with oversight, ensuring that two people or more, at least two people are there when working on the live data base.

Senator WARNOCK. So, you are saying the answer zero now?

Mr. NOLEN. That the answer is zero? I am sorry——

Senator WARNOCK. The question was how many contractors still can disrupt the database connection? And you are saying to me that based on systems you have put in place now with redundancies, that answer is now zero?

Mr. NOLEN. You would expect, that is right, with oversight. We would not expect to see a repeat of this kind of error.

Senator WARNOCK. So, and thank you, if you would follow up with the first—the answer to the first question in writing. I believe it is essential that FAA award single points of failure, which I think I am hearing you say that that should not happen again. Is that correct?

Mr. NOLEN. That is correct.

Senator WARNOCK. So, no one contractor who hasn't had their morning coffee can accidentally or intentionally ground commercial air travel for the whole country. How many other single points of failure does the FAA have within its system?

Mr. NOLEN. That is a piece of work that we are undertaking. So, part of the effort that we have going with our Office of IT and Technology working with MITRE is to assess the totality of our systems, of which there are thousands, to make sure what we have from a resilience perspective, and we expect that work to be completed here in the coming weeks.

Senator WARNOCK. So right now, we don't know how many other single points of failure we have within our system, and that is work you are doing right now?

Mr. NOLEN. That is work that we are doing now.

Senator WARNOCK. All right. What steps are you taking the audit security and access permissions across all of these points of failure to prevent both accidental mistakes and malicious intruders?

Mr. NOLEN. This is part of what the investigation is designed to do. We are looking at every part of our process, from procedures, from access, from control, from resilience to redundancy. All of that is in the scope of the investigation.

Senator WARNOCK. Well, obviously, all of us were deeply troubled by what we witnessed. Its impact on air travel and the implications are deeply concerning. This year is, of course, FAA reauthorization.

It is a good time for us to be focused on these issues, and I look forward to collaborating with you and with my colleagues as we modernize the FAA to increase security, to reduce risk so that all of us, certainly my constituents in Georgia and people all across the country can fly safely.

Mr. NOLEN. We appreciate the support.

Senator WARNOCK. So, I guess—oh, the Chair is back.

The CHAIR. Well, Senator Warnock, do you have further questions?

Senator WARNOCK. Thank you, Madam Chair. I am done. I am going to go vote.

The CHAIR. OK. Well, maybe we will coordinate here together, but thank you. You represent such a big aviation state and look forward to working with you on the reauthorization bill.

Administrator Nolen, thank you for your participation. The hearing will remain open for 4 weeks until March 15, 2023. Any Senators that would like to submit questions for the record should do so two weeks from now, by March 1, 2023.

And we ask the witnesses—witness to respond by March 15, 2023. So, with that, our hearing is concluded.

[Whereupon, at 12:15 p.m., the hearing was adjourned.]

A P P E N D I X

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. MARIA CANTWELL TO BILLY NOLEN

Ensuring True Redundancy in the NOTAM System. As FAA moves forward with a modernization of the NOTAM system, it will be important to ensure system redundancy, protection from cyber threats, and resiliency for the future. FAA must have redundancies in place to prevent single points of failure in key systems. Technology modernization has been a challenge for everyone, but we can't lead and uphold the gold standard in aviation safety if we aren't prepared for the information age.

I want to see a plan from the FAA that examines the fact that the backup systems are still subject to the same kind of, if you want to call it human error, of deletion of files. You're building a system to try to prevent that from happening again. But it could be a different problem, and we still have a backup system that would be affected. So, until we get a fully modernized system, I would like you to go back and see what level of redundancy you currently have, to ensure that you really have a truly separate backup system that would not be impacted by future disruptions.

Question 1. What plans does the FAA have for ensuring true redundancy in the NOTAM system to ensure outages do not occur? And when will these plans be fully implemented?

Answer. The current NOTAM System has both an active and geographically separate disaster recovery site providing protection against a site failure. In addition, each site also has local redundancy to prevent a single point of failure.

The current database architecture in the disaster recovery site has been modified to take advantage of the local redundancy. At the disaster recovery site, one database is kept in near real-time sync with the active site, and a second one is configured to apply changes with a one-hour delay. This mitigates the risk of data deletions/corruption that recently occurred.

The ongoing NOTAM Modernization project will consolidate two NOTAM systems into a single NOTAM system and transition them to a highly resilient NAS operational environment. This new environment will provide high-availability services at geographically separate locations.

Question 2. What is FAA's practice with regard to keeping systems and software incrementally up to date, which could prevent them from becoming outdated and requiring a total replacement?

Answer. Updating the systems and software in the FAA includes both an operations and maintenance (O&M) and enhancement/modernization component. All the reported issues are logged and reviewed, and approved by a Change Control Board (CCB) consisting of stakeholders. Based on the available operational budget, these approved changes are planned, developed, tested, and deployed to the operational environment as part of the operations and maintenance work. Major changes or modernizations that are beyond the realm of operations and maintenance are managed via the FAA's Capital Investment Plan (CIP). The capital programs are reviewed and prioritized by the FAA executives on the Joint Resources Council (JRC).

FAA's practice with regard to keeping software incrementally up to date entails Software Asset Management (SAM) tracking, reporting ownership and optimization of software acquisition, deployment, maintenance, and utilization within the agency. Policies and practices are in place across the FAA to ensure alignment and compliance with SAM guidance and mandates issued by the executive and legislative branches of the Federal government. FAA is in the process of enhancing its software inventory tracking to include all of the FAA domains to maintain an accurate, agency-wide software inventory and software license/subscription database to ensure knowledge of software assets, manage and mitigate risk, and implement Federal guidance and mandates associated with software.

Question 3. What steps if FAA taking to strengthen its oversight of contractors associated with maintaining and working on the NOTAM system?

Answer. The FAA updated the standard operating procedures (SOPs) to ensure that all changes to the NOTAM operational environment require approved documentation. The FAA updated the on-site monitoring and staff supervision procedures. The FAA has implemented system protocols to reinforce security and resiliency for NAS Aeronautical Information Management Enterprise System (NAIMES) and strengthened oversight of contractors as follows:

- Written consent is required by the FAA NAIMES Services Manager or designated FAA employee for all NAIMES access to the production database(s).
- A two-person system was implemented which requires another employee or designated contract member to accompany any Database Administrator, System Administrator, or Network Engineer who has been granted access (in writing) to perform any work in the NAIMES Production System. (This is in addition to the bullet above).
- If a contract employee is called in (after hours) to restore services and the two-person construct cannot be adhered to, the responding contract employee should contact the FAA manager or staff. System restoral will take precedence to ensure the safety of the NAS.

Cuts to Discretionary Spending. Our colleagues in the House have been discussing cutting Federal expenditures, primarily non-Defense discretionary spending. Some estimates of cuts under considering go as high as 10 to 15 percent below enacted levels for this Fiscal Year. The FAA's budget for modernizing the air traffic systems comes from this discretionary spending.

Question 1. How would a 10 to 15 percent budget cut impact FAA's timeline for implementing NextGen and other air traffic modernization efforts?

Answer. NextGen investments are funded in the FAA's Facilities and Equipment appropriation, which funds the acquisition and deployment of communications, navigation, surveillance, and related capabilities within the National Airspace System (NAS) and air traffic control facilities. Under this scenario, the appropriation would be reduced by as much as $442 million.

FAA would cancel and defer system modernization efforts, including NextGen programs, system sustainment, and replacement programs. Additionally, facility infrastructure programs would be deferred, as would any new terminal facility replacement projects.

Question 2. Do you think there would be an operational safety degradation if FAA budgets were cut?

Answer. For the FAA to operate approximately $2.4 billion below the FY 2023 enacted level, it would be forced to immediately cut back on its core functions, impacting services to the flying community. A reduction of this size would require furloughs and Reduction in Force (RIFs) across all of the FAA workforce, safety critical and non-safety critical.

FAA would need to implement an immediate hiring freeze for its entire operations and facilities workforce, including air traffic controllers and safety inspectors, causing delays in air traffic services and certification of aircraft, pilots, drone operators, and commercial space licensing. FAA would need to furlough all FAA employees, including air traffic controllers and safety inspectors, for approximately 22 days and potentially implement a RIFs of up to 10 percent.

FAA would need to shut down services at 125 lower activity towers and over 250 Federal contract towers resulting in 2/3 of airports losing the safety benefits provided by air traffic control towers. FAA would also be required to terminate contracts that support air traffic safety, including air traffic control training, flight services, contract weather observers, system maintenance, and cybersecurity.

Question 3. Aside from safety impacts, can you forecast other impacts to FAA systems if budgets were cut?

Answer. In addition to the safety impacts, the modernization of FAA's telecommunications networks to meet the transition to Internet Protocol (IP) technologies would be delayed resulting in possible outages that could not be restored as service providers no longer support time-division multiplexing (TDM) technology.

Question 3a. Could those impacts possibly translate into inconveniences for the traveling public?

Answer. Funding cuts of this magnitude would cause substantial disruptions to the flying public; including cancelled and delayed flights across the country. This would have devastating impacts to the National Airspace System, affecting every state and territory through reductions in air traffic services.

Status of NextGen Implementation. In the last FAA Reauthorization bill, Congress directed the DOT Office of Inspector General to audit NextGen implementation. The DOT OIG audit found FAA was too optimistic about program benefits and did not account for complexities in implementation.

FAA now claims that NextGen benefits to be $8.5 billion through 2021. That is lower than the $9 billion FAA has already spent on NextGen and nowhere near the original estimates of the $213 billion in benefits by 2025.

Question 1. Has NextGen failed to deliver on expected results and benefits? DOT OIG found that operations were less efficient, with average taxi time, departure delays, and arrival delays all increasing since the start of NextGen in 2008.

Answer. Through 2022, NextGen has implemented more than $9.4B in benefits (FY22$). The benefits from more than 20 implemented capabilities will continue to grow in the future. New implementations like En Route DataComm across the NAS will bring additional future benefits. Details can be found on the NextGen website at: *https://www.faa.gov/nextgen/reporting-benefits/details.*

Flight times and delays are driven by increases or decreases in traffic demand levels. NextGen benefits include adjustments for changes in demand. Methodologies for evaluating NextGen benefits have been evaluated through the FAA/Industry Joint Analysis Team (JAT) supporting the NextGen Advisory Committee.

Question 2. Could you clarify how updating the NOTAM system fits into NextGen modernization? What can we do to get NextGen back on track or should Congress focus on new ways to modernize the National Airspace System?

Answer. Although, much of the NextGen infrastructure is in place and operationalizing NextGen is well underway, there is much more work to be done. As FAA continues to operationalize NextGen and realize Trajectory Based Operations, we will build on these two foundations to evolve into a modern, information-centered or "info-centric" National Airspace System (ICN) built for diverse operations and supported by a resilient and evolving infrastructure to enhance safety and efficiency.

Modernization of the NAS requires a significant and consistent investment in sustaining the current capabilities, while also funding modernization integrating new capabilities. These steps are necessary to make sure the foundational operational services, such as voice and data communications, surveillance, automation, navigation, telecommunications, and weather systems are modernized and to ensure the NAS is efficient.

Specifically for NOTAMs, the three pillars of an Info-Centric NAS are Operations, Supporting Infrastructure, and Integrated Safety Management. NOTAMs provide dynamic changes in the state of NAS features affecting flight operations, which is critical for flight safety.

The updates to the NOTAM System include consolidating legacy system capabilities into the new NOTAM system that is built using digital NOTAM as the foundation. Digital NOTAMs allow the dissemination of dynamic changes in a globally harmonized message format called AIXM (Aeronautical Information Exchange Model), which allows machine interpretation and graphical display of the underlying hazard.

This modernization completely aligns with NextGen Modernization as the objective is to provide near real-time machine interpretable NOTAM (dynamic changes), which enables real-time situational awareness for all stakeholders.

Question 3. FAA has said it is moving to "info-centric" National Airspace System by 2035. What exactly does this involve and how does this implicate NextGen?

Answer. As FAA continues to operationalize NextGen and realize Trajectory Based Operations, we will build on these two foundations to evolve into an information-centered or "info-centric" National Airspace System (ICN) built for diverse operations and supported by a resilient and evolving infrastructure to enhance safety and efficiency.

ICN will be building on the NextGen foundation in three areas: operations, infrastructure and integrated safety management. This involves establishing an integrated information regime with interoperable sharing of information to enable enhanced collaboration with diverse traffic management services that includes new vehicles and operations. This will be accomplished by infrastructure modernization by leveraging new technologies and, where necessary, establishing public-private partnerships to not only ensure resiliency and agility to respond to future user needs but also to meet unique government requirements through commercial services and technologies. In addition, Safety Assurance for traffic management and real-time safety will be established through continuous monitoring, modeling, and verification including the use of the Safety Management System for compliance to assure organizational accountability.

Chinese Balloon & Airspace Incursions. We have seen a recent string of extraordinary incursions into U.S. airspace including a Chinese surveillance balloon shot down by our military on February 4. Uncrewed, high-altitude objects were shot down over Alaska, Michigan, and Canada.

The North American Air Defense Identification Zone ("ADIZ") is jointly administered by the civilian air traffic control authorities and militaries of the United States and Canada. By law, civilian aircraft entering this zone must provide proper notification to air traffic controllers.

Question 1. What more does our Nation need to do in order to strengthen the defense of our national airspace? How can we make sure FAA has the tools necessary to detect these aircraft intruding upon and ultimately entering U.S. airspace?

Answer. Defense of our national airspace is a complex topic and requires much collaboration between the FAA, the Department of Homeland Security (DHS), and the Department of Defense (DOD). The FAA long range RADARs (Air Route Surveillance Radar (ARSR–4) and CARSR) did detect the Chinese balloon. These RADARs are optimized to delete high altitude and slow detections in order to provide professional air traffic controllers with the optimal air traffic RADAR presentation. The FAA did not monitor the Chinese balloon, but the FAA staff embedded with DOD did have awareness. The Chinese balloon was operating at an altitude above 60,000 feet and presented no threat to the National Airspace Systems.

While the current FAA tools detected the balloon, the FAA's ARSR–4 are past their life expectancy. The agency, with the support of Congress, will need to work in collaboration with DOD and DHS on the replacement program.

Question 2. FAA has closed parts of the U.S. airspace to support military action against these aircraft. Can you describe the effect that these aerial intrusions have had on civilian air travel?

Answer. Closing parts of the U.S. Airspace system is a key tool used by the FAA to protect the flying public and by-standers on the ground when military action is required. The closure of airspace routinely impacts civilian air travel by necessitating re-routes and ground stops at airports underlying FAA's Temporary Flight Restriction (TFR). These impacts result in arrival, departure, and en route delays. Any airspace restrictions levied are continuously evaluated to ensure they are in place no longer than required to execute the national defense mission and to preserve safety while minimizing the impact to civilian air travel. A mechanism the FAA employs to facilitate this action is having senior FAA staff embedded with key DOD air defense commands to advise DOD Flag Officers. The senior FAA embeds provide recommendations to the military decision makers and seek to preserve access to the National Airspace Systems for all public users. These embeds have immediate reach back to the FAA at the executive level (SES2) to resolve any national airspace issues that may arise.

Question 3. How is FAA, as the owner of our national airspace management, coordinating with other agencies such as NASA, NOAA, DHS, and DOD who have shared interests in protecting our national security?

Answer. The FAA regularly collaborates with NASA, NOAA, DHS, and DOD. The FAA has several directorates that coordinate with NASA to support the planning/scheduling of space launches as well as providing support for airspace security requirements. NOAA maintains a watch position within the Air Traffic Organization's (ATO) Joint Air Traffic Operations Command (JATOC) located in the Air Traffic Control System Command Center facility. These NOAA personnel have 24-hour access to National Operations Managers and NOAA is part of multiple daily briefings. The FAA continuously coordinates with DHS concerning air domain homeland security issues, including UAS, Counter-UAS, and law enforcement matters. This coordination is facilitated by the FAA's embedding of operational personnel who specialize in Air Traffic Management security matters within the Transportation Security Administrations (TSA) Transportation Security Operations Center (TSOC) in Herndon, VA, and Customs and Border Protection (CBP) Air and Marine Operations Center (AMOC) in Riverside, CA.

The FAA has advisors embedded with DOD Flag Officer Level leaders at NORAD/NORTHCOM headquarters; the Continental NORAD Region (CONR); Alaskan NORAD Region; Western Air Defense Sector; Eastern Air Defense Sector; and U.S. Indo-Pacific Command (USINDOPACOM). Moreover, FAA SES leadership engages with DOD regularly to discussion concerns and future threats and FAA supporting staff engages with Pentagon staff on a routine basis.

The national security shared interests are primarily between FAA, DOD, and DHS. This common interest results in the sharing of RADAR data, the protection of sensitive and classified information, and the coordination of real-time national security concerns. The coordination across FAA, DOD, and DHS happens at many lev-

els and continuously, but the previously discussed Senior FAA embeds are critical elements to our successful real time collaboration and support for national security.

Question 4. Did the FAA, in association with the DOD, identify, detect, and monitor the Chinese surveillance balloon when this object entered the ADIZ as identified in 14 C.F.R. Subpart B? Did the Chinese surveillance balloon, comply with the requirements of 14 C.F.R. Part 99? If not, what action is FAA taking to enforce the ADIZ requirements?

Answer. The FAA long range RADARs (ARSR–4 and CARSR) did detect the Chinese balloon. These RADARs are optimized to delete high altitude and slow detections in order to provide professional air traffic controllers with the optimal air traffic RADAR presentation. The FAA did not monitor the Chinese balloon, but the FAA staff embedded with DOD did have awareness. The Chinese balloon was operating at an altitude above 60,000 feet and presented no threat to the National Airspace Systems.

The Chinese Balloon did not operate in accordance with 14 CFR Part 99 in that no position reports were made in accordance with 14 C.F.R. 99.15.

To enforce ADIZ requirements, the FAA staffs operational positions at the NORAD NORTHCOM Command Center (N2C2), CONR's 601st Air and Space Operations Center (AOC), and CBP's AMOC. FAA and DOD work collaboratively to identify and determine threats associated with RADAR tracks approaching the ADIZ. Balloons specifically pose a challenge due to slow speed and in case of the Chinese balloon, the high altitude coupled with slow speed. That said, the FAA is working to determine how a comprehensive inventory of all unmanned airborne objects can best be developed. The agency's exploration includes seeking to implement further measures to improve capacity to detect objects in our airspace.

Recent Runway Incursions. There have been five runway incursions over the last couple of weeks at airports in the United States, raising serious concerns about aviation safety and congestion in the airspace. Additionally, there is a projected increase in demand from current and future users of the NAS, which will place further strain on the system.

Question 1. How can NextGen technology reduce the risk of runway incursions at airports?

Answer. NextGen technology including Automatic Dependent Surveillance-Broadcast (ADS–B), Airport Surface Detection System Model X (ASDE–X), Airport Surface Surveillance Capability (ASSC), and Runway Status Lights (RWSL) have reduced the risk of runway incursions at airports. ASDE–X and ASSC allow air traffic controllers to track surface movement of aircraft and vehicles enhancing air traffic controller situational awareness. These systems alert air traffic controllers of potential runway conflicts by providing detailed coverage of movement on runways and taxiways. Runway Status Lights (RWSL) is a fully automatic, advisory system designed to reduce the number and severity of runway incursions and prevent runway accidents while not interfering with airport operations.

The FAA's Office of NextGen through the Runway Incursion Reduction—Advanced Technology Development and Prototyping (ATDP) Program, is currently researching technologies to reduce the risk to people and property caused by collisions in the runway environment. This program is designed to identify different types of affordable surveillance system technologies, that are suitable for small-to-medium sized airports with scheduled passenger service that do not currently have existing runway incursion detection technologies such as Airport Surface Detection System Model X (ASDE–X), Airport Surface Surveillance Capability (ASSC), and Runway Status Lights (RWSL). Runway Incursion Prevention through Situational Awareness (RIPSA) is aimed at reinforcing protection of the Runway Safety Area (RSA), by utilizing "direct-to-pilot" alerts to the individual(s) who can take corrective action, for all aircraft or vehicles at Runway Incursion (RI) hotspot locations.

Question 1a. What other actions are being taken by the FAA to address these safety concerns?

Answer. In response to the recent runway incursions, we have taken the opportunity to verify and update our data resources. One of these resources includes our Runway Safety Dashboard. Since 2022, the Dashboard has been a source of information showing trends in runway incursions throughout the National Airspace System (NAS). It identifies which facilities have a runway incursion rate higher than the NAS wide runway incursion rate. Runway Safety Program Managers throughout each Service Area monitor the Dashboard on a weekly basis to determine which of their respective facilities may need Runway Safety support in developing possible mitigations in reducing surface risk.

In addition to the Dashboard, FAA Order 7050.1B (Runway Safety Order) requires facilities to host a Runway Safety Action Team (RSAT) meeting on an annual

basis. During this meeting, stakeholders from the area come together to discuss surface safety at the local airport. These stakeholders include, but are not limited to, Air Traffic Controllers, Pilots, Fixed Based Operators, and Airport Operators. During the meeting, previous runway incursions that occurred at the airport are reviewed and discussed, along with any other issues that may not be previously known to all users. The team determines what mitigations, if any, need to be developed to prevent future occurrences or improve surface safety.

The Surface Safety Group (SSG) and Runway Safety Council (RSC) are made up of FAA and Industry personnel who have a duty and desire to increase surface safety in the NAS. These two groups meet on a quarterly basis and develop action items based on trends in the NAS. Each party represents their organization and provides input to any topics that are discussed during the meeting. Once in agreement, the group creates an action item, which once completed, will effect a change in the NAS that will improve surface safety on a National Level.

Lastly, our outreach efforts include our From the Flight Deck (FTFD) videos, Pilot Handbooks, and an annual Safety Summit focused on General Aviation pilots. The FTFD videos provide airport specific issues that provide pilots a tool that they can use prior to landing or departing from that airport. The video provides information to warn pilots of hot spots or identified problem areas on the airport that pilots may not be aware of. Furthermore, Pilot Handbooks are created as a supplement to the FTFD video to provide information to the pilot from the control tower perspective. The Handbook includes information that Air Traffic Controllers want a pilot to be aware of and may not know prior to using the airport. Our annual Safety Summit, which was just held on March 22, discusses National trends that the Runway Safety Office is seeing from General Aviation users. It is meant to refresh those pilots who have possibly not flown in a few months due to their airplane being in storage for the winter months. This year's topics included, pre-flight procedures, wrong surface, and airport signage and markings.

Question 2. How is the FAA proactively preparing for the future growth in demand while maintaining a safe and efficient NAS?

Answer. The FAA is proactively preparing for future growth in demand while maintaining a safe and efficient NAS by addressing the maintainability and obsolescence issues with the surveillance systems. This will ensure continued functionality of all surveillance capabilities into the future that have led to increased runway safety, improved efficiency in air traffic, and increased airport throughput.

The agency's FY2024 budget request addresses critical obsolescence, life cycle support challenges for our systems, and helps maintain continuity of the services the systems provide. The majority of the radar inventory is over 40 years old, and all have passed their 20-year life cycle. This means many essential parts are no longer manufactured, available, or eligible for redesign and our work to support these aging systems has taken on a new urgency to bridge the gap to implementing modernization efforts.

We are committed to our mission and moving forward to sustain radar surveillance services by implementing safety, security, and technological enhancements to bridge critical system capabilities until replaced or divested. We continue to do this work while simultaneously planning to acquire cooperative radar systems, non-cooperative radar systems, and other specialty solutions to sustain radar surveillance capabilities.

Additionally, the FAA is developing more precise success metrics and predictive analytics, including improvements to the Runway Incursion Mitigation (RIM) tool, which will enhance mitigation status, graphical AGIS interface for runway incursions and reports, program metrics tracking, etc.

RESPONSE TO WRITTEN QUESTION SUBMITTED BY HON. AMY KLOBUCHAR TO BILLY NOLEN

FAA Contract Towers Program. Investing in our Nation's infrastructure includes continued investment in the FAA's contract tower program, which provides critical air traffic control safety benefits to 256 smaller airports across the country, including St. Cloud and Anoka County airports in Minnesota.

Question. What can Congress do to ensure that contract tower airports have the updated infrastructure and facilities they need to accommodate rising air traffic levels?

Answer. The infrastructure at some Federal Contract Towers (FCTs) are in need of repair or replacement. The Infrastructure Investment and Jobs Act (IIJA) included resources for FCTs and specifies that not less than $200 million of the IIJA F&E funding is for towers "that are owned by the FAA and staffed through the con-

tract tower program." In addition, the Airport Infrastructure Grants component of the IIJA includes a $20 million annual set aside to make competitive grants to sponsors of airports participating in the contract tower program and the contract tower cost share program. Last August, the FAA awarded the FY 2022 grants under this program, announcing the selection of 20 projects across 18 states. Selected projects will rehabilitate and upgrade FCTs, replace obsolete equipment, and conduct planning, environmental, and design for future replacements. On March 31 2023, FAA announced this year's selection of 33 grant awards at 29 airports across 23 states and territories. These grants will sustain, construct, repair, improve, modernize, replace or relocate airport-owned towers, and install communications equipment.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. GARY PETERS TO BILLY NOLEN

Question 1. Mr. Nolen, the reliability of the NOTAM system is essential to all of our National Airspace—but the ability to provide real-time data on runway conditions is especially essential for Michigan in winter, where our airports are dealing with constantly changing conditions and winter weather. During the NOTAM outage in January, Detroit Metropolitan Airport shared with me that they were told to "utilize alternate means of compliance" to share key flight and runway condition information with flight crews. However no such alternate means exist other than a 1-877 number that was quickly overwhelmed. Mr. Nolen, is FAA developing a more comprehensive contingency plan in case of future NOTAM outages that will allow participants in our national airspace to quickly divert to another agreed upon method for communicating this vital information?

Answer. Yes, the agency has developed a comprehensive contingency plan intended to provide NOTAM information to all airspace users and allow them to maintain operations in the event of a future NOTAM system outage.

The goal of this contingency plan is to provide a backstop during an unplanned, full outage to the primary NOTAM system while the system is being recovered. The contingency plan allows FAA and its stakeholders to maintain an accurate picture of the status of National Airspace System (NAS) components while the primary NOTAM system is recovered by allowing authorized personnel to issue "candidate" NOTAMs—i.e., NOTAMs not yet entered into the official NOTAM system—and distribute them to the public using a standalone website. NAS users will be able to use this information to maintain their situational awareness until the NOTAM system is restored, after which any candidate NOTAMs will be reconciled with the primary NOTAM system.

FAA is coordinating with our labor and industry partners on the details of this contingency plan.

Question 2. Mr. Nolen, GAO recently released a report (GAO–23–105189) detailing some of the FAA's shortcomings when it comes to integrating UAS into our national airspace. GAO's first recommendation tasked the FAA with developing a comprehensive drone strategy. Can you provide the committee with an update on the status of FAA's implementation of this and the other recommendations in the report?

Answer. The FAA is working collaboratively to address the GAO's concerns to develop a comprehensive drone strategy that also incorporates lessons learned for its drone integration activities. The FAA also currently provides part 107 waiver safety explanation guidelines on our public website.

Question 3. In the 116th Congress, my Drone Advisory Committee (DAC) for the 21st Century Act was signed into law as P.L. 116–280. The bill directed the FAA to take appropriate steps to encourage direct representation of county and tribal governments, as well as agriculture, forestry, rangeland sectors, and other rural interests on the Drone Advisory Committee. Can you provide an update on what steps the FAA has taken to implement this bill?

Answer. The Drone Advisory Committee was re-chartered as the Advanced Aviation Advisory Committee (AAAC) in June 2022 to better reflect the evolving ecosystem of new aviation entrants. The FAA has conducted significant outreach to numerous organizations to encourage them to submit requests to provide direct representation of county and tribal governments, as well as agriculture, forestry, rangeland sectors, and other rural interests on the AAAC. Currently, three individuals represent the Local, State, Tribal and/or Territorial stakeholder group and two individuals represent the Agricultural Interests stakeholder group on the AAAC.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TAMMY DUCKWORTH TO BILLY NOLEN

Topic: 5G Wireless Interference

Airlines for America recently urged the FAA to extend its proposed deadline to June 2024 to retrofit aircraft with altimeters that won't experience interference from 5G wireless technology. This four month delay highlights the years of communication breakdown between FAA and FCC during the development and rollout of 5G.

Question 1. Is the FAA receiving all the technical information it needs from the FCC and wireless carriers to ensure that 5G does not interfere with aircraft altimeters or any other technology needed for aviation safety? If not, what information is FAA not yet receiving?

Answer. Yes, the agency is in receipt of all the required technical information on the performance and operating characteristics of 5G equipment that are needed to ensure compatibility with aviation safety. Since late 2021, the FAA has engaged in regular and direct technical interchanges with the 5G wireless carriers and FCC in order to better understand the potential impact of 5G systems on radio altimeters. These exchanges proved invaluable to the FAA's ability to directly assess the impact of 5G operations and to make rapid decisions that ensured the short-term compatibility of these technologies.

From July 2022 to March 2023, the FAA has used information learned about 5G characteristics to secure long-term arrangements that ensure the compatibility of these two technologies. The FCC and 5G wireless carriers have been faithful and positive contributors to the process, with the FAA and wireless carriers forging new collaborative working relations that we expect to build upon in the coming years.

Question 2. Does the FAA have the resources it needs to ensure that all passenger aircraft equipped with technology to prevent 5G from interfering with flight operations? Does it need anything additional from Congress?

Answer. Yes, the agency has the resources to continue ensuring compatibility between 5G systems and radio altimeters that are required for successful flight operations. The aviation industry is currently engaged in a large-scale retrofit program that increases the 5G tolerance of the avionics systems that are impacted by 5G. This retrofit will continue into 2024. The FAA is finalizing a rulemaking that ensures aircraft are properly equipped to resist emissions from 5G equipment beginning in February 2024. Between now and February 2024, the FAA is managing safety through our existing process of Alternative Means of Compliance (AMOCs). These AMOCs assign an aircraft's allowed operational parameters on a per-runway basis using the known 5G environment at each airport. Through efficient management of aircraft tolerance to 5G and monitoring of the 5G environment as it continues to expand, the FAA is well positioned to ensure compatibility between these technologies. Additional resources from Congress are not required at this time.

Question 3. Is FAA sharing all relevant information with the FCC and air carriers to prevent 5G from interfering with flight operations?

Answer. Yes, the FAA has regular engagement with both the FCC and air carriers during which both groups are kept up-to-date on all relevant information required for the compatibility of 5G and radio altimeters. The FAA meets three times per week with the aviation industry in a task force that was stood up early in 2022 specifically to address the compatibility of these technologies. Additionally, the FAA has hosted several round table events with aviation stakeholders to share developments in the ongoing work to ensure compatibility. Since July 2022, the FAA has met directly with the FCC several times to work through technical discussions regarding potential interference to radio altimeters. The FAA has also been meeting weekly with the National Telecommunications and Information Administration (NTIA) Office of Spectrum Management to share updates on the ongoing work to ensure short-term and long-term compatibility of these systems. The NTIA has served as a liaison between the FAA and FCC, sharing technical issues and soliciting feedback as necessary.

Question 4. Based on the FAA's experience with 5G, do you have any concerns about the level of cooperation and information sharing the FAA will receive from the FCC in the future?

Answer. The existing information-sharing structure between the FCC and FAA is sufficient in that the FAA is made aware of proposed spectrum repurposing efforts by the FCC and is provided an opportunity to supply feedback on the impact of those proposed changes.

Unfortunately, it is often difficult for FAA to achieve a thorough and complete technical analysis of the potential impact to aviation in what is normally a rel-

atively short period for comment. This has historically led to difficulties in providing nuanced engineering assessments of spectrum compatibility that can be used to collaboratively improve the outcomes of FCC proposed spectrum repurposing.

The FAA's experience with 5G has demonstrated that true innovation, cooperation, and engineering problem-solving cannot efficiently occur without direct engagement between the key stakeholders/owners of wireless systems. When the wireless system stakeholders engage directly to share information and engineer systems that ensure compatibility, new opportunities emerge as a stronger understanding of the potential system interactions is achieved.

FCC efforts to repurpose spectrum would likely experience more positive outcomes with longer timelines afforded for the impacted stakeholders to assess the technical parameters of each proposal with engineering studies, rapid-deployment interference testing, and industry feedback.

Question 5. Will FAA commit to coordinating with the FCC and wireless carriers earlier in the development process of future technologies so this doesn't happen again?

Answer. Yes, this is one of the primary lessons learned through the 5G experience. The FAA has found that direct and early engagement between agencies and external stakeholders is critical to the success of any proposed spectrum repurposing efforts.

Topic: Next Generation Air Transportation System (NextGen)

According to the Department of Transportation Inspector General, as of 2017 NextGen was estimated to generate $100 billion in benefits against a $36 billion investment. However, back in 2007, NextGen was estimated to result in $213 billion in benefits.

Question 1. Can you provide an update on NextGen's estimated benefits and is FAA still thinking it will be around $100 billion?

Answer. The $100B estimate for NextGen Benefits was developed prior to the COVID pandemic. COVID has impacted both implementation schedules and air traffic demand making future benefit projections very uncertain.

Through 2022, NextGen has now implemented more than $9.4B in benefits (FY22$). The benefits from more than 20 implemented capabilities will continue to grow in the future. New implementations like En Route DataComm across the NAS will bring additional future benefits. Details can be found on the NextGen website at: *https://www.faa.gov/nextgen/reporting-benefits/details.*

With current funding levels, the FAA continues to make smart decisions in program prioritizations and calculations of the number of sites affordable.

Question 2. How much longer is it going to take and how much more is it going to cost to finish NextGen?

Answer. NextGen is a portfolio of programs, systems, and procedures at different levels of maturity that will provide enhanced capabilities for the movement and management of air traffic. The work in the portfolio is being deployed in stages. Many enhancements are currently in deployment, some are nearing implementation, and some of the capabilities of NextGen are being defined and matured, as the technology to support them becomes available (Pre-Implementation).

Question 3. If Congress wants to accelerate the completion of NextGen what does Congress need to do in this year's FAA reauthorization to make that happen?

Answer. We look forward to working with Congress on a long-term reauthorization proposal and adequate funding for FAA's modernization needs. The President's FY 2024 budget request supports NextGen capabilities. The budget proposal includes $701.9 million in support of NextGen programs, which aims to improve the safety, efficiency, capacity, and environmental impact of the Nation's air transportation system through the use of advanced technology, procedures, and infrastructure.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. KYRSTEN SINEMA TO BILLY NOLEN

NOTAM Failure. As you know, the failure of the nationwide Notice to Air Missions (NOTAM) system on January 11, 2023, led to the first nationwide ground stop of air traffic since the September 11, 2001 terrorist attacks. The Federal Aviation Administration (FAA) has reported that a FAA contractor inadvertently deleted files while attempting to correct a synchronization issue involving the primary and backup NOTAM databases. This deletion ultimately led the entire NOTAM system to become compromised.

Question 1. How did this issue occur? Was the FAA contractor following appropriate procedures and best practices when the file deletion took place?

Answer. While performing unapproved corrective maintenance, the contractor inadvertently deleted files. This is not an approved procedure.

Question 2. Can you explain any steps the FAA has taken in order to mitigate the risk that one accident could lead to the collapse of the NOTAM system? Are there new redundancies in effect?

Answer. The FAA has taken steps to bring the NOTAM system in alignment with our current practices and procedures used in maintaining and modifying NAS systems. Additionally we have increased our monitoring capabilities in the enterprise environment.

The current NOTAM System has both an active and geographically separate disaster recovery site. Each site also has local redundancy to prevent a single point of failure.

The current database architecture in the disaster recovery site has been modified to take advantage of the local redundancy where one database is kept in near real-time sync with the active site, and a second one is configured to apply changes with a one-hour delay. This mitigates the risk of data deletions/corruption that recently occurred.

The ongoing NOTAM Modernization project will consolidate two NOTAM systems into a single NOTAM system and also transition it to a highly resilient NAS operational environment by 2025. The infrastructure supporting NOTAM modernization will provide high-availability services at geographically separate locations.

Question 3. This incident highlighted the vulnerability of the NOTAM system and brought U.S. air traffic to a halt. Though this incident was caused by human error, can you explain the safeguards the FAA has in place to prevent a cyberattack from disabling the NOTAM system?

Answer. The current infrastructure architecture of the NOTAM operational environment follows a layered security approach for public-facing websites; operational IP (OPIP), and public-facing websites are continuously monitored by the NAS Cybersecurity Operations (NCO). The Mission Support network is also monitored 24/7 by a Security Operations Control Center for any suspicious or malicious activity. We assess security controls regularly and deploy patches and certifications regularly to ensure systems are up to date.

Question 4. Why did United Airlines issue a nationwide ground stop for its network almost an hour before the FAA ordered a ground stop for all aviation traffic? Did United take different safety information into account?

Answer. Late on January 10, 2023, NOTAM applications and services became unreliable. While technical experts worked through the night, the FAA activated a hotline to provide real-time status updates to system users. During this time, there were no reports of operational impacts. In the early morning hours of January 11, 2023, the system appeared to have been restored, but formatting issues persisted. To resolve this, FAA's air traffic leadership directed the rebuild of the databases. As the morning air traffic rush approached, and work on the system continued, a ground stop was ordered at approximately 7:15 a.m. EST, pausing all departures in the United States in order to maintain safety and preserve predictability.

Although airlines and safety experts were consulted on the ground stop, we do not have specific information on the timelines for individual airlines. Once resiliency testing on the system was conducted, the ground stop was lifted at 9:07 a.m. EST on January 11, 2023.

Dual NOTAM Systems. There are two NOTAM systems currently in operation. The legacy U.S. NOTAM System is 30 years old while the modern Federal NOTAM System remains a work in progress as FAA modernization efforts continue. The FAA has been working to fully stand-up the Federal NOTAM system for years and expects full implementation to conclude by 2030.

Question 5. Why do some airspace users continue to rely on the legacy NOTAM system?

Answer. To clarify, the current NOTAM system has multiple means for NOTAMs to be provided to the NOTAM databases, and multiple output methods for various users.

Both systems are required today to operate the full of the NOTAM capability. For example, the NOTAM System still provides a "serial number" for any NOTAM generated, whether it comes from the U.S. NOTAM System (USNS) or Federal NOTAM System (FNS) inputs. The applications for originating airspace NOTAMs, such as Temporary Flight Restriction (TFR), Altitude Reservation (ALTRV), and Special Activity Airspace (SAA), still depend on the legacy NOTAM System (USNS) because

the required functionality is not available within the new system (FNS). This gap is being addressed partially in the ongoing NOTAM Modernization (FNS Sustainment) and fully in the next phase of AIM Modernization referred to as AIMM Enhancement 1 (E1).

NOTAM origination applications are past their end of life and need to be replaced before they affect the safety of the NAS. The goal of AIMM E1 is to consolidate all these functionalities which today are supported via three different applications, into a single application and also enable digital NOTAMs, so they can not only be disseminated via a globally harmonized message standard enabling machine interpretation and enabling graphical visualization, a key requirement from the industry.

Some users, like DOD, and some legacy search tools still used by some airports and consumers, use distribution systems connected to the older software system, USNS. Modernization of both systems into one modern architecture will move all origination and all distribution services and consumers into one system.

Question 6. What resources does the FAA need to complete the Federal NOTAM system? Can you commit to the 2030 timeline for Federal NOTAM implementation? If not, what obstacles may the FAA encounter that could affect that timeline?

Answer. The investment that is currently being implemented (Federal NOTAM System Sustainment) addresses two aspects of NOTAM modernization: the consolidation of the legacy NOTAM system (United States NOTAM System) functionality into the Federal NOTAM System and the transfer of the NOTAM system off the outdated hardware platform onto an Integrated Enterprise Services platform.

With full support of the President's Budget, Congress can reduce the funding and timing obstacles that the FAA may encounter with implementing a large, long-term project.

Question 7. In addition, when can the FAA sunset the legacy U.S. NOTAM system? Are there steps Congress can take to encourage legacy NOTAM users, including the Department of Defense, to migrate to the Federal NOTAM system?

Answer. To comply with the legislative requirement, in 2019, the FAA began developing an acquisition strategy to consolidate the multiple platforms into a single Federal NOTAM System (FNS). The plan includes retiring legacy components and moving FNS to a more reliable and resilient environment built specifically to support critical NAS operations. The President's FY 2024 budget request for NOTAM modernization seeks resources to ensure legacy NOTAM users have the necessary capabilities to migrate along with the FAA.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. RAPHAEL WARNOCK TO BILLY NOLEN

Infrastructure Investment and Cybersecurity. Thank you for discussing cybersecurity protections regarding the NOTAM system, which plays a critical role in aviation safety. I am glad you agreed to follow up with several of my questions in writing.

Question 1. In response to my question of whether as of January 10, 2023, FAA officials were aware that deleting certain files could disrupt the synchronization between the live and primary NOTAM databases, you responded that "Yes, the Administrator knew that." [1] How many FAA staff were aware that deleting these files would disrupt the synchronization, resulting in a NOTAM outage?

Answer. The event on January 10 was an accidental deletion/movement of what is called a data file of an Oracle database. The Oracle data file is a physical file that stores data. It is a critical component of the Oracle database that holds the data from tables, indexes, and other database objects. It is equivalent to a critical operating system file on all our desktop machines. Moving and/or deleting the data file while the system is running can lead to errors and, in the worst scenario, complete system failure.

The deletion of files did not disrupt synchronization. Lack of synchronization existed before the outage, and was not caused by deleting the files. During our investigation, it was discovered the synchronization had not been occurring with all secondary databases. The deletion of files removed the only set of files from the operational system.

To prevent such issues in the future, several procedural steps have been taken to monitor activities when staff need to work on the operational NOTAM system.

Question 2. How long were these FAA officials aware of this specific vulnerability?

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[1] *https://www.commerce.senate.gov/2023/2/the-federal-aviation-administration-s-notam-system-failure-and-its-impacts-on-a-resilient-national-airspace* at 02:10:08.

Answer. Although human error is never completely avoidable, the FAA has maintained the NOTAM system for years with support from the current vendor. We have taken steps to transition the NOTAM system to traditional NAS maintenance and change management oversight. Preventive measures have been put in place to prevent such issues in the future for this system, including oversight by an FAA lead for all maintenance and changes. Additionally, the FAA conducted an assessment of the configuration and change management practices for all systems and services that could impact the NAS and we are in the process of determining what additional system design or controls are needed to close any gaps. No immediate high risks have been identified in that analysis and the lower level risks are being addressed on the few contractor maintained systems that exist. No additional systems have been identified that could have nationwide implications or even significant localized impacts.

Question 3. Since FAA officials, including the Administrator (according to your testimony), were aware of this vulnerability, why were there not additional safeguards to ensure that contractors could not inadvertently delete those files?

Answer. Careful handling of data files is part of database administrator training. We have hired qualified and certified database administrators to support the program and expect them to follow the basic requirements. To prevent such issues in the future, several procedural steps have been taken when staff need to work on the NOTAM system.

Question 4. When I asked how many contractors had access to the NOTAM system, you stated there were two people working in the system but that you did not have an exact number of how many individuals had sufficient access to delete those specific files.[2] Thank you agreeing to following up with me in writing on this point. In addition to the two contractors who were involved in this specific incident, how many other contractors and FAA staff had sufficient permissions to access and delete those files, as of January 10, 2023?

Answer. Access to the NOTAM system would include all approved and authorized staff on the contract that includes System Administrators and Database Administrators (DBA) (total eight contractors) who have complete access to the system.

Question 5. In your testimony, you stated that some of the new controls that FAA has installed include requiring two people to delete critical files that could disrupt the database synchronization, resulting in a NOTAM outage.[3] As of today, what is the total number of individuals who are eligible to be one of the two individuals under the new controls? How many of these are contractors, and how many are FAA staff?

Answer. New controls are in place, to have Federal employees directly oversee and provide approvals for all eight contractors while maintaining and/or modifying the system.

Question 6. In addition to the new control listed above, what other new protocols has FAA implemented to strengthen procedures, access, controls, resilience, and redundancies to limit the effects of SPOF?

Answer. The NOTAM System has both an active and geographically separate disaster recovery site providing protection against a site failure. In addition, each site also has local redundancy to prevent a single point of failure.

The current database architecture in the disaster recovery site has been modified to take advantage of the local redundancy. At the disaster recovery site, one database is kept in near real-time sync with the active site, and a second one is configured to apply changes with a one-hour delay. This mitigates the risk of data deletions/corruption that recently occurred.

Additional controls have been added to monitor database synchronization. The FAA has taken steps to transition the NOTAM system to traditional NAS maintenance and change management oversight.

The FAA has also developed a backup ability for operators to access new/modified NOTAMs in the event of a complete failure (disaster) affecting the primary and secondary systems as well as the disaster recovery site. The FAA is continuing to look at additional controls, tests, improved system monitoring to respond to load, and demand issues proactively.

Question 7. As I stated, I believe that it is unacceptable for the FAA to have single points of failure (SPOFs) within critical systems like NOTAM. As your review of the root causes of this incident has continued, how many SPOFs has the FAA discovered within its NOTAM systems?

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[2] *Id.* at 02:11:05.
[3] *Id.* at 02:11:48.

Answer. The FAA has taken steps to rectify any SPOFs. The contractor error in deleting the active database, compounded by a synchronization failure, was a failure that spanned multiple, normally redundant, systems and processes.

Additional mitigations have been put in place to mitigate the risk of data deletions/corruption being distributed to all redundant databases.

Question 8. You stated that the FAA is currently working with the MITRE Corporation to investigate the causes of the NOTAM outage.[4] What is the status of this work? When do you expect it to be complete, and what will be the timeline for implementing any recommendations that result?

Answer. The MITRE investigation has completed, and briefings to FAA leadership are in progress. Once the FAA receives the final report, we will review and analyze the recommendations.

Question 9. To the extent this audit with the MITRE Corporation has produced preliminary findings, which of those have been most actionable at avoiding similar outages in the future?

Answer. The MITRE investigation has completed, and briefings to FAA leadership are in progress. Once the FAA receives the final report, we will review and analyze the recommendations.

Aviation Workers in Georgia. Georgia is home to a thriving aviation industry, including the Atlanta Hartsfield-Jackson International Airport—the world's busiest for passenger traffic. Georgia is home to tens of thousands of aviation workers who show up daily to ensure passengers get to where they need to go.

Question 1. How many aviation workers in Georgia were affected by this outage? For example, how many aviation workers had to work extra hours or take on additional duties to respond to the NOTAM outage and associated disruptions? Please describe what steps FAA has undertaken to understand the effect of the NOTAM outage on workers.

Answer. The FAA does not have any direct insight into the impact of the outage on aviation workers in Georgia. From an agency perspective, the FAA workforce was actively engaged in the NOTAM outage and worked around the clock, as the public would expect us to, to ensure that operations were brought back to normal as soon as possible. We have discussed the impacts of this with our many stakeholders and have included them in our status of mitigations and the development of a contingency operations capability and procedures to ensure we collectively are able to avoid any similar event in the future.

Question 2. Does current law give FAA the authority and resources to compensate passengers or aviation workers directly for its mistakes?

Answer. The FAA is unaware of any authority or resources to directly compensate passengers or aviation workers for an FAA "mistake." If a party has a valid claim of alleged negligence or other tortious conduct of FAA employees, these type of lawsuits are controlled by the terms of the Federal Tort Claims Act (FTCA), 28 U.S.C. §§ 1346, 2671, et seq. Pursuant to the FTCA, before any such lawsuit can be filed, the claimant(s) must timely file an administrative tort claim with the FAA and otherwise comply with the regulations pertaining to such tort claims. The filing of administrative tort claims against the FAA is governed by Federal regulations 28 C.F.R. Parts 14, 15.

Type Certification of Unmanned Aircraft Systems. Unmanned Aircraft Systems (UAS) are an emerging entrant into the National Airspace System (NAS) with potential practical applications such as expedited package delivery. The FAA has established a UAS Integration Office responsible for leading the agency's efforts to safely integrate UAS into the NAS, and I am interested in learning more about the activities and progress of the Integration Office.

Question 1. What, if any, type certifications regarding UAS has FAA made to date?

Answer. The FAA has type certificated a few UAS, and is continuing work on several type certification projects using an existing process tailored to UAS. Notably, the FAA issued a standard type certificate for Matternet in September 2022.

Question 2. Is there a backlog of type certifications for UAS at FAA?

Answer. While applicants may have specific certification timelines in mind, the FAA works certification projects as efficiently as possible while maintaining the appropriate considerations for safety.

Question 3. Are there any staffing and funding challenges that are affecting FAA's ability to address type certifications for UAS?

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[4] *Id.* at 02:12:35–02:12:54.

Answer. The FAA appreciates continued congressional support of our certification efforts. At this time, the FAA is sufficiently equipped and trained to manage the type certification for UAS.

Unmanned Aircraft Systems Traffic Management. The NAS is becoming more dynamic through the digitization and automation of aeronautical information. The FAA's modernization of its systems, including legacy systems such as the Notice to Air Missions (NOTAM) system, is a critical step towards ensuring the NAS remains safe and efficient, particularly as it welcomes new entrants into the airspace.

Question 1. What efforts has the FAA made to update its aeronautical information, including, but not limited to, its NOTAM data?

Answer. Multiple efforts have been completed and more are planned to modernize the collection and dissemination of aeronautical information–foundational data required for all operations. NOTAM Modernization will continue as we are updating the older systems.

We have made some improvements to the legacy database and functions in recent years. Modernization with NOTAM Aeronautical Information Management Modernization (AIMM) Segment 2 built the Aeronautical Common Service (ACS), which provides an enterprise machine-to-machine interface containing integrated aeronautical information over System Wide Information Management (SWIM) in the globally harmonized message format of AIXM (Aeronautical Information eXchange Model). Combining static and dynamic data enables near real-time situational awareness of the NAS for all stakeholders.

The planned AIMM Enhancement 1 is the next phase of this modernization plan. The NOTAM System will be transitioned to support the International Civil Aviation Organization (ICAO) NOTAM standards, an enterprise airspace management platform for originating and distributing the critical airspace NOTAMs, and finally, providing additional filtering and distribution mechanisms for the aeronautical information. This phase will also complete the FAA Reauthorization Act of 2018 requirements for NOTAM Modernization.

Question 2. Is the FAA operationalizing drone safety services and the Unmanned Aircraft Systems Traffic Management environment? If so, how?

Answer. To establish the Unmanned Aircraft Systems Traffic Management (UTM) system, the FAA is developing a Unmanned Aircraft Systems (UAS) regulatory and traffic management framework that is compatible with the evolution of the technology required to support UTM. UTM infrastructure will evolve so that the use of a mature UTM ecosystem will support planned commercial operations.

Section 377 of FAA Reauthorization Act of 2018 (P.L. 115–254) requires the FAA to develop a process to permit, authorize, or allow the use of UTM Services. The FAA is developing a review process for UTM services that ensures national airspace system safety and reduces UAS risk. This approach is intended to expedite (third-party service supplier) approvals in low-risk areas and will allow for test and evaluation of standards, technologies, and capabilities. The FAA is hoping to launch this system soon and will use information gathered through this program to inform policy and decision-making.

Question 3. What role does the modernization of airspace data sources play in the operationalizing of drone safety services and the Unmanned Aircraft Systems Traffic Management environment?

Answer. The Unmanned Aircraft System Traffic Management system (UTM) is a "traffic management" ecosystem for uncontrolled Unmanned Aircraft System (UAS) operations that is separate from, but complementary to, the FAA's Air Traffic Management (ATM) system. UTM development will ultimately identify services, roles and responsibilities, information architecture, data exchange protocols, software functions, infrastructure, and performance requirements for enabling the management of low-altitude uncontrolled drone operations. The UTM consists of a group of enterprise systems that exchange data with external partners, called UAS Service Suppliers (USSs), for the purpose of processing flight authorization requests from individual UAS (aka drone) operators. Modernization and shared data will enable near real-time situational awareness of the NAS for all stakeholders.

Remote Identification. Remote identification of drones is one of the new technologies and systems that FAA is adopting in order to ensure the safe integration of UAS into the NAS. The FAA final rulemaking on remote identification requires drones to locally broadcast identifying information, though other jurisdictions have remote identification standards that allow either local broadcast or a network solution.

Question 1. Are there benefits of a network remote identification solution? Why did FAA not include a network solution in its final rulemaking on drone remote identification?

Answer. Though the FAA recognizes that there are potential benefits associated with establishing a network of remote ID UAS Service Suppliers (USS), the FAA believes that, for the time being and given the types of unmanned aircraft operations that are currently allowed, the broadcast remote identification solution fulfills agency and law enforcement needs to maintain the safety and security of the airspace of the United States. The FAA received significant feedback about the network requirement identifying both public opposition to, and technical challenges with, implementing the network requirements. After careful consideration of these challenges, informed by public comment, the FAA decided to eliminate the requirement in this rulemaking to transmit remote identification messages through an Internet connection to a remote ID USS.

Advanced Air Mobility. Advanced Air Mobility (AAM) envisions an aviation transportation system that will use automated aircraft to operate and transport passengers or cargo at lower altitudes beyond urban environments. The FAA has incorporated AAM into its planning efforts and is collaborating with the National Aeronautics and Space Administration (NASA) on their AAM National Campaign, yet there is much more to be done before adopting AAM into the current aviation ecosystem.

Question 1. Does the FAA have the technical knowledge, tools, and appropriate staff to review AAM applicants in a safe and timely manner?

Answer. Yes. The FAA has the necessary training and technical background to review AAM applicants. This is a new type of aircraft and the FAA will utilize the safety continuum and leverage existing guidance, where applicable, to ensure AAM applicant review is safe and timely.

The FAA has established innovation teams (iTeams) that cover key focus areas: aircraft certification, operational certification, airspace and air traffic management, vertiports, infrastructure, environment, security, community outreach, safety, and people. Many of these iTeams are already engaged in activities required for the operationalization of AAM including with AAM Original Equipment Manufacturers and operators to work through certification and other associated processes.

Question 2. Would the FAA benefit from a dedicated office to coordinate the certification and implementation progress of AAM applicants into the National Airspace System? If so, what authority should this office have?

Answer. At this time, the FAA has the appropriate organizational structure to address AAM applicants. The cross-line of business communication plans have been established and we are working at an appropriate cadence and structure to bring AAM applicants into the NAS in a safe and efficient manner.

Question 3. What specific steps is the FAA taking in the next 3, 6, and 12 months to ensure it will meet the deadline to issue the first type certificates for electric vertical takeoff and landing (eVTOL) aircraft in 2024? Who is in charge of these efforts at FAA?

Answer. While the FAA is making every effort to work with applicants on their type certifications projects in a timely and expeditious manner, the FAA does not set timelines for certification. The FAA is working to finalize airworthiness criteria, publish a Special Federal Aviation Regulation (SFAR) for powered-lift operations, and refine means of compliance with several applicants.

Question 4. Will FAA prioritize Letters of Authorization (LOAs) for initial AAM operations in National Airspace?

Answer. The FAA plans to support manufacturers and operators in the establishment of their operations programs by coordinating efforts during operational certification, including the issuance of any Letters of Authorization (LOA). Consistent with the way the FAA engages with stakeholders of other aircraft categories, the FAA will work collaboratively with AAM manufacturers and operators through training and operations certification processes until completion.

Question 5. Is there a backlog for Part 135 air carrier and operator certifications? If so, what is the FAA doing to address this backlog?

Answer. The FAA plans to take a number of actions to assist in reducing the backlog for Part 135 certification requests. Efforts include redistributing and reprioritizing work within the FAA to assist with certification activities, aligning and establishing policy to reduce the timeline for certification projects, and partnering with industry organizations to explore opportunities for initial screening and standardization prior to submission to the FAA.

Airplane Fuel Efficiency Certification. In June 2022, the FAA issued a Notice of Proposed Rulemaking on *Airplane Fuel Efficiency Certification.* This proposal aligns with aircraft CO_2 emission standards established by the United Nations' International Civil Aviation Organization (ICAO) and with Environmental Protection Agency (EPA)'s regulations implementing the ICAO standard. Once this rule is adopted, all U.S. aircraft will have to be certified to these new standards in order to be delivered to their customers after 2027. I know that many U.S. manufacturers of large and small aircraft are anxious to have a final FAA rule released as soon as possible in order to begin certifying aircraft to the standard.

Question 1. When will this rule be finalized?

Answer. On January 11, 2021, EPA published a final rule adopting the ICAO standard into U.S. regulations as a new 40 CFR Part 1030. On June 15, 2022, in accordance with its requirements under the Clean Air Act, the FAA proposed new certification regulations for certain airplanes to ensure compliance with EPA standards. The comment period for FAA's proposal closed on August 15, 2022, and the FAA received a total of sixty-two comments on the rule. The FAA is currently working on a final rule, which the FAA anticipates will publish in September 2023.

NOTAM Outage and Ground Stop. The NOTAM outage and 2-hour ground stop highlighted the sensitivity and vulnerability of our air traffic system. I am pleased that we are collectively looking at what needs to be done to prioritize and update the NOTAM system; however, I am concerned that the NOTAM system is just one of many critical air traffic programs that are outdated and at risk of failure. While the ground stop during the NOTAM outage was only about two hours, I worry about another system failures that could lead to longer operational impacts.

Question 1. Could you please provide an update on the Terminal Flow Data Manager, Flow Management Data & Services, En-Route Automation Modernization, and other critical programs and modernization efforts?

Answer. During COVID, the FAA established a new program called Flow Management Data and Services (FMDS) to replace the aging Traffic Flow Management System. The new FMDS program went from definition by the Federal Acquisition Executive (February 2022) to Investment Analysis Readiness Decision (January 2023) in just 11 months. The program continues in accordance with the FAA's Acquisition Management System toward a Final Investment Decision in January 2025. COVID has not impacted this program's cost, schedule, or ability to complete the required investment analysis work.

Question 2. What are biggest challenges in strengthening the resiliency and reliability of the air traffic system?

Answer. The agency's ability to strengthen the resiliency and reliability of the air traffic system is dependent on maintaining an adequate and stable funding stream and long-term authorizations.

Events such as continuing resolutions, government shutdowns, and sequestration, can affect the implementation schedules, thus affecting system resiliency and reliability. These events not only directly affect program schedules, but they can disrupt Federal hiring and retention and affect vendor ability to keep the required skills on staff.

Question 3. Would changes in the Congressional funding structure, such as expanding the Airport & Airway Trust Fund (AATF) and extending Congressional budget authority longer than a year help the FAA support the safety, reliability, and resiliency of our Nation's aviation system, including its critical air traffic programs?

Answer. Congress has provided some flexibility for the FAA's budget, including multi-year budget authority, and the President's FY 2024 Budget request includes robust investment in system modernization. We look forward to working with Congress on the next FAA reauthorization act to ensure that the FAA has stable and sufficient funding in the years to come.

Question 4. Would streamlining the Federal contract and acquisition processes help FAA improve and modernize its air traffic programs and systems?

Answer. The FAA's Acquisition Management System (AMS) was formed with the flexibilities required to pivot and respond to mission need. While these flexibilities are available, we look forward to working with Congress on the enactment of a long-term reauthorization, and adequate funding for our modernization needs to efficiently and effectively field capabilities under AMS.

Question 5. Does the FAA plan to keep allowing backup systems such as WMSCR and AIDAP to continue transmitting NOTAM information while the agency updates the primary system, and should air carriers continue to invest in connecting to these backup systems?

Answer. WMSCR will continue to transmit NOTAM information for the foreseeable future. The AIDAP system will be sunset as part of the NOTAM Modernization effort.

Question 6. Can you please describe the NextGen Advisory Committee (NAC)'s work and how you will ensure that the NAC incorporates industry input in order to help FAA fix its foundational legacy systems and modernize programs for operational and environmental benefits?

Answer. The NextGen Advisory Committee (NAC) provides independent, consensus-based advice and recommendations to the FAA in response to specific "taskings" received directly from FAA. The NAC is currently engaged with the FAA on several commitments: the Northeast Corridor, Surface and Data Sharing, Data Communications, and Performance Based Navigation focus areas through the NextGen Joint Implementation Plan. For example, the FAA issued NAC Tasking 23–1: National Airspace System (NAS) Airspace Efficiencies, requesting advice on identifying and leveraging airspace efficiencies. As part of this task, the NAC will review current usage of legacy systems and NextGen procedures and provide advice on divesting and leveraging efficiencies across the NAS.

5G. Air carriers have raised concerns regarding the next milestone of July 1, 2023, for 5G deployment and Group 3 aircraft. These concerns include delays in manufacturing, supply chains, and regulatory approval.

Question 1. Are you aware of the challenges I mentioned for manufacturers and air carriers?

Answer. The FAA is fully aware of the challenges to retrofit. We hold regular meetings with airframe manufactures such as Boeing, Airbus, Embraer, and Mitsubishi Heavy Industries and the radio altimeter manufacturers like Collins, Honeywell, and Thales. We meet with the airframe and radio altimeter manufacturers as a group and meet with them individually to make sure we understand any challenges to completing the retrofit.

Question 2. Do you anticipate there will be impacts to airline operations after July 1?

Answer. Based on information from the airframe manufacturers and the airlines, FAA is estimating that less than 15 percent of U.S. domestic registered airplanes will not have completed retrofit on July 1. The proposed Airworthiness Directive states that airplanes not equipped with a 5G C-Band tolerant radio altimeter after July 1, when the voluntary wireless mitigations end, will be subject to operational restrictions. These potential impacts to airlines operations will almost exclusively happen during periods of very low visibility (less than one-half (1/2) statute mile) at the destination airport. Some operators of these unretrofitted airplanes will not be affected because they have chosen not to operate in visibility this low. These visibility conditions are very infrequent but it is possible that some airlines without suitably equipped 5G C-Band tolerant radio altimeter airplanes will have operational impacts.

Question 3. Do you commit to having full transparency with air carriers on the challenges that lie ahead, and will the FAA help make adjustments as necessary, so they can continue to transport passengers without operational disruption?

Answer. The primary mission of the FAA is to ensure the safety of the National Airspace System (NAS) and the traveling public. When the wireless voluntary mitigations around airports end on July 1, airplanes without 5G C-Band tolerant radio altimeters will be subject to interference resulting in an unsafe condition. To ensure the safety of the NAS, the FAA must restrict unretrofitted airplanes from certain operations after July 1.

Response to Written Questions Submitted by Hon. Jerry Moran to Billy Nolen

Question 1. In December 2017, the bipartisan *Modernizing Government Technology Act,* established the Technology Modernization Fund, which provides IT working capital funds to Federal agencies and allows them to use savings obtained through streamlining IT systems, replacing legacy products, and transition to cloud computing for additional modernization efforts. To date, TMF has invested in 35 government IT modernization projects across 19 Federal agencies, the largest project investment so far being $187 million.

- *Mr. Nolen,* considering the NOTAM modernization goal of transitioning to an entirely virtual platform by 2025, can you tell me if the Department of Trans-

portation and the FAA has considered using the Technology Modernization Fund to improve the NOTAM system? Please explain why or why not.

Answer. To date, the FAA has limited experience with the use of the Technology Modernization Fund. FAA leadership has identified opportunities to leverage this fund for selected modernization planned activities.

The Technology Modernization Fund has awarded funds to the FAA for a non-NOTAM related project. The FAA's Office of the Chief Information Officer submitted a proposal to the Technology Modernization Fund's Program Management Office for consideration to modernize 22 applications hosted in the FAA's Mission Support Operating Environment. These applications will be refactored to a Cloud native architecture over the course of three years and will be free of technical debt.

At this time, the FAA has not considered using the Technology Modernization Fund to improve the NOTAM system.

- Could DOT and FAA better utilize the Technology Modernization Fund to ensure situations like the NOTAM system failure that occurred in January does not occur again?

Answer. Yes. The Technology Modernization Fund mission may be a possible option to help address the agency's growing technical debt.

Question 2. Mr. Nolen, you have spoken recently about your excitement around Advanced Air Mobility. Last Congress, my *Advanced Air Mobility Coordination and Leadership Act* became law, which instructs the Department of Transportation to lead a working group comprised of members of Federal agencies to provide recommendations on the coordination and integration of this new entrant into our civil airspace. The recommendations from this working group will be instrumental in crafting this year's FAA Reauthorization bill.

- Can you provide a status update on the establishment of this interagency group and other concrete steps the FAA is taking on leading the world in the adoption of AAM?

Answer. In response to the Advanced Air Mobility Coordination and Leadership Act, the DOT established the Interagency Working Group (IWG), which officially kicked off on February 22, 2023, with a follow-up working group meeting on March 21–22, 2023. The FAA is playing a key role in the IWG to identify cross-agency gaps and activities. Led by DOT, the IWG is ensuring an all of government approach to AAM to ensure aircraft, air traffic, safety, security, frequency spectrum, infrastructure, automation, and other areas of focus, to include areas outside of the FAA authority (*e.g.,* electrification and local land use issues) related to AAM are being taken into consideration.

In addition to the IWG, the FAA is creating an ecosystem of technologies, systems, processes, and organizational structures that will help safely integrate AAM operations in an efficient, sustainable, and repeatable manner. To do so, the FAA has established innovation teams (iTeams) that cover key focus areas such as aircraft and operational certification, airspace and air traffic management, and vertiports. In addition to leading research efforts to establish AAM standards, the iTeams are developing an implementation plan that will contain a Concept of Use for the FAA's vision of AAM operations, as well as an Integrated Master Schedule. The agency is also building a structured approach to support the expected evolution of AAM. This includes preparing for near-term early entry-into-service operations based on industry plans, mid-term operations such as the operationalization of AAM at a key site in 2028 (Innovate28), and fully mature AAM operations.

Question 3. I am a strong supporter of the FAA contract tower program and recognize the essential role of the program in keeping small and rural communities safe and connected to the broader aviation system. The FAA has proposed to revise the boundaries of the service areas for the contract tower program, and I am concerned that the proposed realignment could impact aviation safety.

- *Mr. Nolen,* has the FAA conducted a safety risk assessment of the proposed revisions of the contract tower service areas to ensure there aren't any unacceptable or unintended safety consequences?
- Since contract towers are operational by nature, should the FAA conduct a safety risk assessment before moving forward with the proposed realignment of the service areas?

Answer. Safety is of the utmost concern to the FAA. The FAA followed all applicable safety management processes in determining the new Federal Contract Tower (FCT) contract area boundaries. A safety-risk assessment was not required as the administrative change does not impact the quality of air traffic services at FCT locations. The newly established boundaries are an administrative change that only af-

fects the organizational structure of the towers and high industry safety standards will be maintained.

RESPONSE TO WRITTEN QUESTIONS SUBMITTED BY HON. TED BUDD TO BILLY NOLEN

Question 1. Since December 2001, the FAA has restricted flights within three miles and 3,000 feet of every major league baseball and NFL football stadium during games. But the FAA does not issue NOTAMs for these events. Air Traffic Control and electronic flight bag applications like ForeFlight must resort to using commercial ticketing websites to find out the times for these sporting events. Mr. Nolen, how does the FAA expect pilots to comply with these TFRs if they cannot get reliable information about the restrictions directly from the FAA?

Answer. As you noted, shortly after September 11, 2001, the FAA began restricting flights within three miles and 3,000 feet of every major league baseball and NFL football stadium. The scope is actually much greater than that. This action was taken because Congress enacted legislation that restricted civil aircraft operations over sporting events such as NASCAR, Major League Baseball (MLB), the National Football League (NFL), National Collegiate Athletic Association (NCAA) Division I Football, and other open-air events containing more than 30,000 people.

Contemplating how to effectively implement Congress' direction and prior to implementing the first "Sporting Event" Temporary Flight Restriction (TFR), a determination was made that the FAA NOTAM's system would be overwhelmed by the sheer number of events covered under the TFR:

> MLB = 4913 (includes possible playoff games), NFL = 589 (including playoffs), NCAA Div 1 Football—1,603 (includes bowl games), and NASCAR = 100 (estimated) for a total of up to 7,115 individual events that would require a unique TFR each year.

The TFR contains language that states it is in effect one hour prior to the event until one hour after the event. With delays and unforeseen occurrences that impact the start and stop times of covered events it would be impractical, at best, for the FAA to publish individual TFRs accurately.

This was a discussion item during the development of this legislation in 2001.

Knowing the challenges this legislation placed on the FAA, we embarked on an unending outreach campaign to bring awareness to the flying public. In that vein, the FAA expects pilots to comply with these congressionally mandated protections implemented through the use of TFRs. Pilots have the ability to gain awareness by thorough and effective preflight planning, which may include planning a flight path to avoid a covered event by three miles or being above 3000 feet. Additionally, pilots could seek airborne clarity that can be provided by local air traffic controllers that are monitoring the airspace.

Question 2. The FAA has been working to expand the availability of Controller Pilot Data Link Communications (CPDLC) and Tower Data Link Services (TDLS). As you know, this technology enables pilots to receive some ATC clearances without having to speak to a controller on the radio. Receiving written clearances saves time and reduces the chance a pilot or controller will misstate the clearance. While the equipment required to receive these clearances enroute is expensive, nearly every pilot has access to a cell phone or tablet. This presents an opportunity for every pilot to have an option to receive electronic pre-departure clearances before they leave the ground. What is the FAA doing to expand the number of airports, TRACONs, and ARTCCs with CPDLC and TDLS capabilities (as appropriate), and in particular, those able to deliver electronic pre-departure clearances to general aviation pilots?

Answer. FAA has deployed CPDLC and TDLS to 65 towers. We are in the process of deploying En Route initial and Full Data Comm capabilities to the 20 ARTCCs that will be used to cover the contiguous U.S. Currently 11 ARTCCs are using En Route Data Comm capabilities.

Question 3. Is the FAA developing the capability to receive electronic pre-departure clearances from subscription-free services (such as Flight Service) that could be accessed from a cell phone or tablet?

Answer. The FAA has been exploring a concept to allow pre-departure clearances to be sent to pilots over commercial networks using a personal mobile device. The vision is that the service will be available to pilots through apps from companies such as flight plan service providers. The concept is still several years away from implementation. When it is ready for technology transfer to industry, the capability will be available for licensing to any service provider who wishes to provide the

service. The FAA has not taken a position on whether the pre-departure clearance capability will be available subscription-free or only offered through fee-for-service providers.

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