

ASRS Database Report Set

Penetration of Prohibited Airspace Incidents

Report Set Description.....	A sampling of reports that reference unauthorized entry into prohibited or restricted airspace.
Update Number.....	25.0
Date of Update	March 31, 2018
Number of Records in Report Set.....	50
Number of New Records in Report Set	15
Type of Records in Report Set.....	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and
Space Administration

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TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

The attached material is furnished pursuant to a request for data from the NASA Aviation Safety Reporting System (ASRS). Recipients of this material are reminded when evaluating these data of the following points.

ASRS reports are submitted voluntarily. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

Information contained in reports submitted to ASRS may be amplified by further contact with the individual who submitted them, but the information provided by the reporter is not investigated further. Such information represents the perspective of the specific individual who is describing their experience and perception of a safety related event.

After preliminary processing, all ASRS reports are de-identified and the identity of the individual who submitted the report is permanently eliminated. All ASRS report processing systems are designed to protect identifying information submitted by reporters; including names, company affiliations, and specific times of incident occurrence. After a report has been de-identified, any verification of information submitted to ASRS would be limited.

The National Aeronautics and Space Administration and its ASRS current contractor, Booz Allen Hamilton, specifically disclaim any responsibility for any interpretation which may be made by others of any material or data furnished by NASA in response to queries of the ASRS database and related materials.

Linda J. Connell

Linda J. Connell, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

Certain caveats apply to the use of ASRS data. All ASRS reports are voluntarily submitted, and thus cannot be considered a measured random sample of the full population of like events. For example, we receive several thousand altitude deviation reports each year. This number may comprise over half of all the altitude deviations that occur, or it may be just a small fraction of total occurrences.

Moreover, not all pilots, controllers, mechanics, flight attendants, dispatchers or other participants in the aviation system are equally aware of the ASRS or may be equally willing to report. Thus, the data can reflect **reporting biases**. These biases, which are not fully known or measurable, may influence ASRS information. A safety problem such as near midair collisions (NMACs) may appear to be more highly concentrated in area “A” than area “B” simply because the airmen who operate in area “A” are more aware of the ASRS program and more inclined to report should an NMAC occur. Any type of subjective, voluntary reporting will have these limitations related to quantitative statistical analysis.

One thing that can be known from ASRS data is that the number of reports received concerning specific event types represents the **lower measure** of the true number of such events that are occurring. For example, if ASRS receives 881 reports of track deviations in 2010 (this number is purely hypothetical), then it can be known with some certainty that *at least* 881 such events have occurred in 2010. With these statistical limitations in mind, we believe that the **real power** of ASRS data is the **qualitative information** contained in **report narratives**. The pilots, controllers, and others who report tell us about aviation safety incidents and situations in detail – explaining what happened, and more importantly, **why** it happened. Using report narratives effectively requires an extra measure of study, but the knowledge derived is well worth the added effort.

Report Synopses

ACN: 1505967 *(1 of 50)*

Synopsis

PCT TRACON Controller reported assigning a heading to an aircraft that caused it to enter prohibited airspace.

ACN: 1488262 *(2 of 50)*

Synopsis

GA flight instructor reported that K90 TRACON was concerned about his flight lesson near a nuclear power plant.

ACN: 1483881 *(3 of 50)*

Synopsis

A Cessna 172 pilot reported that due to severe weather conditions he inadvertently flew into a TFR.

ACN: 1478689 *(4 of 50)*

Synopsis

Bell Jet Ranger pilot reported losing communications with ATC, and inadvertently penetrating VIP TFR.

ACN: 1478083 *(5 of 50)*

Synopsis

ZOA Center controller reported that a sectors' workload has become unmanageable resulting in delays and aircraft conflicts due to the variety of traffic situations and equipment limitations.

ACN: 1476522 *(6 of 50)*

Synopsis

EMB-145 First Officer reported that a malfunctioning Lateral Navigation mode caused a course deviation on departure and reversion to a raw data, hand-flown approach.

ACN: 1476515 *(7 of 50)*

Synopsis

Air carrier flight crew reported a procedural deviation while departing Washington National Airport (DCA) which resulted in the penetration of Prohibited Area P-56.

ACN: 1473843 *(8 of 50)*

Synopsis

Piper pilot was told to call Approach Control after being vectored away from a TFR and into the Class Bravo.

ACN: 1473567 *(9 of 50)*

Synopsis

Center Controller reported confusion when the Front Line Manager walked by and said some airspace was going hot, but did not know which airspace.

ACN: 1472448 *(10 of 50)*

Synopsis

PA28 pilot reported he flew through a TFR and was intercepted by an F16.

ACN: 1471241 *(11 of 50)*

Synopsis

Five Boston Center Controllers reported a loss of separation when a flight of aircraft were descended through an aircraft's altitude.

ACN: 1471203 *(12 of 50)*

Synopsis

C210 pilot reported being intercepted by a military jet and instructed to land at the departure airport. He was informed that he had violated a presidential TFR.

ACN: 1471135 *(13 of 50)*

Synopsis

A corporate pilot reported turning away from the Mexico ADIZ airspace after being unable to contact the Center due to frequency congestion.

ACN: 1460370 *(14 of 50)*

Synopsis

ZMP ARTCC Controller reported problems with aircraft related to Temporary Flight Rules (TFR), aircraft intercept and losing a data tag on aircraft involved.

ACN: 1457725 *(15 of 50)*

Synopsis

An air carrier flight crew and PCT TRACON Controller described their respective actions when the aircraft became NORDO then flew through P-56 after one of the flight crew inadvertently changed the COM 1 frequency.

ACN: 1453252 *(16 of 50)*

Synopsis

Air carrier Captain reported possible entry into P-56 while departing DCA Runway 1.

ACN: 1453028 *(17 of 50)*

Synopsis

GA pilot reported being intercepted after violating the DC SFRA due to inadequate flight planning preparation.

ACN: 1450891 *(18 of 50)*

Synopsis

Air carrier flight crew reported entering prohibited airspace on departure from DCA due to an improper instrument set up prior to departure. ATC corrected the flight's assigned heading.

ACN: 1440849 *(19 of 50)*

Synopsis

GA pilot reported penetrating a stadium TFR in the Hudson River SFRA due to lack of familiarity with the Garmin Pilot display and overlooking currency of TFR information.

ACN: 1439008 *(20 of 50)*

Synopsis

R22 instructor pilot reported that after landing they were asked to meet with Federal officials for busting a TFR.

ACN: 1438942 *(21 of 50)*

Synopsis

GA pilot reported a firefighting TFR incursion while trying to avoid another TFR in the area. When the pilot was in the TFR another aircraft formed up on him without communication, then departed after a few seconds.

ACN: 1431500 *(22 of 50)*

Synopsis

An air taxi pilot was informed by another pilot in the traffic pattern at KFP that he should be on a DVFR flight plan since the airport is 10 NM into the Alaskan ADIZ.

ACN: 1426251 *(23 of 50)*

Synopsis

GA pilot reported researching a planned TFR and believe was successful in avoiding it, but was advised by ATC of a possible pilot deviation.

ACN: 1424783 *(24 of 50)*

Synopsis

Traffic watch pilot reported entering a TFR on correct code and was later questioned by ATC as to not having a clearance into the TFR.

ACN: 1422587 *(25 of 50)*

Synopsis

GA pilot reported he flew into a POTUS TFR and was intercepted.

ACN: 1419164 *(26 of 50)*

Synopsis

ERJ-170 flight crew reported an incursion into P56 during a go-around after encountering wind shear on approach to DCA.

ACN: 1418426 *(27 of 50)*

Synopsis

A King Air 300 flight crew reported nearly flying into an active missile launch zone. The crew commented that there were no NOTAMS or other common alerts informing crews before takeoff. ATC was able to keep the flight clear of the airspace.

ACN: 1409840 *(28 of 50)*

Synopsis

Air carrier First Officer reported multiple issues while operating in winter conditions in an attempt to land at DCA. First approach required a go-around but the second approach was successful.

ACN: 1405965 *(29 of 50)*

Synopsis

A UAS pilot reported that he discovered after his flight that a nearby TFR had been expanded to include the area of his previous operation.

ACN: 1402009 *(30 of 50)*

Synopsis

Flight Crew and Controller reported of the flight being off course and entering Restricted Area P-56. Controller reported of aircraft being below the Minimum Vectoring Altitude and needing to vector aircraft out of P56. Pilot reported of improperly identifying the Potomac River and the aircraft to follow.

ACN: 1399126 *(31 of 50)*

Synopsis

GA pilot reported being informed after landing that he had flown through a TFR over MCO that he was not aware of. He had relied on TFR notifications via e-mail which he did not receive and no record of the TFR could be found on the FAA website.

ACN: 1395143 *(32 of 50)*

Synopsis

During cruise, on an IFR flight plan, the pilot of a Piper Arrow PA28R-180 reported noticing he was losing electrical power. The pilot continued to his destination VFR while using a handheld radio to communicate with ATC.

ACN: 1394042 *(33 of 50)*

Synopsis

A DJI Phantom UAS pilot launched after checking diligently for TFR and controlled airspace. However, after takeoff his DJI phone app alerted his aircraft proximity to SLC Class B. The UAS flight was aborted.

ACN: 1391305 *(34 of 50)*

Synopsis

C180 floatplane pilot reported encroaching on a sports TFR during evasive action in response to an NMAC.

ACN: 1390834 *(35 of 50)*

Synopsis

NCT TRACON Controller reported of problems with the size of a fire fighting TFR.

ACN: 1388723 *(36 of 50)*

Synopsis

PA32 pilot reported possibly entering a firefighting TFR near LVK. The TFR may have been created after his initial DUATS briefing and did not show up on XM weather or ADS-B.

ACN: 1373869 *(37 of 50)*

Synopsis

Joint Control Facility (Edwards) TRACON Controller reported of a TFR that was not updated and the reporter did not know the exact position. Reporter eventually had to look up coordinates and then advise others.

ACN: 1371871 *(38 of 50)*

Synopsis

GEG TRACON Controller reported being unaware that an organization was conducting a powered parachute event in their airspace.

ACN: 1322662 *(39 of 50)*

Synopsis

Flight of two helicopters with two GPS sources flew a course 2 miles outside the Washington DC SFRA, yet PCT TRACON claimed the aircraft was inside the SFRA by two miles.

ACN: 1312861 *(40 of 50)*

Synopsis

SR-22 pilot reported possible violation of a stadium TFR when he had difficulty establishing communications with the Departure Controller.

ACN: 1307849 *(41 of 50)*

Synopsis

Pilot reported that geographic disorientation led to an ADIZ penetration.

ACN: 1307074 *(42 of 50)*

Synopsis

Pilot reported he may have violated a Fire Fighting TFR near IZA because of differences between his DUATS briefing and his tablet display.

ACN: 1303319 *(43 of 50)*

Synopsis

R44 helicopter pilot reported a sport TFR incursion.

ACN: 1299083 *(44 of 50)*

Synopsis

A local Pilot, familiar with the area and TFR NOTAMs, was confused by the format and depiction of the TFR area, and unintentionally entered the area. He added that a clearer presentation of the affected area would likely have prevented this encounter.

ACN: 1294768 *(45 of 50)*

Synopsis

Bell 407 pilot reported he had a TFR incursion and stated the TFR was not listed on the FAA briefing website. Both TFRs were for sporting events.

ACN: 1293968 *(46 of 50)*

Synopsis

A U.S. based airline crew on a flight from the Middle East to Europe was filed through Crimea (UKFV) unaware US carrier flight through that airspace was prohibited.

ACN: 1290983 *(47 of 50)*

Synopsis

A C210 pilot reports inadvertently entering a TFR at 6,500 feet, 22 NM ESE of LAS, which was not depicted on his Garmin 510 GPS with XM NEXRAD Weather. A heading to exit the airspace and a phone number was provided by LAS Approach.

ACN: 1288954 *(48 of 50)*

Synopsis

A pilot of a light aircraft, performing pipeline patrol duty, reported inadvertently penetrating a wildfire TFR due to the rapidly changing restricted airspace environment.

ACN: 1282432 *(49 of 50)*

Synopsis

A ZJX Controller attempted to handoff an aircraft to a neighboring facility while also maneuvering the aircraft away from a MOA. The receiving Controller was unable to immediately identify the aircraft due to conflicting beacon codes already used for ADIZ helicopter operations within the area. The problem may have arisen due to errors between ERAM and STARS not interacting correctly resulting in separate beacon codes not being tagged to incoming aircraft.

ACN: 1282414 *(50 of 50)*

Synopsis

Bell 206 pilot reported a TFR incursion when the TFR was extended beyond the planned time frame.

Report Narratives

Time / Day

Date : 201712
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : PCT.TRACON
State Reference : VA
Altitude.MSL.Single Value : 4000

Environment

Weather Elements / Visibility.Other
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : PCT
Aircraft Operator : Air Carrier
Make Model Name : B757-300
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Route In Use : Vectors
Airspace.Class B : DCA

Person

Reference : 1
Location Of Person.Facility : PCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1
ASRS Report Number.Accession Number : 1505967
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Executed Go Around / Missed Approach

Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

DCA was in a south configuration with weather all around the airspace. I was working Arrival sectors all combined. A busy spurt happened. The winds at 3000 ft were 240 at 62 knots. Due to the winds and the traffic most of the aircraft were on vectors to final. I had to take my aircraft from the south across the airspace to the east downwind. Aircraft X was turned to final but the tail wind carried them a lot faster than the aircraft that they were following and standard separation would not have been maintained. I cancelled Aircraft X's approach clearance and climbed them to 4000 ft to be re-sequenced. I meant to say to stay on the localizer but I said fly present heading, the wind pushed the aircraft off of the final approach course and the aircraft entered Prohibited airspace. Once I realized the aircrafts proximity to the prohibited area I turned them westbound out of the airspace. No other incidents occurred. Standard separation between aircraft was maintained.

Synopsis

PCT TRACON Controller reported assigning a heading to an aircraft that caused it to enter prohibited airspace.

Time / Day

Date : 201710
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : PYM.Airport
State Reference : MA
Relative Position.Angle.Radial : 060
Relative Position.Distance.Nautical Miles : 6
Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
ATC / Advisory.TRACON : K90
Aircraft Operator : FBO
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Cruise
Route In Use.Other
Airspace.Class E : K90

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Air Traffic Control : Fully Certified
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 3800
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 900
ASRS Report Number.Accession Number : 1488262
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR

Detector.Person : Flight Crew
When Detected : In-flight

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I was providing flight instruction to a student pilot and reviewing the maneuvers for the required Airmen Certification Standards. The flight was conducted in VFR conditions 6 miles east of the Plymouth Airport (KPYM) and 2-4 miles northwest of the Plymouth Nuclear Power plant over Plymouth Bay and Duxbury Bay. We flew from the airport to a practice area over the water between 3,000 and 4,000 ft. The flight began with simulated IFR training and unusual attitudes. Stalls, slow flight, steep turns, emergency descents and turns around a point were maneuvers conducted after the simulated IFR training.

Upon completion of the training flight, I was advised by my FBO the FAA, Cape TRACON (K90), wanted to speak with me. I contacted the person via phone and was asked if I had been operating over the power plant. The person stated the facility's primary radar was out of service and Boston TRACON (A90) tracked my aircraft on radar. A90 subsequently contacted K90 in an effort to determine the aircraft's identity. A US Coast Guard aircraft apparently flew near my aircraft and photographed my call sign relaying it to the FAA.

The FAA official I spoke with indicated to me that the FAA wanted me to be aware I was operating over a nuclear power plant. I was operating northwest of the power plant over Plymouth Bay and Duxbury Bay. There was no indication that action would be taken by the FAA in the form of a Pilot Deviation.

Since instructing at this FBO for the last 9 years in this area, this is the first inquiry made to me regarding flights in that area. Bordering this practice area is V141, 2.5 miles east of the power plant and FREDO, a holding fix, 2 miles south of the power plant. Also, the area lies near the boundary of K90's and A90's airspace and is approximately 10 miles from the Boston Class B airspace.

The wording of FDC 3/1655 "SPECIAL NOTICE" states in part, "PILOTS CONDUCTING FLIGHT OPERATIONS ARE ADVISED TO AVOID THE AIRSPACE ABOVE OR IN PROXIMITY TO ALL NUCLEAR POWER PLANTS. PILOTS SHOULD NOT CIRCLE OR LOITER IN THE VICINITY OF SUCH FACILITIES." "Proximity and vicinity" are ambiguous at best. In an effort to resolve any misunderstanding of the applicable NOTAM I recommend the FAA clearly review and redefine restrictions near a nuclear power plant. A pro-active stance in defining "proximity" and "vicinity" would remove any subjectivity of their definition. However, the simplest solution would be the creation of Prohibited Airspace around all nuclear power plants and publishing them on all navigation charts.

It is unclear at the time of this report if the TSA has been notified and if it would be involved in an investigation.

Synopsis

GA flight instructor reported that K90 TRACON was concerned about his flight lesson near a nuclear power plant.

Time / Day

Date : 201709
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 7500

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 10
Light : Night
Ceiling.Single Value : 4000

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Skyhawk 172/Cutlass 172
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.TFR : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 770
Experience.Flight Crew.Last 90 Days : 40
Experience.Flight Crew.Type : 50
ASRS Report Number.Accession Number : 1483881
Human Factors : Situational Awareness
Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

I was given Runway 10 at [departure airport] and then a left turn. My destination was ZZZ. This was not my usual departure runway and it took me further east and north than I usually fly before going northwest to join the northbound 7500 feet VFR corridor. There was a TFR that night for a baseball game. I was flying northwest with enough room to skirt the TFR. I encountered severe turbulence that resulted in multiple deflections of the aircraft of more than 45 degrees of bank and 20 degrees of yaw, with loss of altitude of several hundred feet. For several minutes, I don't know exactly how long, I fought the controls and just tried to maintain a level flight attitude and avoid losing too much altitude, which required full power and Vy. When the turbulence subsided I was flying more to the north-northwest, but I did not immediately realize how close I was to the TFR because I was pretty shaken up by the severity of the turbulence event. When I looked down to the right and looked at the stadium lights, I realized that I was closer than what would have looked to be a correct distance. I checked my ForeFlight iPhone and found that I had flown just inside of the edge of the TFR.

I had not brought my full iPad and mount on the flight because it was such a familiar area to me, and I fly between the two airports frequently. If I had been following ForeFlight actively, I would have had a constant visual reminder of my position during the turbulence event. As it was, I lost situational awareness both during the event and for a time afterward that it took to calm down from what was some of the worst turbulence I have been in.

Synopsis

A Cessna 172 pilot reported that due to severe weather conditions he inadvertently flew into a TFR.

Time / Day

Date : 201708
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Bell Helicopter Textron Undifferentiated or Other Model
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Utility
Flight Phase : Cruise
Route In Use : Direct
Airspace.TFR : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 15300
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 325
ASRS Report Number.Accession Number : 1478689
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Police / Security Involved
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Airspace Structure

Narrative: 1

I volunteered to do a relief mission to geo-tag down power lines so they can get crews out there to restore power and down lines. My briefing with Flight Service said there were TFR's on my mission. They never mentioned it was a VIP TFR, which makes no difference because a TFR is a TFR. Our operations secured a clearance from the command headquarters managing the TFR. I was given a squawk of to enter the TFR's and contacted approach and told them of our mission. We had to fly low to get the geo-tags and I requested 300 to 500 AGL or lower and ATC said "perfect". I guessed they liked that because everyone else was operating higher. When over the [subject] area we lost communications with ATC. I could hear other traffic responding but never heard ATC. ATC at times was broken up. We never heard anyone try to contact us and we started back to our destination and I then picked up ATC trying to communicate with an aircraft that just entered the TFR squawking 1200 VFR, they penetrated the TFR. I contacted ATC told them we were heading back to ZZZ and would come back in the TFR's after refueling and wanted to make sure this squawk would be the same for us to return. He then started getting upset at me because we lost communication with me and was trying to get us. I never even realized it. Also that other aircraft that was close to us who entered the TFR landed at the same airport I landed at, as they told me later on when I was interviewed by the Secret Service. They thought that the aircraft squawking 1200 was me. The sequence of events that happened were very unfortunate. They were not INTENTIONAL. ATC should have known that the altitude I requested, and they approved, would have resulted in radar contact lost and communications lost for being that far away from approach control facility. My briefing from Flight Service should have been more detailed that it was a VIP TFR. I would have been extra alert. Again, nothing here was INTENTIONAL, It was just a bunch of bad timing when everything happened at once.

Synopsis

Bell Jet Ranger pilot reported losing communications with ATC, and inadvertently penetrating VIP TFR.

Time / Day

Date : 201709

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZOA.ARTCC

State Reference : CA

Aircraft

Reference : X

Person

Reference : 1

Location Of Person.Facility : ZOA.ARTCC

Reporter Organization : Government

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Radar : 30.0

ASRS Report Number.Accession Number : 1478083

Human Factors : Communication Breakdown

Human Factors : Human-Machine Interface

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Situational Awareness

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation - Procedural : Other / Unknown

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.General : Flight Cancelled / Delayed

Result.Air Traffic Control : Provided Assistance

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Separated Traffic

Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Human Factors

Primary Problem : Airspace Structure

Narrative: 1

Sector 44 has become a Monster sector. Management knows that Holiday weekends and volume issues with towers that they need to take all precautions into making this sector run somewhat manageable. Today, I witnessed more complexity in my career that I have ever seen. This sector, this day needs to be reviewed by outside sources not in this Center to see if something can be done to improve safety, flow, and reduce the stress that all of us feel when we plug into sector 44. The whole day was extremely complex and busy and my 30 minutes plus should be reviewed. I have no idea of the violations, airspace, etc. as we were hanging on for dear life. Towers wanted clearances, release of aircraft, airports had aircraft sitting on the runway ready to depart, and all the while VFR aircraft calling for advisories while IFR in the system ask for clearances while in the air. It was chaotic and unsettling.

This is the situation as I see it. Center does not have a system for proposal strips. That is one issue and they don't use them when traffic is normal. But today wasn't normal as most summer Holiday weekends. EDST had 30 plus proposals for this sector's airports. I am only looking at 10 or so with the active aircraft list. While I was off the line giving a clearance to a departure, making a phone call for an inbound to a tower, or coordinating anything else with Approach there are aircraft departing airports in the air looking for IFR clearances. Fires, TFR's, and smoke in the area make it critical these pilots get a timely clearance. I suggested to the supervisor that there be a coordinator/tracker to have a bay of proposed strips behind him and be able to grab the strip for the Radar Controller when aircraft call.

The EDST is in use by me at the handoff side and I can't even see the list of aircraft that are calling in the air, on the ground, or by tower. The Radar Controller is trying to get a squawk code or look up the aircraft. Furthermore, we don't have a shout line to Tower and that slows things down. Tower called me for clearances and release of aircraft and I couldn't get to their request!! Management came up with a plug in phone to make "hot" but the issue is when Tower calls and I answer the phone I also have incoming calls from other sectors in my other ear and can't handle it. We NEED a shout line set up and asked for it since June. I truly believe an outside team from DC, the Service Area, another center, anywhere, needs to come in and look at our set up and see what we can do to improve.

The controllers from Center, Tower, management, along with an outside party from the FAA need to really tackle this problem to make sure these times of extreme volume are managed with reduced risk to the NAS. There was a situation when I was just coming in. There were two VFR aircraft identified, we were talking to, and the controller pointed out. I was observing from behind that they were merging and the aircraft were at 10,100 feet and 10,000 feet. So much flashing was going on the Radar Controller was doing all he could. The Radar Controller issued a Traffic alert and one aircraft got the other at the last second! Starting mid-morning was chaos. There has to be a safer way for all involved. I know that our team did their best, including management but we have to figure this out and make it manageable.

Synopsis

ZOA Center controller reported that a sectors' workload has become unmanageable resulting in delays and aircraft conflicts due to the variety of traffic situations and equipment limitations.

Time / Day

Date : 201708
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 145 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Flight Phase : Climb
Airspace.Class B : ZZZ

Component

Aircraft Component : Autoflight System
Aircraft Reference : X
Problem : Malfunctioning

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1476522
Human Factors : Distraction
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Human Factors
Primary Problem : Aircraft

Narrative: 1

Departing [on] RNAV Departure. At the positive rate callout I called for gear up, speed, and nav. I was following the Flight Director through 300-500 when I realized the NAV mode hadn't captured and we were still in heading mode. I disregarded the Flight Director and turned to the left back to our course. The Captain had tried three times throughout the departure to arm the NAV mode to no avail. By the time I noticed the deviation and turned on course we were approximately one dot to the right of our course. I believe we might have penetrated a Prohibited area. On the fourth attempt the lateral mode armed and I flew the remainder of the departure without incident. After several minutes we were given a phone number to call. [On arrival] I was being vectored to final for RWY XY. I switched to green needles and armed the NAV mode to intercept the LOC with autopilot engaged. The autopilot captured the LOC and almost immediately dropped the Lateral NAV mode and reverted to ROL mode. The Captain tried several times to rearm the Approach mode to no avail. I disconnected the autopilot and followed the PAPI to an uneventful landing using raw data.

Synopsis

EMB-145 First Officer reported that a malfunctioning Lateral Navigation mode caused a course deviation on departure and reversion to a raw data, hand-flown approach.

Time / Day

Date : 201708

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DCA.Airport

State Reference : DC

Aircraft

Reference : X

ATC / Advisory.Tower : DCA

Aircraft Operator : Air Carrier

Make Model Name : Medium Large Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Climb

Airspace.Class B : DCA

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Check Pilot

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1476515

Human Factors : Time Pressure

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1476678

Human Factors : Time Pressure

Human Factors : Human-Machine Interface

Human Factors : Distraction

Human Factors : Confusion
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Exited Penetrated Airspace
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I was Pilot-in-Command of Aircraft X from DCA. After all pre-departure checklists were completed, we taxied to DCA runway 01 for takeoff. I had glanced over at the First Officer's (FO's) side to see if everything was set up and I recall, everything looked normal. When we were cleared for takeoff we made a normal takeoff, broke ground, and did the normal post-rotation clean-up of the aircraft. When we reached the fix on the departure DCA SID that turned us up the river, I knew something was wrong. I grabbed the yoke and made an immediate left turn to turn the aircraft back on course. When I looked at the FO's CRTs I noted they were configured incorrectly for the takeoff so I simultaneously reached over and corrected his displays. After I reconfigured the PFD, I engaged LNAV and VNAV to their normal takeoff configuration. At this time I selected the auto pilot on. While selecting the appropriate LNAV and VNAV buttons I glanced out my left window and saw the river below me. From my view I was still over the river. Shortly afterwards we were handed off from tower, to departure, then on to other center frequencies. At this time I'm not sure how many handoffs were made but at some point, we were queried if we had a minute to talk. I responded "yes, go ahead". The controller then informed us that we had a "possible traffic deviation." I started thinking about it and did not think I had done anything wrong. When I landed [at destination airport], I was then informed that we had penetrated the P-56A airspace that protects the White House. At that point my First Officer and I went through the proper channels in talking with my Chief Pilot, TRACON, etc. After the interview, I was told they did not believe there would be any further law enforcement action on their part.

The event occurred because one pilot was not in FMS needles when the airplane wanted to turn it was not indicating to that pilot to do that. I will double check the screens and navigation tools that are supposed to be on for that particular flight for takeoff.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported a procedural deviation while departing Washington National Airport (DCA) which resulted in the penetration of Prohibited Area P-56.

Time / Day

Date : 201708
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : A90.TRACON
State Reference : NH
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 20
Light : Daylight
Ceiling.Single Value : 10000

Aircraft

Reference : X
ATC / Advisory.TRACON : A90
Aircraft Operator : Personal
Make Model Name : PA-32 Cherokee Six/Lance/Saratoga/6X
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class B : BOS

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3860
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 3300
ASRS Report Number.Accession Number : 1473843
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types

Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

On a leg while in radar contact with Boston Approach I was asked to make a correction to the right to avoid a small TFR which led me into a Class Bravo area I was not warned or cleared to enter. I was told to contact the Norwood Tower to continue, I did so and was vectored out of the protected area then turned back over to the same Boston Controller and continued on to [destination].

The Norwood Tower told me to call Boston Approach, I did so and after a conversation I was asked for my license # etc. I have never experienced a controller leading me into protected airspace without a caution that I was about to enter. I kept the same transponder code all the way to [my destination].

Synopsis

Piper pilot was told to call Approach Control after being vectored away from a TFR and into the Class Bravo.

Time / Day

Date : 201708

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZBW.ARTCC

State Reference : MA

Aircraft

Reference : X

Make Model Name : No Aircraft

Person

Reference : 1

Location Of Person.Facility : ZBW.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 10.7

ASRS Report Number.Accession Number : 1473567

Human Factors : Communication Breakdown

Human Factors : Human-Machine Interface

Human Factors : Time Pressure

Human Factors : Confusion

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Air Traffic Control

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

We have been working a lot of weird traffic situations with weird routes and complex traffic flows in our area due to VIP movement. Last night, the Operations Manager (OM) told me that in 15 minutes, some airspace was going to go hot because of VIP movement, but that they didn't know which airspace. He also advised that he suggested we start considering the TFR's hot, but no one in the area knew what he was talking about. There had been something on CEDAR that we read before our shift, but it just talked about TRACON's Class B lateral boundary, so we didn't know it applied to us.

I had to get out a sectional, try to use a blank flight strip to make a ruler, and we tried approximating the boundary of the TFR based on those rough calculations. No one briefed us on what impact the TFR would have, and it wasn't put in plain language for us to be able to decipher or to have any real valuable information on where to draw the TFR boundaries on our scopes. Not only that, but we were officially told that it was in fact the TFR's going hot two minutes after they actually went hot.

I know things can be fluid when it comes to VIP movement. However, the paperwork/information about a TFR needs to be given to controllers in a way they can actually use. Specific dimensions and what that means to the area should be on a hot sheet or something. Ideally, it would be nice to get a verbal briefing in case we have questions about the TFR. Also, the added traffic and complexity needs to be taken into account and traffic should be slowed down going into areas affected by VIP movement.

Synopsis

Center Controller reported confusion when the Front Line Manager walked by and said some airspace was going hot, but did not know which airspace.

Time / Day

Date : 201708

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : ZZZ

Airspace.TFR : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 600

Experience.Flight Crew.Last 90 Days : 3

Experience.Flight Crew.Type : 600

ASRS Report Number.Accession Number : 1472448

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : FAR

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.General : Police / Security Involved

Result.Flight Crew : Diverted

Result.Flight Crew : Landed As Precaution

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I began my flight and flew to multiple airports when I was intercepted by an F16. He rocked his wings and I rocked my wings back then landed as soon as possible. After landing the police and secret service came and took a full report of the occurrence. On the day of the flight I was unaware of the TFR and did not properly check the area while making my flight plan. In the future I will carefully check for flight restrictions. I am currently getting training from a flight instructor on the subject and now know multiple ways to check the area prior to my flight.

Synopsis

PA28 pilot reported he flew through a TFR and was intercepted by an F16.

Time / Day

Date : 201708

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZBW.ARTCC

State Reference : NH

Altitude.MSL.Single Value : 23000

Environment

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZBW

Aircraft Operator : Air Carrier

Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Route In Use.Other

Airspace.Class A : ZBW

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZBW

Aircraft Operator : Military

Make Model Name : Fighter

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Cruise

Route In Use : Vectors

Airspace.Class A : ZBW

Aircraft : 3

Reference : Z

ATC / Advisory.Center : ZBW

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Airspace.Class A : ZBW

Person : 1

Reference : 1
Location Of Person.Facility : ZBW.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7
ASRS Report Number.Accession Number : 1471241
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Time Pressure
Human Factors : Workload
Human Factors : Human-Machine Interface
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Person : 2

Reference : 2
Location Of Person.Facility : ZBW.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 4
ASRS Report Number.Accession Number : 1471561
Human Factors : Confusion

Person : 3

Reference : 3
Location Of Person.Facility : ZBW.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6.9
ASRS Report Number.Accession Number : 1471238
Human Factors : Confusion
Human Factors : Situational Awareness

Person : 4

Reference : 4
Location Of Person.Facility : ZBW.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Handoff / Assist
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1
ASRS Report Number.Accession Number : 1471236
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction

Human Factors : Confusion
Human Factors : Human-Machine Interface

Person : 5

Reference : 5
Location Of Person.Facility : ZBW.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1
ASRS Report Number.Accession Number : 1471223
Human Factors : Distraction
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

I was working sector 32 where I had accepted a point out on Aircraft X (I don't remember the call sign so I'll call it Aircraft X) northbound going to Boston. There were a flight of military fighters southbound at FL240B250. I had a JFK arrival Aircraft Z (don't remember the call sign I'll call it Aircraft Z) who was at FL220. The sector above me who was working Aircraft X had some traffic he was trying to separate and in order to help I descended Aircraft Z to 140 to give him a lower altitude on Aircraft X if he needed it. Aircraft Z was still in sector 18s airspace and I did not have time to call and get control. As the situation seemed to resolve itself, a minute later we saw that Aircraft X was in conflict alert with Aircraft Y (not sure on the call-sign) and Aircraft Y's altitude was showing FL230B240 in sector 18s airspace with Aircraft X just clipping 18s airspace going northbound. Both myself and the sector working Aircraft X missed that the flight plan on the high altitude map showed the missing sector 18s airspace, but on the low altitude map which they didn't display shows Aircraft X's route of flight just nearly hitting sector 18's airspace. It was in this airspace that sector 18 who didn't get a point out from Aircraft X and didn't see a data block, descended Aircraft Y from FL240B250 to FL230B240.

This route that Aircraft X was on was a reroute for VIP airspace. This route which will keep clear of 1 traffic flow is a new route to us and not what we are used to seeing. We all anticipated Aircraft X to be going to a particular fix that we use regularly and he was not. I

think what would help in the future would be negotiated routes during SAA/VIP airspace and having the sectors better briefed on the changes and how it could affect them.

Narrative: 2

I accepted Aircraft Y a flight of 4 on a heading to enter W-105. Upon initial communication they asked for the block FL230B240 for weather. I descended him as requested and he began flashing with Aircraft X that was not shown on my scope.

I can wait an additional minute after asking to issue the descent to be certain I have cleared all boundaries in an area where there are so many adjacent sectors.

Narrative: 3

I took the sector with Warning Area 105 hot and the KILMA CAP hot. Aircraft X was on a route to miss the CAP coming out of PHL. When I took the sector I understood Aircraft X had been pointed out to Sector 32. I descend Aircraft X to FL230 to get the airplane below Aircraft Y at FL240B250 and also into sector 34's altitudes for a hand off. This put Aircraft X in Sector 32's airspace. I did not realize Aircraft X was also going into Sector 18's airspace when descended to FL230, therefore no point out was done to Sector 18. When sector 18 took the hand off on Aircraft Y they descended them FL230B240 thus losing separation with Aircraft X.

With the CAP and Warning area hot it greatly reduces the amount of airspace we have to work with, meanwhile traffic and complexity is increased due all to routes around the CAP. This greatly increases the amount of workload on the sector. With this particular incident a routing that does not require multiple point outs to accomplish would be nice. In addition when the route is read out at sector 31 it does not appear that a point out will be required to sector 18, therefore I did not think to perform such action. It only becomes apparent when the low map is pulled up. It would seem to make more sense to have the BOS arrivals join the route at AWLIN from CCC. Thus, avoiding the area where Sectors 31, 32, and 18 all meet and allowing for a straight hand off from sector 31 to 34 without Point Outs.

Narrative: 4

I was sitting on the D side position for this incident. R-side was controlling Aircraft Y. Per Aircraft Y request to become standard, 34R climbed flight to FL240B250. All necessary point-outs were made and hand off was initiated to CAPE18. CAPE18 took radar service. Aircraft Y was shipped. Once Aircraft Y entered CAPE18, 18R descended Aircraft Y flight per his request to FL230B240. HTO31 had handed off Aircraft X to R24 at FL230 without point out to CAPE18. Conflict alert went off in PVD34 which drew attention to the situation. Both 34R and 34D were unsure if CAPE18 updated the data block without the descent or if Aircraft Y flight was given descent clearance. 34R and 34D were also unaware HTO31 had not pointed out Aircraft X to CAPE18.

Due to TFR/Special Use Airspace, KILMA routes have changed in HTO31 sector. Route for BOS arrivals takes aircraft through complicated shelf airspace. Routes for KILMA were not designed well and no training was provided for new routes.

Narrative: 5

I climbed Aircraft Y flight FL240B250 per his request. I took a handoff on Aircraft X at FL230. The next sector (18) descended Aircraft Y flight to FL230B240 and Conflict Alert went off. We did all necessary point outs and hand offs

The route Aircraft X was on to BOS takes him through a complicated shelf of airspace. Maybe the route should avoid that spot.

Synopsis

Five Boston Center Controllers reported a loss of separation when a flight of aircraft were descended through an aircraft's altitude.

Time / Day

Date : 201708
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Personal
Make Model Name : Cessna 210 Centurion / Turbo Centurion 210C, 210D
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : ZZZ
Airspace.TFR : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 1800
Experience.Flight Crew.Last 90 Days : 20
ASRS Report Number.Accession Number : 1471203
Human Factors : Other / Unknown

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight

Result.General : Police / Security Involved
Result.Flight Crew : Returned To Departure Airport

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

It was a VFR day beautiful day and like several times before I departed the Airport to go practice maneuvers - stalls, lazy eight and chandelles and slow flight in the NW practice area. This was local flight I admit I did not check the NOTAMs.

After I completed the maneuvers I was headed to the VOR to practice holds, at that point was intercepted by a fighter jet and complied with his instructions to land at ZZZ airport.

When I was at the right base for runway 28 the fighter jet instructed me to call him on the CTAF when I landed - which I did.

Following that, I put my plane in my hangar. When I was driving away from the hangar on the ramp area, noticed two cop vehicles behind me and 2 in front, hence stopped and they informed me that I busted the Presidential TFR and that the Secret Service person is on his way to interview me.

The Secret service agent comes 1.5 hours later and conducted an extensive 1 hours interview.

For me, this ordeal - lesson learned - check NOTAMs even for local flights to practice area!!

Synopsis

C210 pilot reported being intercepted by a military jet and instructed to land at the departure airport. He was informed that he had violated a presidential TFR.

Time / Day

Date : 201708
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZLA.ARTCC
State Reference : CA
Altitude.MSL.Single Value : 11000

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Thunderstorm
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 20000

Aircraft

Reference : X
ATC / Advisory.Center : ZLA
Aircraft Operator : Corporate
Make Model Name : Small Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : IFR
Flight Phase : Descent
Route In Use : Vectors
Airspace.Class E : ZLA

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 1350
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 60
ASRS Report Number.Accession Number : 1471135
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Airspace Structure
Primary Problem : Weather

Narrative: 1

Another pilot and I on board experienced an incident with L.A. Center while approaching the San Diego International Airport. The incident occurred when L.A. Center assigned our aircraft to fly direct to the IFR fix, JONDA then direct to the San Diego International Airport (SAN), which was our final destination. JONDA (IFR Fix) is located 55 nautical miles southeast of the San Diego International Airport just north of the Mexican/USA border. Our aircraft was flying on a heading direct to JONDA (IFR fix) from the north. L.A. Center then told our aircraft to maintain present heading once we were approximately 10 nautical miles north of JONDA (IFR Fix). Our aircraft along with multiple other aircraft approaching the San Diego International Airport were trying to maneuver around a large wall of thunderstorms that were located to the east of the San Diego County area.

L.A. Center had most of the aircraft approaching the San Diego International Airport fly south close to the border of Mexico to deviate around the thunderstorm cells, then head inbound to the San Diego International Airport. While our aircraft was quickly approaching JONDA, maintaining our southerly heading to the Mexican border, our L.A. Center frequency became highly saturated with radio calls. Our L.A. Center controller kept getting stepped on while making transmissions to other aircraft. Also, two to three aircraft were calling at one time to get a hold of our L.A. Center Controller. Our controller even stated that two aircraft are calling at once and to say again because he did not receive the transmissions clearly from those two other aircraft. Our aircraft was still maintaining our present southerly heading that L.A. Center told us to fly, but we were quickly approaching the ADIZ borderline between Mexico and the United States. My other pilot and I tried reaching our L.A. Center Controller multiple times, but our transmissions kept getting blocked by other aircraft and the L.A. Center Controller together.

We tried approximately 20 attempts to get a hold of our L.A. Center Controller, but were not able to. We started calling our controller once we were about 5 nautical miles to the North of JONDA (IFR fix) because we knew we were getting close to the ADIZ. The other pilot and I thought that the controller became too saturated with radio calls and forgot about our aircraft and our current position of our aircraft, which was very close to the ADIZ. Once we passed JONDA (IFR fix) on our assigned southerly heading, we were now 5 nautical miles from the North of the ADIZ and were soon going to pass the ADIZ without any sort of clearance or permission to cross the border of Mexico since our aircraft's final

destination was San Diego International Airport, a United States domestic destination.

Myself and other pilot kept trying and trying multiple times now, once we were quickly approaching the ADIZ, but the L.A. Center frequency was still very saturated with communication amongst the Controller and several other aircraft. Approximately 2-3 nautical miles north of the Mexico/United States ADIZ, myself and other pilot both decided to deviate and make a turn to the right on a westerly heading to avoid crossing the ADIZ from the north in VFR flight conditions. Once rolling out on the westerly heading we tried calling L.A. Center two-three more attempts and after the third attempt we were able to get a hold of the controller. We told the controller that we had to make a right turn to the west to avoid crossing the ADIZ into Mexico and tried multiple times calling on the frequency, but it was too saturated with transmissions between other aircraft and the controller.

The L.A. Center controller then acknowledged to us that he was capable of having aircraft cross the ADIZ due to the thunderstorms in the area, but myself and other pilot had no knowledge of that information and were never communicated that information until after we made the turn to the westerly heading to avoid the penetration of crossing the ADIZ. L.A. Center then told us to fly on a heading of 255 degrees and expect radar vectors to San Diego International from that point. Our aircraft then was assigned a different Air Traffic Control frequency and made it safely to our destination of the San Diego International Airport.

Synopsis

A corporate pilot reported turning away from the Mexico ADIZ airspace after being unable to contact the Center due to frequency congestion.

Time / Day

Date : 201706
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZMP.ARTCC
State Reference : MN
Altitude.MSL.Single Value : 23000

Aircraft : 1

Reference : X
ATC / Advisory.Center : ZMP
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Airspace.Class A : ZMP

Aircraft : 2

Reference : Y
ATC / Advisory.Center : ZMP
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Cruise
Route In Use : None
Airspace.Class A : ZMP

Person

Reference : 1
Location Of Person.Facility : MSP.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 9
ASRS Report Number.Accession Number : 1460370
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Distraction
Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Airspace Structure

Narrative: 1

Apparently this was a scheduled exercise to practice for a TFR Spill-out during the upcoming [event]. Additionally there were verbal face to face briefings originally being provided by a single Point of Contact. However, when it was realized that the Point of Contact (POC) was going to be going home for the day, a secondary Management individual was doing those briefings. All of those briefings occurred while I was on my normal Regular Day Off (RDO). Upon my arrival to the area I was given a printed packet referencing the "Intercept Mission" by a Controller in Charge (CIC) who had no additional information beyond what was in the packet. I was advised that 2 of the 3 target aircraft were already completed and that the third was the only remaining situation and that they weren't even sure if it was going to happen. I read the packet briefly and signed off on it. I got into sector 08/09 on the R Position and during the briefing was told that there was a 20 NM TFR around MSP from 180B210 and that even though it was depicted as a 25 NM ring it was actually only 20 NM. I asked if we had to keep all aircraft clear from it and was told yes. There was no indication this was anything other than an actual live TFR. The above referenced packet indicated that the Intercept was going to happen in high altitude. A newly certified D-side was on position and received a call from M98. She was confused over the information M98 was providing and turned to ask the incoming trainer for another D-side at 08/09 if he knew what they wanted. There was some discussion on their end which I was not part of. Aircraft Y checked on at FL200 which I did not have a Full Data Block (FDB) and no information from the D-side regarding a position so I was caught off guard as well. Going back and forth with Aircraft Y I was able to determine his position approximately on the MSP 200/050 and started a primary only FDB. I called traffic to Aircraft Y on Aircraft X and he stated "radar contact". During this time I also had an inbound push to MSP that needed some work as well as a couple departures in the same area as Aircraft Y and Aircraft X. I again called traffic to the Aircraft Y and he stated "Target of Interest (TOI) Intercepted" and requested a block altitude and 10NM maneuvering area. I approved a block from 200B230 and the 10 NM maneuvering area then asked if the 3000' block was enough. He requested a 4000' block. I had the D-side coordinate with high altitude sectors and assigned 200B240. When Aircraft Y made his northbound turn the FDB separated from his target and went CST (Coast). I was busy with the inbounds and did no notice exactly when this happened and now his proximity to Aircraft X made it impossible to tag it up again. Aircraft Y requested a HDG back into the

TFR stating he was peeling off the TOI. I assigned a 360 HDG but no altitude. Their proximity to the TFR was imminent so I wanted to coordinate with M98 as to who was going to work them back into the TFR as our Supervisor was unsure. M98 said they would work him back in and that he was radar but wanted to know if I had received identifying information on the TOI. I asked what they needed then went to Aircraft Y to get that info. Re-coordinated with M98 that information and shipped Aircraft Y back to M98. Upon internal review afterwards I realized that I had not issued Aircraft Y an altitude outside of the block to maintain and did not separate him from Aircraft X. Aircraft X at 230 was above the TFR and not in conflict with it.

First and foremost this was supposed to be a learning scenario where the controllers in Area 3 would get to see a practice intercept. There were verbal briefings conducted however, there was no follow-up regarding if the individual who would be working the sector at the time of the scenario was verbally briefed with an opportunity to ask questions or get a refresher on intercepts. Only that they had at least had the packet briefing. Additionally, it would have been extremely helpful if a POC with intimate knowledge of not only the scenario but the phraseology involved would have been present in the area monitoring the situation to make sure the scenario went as planned or as close to planned as possible.

There was a CIC in charge at the time of my packet briefing with no specific information regarding the scenario other than the packet. The supervisor that relieved the CIC during the scenario wasn't in the area during the scenario and was in the center FLM area which has been a problem since its inception. Additionally, the FLM was unsure about who was in charge of the TFR and the rules surrounding it when queried during an extremely time sensitive event.

It would also have been helpful to have the sectors split during this scenario so an individual could have focused on the scenario and not be distracted by other time sensitive traffic situations.

From the aircraft and pilot side, having an extremely high performance aircraft during tight maneuvers during what is supposed to be a training situation utilized without a transponder active makes tracking the aircraft nearly impossible with everything else going on. Specifically with its proximity to MSP and all of the other primary targets that in its vicinity.

Short breakdown would be:

- 1) Have an aircraft with a transponder
- 2) Have a POC in the area during the scenario for questions
- 3) Dismantle the centralized FLM area and get the FLM's back in the area where they are useful and needed.
- 3) Split the sectors so that during these training scenarios controllers can actually learn something from the scenario.
- 4) Upper management needs to follow through with its plans and make sure the scenarios run as they should without large deviations and that all affected personnel are briefed and have an opportunity to ask questions.

Synopsis

ZMP ARTCC Controller reported problems with aircraft related to Temporary Flight Rules (TFR), aircraft intercept and losing a data tag on aircraft involved.

Time / Day

Date : 201706
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : PCT.TRACON
State Reference : VA
Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : Mixed
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 3000

Aircraft

Reference : X
ATC / Advisory.TRACON : PCT
Aircraft Operator : Air Carrier
Make Model Name : Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : GPS
Nav In Use : FMS Or FMC
Flight Phase : Cruise
Route In Use : Vectors
Route In Use.STAR : FRDMM
Airspace.Class E : PCT
Airspace.Special Use : P56

Component

Aircraft Component : Air/Ground Communication
Aircraft Reference : X
Problem : Improperly Operated

Person : 1

Reference : 1
Location Of Person.Facility : PCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 14.5
ASRS Report Number.Accession Number : 1457725
Human Factors : Communication Breakdown
Human Factors : Workload
Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1458096
Human Factors : Time Pressure
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 3

Reference : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
ASRS Report Number.Accession Number : 1458434
Human Factors : Workload
Human Factors : Situational Awareness
Human Factors : Distraction
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Exited Penetrated Airspace
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I asked if the instructor wanted to train, and that it was going to be a little busy. He said yes, I confirmed again that he was ok with it, and he agreed. It probably was too busy for a newer trainee. As the session progressed, I had another controller spin 2 aircraft for spacing. They were basing around a 15 mile final which is very typical, and not overly busy. I did check multiple times to ensure that the instructor was ok with the traffic, and he said yes. The aircraft was being [vectored] for space and given a 090 heading, which is normal. When the aircraft was issued the downwind heading he never answered. He was hailed numerous times, and the surrounding positions checked their frequencies to make sure he wasn't there along with the tower. The controllers went on the guard frequency with no response. The NORDO aircraft then flew through P56A. He eventually came back on the frequency on the other side of P56 and resumed being controlled to DCA.

Aircraft should have a display of P56 within the cockpit so as to avoid it if they are NORDO or to question it if they believe they will enter it with the controller.

Narrative: 2

I was the Captain and Pilot Monitoring on (call sign) ZZZ to DCA. We were given the FRDMM RNAV Arrival landing 19 at DCA. From FRDMM intersection we departed the charted arrival on an assigned 140 degree heading and received multiple delay vectors, altitude and speed changes. Being handed off to the final POTOMAC Approach Controller, on 119.85 and checking in, we were given instructions to turn to a heading of 090 degrees, descend and maintain 7000' and speed 190 knots. I acknowledged the Controllers request and the Pilot Flying made the correct speed, altitude and heading corrections.

Our position at this time, I approximated to be five to ten miles northwest of DCA. Weather conditions were ceilings 3000' broken to overcast, tops approximately 5000' and wind at 7000 ft was 220/25 knots. While we were on this heading the FO and I discussed the possibility of being vectored across the 19 Approach course and being vectored on the RNAV/Visual 19 from the east. Both the FO and I also discussed the unusual arrival track and how quiet the Approach Controller frequency had become. I had noticed earlier during the arrival phase the Controllers were experiencing periods of multiple radio transmissions and receptions followed by periods of long radio silences.

At one point on the arrival I rechecked in with a Controller, because it was so "eerily" quiet. I assumed it was one of those quiet periods. Continuing on the assigned 090 heading I heard a faint transmission on the number 2 COMM radio, which was tuned to guard 121.5 "call sign contact Approach Control on 119.85 and acknowledge with an ident." Volume control was set to low on the number 2 radio as not to interfere with COMM number 1 transmissions. We then both looked down to see the number 1 radio was now tuned to 119.87.

I immediately selected the corrected frequency, the FO hit the ident button and I reestablished communication with Potomac Approach on 119.85. The Controller gave us an immediate left turn to a northerly heading and informed us we had violated the P-56 prohibited airspace. So in a very short space of time we had unknowingly lost communications with Potomac Approach on 119.85 and due to the last assigned heading, given to us by the Controller, we had penetrated the P-56 airspace. We continued without any further incidents.

If being vectored by the Controller and that heading/track, in the event of lost COMM,

would put us in direct violation of any prohibited/restricted airspace, then the Controller should share with us his or her mental model of further vectors in order to keep us from violating airspace. In our case when the Controller issued the 090 heading, putting us on a direct course to enter the P-56 airspace, he could have followed up with "you'll be on that heading for five miles, expect a northerly turn prior to the river." Have the data base include P-56 and have the icon display on the ND as to aide SA. Have the ability to use the ownship icon on arrival and approach plates. As Captain, PF, I should have been more acutely aware of possible lost COMM procedures and better SA, in the event ATC fails to provide approach vectors which would keep us clear of P-56.

Narrative: 3

The "view ownship" feature on the Jepp Approach Plate would have given our exact location in reference to the prohibited airspace. ATC should not issue a compromising heading within a short distance to this airspace.

Synopsis

An air carrier flight crew and PCT TRACON Controller described their respective actions when the aircraft became NORDD then flew through P-56 after one of the flight crew inadvertently changed the COM 1 frequency.

Time / Day

Date : 201705

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DCA.Airport

State Reference : DC

Altitude.AGL.Single Value : 400

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Tower : DCA

Aircraft Operator : Air Carrier

Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use : GPS

Flight Phase : Initial Climb

Route In Use.SID : JDUBB 1

Airspace.Class B : DCA

Component

Aircraft Component : Aero Charts

Aircraft Reference : X

Problem : Design

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1453252

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Flight Crew
Communication Breakdown.Party2 : ATC
Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airport
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

The physical location of DCA presents challenges to departures and arrivals because of its proximity to Prohibited airspace and the requirement to operate extremely close to P56. Departing with a tailwind is never ideal and this increase in ground speed reduced the time available to the crew to identify and react to a deviation from the published departure route. Also, the boundaries of P-56 are NOT clearly depicted on the Lido chart for the JDUBB 1 RNAV. They are blocked by the course 332 to ADAXE. Although P-56A is depicted on multiple charts, several of the charts show the south western boundary in different locations. Please reference Lido charts: JDUBB 1 RNAV, CCI 02 (LOF), P56 Avoidance NAP, and Prohibited Area P56/Noise Abatement.

I was the captain of flight from DCA. During our departure briefing at the gate, we specifically noted that the winds were 170 at 6, and traffic was departing runway 1. Although the winds favored runway 19, we acknowledged that they were within our limits for a tailwind takeoff on runway 1. We also noted that Wind Shear Advisories were in effect, and we followed required procedure using a "No Flex", max thrust takeoff. We also briefed the special single engine procedure and the location of P-56. Given the visual conditions of visibility 10 SM, FEW 020 and SCT 160, our method of compliance was visual reference and we briefed "to stay over the river, and at no time cross east of the river."

Taxi out was normal and we were issued a takeoff clearance from runway 1. At 400 feet AGL, the FO was the pilot flying and incorrectly called for Heading Mode. I was the pilot monitoring and responded correctly with "NAV Mode" and selected NAV Mode on the flight control panel. The two lights adjacent to the NAV mode button illuminated. I referenced my PFD and noticed that the airplane was still in heading mode and that NAV Mode was not armed. Our ground speed was higher than normal due to the tailwind and we were

rapidly approaching the departure course. Again, I reached up and selected NAV Mode, with the same result. I referenced our location on the MFD and we were exactly over the intended departure course however we were still following the flight director incorrectly on runway heading. I said, "Turn left" and shouted "IMMEDIATELY!" The FO banked into a left turn. I observed the river from the captain side window and we were directly over the river and clear of P-56. I spun the heading bug directly to the first fix, ADAXE, and we proceeded toward ADAXE.

Upon reaching ADAXE, we incorrectly overflew it and I insisted the FO turn right to rejoin the departure. He turned right, and I said, "You have to follow the white needle" (Specifically referencing our FMS/GPS navigation). He responded, "I don't have a white needle." He then reached down and turned the Nav Selector Knob to FMS 2 which gave him proper FMS/GPS navigation. We were able to engage the autopilot at this point and complete the remainder of the JDUBB1 departure. I missed the hand off to departure control, and tower asked me again to call them, which I did. Before the hand off to center, the departure controller gave me a phone number to call because of a possible entry into P-56.

Synopsis

Air carrier Captain reported possible entry into P-56 while departing DCA Runway 1.

Time / Day

Date : 201705
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : IAD.Airport
State Reference : DC
Relative Position.Angle.Radial : 041
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 11500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 25000

Aircraft

Reference : X
ATC / Advisory.TRACON : PCT
Aircraft Operator : Personal
Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : PCT

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1250
Experience.Flight Crew.Last 90 Days : 17
Experience.Flight Crew.Type : 630
ASRS Report Number.Accession Number : 1453028
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Police / Security Involved
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I inadvertently violated the DC SFRA. This was on a VFR flight to Lancaster, PA (LNS). I used to live in the Lancaster area and I learned to fly at LNS, [but] I rarely went into the DC area airspace, although I was familiar with the Class B rules prior to 9/11. At that time, you could fly over the top (before the SFRA/FRZ), a key memory in my decision making that day.

I normally fly IFR or VFR, but along the same route, V143 and around the west side of the Class B airspace, choosing to stay away or travel with ATC via flight following or IFR (even in clear weather). Although sometimes in clear weather, I would make the trip without radio contact during the enroute phase. I typically didn't file VFR flight plans as I am afraid that I'll forget to close them and cause a search. IFR is easier to remember from that point.

The morning of the incident, I checked weather along my IFR route using DUATS. I typically file via DUATS. My last flight, I was IFR in clear weather to LNS. The lower section of the flight, the controllers always give me direct destination, which usually lasts until close to Potomac airspace. They then route me a longer route west around the [air]space, and usually into a headwind. On my last northerly flight to LNS, I decided to cancel and ask if I could file direct and go over the Class B. The controllers let me. Unfortunately, this reinforced in my mind that you could still fly over the Class B (which after thinking about it, really doesn't make sense in the current environment). I knew there was a security zone around DC, but for some reason, I kept thinking it was ended at the top of the Class B (10000 ft). But that day, I also checked the direct weather on route. I decided to go that way. I even tried to check all of the Notams. This was also an issue because there is a lot of Notams along the route. I was mostly concerned with TFR's that might pop up on the route or special airspace. But again, the text versions of the Notams (requiring a lot of time to read through somewhat arcane format and language) worn me down (meaning comprehension dropped the longer I read).

I started the flight and considered calling up for flight following, but never did. Even as I approached the DC area, I kept thinking that I should do that, but didn't. About 5 minutes after passing almost directly over IAD on a 041 heading, I was intercepted by a military jet. The first circle, I just thought it was a close separation as he looked about 300 ft below me. After the second circle, I knew I had a problem. I tried to go onto 121.5 and call out if he was on the frequency. When I didn't get a response, I went onto a Potomac approach freq I know I used in the past for that area, and told him I had a military jet circling me. The jet went around for the third time and I rocked my wings. Potomac told

me I violated the airspace, assigned a squawk and told me to continue to destination. I was given a phone number and told to call and stay with the plane after landing, which I did. I was met by the police and eventually the Secret Service, who interviewed me and later released me, with no further concerns. In addition to the factors listed below, I could have prevented the issue by following my regular procedure of flying V143 on an IFR or VFR flight plan.

Human factors:

- Not a lot of experience on VFR into the DC SFRA
- Prior memory of pre-9/11 flying
- Wanting to avoid the longer route to the west on a clear day
- Not focused enough to read through all of the Notams in detail
- Not initiating Flight following on a VFR flight

Synopsis

GA pilot reported being intercepted after violating the DC SFRA due to inadequate flight planning preparation.

Time / Day

Date : 201705

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : PCT.TRACON

State Reference : VA

Environment

Flight Conditions : IMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : PCT

Aircraft Operator : Air Carrier

Make Model Name : Medium Large Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Climb

Route In Use.SID : boock 2

Airspace.Class B : PCT

Airspace.Special Use : DCSFRA

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1450891

Human Factors : Confusion

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1450892

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

Just after takeoff from runway 01 in DCA the aircraft entered into prohibited airspace P-56A and P-56B.

It was a fairly quick turn in DCA that required the flight crew to start the engines at the gate with the jet bridge still attached for external power. Because this was the Captain's leg to fly he gave the briefing on our departure from DCA. In his brief he gave specific instructions on the complex engine failure procedure that accompanied runway 01. In these instructions it states that DCA 0.4 DME is the decision point for how the flight crew should react to an engine failure just after takeoff. In order to identify the 0.4 DME the Captain decided to takeoff with green needles on his side so that he could identify the turning point, should it be necessary. The first officer stayed in white needles because the flight crew was planning on an RNAV departure procedure. The flight crew also discussed the proximity of the prohibited airspace to the northeast of the field and noted that the main goal of the complex engine failure procedure and the RNAV departure procedure was to avoid this airspace. Just prior to push back the flight crew was advised by ground control that they were to contact clearance for a full reroute, this was the start of a series of events that began to increase the flight crew's work load. The flight crew decided that they should proceed with the engine start process at the gate so that the ground crew could disconnect the jet bridge while they talked with clearance. A new routing was given and it included a new RNAV departure procedure, the Captain loaded the new route and briefed on the differences. The push began then normal procedures and checklists were accomplished. Taxiing out to runway 01 was fairly simple, upon reaching the runway we were number 1 for departure after what turned out to be two arrivals. Takeoff clearance was received with some hesitation due to the tower giving the wrong call sign. Just after takeoff the Captain calls for gear up, speed mode, NAV mode which was briefed. Just after the first officer executed these commands tower gave the switch to contact Potomac departure. During this time the first officer first noticed that something was wrong with the flight director's instructions and noticed that it was not making the turn that the SID required. After checking in with departure the first officer noticed that the Captain was off course and tried to bring his attention to how close they were getting to the prohibited airspace by questioning "what is the FMS doing?" hoping that that this would make him realize he was not on the right heading. Then tried to further warn and remind the Captain that they cannot go any further to the right. The first officer pointed to the left but incorrectly said "we need to go to the right". The Captain acknowledged and corrected by saying "left". The departure controller called inquiring about the flight crews efforts to get back on course and the first officer replied "we are turning now". The Captain was just starting to realize why he was off course and started asking for heading mode in order to get flight director guidance back to the SID. Once in heading mode the plane began to fly

on the correct direction but due to the multiple turns in the SID the plane went across course while the crew was working to get the FMS programmed appropriately and to get back to NAV mode on the FCP. Finally once NAV mode was selected and the FMS1 was armed and captured the plane was turning back on the routing of the SID then the Captain called for autopilot on and the first officer got back to finishing the after takeoff procedure/checklist. Then the crew was notified via ATC on the deviation from course.

Narrative: 2

During the preflight setup and briefing, I failed to completely brief the required comments for departing from Runway 1 in DCA via the BOOCK2 RNAV departure. As a consequence, I inadvertently set up the NAV source selector for my side with DCA VOR as the source, to identify 0.4 DME, in case of engine failure. The First Officer (FO), as Pilot Monitoring (PM), was in white needles with FMS as the NAV source. I briefed the FO that we would do the RNAV departure, but did not catch that I had erroneously requested the exact opposite setup that we would need for the Captain (CA) as Pilot Flying (PF) and FO as PM for the Runway 1 departure. Due to the improper setup, I was in green needles without the proper heading selected. On takeoff I called for gear up, speed mode and NAV mode for the departure on schedule. The auto-pilot was not engaged, as it is my normal preference to hand fly departures. Shortly after reaching 400 feet, knowing we should be in a left turn, I initiated a turn to the northwest but realized that we were late for the turn, as we were beyond the middle of the Potomac. It was shortly after this that we both realized that the flight director was not giving us the desired course information. Although we initiated the turn to the northwest, it was not to a heading that would get us back on course in an expedited manner. We entered the clouds between 800 and 1400 feet and I lost visual contact with the ground. We were both attempting to identify the error and make the correction to the NAV setup, but our track was still not on course. I made an additional turn to the left. ATC queried us to determine if we were making corrections to the left to resume the departure. We were doing so, and replied in the affirmative. Shortly thereafter, we identified the error and immediately corrected the NAV source selection, ensured that the FCP was in NAV mode, selected the next fix on the departure, COVTO, and went direct to it. As we were by now nearly south of the departure course, this was the quickest route to resume the departure. We rejoined the departure and continued per normal. A few minutes later, ATC provided a telephone number to us and requested we make a call to TRACON. When my post flight duties were complete, I contacted the TRACON and it was from them that I learned we had penetrated the prohibited areas, both P56A and P56B. This was completely unintentional on our part, and resulted from an oversight on my part during the preflight portion of the flight and the improper setup of the navigation source for the CA as PF.

This could have been prevented by exercising more vigilance when briefing procedure pages in the 10-7, thus following SOP, and more vigilance to the NAV source selections. I will take further precautions in the future, to ensure that this NEVER happens again. I will be sure to continue the pursuit of the methodical and thorough adherence to SOP procedures, best practices and techniques that has been my goal from the beginning of my career.

Synopsis

Air carrier flight crew reported entering prohibited airspace on departure from DCA due to an improper instrument set up prior to departure. ATC corrected the flight's assigned heading.

Time / Day

Date : 201704

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : N90.TRACON

State Reference : NY

Altitude.MSL.Single Value : 900

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : N90

Aircraft Operator : Personal

Make Model Name : Small Aircraft, Low Wing, 2 Eng, Retractable Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : N90

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 10600

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 1300

ASRS Report Number.Accession Number : 1440849

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Air Traffic Control

Were Passengers Involved In Event : N
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Equipment / Tooling
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I inadvertently penetrated a stadium TFR centered over Yankee Stadium in NYC while I flew through the Hudson SFRA. The mistake is mine, the misunderstanding is mine, and the consequences belong to me as well. I'd like to provide more perspective and also include some corrective actions I'm taking to improve myself as a result of this incident.

It is clear to me that a chain for the event was formed when I skipped getting a weather briefing from 1-800-WX-BRIEF. The bottom line is that the only way to be sure whether a TFR is active or not is to call and speak to a weather briefer, and I simply didn't do that. The initial plan was to launch and do local sightseeing. We did so, and decided only once we were airborne to proceed to the Hudson SFRA. I had checked TFRs on the ground, so I thought, by going to tfr.faa.gov and checking to see if a TFR was in effect. Though it was not obvious to me at the time, it is now very clearly obvious that the website warns the user in multiple locations, with white text overlaid on red highlighting, that the website may not be current and to call 1-800-WX-BRIEF for the most current TFRs. However, somehow, somehow, I've never noticed those advisories and always thought the tfr.faa.gov website was the best source for TFR information. In any case, I wasn't specifically looking for stadium TFRs because it was only a background thought that we may fly down the Hudson River SFRA. My primary plan was to simply fly in the local area. This was my first mistake; I should have formed a better plan before launching, and of course, call the briefer.

In the air, once we decided to fly to the Hudson River and proceed southbound, I pulled up Garmin Pilot on my EFB. I learned something critically important: the way Garmin Pilot and Foreflight depict TFRs is different. Had I looked at Foreflight even once, I would have seen a red circle showing a surface to 3,000 feet AGL TFR centered around Yankee stadium, and I never would have continued. But I didn't look at Foreflight. I looked at Garmin Pilot, which I've been using recently since it features integration features with my panel avionics. In any case, the depiction of TFRs on Garmin Pilot showed a red TFR around Trump Tower, and then a series of blue circles all over the chart including over LGA, TEB, and other locations, including Yankee Stadium. I didn't think the blue circles represented TFRs. I thought they were informational blurbs about those areas. The red circle for the Trump TFR was very obvious and drew my attention, and the blue circles just blended into the clutter of my chart, which also depicted terrain, obstacles, traffic, and weather. So lesson two is not to use a new EFB or any EFB for that matter and trust the information it presents on matters as critical as the lateral and vertical dimensions of TFRs. Only when I returned to the ground did I think to look at Foreflight, which clearly showed a red TFR circle, just like the way the Trump Tower TFR was depicted.

I made a mistake here which, had I heard of someone else doing, I would automatically assume involved a lack of experience on the part of the pilot. I could easily have avoided

this error multiple times. Instead, I went by my interpretation of my EFB display and a website which clearly doesn't depict timely TFR information. I missed multiple warnings on the FAA website advising the data was not necessarily current. I misunderstood the depiction of my EFB. And most importantly, I simply didn't pick up the phone and speak to a briefer on my way to the airport. It would have taken all of a few minutes to do so, and this incident never would have happened.

My corrective actions are:

- 1) Call the briefer, every single time I fly, even if it's just pattern work at my quiet, rural home airport.
- 2) Spend more time using and understanding my EFB software so that I actually understand the information it's presenting.
- 3) Improve my overall situational awareness. I could have just checked my phone to see if the New York Yankees were playing a game.

Synopsis

GA pilot reported penetrating a stadium TFR in the Hudson River SFRA due to lack of familiarity with the Garmin Pilot display and overlooking currency of TFR information.

Time / Day

Date : 201704

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 10000

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : FBO

Make Model Name : Robinson R22

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Nav In Use : GPS

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class D : ZZZ

Airspace.Class G : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 2240

Experience.Flight Crew.Last 90 Days : 10

Experience.Flight Crew.Type : 1000

ASRS Report Number.Accession Number : 1439008

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Detector.Person : Flight Crew
When Detected : In-flight
Result.General : Police / Security Involved
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Airspace Structure
Primary Problem : Airspace Structure

Narrative: 1

Was enroute to ZZZ, with thoroughly prepared flight plan using FAA approved software Foreflight. All area maps and software were current and reporting all active and inactive TFRs within state area. However, this TFR was not listed or declared as active. ZZZ Tower contacted us while refueling at their facility, providing us with a number to contact. We asked ZZZ Tower if we were clear to proceed on our flight, and they confirmed that we were. Shortly after we contacted ZZZ1 tower to be cleared into their airspace, which we were, but were instructed to contact approach. We contacted approach, and were cleared to proceed on our declared flight path, but were told to divert northbound to accommodate an inbound plane.

After we cleared the inbound plane, they instructed us to proceed on our path, and contact Tower. We contacted ZZZ1 Tower, and were told to return to ZZZ1 airport on the helipad, and were provided the approach number to contact once we landed. We followed instructions, contacted approach upon landing, and were instructed to go inside the FBO, because someone wanted to speak with us. Federal Agents interviewed myself, and the student pilot, and asked why we had busted the TFR. We immediately showed them our flight charts on Foreflight, which listed no such active TFR. They understood at that point that we had done our research, and were not imposing a threat, and had not caused an issue, and dismissed us both.

Synopsis

R22 instructor pilot reported that after landing they were asked to meet with Federal officials for busting a TFR.

Time / Day

Date : 201704

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : IMM.Airport

State Reference : FL

Relative Position.Distance.Nautical Miles : 28

Altitude.MSL.Single Value : 1600

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : ZMA

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 715

Experience.Flight Crew.Last 90 Days : 16

Experience.Flight Crew.Type : 16

ASRS Report Number.Accession Number : 1438942

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation - Procedural : FAR

Detector.Person : Flight Crew

Were Passengers Involved In Event : N

When Detected : In-flight

Result.Flight Crew : Exited Penetrated Airspace

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I was flying to IMM on a pleasure flight and to purchase fuel at Immokalee Regional Airport as it is the cheapest fuel near my home airport. As there was a TFR in effect close to my home airport, I made sure to check and make sure that my route of flight would keep me out of the TFR. After leaving, about 3/4 of the way through my flight, I noticed a light twin engine aircraft at my altitude coming at me very rapidly from my 8 o'clock position. Fearing that the aircraft was going to impact me, I was preparing to take evasive action when it suddenly veered sharp left and pulled up alongside of me for what seemed to be about 3-4 seconds. It then executed a sharp descending left bank and disappeared.

A few minutes later I landed without incident at IMM a little shaken and wondering what the heck just happened. I knew that I could not have been anywhere near the TFR and that had this had been a military or government aircraft, it would have tried to establish communication with me by rocking its wings, but it did nothing of the kind. I went to a computer to confirm that I was nowhere near the TFR and noticed that I may have clipped the northeast corner a firefighting TFR.

Being so preoccupied with not violating the big TFR, I overlooked the possibility that there could be another TFR in the same general area and being familiar with that area, knew that there were no other permanent flight restrictions. Especially since this is a remote area in the middle of the Everglades.

Synopsis

GA pilot reported a firefighting TFR incursion while trying to avoid another TFR in the area. When the pilot was in the TFR another aircraft formed up on him without communication, then departed after a few seconds.

Time / Day

Date : 201703

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : KFP.Airport

State Reference : AK

Altitude.MSL.Single Value : 10500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 40

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.FSS : CDB

ATC / Advisory.CTAF : KFP

Aircraft Operator : Air Taxi

Make Model Name : Small Transport

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 135

Flight Plan : VFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Visual Approach

Route In Use : Direct

Airspace.Class E : ZAN

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Taxi

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 6600

Experience.Flight Crew.Last 90 Days : 260

Experience.Flight Crew.Type : 132

ASRS Report Number.Accession Number : 1431500

Human Factors : Communication Breakdown

Human Factors : Training / Qualification

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Other Person
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I was on a VFR flight to False Pass (KFP) along the Alaskan Peninsula. I was on a company flight plan. I was flying southwest at 10,500 msl and passing Cold Bay (CDB) airport. While I was still 25 miles north east of Cold Bay, I contacted the Cold Bay FSS and gave my altitude, heading, and my route of flight. I was planning on going to False Pass airport to drop off a passenger, and then back to Cold Bay. The FSS gave me traffic and weather updates. I descended into KFP, which is about 15 miles southwest of CDB. As I entered the pattern at KFP, I was alerted by another pilot that I should be on a DVFR flight plan. When I landed I immediately called Kenai FSS because I was unaware that I was near an ADIZ. Upon further inspection, I found that KFP, which is a VFR-only airport on US soil in Alaska, is about 5 miles outside the ADIZ. My plan was to file a DVFR plan to the north while I was on the phone with Kenai FSS. Midway through my conversation with the FSS, the cell connection was lost. I tried multiple times to reach Kenai and each time was given a recording about a phone system error. Cell phone coverage in the remote villages is often very bad. I proceeded to depart KFP and immediately exit the ADIZ, and land the very first airport (CDB) about 15 miles away. Enroute I contacted the CDB FSS, and they informed me that I was being contacted on 121.5. I tried to reach someone multiple times on that frequency but received no answer. I landed at CDB 5 minutes after departing KFP.

I believe that a lot can be done to change this situation. First, I should have done better homework. This was my first time at this airport, and I did a thorough check of weather, Notams, Alaska Supplement, etc. before the flight but I relied on my GPS and nav aids rather than consulting the Sectional for navigation to the airport. Nothing about the ADIZ was noted in any of my preflight material. Also, the airplane is equipped with dual Garmin GPSs, a moving map display, ADSB, and synthetic vision. NONE of these alerted me to the close proximity of the ADIZ. Also, when I spoke to the FSS well northeast of the ADIZ, and expressed my route of flight, absolutely nothing was mentioned to me about the ADIZ on my route of flight even though I did not have a flight plan in his system. It would have been extremely simple to land and file a DVFR flight plan at that moment. Also, why is a State-run, VFR only village airport in Alaska this close to an ADIZ? The ADIZ needs to be moved in my opinion. There is a lot of air traffic in that area, and not all of it is IFR. The cell phones are regularly a problem in the Alaskan villages, and any airplane that lands at KFP and cannot contact the FSS is stuck outside the ADIZ. This is a problem. Finally, I spoke with my Chief Pilot and Director of Operations. They are immediately issuing a company bulletin for all pilots about the location of the ADIZ in order to prevent future incursions.

Synopsis

An air taxi pilot was informed by another pilot in the traffic pattern at KFP that he should be on a DVFR flight plan since the airport is 10 NM into the Alaskan ADIZ.

Time / Day

Date : 201702

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : CHS.TRACON

State Reference : SC

Altitude.MSL.Single Value : 1100

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

RVR.Single Value : 6000

Aircraft

Reference : X

ATC / Advisory.TRACON : CHS

Aircraft Operator : Personal

Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Route In Use : Visual Approach

Airspace.Class E : CHS

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 237

Experience.Flight Crew.Last 90 Days : 6

Experience.Flight Crew.Type : 237

ASRS Report Number.Accession Number : 1426251

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : FAR

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I received a NOTAM through AOPA member services about a TFR. I read the NOTAM and understood the TFR would be in effect from XA:30 through XD:15 local time.

I understood the TFR extended to a 30 NM radius from the CHS VORTAC. I read that flights at RBW would be affected. I used a NM plotter and sectional to measure the distance from the CHS VORTAC to RBW and found that RBW was just outside the 30 NM radius. Thus, I assumed only flights arriving and departing to the east of RBW and penetrating the 30 NM radius was required to use the ATC services.

Previous TFRs at CHS, had not included the RBW airport. I departed RBW approximately XC:35 local to the west. After flying westward for approximately 15 minutes, I turned back toward RBW.

With a Garmin GPS and distance measuring from the CHS VORTAC, I carefully flew the pattern at RBW to ensure I did not penetrate the 30 NM radius for the TFR, and I landed back at RBW approximately XD:00. When I arrived at the FBO, I received a call from ATC informing me of a possible violation.

It is my belief that I did not violate the airspace and I used due caution to avoid it. If I misunderstood the intent of this TFR, I sincerely apologize. I would never want to create an unsafe condition.

I respectfully offer this observation, this TFR was ambiguous in that the airport I used (RBW) was not included in the 30 NM radius, yet the NOTAM stated it would be affected without clarifying how it would be affected. I would offer this suggestion. If an airport is mentioned in the NOTAM, clearly include all the airspace around that airport in the restricted airspace area. Thank you.

Synopsis

GA pilot reported researching a planned TFR and believe was successful in avoiding it, but was advised by ATC of a possible pilot deviation.

Time / Day

Date : 201702
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : SCT.TRACON
State Reference : CA
Altitude.MSL.Single Value : 1800

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 12000

Aircraft

Reference : X
ATC / Advisory.TRACON : SCT
Aircraft Operator : Corporate
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 135
Flight Plan : None
Mission : Traffic Watch
Flight Phase : Cruise
Route In Use : None
Airspace.Class E : SCT

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 890
Experience.Flight Crew.Last 90 Days : 300
Experience.Flight Crew.Type : 500
ASRS Report Number.Accession Number : 1424783
Human Factors : Confusion
Human Factors : Distraction
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

While flying traffic watch, we were sent to report on [an event] occurring [near Anaheim]. Before entering Fullerton's (FUL) airspace from the east over the 91 freeway, I called FUL and requested a 91 west transition and informed the controller I would be headed into the Disney TFR. At that time I got cleared for the transition, but no squawk code. Noting that, I requested a squawk code and again informed the controller that I would need to be working inside the Disney TFR.

I was told to standby and I continued west along the 91 freeway. A moment later I received my code from the controller and was asked if I was turning south towards Disney. I replied that I was and was then given a frequency change to SoCal (TRACON). SoCal was extremely busy so by the time they replied to my initial calls, I was already beginning to circle the [event] inside the TFR. Shortly after I was asked to ident. SoCal saw my ident and stated that I was inside the TFR, asked me how I felt about that, and stated that I had not received clearance into the TFR. I was then asked to leave the area. No statement of violation was made at that time.

I was given a discretionary code and had informed TRACON of my intentions. In the past I have worked inside of the Disney TFR by using the same method. I have always asked TRACON to enter, but to my recall have never heard the phrase "cleared into the TFR".

Another consideration was that I was rushing a bit to get to the scene of the [event]. Also, FUL's airspace abuts the northern edge of the TFR with its southern border where I entered. Time was short.

Going forward I will be sure to not only get a discretionary code, but I will be sure to receive an actual clearance to enter the TFR.

Synopsis

Traffic watch pilot reported entering a TFR on correct code and was later questioned by ATC as to not having a clearance into the TFR.

Time / Day

Date : 201702
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : PBI.Airport
State Reference : FL
Relative Position.Distance.Nautical Miles : 26
Altitude.MSL.Single Value : 3500

Environment

Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Route In Use : Visual Approach
Airspace.Class E : PBI

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 300
Experience.Flight Crew.Last 90 Days : 25
Experience.Flight Crew.Type : 120
ASRS Report Number.Accession Number : 1422587

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I was flying down trying to fly around the POTUS TFR in PBI and thought I was clear of the TFR but I wasn't, I made a big mistake and was intercepted for flying in the TFR. I knew about the TFR, had briefing on it and I flew just east of PHK airport, I thought I was clear but I miscalculated my course around the TFR, and I will absolutely make this a learning experience and not let this happen again. I will plan a better course around it and use better communication and ask the tower for permission or if I am clear to go through the POTUS TFR.

Synopsis

GA pilot reported he flew into a POTUS TFR and was intercepted.

Time / Day

Date : 201701

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DCA.Airport

State Reference : DC

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Turbulence

Aircraft

Reference : X

ATC / Advisory.Tower : DCA

Aircraft Operator : Air Carrier

Make Model Name : EMB ERJ 170/175 ER/LR

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Airspace.Class B : DCA

Airspace.Special Use : P56

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Type : 1034

ASRS Report Number.Accession Number : 1419164

Human Factors : Situational Awareness

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Type : 130

ASRS Report Number.Accession Number : 1419163

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Weather

Narrative: 1

Approaching DCA we were informed by ATC winds are 060 at 18 gusting 39. Shortly after while on the approach we experienced wind shear. I immediately executed a go-around and followed the wind shear escape guidance. As per SOP set max thrust, press TOGA button, disconnect auto throttle, disconnect autopilot, maintain wings level, and pitch to follow wind shear guidance. Return to desired flightpath. When the aircraft [has] escaped from wind shear, request a vertical and lateral mode to exit WSHR/ROLL mode. When the aircraft was in a safe flight attitude and wind shear was escaped I immediately executed a left turn to avoid the P56 prohibited area. ATC then issued heading directions and we followed. At this time we were made aware that we may have violated P56 and issued a phone number. When we got on the ground and were safely at the gate we contacted ATC and gave the air traffic controller the required information.

At the time of the go around due to wind shear safety of flight was in jeopardy, if the proper wind shear procedures were not followed correctly. I believe I did everything in my power to keep the aircraft in a safe flight attitude while complying with the P56 restrictions. As soon as wind shear was escaped we complied with every other aspect of ATC directions.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

ERJ-170 flight crew reported an incursion into P56 during a go-around after encountering wind shear on approach to DCA.

Time / Day

Date : 201701

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZMA.ARTCC

State Reference : FL

Altitude.MSL.Single Value : 15500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Aircraft

Reference : X

Aircraft Operator : Government

Make Model Name : Super King Air 300

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Government

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 5500

Experience.Flight Crew.Last 90 Days : 60

Experience.Flight Crew.Type : 800

ASRS Report Number.Accession Number : 1418426

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Government

Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1418433

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

While flying a government aircraft on a government mission approximately 20 miles east of Titusville Florida as the Pilot in Command, the crew was called by a government non-FAA radar flight following center with directions to make a 180 degree turn and contact MIAMI Center. We contacted MIAMI Center and were directed to proceed north clear of the KENNEDY SPACE CENTER FAR 91.143 SPACE OPERATIONS AREA due to an impending rocket launch from the CAPE CANAVAREL SPACE CENTER. While diverting north clear of the airspace the aircrew queried the MIA ATC Controller about the airspace activity. The aircrew relayed to the controller that they had checked for TFR activity for Space Operations prior to flight during flight planning and did not see one, the Controller said that he would get back with the aircrew in minute. When the Controller called back and informed the aircrew he didn't see the NOTAM either and then gave the aircrew a frequency change. The next controller continued flight following services and gave the aircrew a number to call after landing. During the flight we were also monitoring 121.5 on the secondary vhf radio on which we did not receive a call, our first indication of an issue was with our non-FAA government radar flight following center. After landing we contacted MIAMI CENTER at the number provided to discuss the airspace issue. During the preflight phase there was no Notam/TFR depicted on the flight planning system the aircrew used. There were other TFR's depicted, but this one was not. After landing we researched the historical Notam's for MLB and could not find a Notam for this rocket launch. The Sectional for this area (Jacksonville) indicates the airspace is active indicated by Notam for Melbourne (MLB). In the past the TFR has always shown up the flight planning systems used, but this evening it did not. We received a list of Notams from MIAMI CENTER that listed a NOTAM for KZMA A0040/17 that stipulated MIAMI Center will not approve IFR Flights and VFR flights should exercise extreme caution within the area defined (which is the Space Center Airspace). We as an aircrew always use due diligence when operating in this area, since we operate in it routinely (almost daily). The main goal of this report is to figure out how on this one occasion we ended up in the Space Flight Area during an active period, when we checked for the specific Airspace activity as we always have done. Flight time used in the Flying Time section of this form is approximate.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

A King Air 300 flight crew reported nearly flying into an active missile launch zone. The crew commented that there were no NOTAMs or other common alerts informing crews before takeoff. ATC was able to keep the flight clear of the airspace.

Time / Day

Date : 201612

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : DCA.Airport

State Reference : DC

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Icing

Light : Dawn

Ceiling.Single Value : 800

Aircraft

Reference : X

ATC / Advisory.TRACON : PCT

Aircraft Operator : Air Carrier

Make Model Name : Medium Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Nav In Use.Localizer/Glideslope/ILS : Runway 19

Flight Phase : Cruise

Flight Phase : Descent

Flight Phase : Initial Approach

Airspace.Class B : DCA

Component

Aircraft Component : Ice/Rain Protection System Indicating & Warning

Aircraft Reference : X

Problem : Malfunctioning

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1409840

Human Factors : Troubleshooting

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Exited Penetrated Airspace
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Weather
Primary Problem : Airspace Structure

Narrative: 1

This event occurred on the first leg of the third day of a four-day trip. The departure was uneventful other than a relatively quick run through the de-ice pad to clear some accumulated ice and apply type-4 anti-ice fluid. We were cleared for the SKILS3 arrival as filed and commenced the descent as published. Somewhere around BWI with TAT between 0 and 10, we received a L WING ANTI-ICE Caution prompting the flying pilot to call for the appropriate QRH. We completed the associated procedures as dictated by company SOP, which consisted primarily of selecting the 14th stage Isolation (ISOL) valve. The temperature then rose above the 10 degree threshold and the caution message went away only to return some minutes later. The Captain again called for the QRH, which dictated placing the Wing Anti-Ice switch to the Standby position. This again cleared the message, but we reviewed the entire checklist in the event that the Caution returned and further checklist execution was required. Meanwhile, though we discussed the possibility, feasibility, and fuel implications of diverting to RIC, we made the decision to continue on the arrival and land at DCA, the nearest suitable airport. They were landing 19, and we set up for the Localizer Directional Aid Z 19 Approach, which would just allow us to get in based on the prescribed weather minimums. Temperature continued to fluctuate in and out of icing range but the anti-ice system appeared to be operational. At this point, we were descending between 3000 feet and 4000 feet when Potomac Approach vectored us off of the arrival direct to FERGI. Having been a few miles directly east of the fix, this resulted in a relatively severe intercept angle, roughly 90 to 100 degrees off of the final approach course. While not ideal, we viewed this as certainly doable given the current circumstances. We turned in to join the localizer and were pushed east by strong westerly winds that resembled a false capture initially. Though still slightly east of the final approach course at BESSE, the FMS/autopilot appeared to be making the necessary adjustments to bring us where we needed to be, but the Captain selected heading mode and adjusted accordingly to keep us where we thought would be clear of prohibited airspace. Airspeed was still high, somewhere between 230 and 250, so we dropped the gear out of sequence to aid in reducing airspeed in attempt to be configured in accordance with the profile. At this point, realizing that we were going to put ourselves in a potentially hazardous situation in light of the current weather conditions, the aircraft issues, and the delayed configuration, the go-around was called for and initiated. With throttles advanced and positive rate climb established and verified, the gear up call was made. I reflexively

raised the gear handle, which was immediately met by the GEAR DISAGREE message due to airspeed having been over 200 knots. We continued the climb out, made the necessary calls, turned to the assigned heading, and continued monitoring the Caution messages for a return of the anti-ice issues before leveling off, calling for the QRH, and correcting the landing gear issue. We had been handed back to Potomac Approach by this point, advised them of our intention to recommence the approach, and continued without issue. Once we cleared the runway and were passed to the ground controller, she advised us to call them upon shutdown when they informed us of a possible violation of P-56B.

Synopsis

Air carrier First Officer reported multiple issues while operating in winter conditions in an attempt to land at DCA. First approach required a go-around but the second approach was successful.

Time / Day

Date : 201611

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 144

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : UAV - Unpiloted Aerial Vehicle

Operating Under FAR Part.Other

Flight Plan : None

Mission : Utility

Flight Phase : Cruise

Airspace.Class G : ZZZ

Airspace.TFR : FIRE

Person

Reference : 1

Location Of Person : Hangar / Base

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 120

Experience.Flight Crew.Last 90 Days : 2

Experience.Flight Crew.Type : 30

ASRS Report Number.Accession Number : 1405965

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : FAR

Detector.Person : Flight Crew

When Detected : Routine Inspection

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

Narrative: 1

I performed an unmanned aircraft operation lasting 4 minutes and 46 seconds reaching a maximum altitude of 144 feet AGL travelling a maximum distance of 800 ft. The purpose of the flight was to survey damage to our second residence. Prior to travelling to the area, I had checked for a TFR and found one active in the area with a 5 NM radius. My planned area of flight was approximately 2 NM outside of the published TFR map and not within the vicinity of any active firefighting activities as they had moved back into the area. After completing the flight and returning home, I was self-debriefing and discovered the TFR had been expanded to cover the area of my operation just prior to my flight. Since no firefighting or emergency response activities were occurring in the area at the time of the flight, I had no reason to believe the original TFR was not still valid. Due to the lack of cellular data service in the area, I would not have been able to access updated TFR information prior to the operation. No conflicts or accidents occurred as a result of my operation.

Synopsis

A UAS pilot reported that he discovered after his flight that a nearby TFR had been expanded to include the area of his previous operation.

Time / Day

Date : 201611

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : PCT.TRACON

State Reference : VA

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : PCT

Aircraft Operator : Air Carrier

Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Initial Approach

Route In Use : Visual Approach

Airspace.Class B : DCA

Airspace.Special Use : P-56

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1402009

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Workload

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1402012

Human Factors : Workload
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Situational Awareness

Person : 3

Reference : 3
Location Of Person.Facility : PCT.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 6
ASRS Report Number.Accession Number : 1401094
Human Factors : Workload
Human Factors : Distraction
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Inflight Event / Encounter : CFTT / CFIT
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Airspace Structure

Narrative: 1

As Captain, I improperly identified the Potomac River and aircraft in front of us after a very busy vectoring and speed sequences. To reduce some of our workload, I loaded several fixes into the FMS to facilitate the prohibited airspace issues within the DCA environs. After being cleared for the River Visual, the FMS did not sequence as anticipated and because I had misjudged the River, I subsequently overshot the river boundaries and entered P56-B. I initiated a turn to correct my error and at the same time Potomac Approach issued immediate turns and climbs to discontinue the approach.

After our break off, we were being re-vectoring, we were asked if we were ready to turn back in (I note this because this is an example of being rushed) and accept another approach. We communicated to continue on a heading for a little longer to complete our checklist and get set up for another try.

It has been sometime since I have done the River Visual 19 at night with the lighting effects and shadows. The Jepp Plate for River Visual 19 notes the RNAV 19 which is not

loaded in our database. This may be useful to look into to see if our databases can accept this. Also, on our other chart info (10-7 and other reference pages), we illustrate the DCA-328 radial as a method of tracking for RWY 1 departures. This could be used as a "boundary" reference for inbound arrivals.

I literally forgot about the black-hole this approach sometimes creates. Still, at my level of experience, I am quite disappointed. This event rests solely on my shoulders.

Add in our [manual] pages to depict the DCA-328 for RW19 arrivals and RW 1 arrivals/departures unless our FMS database can be updated. This should help reduce our P56 incursions.

Narrative: 2

The occurrence happened flying into DCA on the river visual RW19. [The Captain] is my OE (Operating Experience) instructor and was the pilot flying. It was clear weather and night time. ATC was very busy and had several airplanes in line for the approach. ATC directed us to descend and fly different headings and prompted us several times to find the river and look for traffic for us to follow. The Captain (pilot flying) was very task saturated with requests from ATC. I had the river and eventually the traffic in sight and waited until the Captain said he had both in sight, prompting me to advise ATC we had the river and traffic in sight. We were around FERGI intersection when we accepted approach clearance.

I averted my attention to keep my eye on the Airbus a ways in front of us and tended to PM (Pilot Monitoring) duties inside the airplane. I believe the Captain lost sight of the river passed DARIC intersection and neglected to make the right turn to follow the river and instead went straight into Prohibited Area P-56B. We were then immediately instructed to climb and turn away from the Prohibited Area and were canceled approach clearance. We performed a go-around maneuver, ran checklists, re-set up for the approach and attempted it again. The second approach attempt was successful and we landed safely.

I personally have never performed a published visual approach in a plane or in the simulator in training; nor have I flown in DCA airspace. As a new hire FO (First Officer) on OE, I relied on my captain's knowledge and experience to be situationally aware with the river visual and procedures going into DCA. I believe incorporation and explanation of this approach in the new hire training program would help fresh co-pilots feel somewhat familiar with the real river visuals into DCA. Had I been more familiar with the procedure, I believe I could have further helped avoid this deviation and aided the pilot flying with performing this approach. This has taught me as pilot monitoring to place more emphasis in looking outside the airplane during critical phases of flight such as a visual approach to further aid the pilot flying in situational awareness.

I have also taken away from this situation to initiate a go around or ask for missed approach instructions if I am the pilot flying and have lost sight of the runway/airport or the river (on a published visual approach). And as the pilot monitoring, to query the pilot flying if he/she seems unsure of the situation.

Narrative: 3

[The aircraft] was an arrival into DCA. The pilot was cleared for a Charted Visual Approach to follow traffic. I noticed the aircraft looked off course (left of course landing Runway 19, a south operation). The dilemma with this aircraft is that they were below minimum vectoring altitude in the center of antennas and heading for the White House a Prohibited

Area up to FL180 (P56). I was not sure what to do first except to climb the aircraft to get them out of the antennas and then turn them as to not enter Prohibited Area (P56). With that being said, they had to be turned back toward the final which causes other issues and where there were other aircraft on final.

This piece of airspace does not allow for error on anyone's part be it me the Controller or the Pilot. It's an unsafe area because of P56.

Synopsis

Flight Crew and Controller reported of the flight being off course and entering Restricted Area P-56. Controller reported of aircraft being below the Minimum Vectoring Altitude and needing to vector aircraft out of P56. Pilot reported of improperly identifying the Potomac River and the aircraft to follow.

Time / Day

Date : 201610
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : MCO.Airport
State Reference : FL
Relative Position.Angle.Radial : 270
Relative Position.Distance.Nautical Miles : 5
Altitude.MSL.Single Value : 10500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 50
Light : Night
Ceiling.Single Value : 18000

Aircraft

Reference : X
ATC / Advisory.TRACON : MCO
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Route In Use : Direct
Airspace.Class E : MCO

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1272
Experience.Flight Crew.Last 90 Days : 46
Experience.Flight Crew.Type : 1253
ASRS Report Number.Accession Number : 1399126
Human Factors : Communication Breakdown
Human Factors : Other / Unknown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Weather
Primary Problem : Human Factors

Narrative: 1

I piloted my aircraft, overflying the Orlando International Airport (MCO) Class B airspace at 10,500 feet. I was flying VFR (squawking 1200), I did not file the optional VFR flight plan, and I did not use VFR flight following as I have made several similar flights in the past and was familiar with the route. I did not call flight services to check for Temporary Flight Restrictions (TFRs) because I am on auto-distribution for TFRs via my e-mail address.

Upon landing at SEF, I was met by the airport manager, who informed me that I had violated a presidential TFR (18,000 feet and 30 NM) over Orlando. Mortified, I spoke with an FAA representative over the phone and provided him with all the requested information. I explained to the FAA representative that I rely on TFR notifications via e-mail, and I did not receive a TFR notification for Orlando. I also explained that I am very sensitive to TFR and SFRA incursions given that I am based in Northern Virginia. I did ask why jets were not scrambled to intercept me, and he explained that it was because I flew absolutely straight and level over the entire Orlando Class B airspace without any deviation, whatsoever. He explained that it was obvious, given the extent of the TFR incursion (46 minutes in duration) and the slow speed of my aircraft, that I was unaware of the TFR and likely not an immediate threat. Had I deviated anything (altitude, direction or squawk code), I would have been intercepted.

Upon checking into the hotel, I searched for the Orlando TFR online and could not find any record of it. I screen-captured the following four (4) TFRs for Florida:

- 1) 10/2016: Air Show in Jacksonville, FL from 11/2016 - 11/2016.
- 2) 10/2016: Air Show in Stuart, FL from 11/2016 - 11/2016.
- 3) 10/2016: Air Show in Homestead ARB, FL from 10/2016 to 11/2016.
- 4) 10/2016: Security TFR over Disney World (permanent).

I then spoke with a colleague whose father is a pilot. Her father searched and also could not find any presidential TFR published for Orlando for that date. I went back and reviewed the following presidential TFRs that I did receive via e-mail for the weeks prior and following:

- 1) 10/2016: unspecified - Dayton, OH on 10/2016 (no map)
- 2) 10/2016: 30NMR/10NMR - Raleigh, NC on 11/2016 (no map)
- 3) 10/2016: unspecified - Rock Hill, SC / Charlotte, NC on 11/16 (no map)
- 4) 10/2016: 10/30 NMR - Greensboro, NC on 11/16 (no map)
- 5) 10/2016: 10/30 NMR - Columbus, OH on 11/16 (no map)
- 6) 10/2016: 10NMR - Raleigh/Durham, NC on 11/16 (with map)

- 7) 11/2016: 10NMR/32NMR - Charlotte, NC on 11/16 (no map)
- 8) 11/2016: 32NMR/10NMR - Fayetteville, NC on 11/16 (no map)

Because I never received notification of the presidential TFR over Orlando, FL, I wonder if there is a radius-based filter on the TFR notifications that I receive from the FAA. It is obvious that I don't receive TFR notifications for California, but since I receive TFR notifications for as far north as Boston, I made the false presumption that I would receive them for the entire East Coast. I am sickened that I made such an avoidable mistake, and it has been an absolute wake-up call for me.

Synopsis

GA pilot reported being informed after landing that he had flown through a TFR over MCO that he was not aware of. He had relied on TFR notifications via e-mail which he did not receive and no record of the TFR could be found on the FAA website.

Time / Day

Date : 201610
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 12
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Center : ZZZ
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : PA-28R Cherokee Arrow All Series
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Personal
Nav In Use : GPS
Flight Phase : Cruise
Airspace.Class E : ZZZ

Component

Aircraft Component : DC Generation
Aircraft Reference : X
Problem : Failed

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 690
Experience.Flight Crew.Last 90 Days : 60
Experience.Flight Crew.Type : 500
ASRS Report Number.Accession Number : 1395143
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Aircraft Equipment Problem : Less Severe

Anomaly.Airspace Violation : All Types

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Overcame Equipment Problem

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

Narrative: 1

Enroute on an IFR plan at 9000 feet in VMC I noticed the ammeter was reading zero. I turned off all unnecessary equipment to include autopilot, 2nd COM/NAV radio. I also lowered the screen brightness on GPS to minimum level. I recycled master and waited 30 seconds. Attempted this twice. I then noticed the volt meter begin to drop. I contacted ATC and informed them I was losing electrical and would like to cancel IFR and proceed VFR to my destination. I asked for a VFR altitude and was given and climbed to 9500 feet. I changed my squawk to VFR. I recycled my electrical and was briefly able to reach ATC and was given a unique squawk code by ATC. After I lost my aircraft radios completely and realized my handheld was not working, I began to squawk 7600, just in case the transponder had sufficient electrical to function

Though ATC did not object to me proceeding VFR to my destination, I thought it prudent to attempt contact to confirm there were no issues with my plan to continue the flight. I was unable to reestablish contact. Therefore, I continued as discussed with the last controller with whom I could communicate. I continued at 9500 feet and then began a vfr descent to 5500 which would place me 500 feet above Class C airspace. Upon reaching this altitude, I attempted to contact approach via my handheld and was successful. The controller was aware of my situation and directed me to not descend below 5500 feet. I told him I planned to proceed to ZZZ he advised he would prefer I go to ZZZ as [the main] airport was very busy. As I was proceeding to my destination, I was warned by Foreflight that I was about to enter a TFR. I changed course to avoid the TFR, not having sufficient time to determine if the TFR was active. I attempted to contact approach to inform him of this course change (though he had not told me to hold a heading). I finally did reach him as I was turning back to the east as I circled around the TFR. He advised me TFR not yet active and to maintain my current heading. I proceeded at the current heading, though I may have deviated somewhat as I had only noted the direction on my iPad and not the actual heading on the DG. If I did deviate, ATC did not inform me. After a while approach advised me to turn direct to ZZZ and to inform him when I began my descent. I proceeded to turn and hold altitude, and quickly realized I had lost 200 ft. which I quickly regained. I then advised ATC that I was ready to begin my descent. I proceeded to ZZZ while beginning my descent as directed and informed approach when I had ZZZ in site. I landed without incident, using manual override to lower landing gear. I had been asked by approach to call them to advise safe landing, but upon landing was informed by airport staff that ATC had called them and were informed I had landed safely. I proceeded to secure my aircraft and did call approach to thank them for their help.

I decided to continue to ZZZ rather than land immediately for several reasons. Of primary importance, the aircraft was running perfectly and there were no indications of a failure that would compromise safety. I knew electrical was not necessary for the engine to

continue to run. Having briefed the weather and with independent battery powered ADSB weather and navigation coupled with my iPad onboard, I knew I could reach the airport VFR. I also had a handheld radio and even though I had not been able to reach center at 9500 ft. I felt I would be able to reach approach and the traffic advisory frequency at ZZZ when at a lower altitude. I did not want to land at an unknown airport for which I had no accommodations or knowledge as to maintenance personnel to repair the aircraft. This was especially important given the purpose of the trip was to take my son, a cancer patient who was in between chemotherapy treatments for a few days to enjoy the mountains. If I landed elsewhere, it may have been difficult to have the aircraft repaired or to find accommodations and a rental car to return back home. I had been to ZZZ before and knew they had a large general aviation community and I expected it would be easy to find a qualified mechanic. Further, we already had a place to stay and a vehicle. Continuing VFR to our destination was the best choice.

Thoughts about the flight:

- 1) The decision to cancel IFR and proceed VFR to my destination did not compromise safety. I maintained VFR taking care to not invade airspace where radio communication was required. When near class C airspace, I successfully established communication with ATC using my handheld and followed their directions.
- 2) I probably should not have changed my squawk code to VFR without direction from ATC.
- 3) I should purchase headset attachment as I believe any deviations which may have occurred during this flight were due to having to remove my headset in order to speak on a handheld in a noisy aircraft.

Synopsis

During cruise, on an IFR flight plan, the pilot of a Piper Arrow PA28R-180 reported noticing he was losing electrical power. The pilot continued to his destination VFR while using a handheld radio to communicate with ATC.

Time / Day

Date : 201610

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SLC.Airport

State Reference : UT

Altitude.AGL.Single Value : 6

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 20000

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : UAV - Unpiloted Aerial Vehicle

Operating Under FAR Part.Other

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Airspace.Class B : SLC

Person

Reference : 1

Location Of Person : Gate / Ramp / Line

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Experience.Flight Crew.Type : 20

ASRS Report Number.Accession Number : 1394042

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : FAR

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Flight Crew : Exited Penetrated Airspace

Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Preflighted the area that day, looking for active TFRs or controlled airspace. The area I wanted to fly at looked clear of SLC or any TFRs. I went to fly low level over a pond at Memory Grove Park, UT (2-10AGL). I took off, hovering at 6 ft AGL, and my phone provided an alert I may be close to a caution area (DJI APP Notification). I was 5 miles East of SLC, I opened my phone to pull up the SLC VFR TAC, and noticed I was closer than expected to the border of the SLC Class B shelf. I immediately landed the aircraft from the 10 ft AGL altitude. The duration of the flight was around 1 minute.

From now on, I'll always use the GPS in Garmin Pilot in correlation with the VFR Sectional, VFR TAC, and continue checking for active TFRs before I fly at the exact location. As Small drone operating systems are becoming more complex and user friendly, I'd be good for them to incorporate the VFR Sectionals and TAC into the operating system to make pilots fully aware of their location in relation to airspace around them.

Synopsis

A DJI Phantom UAS pilot launched after checking diligently for TFR and controlled airspace. However, after takeoff his DJI phone app alerted his aircraft proximity to SLC Class B. The UAS flight was aborted.

Time / Day

Date : 201609

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : OWO.Airport

State Reference : WA

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : OWO

Aircraft Operator : Personal

Make Model Name : Cessna 180 Skywagon

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Airspace.Class G : OWO

Aircraft : 2

Reference : Y

Make Model Name : Seaplane or Amphibian

Airspace.Class G : OWO

Aircraft : 3

Reference : Z

Make Model Name : Seaplane or Amphibian

Airspace.Class G : OWO

Aircraft : 4

Reference : A

Make Model Name : Seaplane or Amphibian

Airspace.Class G : OWO

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 140
Experience.Flight Crew.Last 90 Days : 35
Experience.Flight Crew.Type : 115
ASRS Report Number.Accession Number : 1391305
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Detector.Person : Flight Crew
Miss Distance.Horizontal : 150
Miss Distance.Vertical : 150
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

I was operating a Cessna 180 floatplane in VMC on a VFR flight, in the vicinity of OWO in downtown Seattle, Washington, when I inadvertently entered one of the hot sports stadium TFRs. This action was necessitated and justified under FAR 91.3, as explained below.

My flight originated from a private water operations site close to the Class D airspace at RNT. Prior to takeoff, I checked all relevant NOTAMS and received the ATIS for RNT. I also received takeoff clearance and permission to operate within the RNT Class D so as to transit north and west to be clear of the SEA Class B and BFI Class D airspaces.

After clearing the RNT area, I was close to the University of Washington and headed southwest, under the SEA Class B. I was monitoring the CTAF of 122.9 in the vicinity of OWO on Lake Union.

As I got closer to OWO, I was aware of the possible presence of active commercial seaplane activity on Lake Union. Therefore, using the OWO CTAF, I announced my call sign, position, altitude, and stated my intent to transition slightly north of OWO, from east to west, through the ship canal. This is a common transition route used by local pilots and it is familiar to seaplane pilots who fly in this area.

After I made the radio call on the OWO CTAF, I determined that there were three other floatplanes also operating within the vicinity of Lake Union Waterport. One floatplane was on a southerly heading approaching to land on the north end of the lake from Eastlake, position reported northeast of me. The second floatplane was transitioning west to east through the ship canal, position reported east of me. The third floatplane was on a northerly takeoff roll on Lake Union, position reported south-east of me.

At this point, I re-announced my position stating I was heading westbound to Lake Union, and was approaching the I-5 Bridge, which is raised 300 feet over the ship canal. Then as

I approached I-5, I continued scanning the skies, but I was unable to make a visual contact with any of the other 3 float planes.

While crossing I-5, I obtained visual contact with the second floatplane which was still on climb out after taking off from OWO. It was heading north and climbing over Gasworks Park. Suddenly, that aircraft turned toward my position and continued to climb in altitude. I know that this plane had to climb to clear the I-5 bridge and it was heading right toward me.

I again announced my position over the CTAF, stating I was westbound over I-5, the climbing seaplane announced its intentions to turn east towards University, which placed him in a collision course with me. He did not say that he had me in sight.

At that point, as pilot in command, I determined the safest course of action would be to turn out of the path of the climbing plane. I made a second visual scan but I could not get visual contact on the first seaplane (which had been westbound towards me through the ship canal) or the third seaplane (which was last reported as southbound coming from Green Lake). By making this slight southbound turn, later realized that I may have inadvertently and briefly entered the radius of the stadium TFR, which I believe was active for a Game. My altitude at the time was 1,000 and I was approximately 1.5 NM away from the stadium.

I believe that this brief and minor transit into an area where a TFR was operationally necessary for the safe operation of my flight under FAR 91.3. As I took these actions, I was maintaining separation from the one aircraft I had in sight while also accounting for the last known positions and headings of the other two aircraft which were not in sight. By making these maneuvers to avoid the oncoming traffic, I was able to complete my flight and the return flight to my home station without any incident.

I was not contacted by ATC regarding a possible TFR violation at any point during my flight operations. I have not been contacted since that date by the FAA.

The area surrounding OWO is notoriously congested and often aircraft transit through the ship canal like a bottleneck between the SEA Class B and the RNT and BFI Class D airspaces. Furthermore, when the Stadium TFRs are hot, they prohibit uncontrolled flight over the majority of Lake Union, thus forcing seaplanes to perform take-offs, landings, and transitions, in a small, congested area at the very north end of the lake.

I believe the best way to correct the situation would be to eliminate the stadium TFRs coverage in the vicinity of OWO so as to free up more airspace at Lake Union during stadium TFRs operations. Another less economically viable option would be to make the entire Lake Union area unavailable for operations during stadium TFRs to prevent congestion over a waterway. A third operation would be to commission a ATC tower for OWO making the area a Class D which would provide flight following and allow air traffic to legally pass through the TFR when it is hot.

Synopsis

C180 floatplane pilot reported encroaching on a sports TFR during evasive action in response to an NMAC.

Time / Day

Date : 201609

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : NCT.TRACON

State Reference : CA

Aircraft

Reference : X

ATC / Advisory.TRACON : NCT

Make Model Name : Commercial Fixed Wing

Airspace.Class E : NCT

Person

Reference : 1

Location Of Person.Facility : NCT.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 10

ASRS Report Number.Accession Number : 1390834

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Human-Machine Interface

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : FAR

Anomaly.Deviation - Procedural : Published Material / Policy

Anomaly.Deviation - Procedural : Clearance

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Airspace Structure

Narrative: 1

I was working the SJC final this morning when a new TFR for [a] fire near went into effect. The TFR was so unnecessarily large it made it impossible to have aircraft arrive into SJC. The decision was made by my supervisor that until we see aircraft in the TFR we would run operations as normal. I cleared a dozen aircraft through the TFR and when the fire fighting aircraft arrived it was necessary to place the last few through the TFR. After our complaints were heard the TFR was redrawn to something more manageable. The entire process took too long.

Does anyone from air traffic actually look at the TFR dimensions to see what and where they are with potential impacts to safety? Why does it take so long to get something redrawn? Why do fire TFRs remain at night when there are no firefighting aircraft allowed to fly? I recommend a review of this event and that it get addressed by our Local Safety Committee. This is not the first time a TFR has been larger than was necessary with impacts to the operation. I also recommend someone from NCT be allowed to review and approve or deny a TFR. It's my understanding TFRs are generated outside of our building and we are told what and where they will be. Local input is very important and should be part of the decision making process.

Synopsis

NCT TRACON Controller reported of problems with the size of a fire fighting TFR.

Time / Day

Date : 201609

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LVK.Airport

State Reference : CA

Relative Position.Angle.Radial : 300

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 20

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : PA-32 Cherokee Six/Lance/Saratoga/6X

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Descent

Route In Use : Direct

Airspace.Class E : NCT

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 1945

Experience.Flight Crew.Last 90 Days : 8

Experience.Flight Crew.Type : 990

ASRS Report Number.Accession Number : 1388723

Human Factors : Situational Awareness

Human Factors : Other / Unknown

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace
Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I had flown from PAO to ZZZ to pick up some parts for work. I received a standard briefing via DUATS before departure, which showed clear weather and one TFR over Oakland which was well off my route. On the return flight, the weather was the same and I didn't obtain another briefing. Approaching Livermore (LVK), I noticed a plume of smoke from a wildfire in the hills near Livermore. Though neither my XM weather nor my ADS-B weather showed a TFR, I realized one may have just popped up and I turned to remain clear.

The combination of a recent briefing, the clear weather, and two independent sources of downlinked weather/TFR information led to a sense of complacency about TFRs. Corrective actions include getting flight following as well as always getting a briefing.

Synopsis

PA32 pilot reported possibly entering a firefighting TFR near LVK. The TFR may have been created after his initial DUATS briefing and did not show up on XM weather or ADS-B.

Time / Day

Date : 201607

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : JCF.TRACON

State Reference : CA

Aircraft

Reference : X

ATC / Advisory.TRACON : JCF

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Airspace.Class E : JCF

Person

Reference : 1

Location Of Person.Facility : JCF.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5

ASRS Report Number.Accession Number : 1373869

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Troubleshooting

Human Factors : Workload

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Air Traffic Control

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Environment - Non Weather Related

Primary Problem : Procedure

Narrative: 1

There is a TFR in place today for a fire at or below 8500 feet, 5 NM radius at ZZZ (VOR)110/014. We were not showing this as the TFR location in our Status Information.

We had the previous TFR that had expired in our information. After having worked the sector for an hour, we kept getting reports from SoCal that the TFR is more in our sky than theirs, and our coordination on arriving aircraft was getting confusing because our maps were not showing the same information. I remembered our CIC had said earlier that they didn't want to read all the NOTAMs for the watch check list because there were too many. Eventually, I asked SoCal of the position of the TFR to make sure we have the correct display, and ours was incorrect. I asked our CIC to find out if our TFR was correct, and they told me to look it up (despite working traffic at the time). I looked up the NOTAM, and then corrected the drawing for our TFR and input the drawing on all the other scopes as needed, and updated our information area as for the new drawing.

I'm not sure if anyone had gone through the TFR before I updated the drawings.

I would have the CIC's get training on the desk and duties involved, and stress the need to make sure the NOTAMs are up to date or corrected.

Another alternative is to not have a CIC, and have Supervisors work the desk. Often times this happens when the controllers work the desk. I've seen other information get misrepresented or overlooked.

Synopsis

Joint Control Facility (Edwards) TRACON Controller reported of a TFR that was not updated and the reporter did not know the exact position. Reporter eventually had to look up coordinates and then advise others.

Time / Day

Date : 201607

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : GEG.TRACON

State Reference : WA

Altitude.MSL.Single Value : 6500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory. TRACON : GEG

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Cruise

Route In Use : VFR Route

Airspace.Class C : GEG

Person : 1

Reference : 1

Location Of Person.Facility : GEG.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6.0

ASRS Report Number.Accession Number : 1371871

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2

Location Of Person.Facility : GEG.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Function.Air Traffic Control : Supervisor / CIC

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 3.4

ASRS Report Number.Accession Number : 1371883

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Chart Or Publication

Narrative: 1

Aircraft X was VFR on his own navigation. South of GEG he told me he did not know the parachute area was active. This was confusing to me. There is currently a NOTAM for PJE 36 miles south of GEG near 33S. At the time he mentioned this that area was at his 11 o'clock and approximately 25 miles. I asked him if he could see parajumpers, and he said he could at about 6,500 feet MSL. I asked the pilot how far away the jumpers were, and got no response. I attempted numerous times to reestablish contact with the pilot, including main and standby transmitters, guard frequency, and also having another aircraft try to relay a message.

I had initiated an automated handoff to MWH approach, which was completed. I coordinated verbally to advise that Aircraft X was radar contact lost and also NORDDO. About 10 or 15 minutes after I told MWH approach that Aircraft X was NORDDO, they called back to say that he contacted them finally. By this time I had dismissed the report as being in the known PJE area.

I had no other reports of parachutes while working. When I gave the position to my relief (training team) I advised them about the report, but also told them that my assumption was that he saw jumpers in the NOTAM area. After my break I learned that multiple aircraft were reporting numerous parachutes in a similar area. They were powered parachute gliders. The Controller In charge had tracked down some information about a race of powered parachutes approximately 30 miles southeast of GEG. There were 120 of the powered parachutes, operating from between 12,000 feet MSL to the ground, which is the upper limit of our airspace. MWH was informed of the race, but we were not.

Upon learning this, I realized that there were some occasional primary returns south of GEG, but they would show up for typically a very short time and at the time did not appear to be connected. I believe I fell victim to some expectation bias in this situation. In having known parachute activity with a TFR area displayed on my map, it was easy to assume that this is what the pilot was describing to me. Also, if the pilot had been able to answer my questions at the time, this could have been discovered sooner, and we as a facility

may have been able to provide a safer environment to some of the aircraft receiving services.

I am certain if there had been a NOTAM issued, we would have been able to help aircraft receiving services to avoid the area somehow, through coordination with ZSE at a minimum. The Controller in Charge contacted the guy in charge of the race (getting information from MWH about it), and he told the Controller in Charge that he tried to file something with FSS, but they told him it was too big an area and they couldn't do it. I'm not sure if that is legitimate, but it seems like a horrible reason to me.

Narrative: 2

Today my first two sessions of work were manning the Controller in Charge (CIC) position because we were training both on East Radar (ER) and MSO. The first session was slow. Both trainers were doing their jobs just fine and nothing out of the ordinary appeared to occur until the controllers on East Radar were relieved. The relieving controller reported a VFR aircraft saying something about Parajumpers and then the aircraft when NORDO and continued along its route of flight. The VFR was probably 20 miles from an area with known and NOTAMED parachute activity and we thought maybe he was either disoriented or just had a depth perception issue with the traffic. Since he failed to respond to further inquiries via radio we couldn't find any more information out. The pilot checked on with MWH approach control about 20 minutes later so we let it go.

The second session I was on the desk again and the ER controller report a parajumper in his vicinity which was much closer to GEG then the VFR aircraft earlier on. He then reported underflying a parasomething 5 miles later and I began to think that something was actually wrong. When I couldn't reach them I contacted ZSE Area Supervisor desk and asked if they had the contact information. They relayed to me that MWH TRACON actually had the Letter of Agreement with the jumpers school so I contacted MWH next.

They gave me an alternative phone number and mentioned an alternative that there was some sort of powered parachute thing happening and also gave me the contact information for that. [We were told of a] Powered parachute event, and relayed what we were encountering to him.

After a brief phone call we came to realize that the event was going directly south of Spokane between Sprague and Fishtrap east to west from the surface to about 12000 feet MSL, and that there were 120 powered chutes in the event. I was told that he had done much coordinating with other FAA related sources but somehow Spokane TRACON did not get the memo. I immediately informed the radar controller to assume all primaries were not false and that they could be powered Chutes and to keep traffic at or above 12000 feet until abeam Spokane airport to prevent any possible collision. I recontacted MWH TRACON and asked what kind of information they had. They faxed over a copy of the email they received. It depicted the area the powered chutes were using and it basically ran right up against the GEG Class C airspace and was directly off the departure end of the active runway. After things calmed down I turned everything over to the Supervisor who was training on our MSO sector while all this was going on.

It is lucky that I had a bad feeling and followed up, a couple people at work told me they would have just shrugged it off and went about their day. We had no idea this was happening, there wasn't a single Notam within 50 miles of Spokane mentioning thing. I almost shrugged this off as nothing myself. Only after the aircraft said he flew underneath a chute did I think something was really wrong.

Any mass event like this must coordinate directly with any TRACON within 40 miles along the flight path of their aircraft prior to the event by at least 7 days to inform them of the event.

Synopsis

GEG TRACON Controller reported being unaware that an organization was conducting a powered parachute event in their airspace.

Time / Day

Date : 201601

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : FDK.Airport

State Reference : MD

Relative Position.Angle.Radial : 130

Relative Position.Distance.Nautical Miles : 7

Altitude.AGL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Turbulence

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : FDK

Aircraft Operator : Military

Make Model Name : Helicopter

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Ferry

Flight Phase : Cruise

Route In Use : None

Airspace.Special Use : DC SFRA

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : FDK

Aircraft Operator : Military

Make Model Name : Helicopter

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Ferry

Flight Phase : Cruise

Route In Use : None

Airspace.Special Use : DC SFRA

Component

Aircraft Component : GPS & Other Satellite Navigation

Aircraft Reference : X

Person : 1

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Military
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 10000
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 4500
ASRS Report Number.Accession Number : 1322662
Human Factors : Situational Awareness

Person : 2

Reference : 2
Location Of Person.Aircraft : Y
Location In Aircraft : Flight Deck
Reporter Organization : Military
Function.Flight Crew : Pilot Flying
Experience.Flight Crew.Total : 3500
Experience.Flight Crew.Last 90 Days : 45
Experience.Flight Crew.Type : 2900
ASRS Report Number.Accession Number : 1323191
Human Factors : Situational Awareness

Person : 3

Reference : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 3800
Experience.Flight Crew.Last 90 Days : 59
Experience.Flight Crew.Type : 3300
ASRS Report Number.Accession Number : 1324029
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Procedure
Primary Problem : Aircraft

Narrative: 1

Enroute from EVY the route of flight was to circumnavigate the outside NW corner of the DC SFRA between the SFRA boundary and the FDK Class D then head south west. Both GPS's showed us approximately 2 miles outside the SFRA boundary. I was up on FDK tower frequency and just prior to contacting them to notify of our transition south of their airspace, the tower called and asked if the aircraft approximately 8 miles to their south east were up frequency. I responded and after letting them know who we were and where we were "Aircraft X is Southeast, north of the DC ADIZ and south of the Class D", the tower asked what our destination was and I informed him. The tower then instructed us to contact Potomac Approach upon landing. After contacting Potomac Approach, I was informed that we had penetrated the boundary of the SFRA by 1-2 miles.

We were flying at a low altitude to stay out of forecasted turbulence at higher altitudes and the poor radio reception with approach that we normally encounter in that area otherwise we would have been flight following at that time.

I have been through that area several times but this is the first time I have had an issue. We were slightly closer to the boundary but as stated above, both aircraft were showing the same thing, just outside the boundary. I understand that regardless of what the equipment is reporting, it is the pilot's responsibility to follow the rules. It is my intent to keep a minimum of 5 miles distance in the future. Possibly a larger thicker boundary marking on the VFR sectional and TAC's that is actually a couple miles further than the actual boundary would help future penetrations.

Narrative: 2

[Report narrative contained no additional information.]

Narrative: 3

[Report narrative contained no additional information.]

Synopsis

Flight of two helicopters with two GPS sources flew a course 2 miles outside the Washington DC SFRA, yet PCT TRACON claimed the aircraft was inside the SFRA by two miles.

Time / Day

Date : 201511

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : HOU.Airport

State Reference : TX

Relative Position.Distance.Nautical Miles : 8

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : I90

Aircraft Operator : Personal

Make Model Name : SR22

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Climb

Route In Use : Vectors

Airspace.Class B : HOU

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 1950

Experience.Flight Crew.Last 90 Days : 40

Experience.Flight Crew.Type : 405

ASRS Report Number.Accession Number : 1312861

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Detector.Person : Flight Crew

When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors

Narrative: 1

I departed HOU on Runway 35 having been given departure instructions to maintain heading 300 at or below 3000 feet. After takeoff, when I was instructed to contact departure, the controller was quite busy. I attempted an initial call during the first pause in communication (approx 15 seconds on frequency). The controller was unable to reply due to other priorities. I called twice more during the first available breaks. My third call was answered. By then, I may have passed through a stadium TFR over the astrodome. I did not think it wise to deviate from my assigned heading of 300 to avoid a stadium TFR.

Synopsis

SR-22 pilot reported possible violation of a stadium TFR when he had difficulty establishing communications with the Departure Controller.

Time / Day

Date : 201510

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Visual Approach

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Last 90 Days : 4

Experience.Flight Crew.Type : 17

ASRS Report Number.Accession Number : 1307849

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation - Procedural : FAR

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Exited Penetrated Airspace

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Background: I'm a military commercially rated pilot. Another friend and I flew a sightseeing tour. We conducted a thorough preflight brief to ensure that we both agreed on the route as well as felt comfortable with the plan of action. We launched and proceeded in accordance with our preflight planning using a chart as our primary means of navigation. After 45 minutes of flight time and successful execution of our route, we began heading South toward an outlying field at 4,000 ft MSL. This altitude kept us out of airspace. Once East we began descending to 3,000 ft. MSL and continued east to ensure airspace clearance. We agreed that flying north of a VFR Checkpoint X and east of VFR Checkpoint Y would ensure our clearance before turning south.

Unbeknownst to us, this is where our disorientation began. We misidentified the VFR Checkpoint X. This led us to misidentify VFR Checkpoint Y as another point to the east of the actual [checkpoint]. Upon reaching what we thought was VFR Checkpoint Y, we turned south and began looking for our next VFR checkpoint. Expecting to fly over Town X, we then misidentified Town Y as Town X. This series of misidentifications led us to thinking that we were right on course with our planning when in fact we were now 6 NM east of our planned location. Still unaware of our errors and expecting to soon see VFR Checkpoint Z, we continued south, commenced a descent to 2,000 ft. MSL, and tuned the ATIS. We were preparing to make our inbound call. In actuality, we were now 8 NM southeast of our intended flight path and crossing the US/Mexico border. As we rounded the mountain and headed west through a cut in the range looking for VFR Checkpoint Z, I became confused as to why we had not yet seen [it] yet. This is the moment in which our disorientation became obvious and we knew we had shot too far south. Unsure of exactly how far south and not realizing we were now in Mexico, we continued rounding the mountain toward the northwest. ATC informed us of our position 7 NM south of the border and confirmed our disorientation. After breaking through the cut in the mountain range, our VOR reception became dependable and we noted our location. With our own reorientation and the help of ATC we landed to debrief the airspace and ADIZ violation.

Contributing factors: After thoroughly debriefing this very serious disorientation, we attributed the incident to three main causes. First, our attention to detail when comparing the chart to the visual cues outside was poor. The entire incident can be traced back to our first false identification of VFR Checkpoint X. Had we paid more attention to positively identifying the VFR checkpoints, we would have realized our mistake far before entering Mexico. Secondly, we failed to back up our visual flight plan adequately. With no GPS, VOR signal, or other means of navigation, we should have been much more vigilant with our headings. Lastly, we became complacent in the cockpit. In our minds, we were two military pilots who fly often and had just successfully completed a complicated route. The easy part was getting back home, right? Wrong. We were much too relaxed in our return and have now learned our lesson the hard way.

Lesson learned: First, visual navigation requires of a lot of attention to detail and should not be taken lightly, regardless of how well a pilot knows his or her local area. Second, I may never fly again without the use of GPS, whether installed in the aircraft or on a tablet. With access to that kind of technology, there is no excuse for disorientation. Third, we as

aviators must remain fully engaged throughout the entirety of each flight and treat each phase of flight equally important. Be humble and don't get complacent.

Synopsis

Pilot reported that geographic disorientation led to an ADIZ penetration.

Time / Day

Date : 201511

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : IZA.Airport

State Reference : CA

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : SBA

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 800

Experience.Flight Crew.Last 90 Days : 36

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 1307074

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Exited Penetrated Airspace

Assessments

Contributing Factors / Situations : Weather
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Chart Or Publication
Primary Problem : Ambiguous

Narrative: 1

Preflight with DUATS (logged in). No TFRs on flight path for flight from IZA to ZZZ.
Departed IZA. Flew directly over what appeared to be a fire. Upon returning back to IZA, I checked my tablet. It showed a TFR for firefighting along my path. No firefighting aircraft were visually seen on either leg of my route and I did not spot any fire.

I don't believe this is an issue as this was a non-official source, but I wanted to bring it to the attention of NASA as I am seeing differences between DUATS and other sources on TFR's. This happens in both graphical and text versions. As of this morning, the tablet source still shows a TFR but DUATS does not. Can NASA help in bringing official and non-official sources more closely in line?

Synopsis

Pilot reported he may have violated a Fire Fighting TFR near IZA because of differences between his DUATS briefing and his tablet display.

Time / Day

Date : 201510

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 50

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : FBO

Make Model Name : Robinson R44

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Photo Shoot

Flight Phase : Cruise

Airspace.Class G : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Contracted Service

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 4550

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 2950

ASRS Report Number.Accession Number : 1303319

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Provided Assistance

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

During an aerial photography shoot of power boats, I had an apparent incursion of a football game Temporary Flight Restriction (TFR). NOTAMs were checked and I was only aware of a [different] TFR. I was also aware of Restricted area which we avoided. My main focus was safety of flight as we were flying at low altitudes (500 feet and below.) Power lines, bridges, and terrain were just some of the hazards. I am not a sports fan and I'm not aware of the sports seasons. [This college] and other sports teams schedules are not posted on a government approved website. Sports team TFRs are not charted via a government approved source. I only found out by overhearing a pilot speaking with Tower about the TFR. Tower was unsure about a TFR and then queried TRACON. I then went to TRACON who kept me out of the TFR Southbound.

If we are to avoid these sports team TFRs, alerting and charting by government approved sources is necessary. A better solution would be to repeal the public law associated with sports team TFRs since it apparently serves no benefit to national security. They apparently seem to serve the greedy self-interests of sports teams who want exclusive media rights and use security as false reason. A better restriction would be no loitering within 3 miles up to 3,000 feet unless approved by Air Traffic Control.

Synopsis

R44 helicopter pilot reported a sport TFR incursion.

Time / Day

Date : 201509
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LGA.Airport
State Reference : NY
Relative Position.Angle.Radial : 310
Relative Position.Distance.Nautical Miles : 9
Altitude.MSL.Single Value : 1200

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 20000

Aircraft

Reference : X
ATC / Advisory.TRACON : N90
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise
Airspace.Class E : ZNY

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 1200
Experience.Flight Crew.Last 90 Days : 25
Experience.Flight Crew.Type : 225
ASRS Report Number.Accession Number : 1299083
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Other
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Procedure
Primary Problem : Airspace Structure

Narrative: 1

While on a personal flight, I inadvertently penetrated the TFR referenced in [an] FDC NOTAM. Before every flight I always check the FAA's TFR page and check weather and NOTAMs through [computer software] and this flight was no exception. I was fully aware of the TFR which was in effect however in this case because of the unclear format in which the TFR was drafted, I misunderstood the affected areas. NOTAM listed two affected airspace areas, area A and area B. Airspace B was very clear in that it affected an area defined by a 7 NM mile radius off the LGA 271 degree radial at 5 NM miles. However airspace A was where my misunderstanding lies. In this case, instead of defining the affected airspace as the lateral limits of the New York class bravo airspace (which is what the affected area was), 50 separate latitude/longitude points were referenced. Because of the way the points were listed, it took up a full screen on the computer to view. However, when I scrolled to the bottom of the list, I saw what I thought were the affected areas which was a 3 NM radius off the DPK 241 degree radial at 5.3 NM and a 3 NM radius off the CMK 215 degree radial at 12.8 NM. What I later [determined] is that these were the excluded areas and NOT the affected areas. Because of this misunderstanding, I estimate that I penetrated the southern edge of the airspace by two or three miles.

I would like to make it clear that this was not an intentional deviation. This was just a personal flight that I could have taken in any direction. I have been flying for [many] years and dealing with TFR's is nothing new. If I had any hesitation about whether or not I understood the TFR, I would have stayed away from the area or contacted ATC. I was certain I had read the TFR correctly and feel that if it would have been written in a more clear fashion stating that the affected area was the lateral limits of the Class B airspace instead of fifty separate latitude/longitude points, this could have been avoided.

Synopsis

A local Pilot, familiar with the area and TFR NOTAMs, was confused by the format and depiction of the TFR area, and unintentionally entered the area. He added that a clearer presentation of the affected area would likely have prevented this encounter.

Time / Day

Date : 201509
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Taxi
Make Model Name : Bell Helicopter Textron Undifferentiated or Other Model
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 135
Flight Plan : VFR
Mission : Ambulance
Flight Phase : Final Approach
Route In Use : Visual Approach
Route In Use : Direct
Airspace.Class E : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Taxi
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Rotorcraft
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 4000
Experience.Flight Crew.Last 90 Days : 67
Experience.Flight Crew.Type : 1500
ASRS Report Number.Accession Number : 1294768
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control

When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

During an Active HAA (Helicopter Air Ambulance) mission I delivered a patient to the [hospital]. After completing the mission and departing the area my dispatch said that [Tower] notified them that I broke the TFR over the stadium for the football game that was taking place. I was very surprised because earlier in the day I had checked the FAA standard briefing website for TFR information and there was nothing on that page notifying me of that TFR. I also have up to the minute XM weather/TFR information being sent directly to my GPS, and it didn't show any TFR over the stadium. The next day there was another college football game taking place at [a different college]. Foreflight, a third party product said that there was a TFR over that stadium but again the FAA website said that there wasn't. Even when the TFR became active it didn't say anything about it on the FAA website. I feel that there is a gap in the system that could be either clarified or fixed. It seems like the TFRs for football games are not being published as expected by pilots.

Synopsis

Bell 407 pilot reported he had a TFR incursion and stated the TFR was not listed on the FAA briefing website. Both TFRs were for sporting events.

Time / Day

Date : 201508

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : UKFV.ARTCC

State Reference : FO

Altitude.MSL.Single Value : 35000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : UKFV

Aircraft Operator : Air Carrier

Make Model Name : Widebody Transport

Crew Size.Number Of Crew : 4

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight

Flight Phase : Cruise

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Relief Pilot

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 11500

Experience.Flight Crew.Last 90 Days : 155

Experience.Flight Crew.Type : 155

ASRS Report Number.Accession Number : 1293968

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Confusion

Communication Breakdown.Party1 : Dispatch

Communication Breakdown.Party2 : Flight Crew

Person : 2

Reference : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 15000
Experience.Flight Crew.Last 90 Days : 150
Experience.Flight Crew.Type : 1600
ASRS Report Number.Accession Number : 1292047
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Dispatch
Communication Breakdown.Party2 : Flight Crew

Person : 3

Reference : 3
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 11000
Experience.Flight Crew.Last 90 Days : 140
Experience.Flight Crew.Type : 900
ASRS Report Number.Accession Number : 1292045
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Dispatch
Communication Breakdown.Party2 : Flight Crew

Person : 4

Reference : 4
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Relief Pilot
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 10500
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 2500
ASRS Report Number.Accession Number : 1292048
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Dispatch
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Dispatch

When Detected: Other
Result: General : None Reported / Taken

Assessments

Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1

We were enroute from the Middle East to Europe and flew thru an airspace temporarily off limits to U.S. Airlines. This is a route I have flown many times in the past with similar routing. I was the operating IRO (International Relief Officer) and flying with two other crew members who were also very familiar with this route. We were filed for this flight by our company dispatcher on a "normal" route and we missed the NOTAM identifying this particular airspace as temporarily off limits for U.S. operators. I believe complacency played a role in this case, along with not closely enough reading all of NOTAMs listed in our flight paperwork. We do pass thru many countries and airspaces every day as International crew members and we sometimes think we are more familiar and comfortable than we probably should be. Also, the ever changing political climate in the world adds to the complexity of international airspace and this obviously affects the workload of international airline crew members. Bottom line, we all missed the pertinent NOTAM all the way down the line from our Dispatcher to the other two crew members and myself. I will certainly pay much more attention to all details of my flight paper work in the future whether I am familiar with the route/flight or not.

Narrative: 2

I recently vacationed on the beaches of the Black Sea so flying the more efficient route over the Black Sea did not give me any red flags. In fact, flying route L851 was so familiar that I was glad to see our carrier using it again. It did not dawn on me that the UKFV FIR area was still prohibited. I must have missed the NOTAM. No incident occurred in this airspace.

Narrative: 3

During our flight we were flight planned through Kyiv (Crimea) airspace. We did not catch it on review of our flight nor when we were in flight upon entering airspace. No problems were encountered however we did have to monitor both frequencies while in the airspace. We did not receive conflicting calls from either controller and we exited the airspace uneventfully.

Narrative: 4

I was IRO (International Relief Officer). Five days later I was notified via email that Dispatch had filed us on a route that took us thru Crimean airspace. On the day of the incident, we flew the flight as issued and cleared by ATC. All advance check in calls were completed as noted on nav charts. ATC communication was maintained throughout the entire flight via VHF, HF, or CPDLC (Controller Pilot Data Link Communications), as appropriate, without any issues encountered or expected.

Synopsis

A U.S. based airline crew on a flight from the Middle East to Europe was filed through Crimea (UKFV) unaware US carrier flight through that airspace was prohibited.

Time / Day

Date : 201508
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LAS.Airport
State Reference : NV
Relative Position.Angle.Radial : 120
Relative Position.Distance.Nautical Miles : 22
Altitude.MSL.Single Value : 6500

Environment

Weather Elements / Visibility : Rain
Weather Elements / Visibility.Visibility : 10
Light : Daylight
Ceiling.Single Value : 10000

Aircraft

Reference : X
ATC / Advisory.TRACON : L30
Aircraft Operator : Corporate
Make Model Name : Cessna 210 Centurion / Turbo Centurion 210C, 210D
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Utility
Flight Phase : Descent
Route In Use : Direct
Airspace.Class B : LAS

Component

Aircraft Component : Navigational Equipment and Processing
Aircraft Reference : X

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 8000
Experience.Flight Crew.Last 90 Days : 210
Experience.Flight Crew.Type : 348
ASRS Report Number.Accession Number : 1290983
Human Factors : Other / Unknown
Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Exited Penetrated Airspace
Result.Air Traffic Control : Issued New Clearance
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Aircraft
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

I obtained a Lockheed Martin Weather brief through [an] EFB on my cell phone. The Pipeline Patrol Flight was heading more or less direct to ZZZ (300 deg), and included a handoff to ABQ Center. At that time I chose to cancel flight following and continue with my own navigation. Maneuvering due to ceilings and rain showers to stay VFR. The flight path was basically direct to ZZZ. I started a descent from 8,500 approx. 15 miles SE of ZZZ on a heading of 290 deg. Monitoring 121.50 (as usual, when I'm not on freq. with ATC) I hear a call to my N-number, to switch to 125.90 Approach freq. which I immediately complied with. I was given a squawk Code, then informed that I had "A possible pilot deviation into an active TFR and make an immediate turn to exit the area to the South." I Complied with their instructions and made a Turn to 150 deg. I was then informed that I had flown into the TFR approx. 8 miles and to copy a telephone number to call.

Onboard I have a Garmin 510 GPS with XM NEXRAD Weather (which includes a graphical depiction of TFR's to Scale), that I had been referencing the entire flight. The depiction showed a Yellow circle centered over LAS that extended out to the 5,000 foot ring of the Las Vegas Class Bravo. The second TFR appeared to center over LSV extending approx. 5 miles in diameter. That was my reference in the cockpit at the time of the "possible deviation". I took a picture of the Garmin 510 screen with my cell phone a short time later showing my flight path respective to the TFR(s) depiction. ATC also informed me that the depiction of the TFR was incorrect and that the TFR extended out to the 30 mile "mode C" veil. That is how I supposedly flew into the TFR.

Due to my lower altitude at the time, ATC was having trouble reading my radio transmissions, so an air carrier flight crew relayed my transmissions back to ATC. I asked whether or not I could continue to start my patrol, RTB, or land and was asked by ATC what was my intended point of landing. To which I replied ZZZ1. I then was instructed to continue to start my patrol outside of the TFR and contact Los Angeles Center, which I did and was with them for approx. 2min. was asked again what my intended point of landing was, what was the route of flight and what the patrol altitude would be. I replied with "picking up the pipeline along I-15 at 500 feet AGL and following the pipeline to ZZZ1." It

was then that the controller told me to squawk VFR, RADAR services terminated. I started my patrol without incident and continued my flight normally.

I called the number I was given and spoke to Mr. X, Manager of the Las Vegas TRACON. He was aware of my situation and took my contact information including my name, pilot certificate number, mailing address, and cell number. He informed me as to what had happened and to "expect a phone call and or visit".

In closing I would like to say that if I did encroach on a TFR it was purely an accident. I used the information I had in the cockpit to make the decision to fly to intercept the pipeline at a reasonably safe distance from the TFR, but at no time did I intend to fly into the protected area. In hindsight, I would have been better off staying with ABQ center flight following and would have been kept out of the restricted area. With that said, I did comply immediately with ATC's instructions as safely and expeditiously as possible. I have 20 years of flying experience and this is the first time I have had to give out my contact information. If I had to guess, I would say that if the TFR did in fact extend to the 30 mile "mode C" ring, the visual depiction should have shown that, it did not.

Synopsis

A C210 pilot reports inadvertently entering a TFR at 6,500 feet, 22 NM ESE of LAS, which was not depicted on his Garmin 510 GPS with XM NEXRAD Weather. A heading to exit the airspace and a phone number was provided by LAS Approach.

Time / Day

Date : 201508
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Haze / Smoke
Weather Elements / Visibility.Visibility : 7
Light : Daylight
Ceiling.Single Value : 10000

Aircraft

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Corporate
Make Model Name : Skylane 182/RG Turbo Skylane/RG
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission.Other
Flight Phase : Cruise
Route In Use : None
Airspace.Class D : ZZZ

Person

Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 5799
Experience.Flight Crew.Last 90 Days : 184
Experience.Flight Crew.Type : 4056
ASRS Report Number.Accession Number : 1288954
Human Factors : Situational Awareness
Human Factors : Workload

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

Contributing Factors / Situations : Environment - Non Weather Related
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Airspace Structure
Primary Problem : Airspace Structure

Narrative: 1

The days mission would be pipeline patrol of a route that would bring me back home in 3.0 hours flight time which was opposite my normal week schedule due to aircraft maintenance [the next day]. I started my morning checking weather, NOTAMs, and TFRs as usual. The weather indicated reduced visibility over the entire area due to smoke from the 30+ fires burning in our area. I checked the FAA website for TFRs and noted that there were more on the screen than I had ever seen before. I immediately noticed a TFR on my southern route that would need planning to get around [2 days later]. I checked my route for the day and thought the fires were burning in the same places. I had been watching these TFRs over the weekend to get glimpses of how my week would go. The fire indicated SE of ZZZ had been in the same spot as days before. (what I failed to realize is that the fire I had been tracking had disappeared and a new fire had taken its place further North).

The flight was routine until I entered my first airspace of the day. My route goes from a class C right into a class D. Due to intense fire tanker operations at ZZZ they had set up a temporary tower on the field a week prior. I contacted the tower about a minute from leaving my last class D airspace. This airspace hadn't been defined very well (I queried the tower the previous week and they said they were treating it like a class D, but they were mainly concerned with airport operations) and I could hear other pilots figuring out the quirks of this new airspace.

As I transition a busy area, I try to visualize each aircraft's intention and future path and determine if I should change my flight profile in any way to accommodate or change spacing in the VFR environment. The traffic here was very heavy with fire tankers landing refueling and departing. Local traffic was doing its best to blend in with all the changes. From the moment I entered the second class C, I spotted numerous reportable issues with the pipeline. When we see an issue, we circle, take photos and take down all relevant information to the sighting such as description, milepost information, GPS, road names, and landmarks. There were six such occurrences through the four airspace areas.

With the constant radio communications, traffic spotting, pipeline observation, and information gathering the workload was very high. I headed east and conferred with my observer on completion of our work related tasks. We have XM Satellite service on our hand held Garmin, and these depict TFRs. This GPS was being used as a work tool to catch up on pipeline sighting locations and flight navigation was visual and off the panel mounted GPS. There was no visible smoke off the ground ahead and we proceeded with our patrol.

Upon landing, I checked on the fires for the next day. I looked at a website that gives data on burning fires and their containment status. When I looked at the photos of the fire I thought I had passed North of, I saw that it was closer to the highway than I had thought and realized that this had to be a new fire and I had possibly penetrated the North side of

the TFR.

As a professional pilot I try to stay humble and learn from every flight. I have a desire to get better and realize that I can always take more steps to become a safer and more capable pilot. When analyzing this flight, I recognize a chain of events that are atypical to a normal flight.

1. Off normal schedule due to maintenance.
2. 30+ fires burning in area with reduced visibility
3. Complex airspace
4. High traffic volume
5. High pilot workload

Recognizing these events piling up earlier in the flight would have prevented this incident from happening. On top of acquiring more thorough TFR briefings, I will increase airspace awareness by initiating TFR route checks when I encounter any of the events above. I can utilize my observer to take more workload in these situations and check and balance my new procedures adopted since this event.

Synopsis

A pilot of a light aircraft, performing pipeline patrol duty, reported inadvertently penetrating a wildfire TFR due to the rapidly changing restricted airspace environment.

Time / Day

Date : 201507

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZJX.ARTCC

State Reference : FL

Altitude.MSL.Single Value : 11000

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZJX

Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Flight Phase : Descent

Airspace.Class E : ZJX

Person

Reference : 1

Location Of Person.Facility : ZJX.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 10

ASRS Report Number.Accession Number : 1282432

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Distraction

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation - Procedural : Clearance

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Provided Assistance

Result.Air Traffic Control : Separated Traffic

Assessments

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

Aircraft X was an arrival to PNS descending to 11,000 feet from the east direct PENSI direct PNS. This routing places the aircraft in a position to enter the PNS south MOA after PENSI if Pensacola approach does not descend the aircraft. In this instance, the aircraft was flashing to P1E and everything looked normal. 10 miles east of PENSI, I called Pensacola east for a handoff. The controller said that he did not see anything. I stated the code and position and he again said that he did not see anything. I was perplexed and decided to turn the aircraft, so I jumped off the land line and turned Aircraft X right to a 300 heading. The aircraft did not make a fast turn and ended up entering the 1C block of the PNS south moa at 11,000 feet.

A different controller at PNS approach called back and asked about the code. I stated the call sign and position again and he said that he only saw a primary. I questioned this and he said a beacon primary. I have never heard of a beacon primary, but asked again if he sees the code and he said yes and that he would be radar contact when he was clear of the MOA. He never told me if there was an aircraft in the 1C block, but from what I could see, I did not see anyone in that portion of the MOA. I turned Aircraft X to a 360 heading around one of my blocks that was active in the PNS north MOA and then the Pensacola Controller called back and said that he was radar and to descend him to 9000 feet.

At the same time I was fighting with ZHU over PNS arrivals from the west because they continually want to use a flash through procedure that does not exist and put the aircraft straight on PNS approach. They have been told numerous times to not do this, yet they continue. This is dangerous because our arrivals from the west and east are both at 11,000 feet direct PENSI, head on and we have nowhere to turn anyone without hitting a moa.

After investigating the cause of this handoff problem, I found that the fusion tracker at PNS had tagged up on a helicopter off of MOB southbound to the oil rigs. The code that Aircraft X was on, appears to be an ADIZ code for helicopters, but is not restricted in our computer, so PNS STARS never correlated our track with the real aircraft, it only showed it was a * with altitude. That is also why the controllers at PNS were confused about identifying the aircraft.

We have had numerous incidents with handoffs to STARS facilities using fusion tracker. This is the 3rd in the last two weeks and shows how much trouble this can cause, because the controller has no indication that a handoff is not working until the aircraft is close to the boundary. We have spoken to the terminal automation and ERAM interface leads and they are getting confused on what it is doing as well. The fusion tracker will still keep tracking a plane even after we change it to a different code and will never look again for the code. The other issue is that ERAM (Enroute Automation Modernization) is sending STARS (Standard Terminal Automation Replacement System) a Track update position and position as part of the handoff message, yet the fusion tracker does not care and tracks the closest target on that code.

In this instance, there was no room to maneuver or time to avoid the airspace deviation, but I mitigated it as much as I could. In this corridor, there is no room to maneuver and if the automation does not work and you have no indication, there is not much we can do.

Synopsis

A ZJX Controller attempted to handoff an aircraft to a neighboring facility while also maneuvering the aircraft away from a MOA. The receiving Controller was unable to immediately identify the aircraft due to conflicting beacon codes already used for ADIZ helicopter operations within the area. The problem may have arisen due to errors between ERAM and STARS not interacting correctly resulting in separate beacon codes not being tagged to incoming aircraft.

Time / Day

Date : 201507

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : BUR.Airport

State Reference : CA

Altitude.MSL.Single Value : 1700

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 8

Weather Elements / Visibility.Other

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Government

Make Model Name : Jet/Long Ranger/206

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Mission : Tactical

Flight Phase : Cruise

Route In Use : None

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Government

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 12250

Experience.Flight Crew.Last 90 Days : 50

Experience.Flight Crew.Type : 50

ASRS Report Number.Accession Number : 1282414

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Procedural : Published Material / Policy

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Ambiguous

Narrative: 1

I conducted Weather Check and checked for TFR's on FAA website as part of my preflight planning. Departed the heliport for our daily local security patrol. After establishing 2 way radio communication with BUR ATC, I was advised of a possible pilot deviation and given a phone number for ATC. Upon completion of my assigned flight, I contacted ATC via telephone. I passed on my contact information and certificate number. A possible TFR violation was mentioned and is being investigated.

I was aware of a TFR in the area North of SMO. This TFR was extended by 45 minutes while I was flying. At the time I checked TFR status, [the FDC] had dropped off the FAA website. Maybe it was in the process of being updated, I do not know. I have been using Flight Vector in the past, but I would suggest to use at least 2 or 3 sources when inquiring about TFR status to avoid problems of this nature.

Synopsis

Bell 206 pilot reported a TFR incursion when the TFR was extended beyond the planned time frame.