

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 Number28

Date of UpdateMarch 29, 2022

Number of Records in Report Set.....50

Records within this Report Set have been screened to assure their relevance to the topic.



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. Such incidents are independently submitted and are not corroborated by NASA, the FAA or NTSB. 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 clarified 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.

A handwritten signature in blue ink, appearing to read "B. Hooey".

Becky L. Hooey, 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: 1843066 *(1 of 50)*

Synopsis

Part 107 pilot reported they did not check for Temporary Flight Restrictions prior to flight and flew inside of an active TFR during an event.

ACN: 1828544 *(2 of 50)*

Synopsis

Recreational/Hobbyist pilot was flying UAS in an area restricted by state law.

ACN: 1822464 *(3 of 50)*

Synopsis

An aerobatic pilot who has a FAA waiver for a designated Aerobatic Practice Area reported traffic routinely flies through the airspace when it is advertised in use.

ACN: 1819904 *(4 of 50)*

Synopsis

A Center Controller and Supervisor reported Military Special Use airspace was implemented in their and adjoining facility airspace without complete coordination or established procedures being followed. The Controller unknowingly allowed an aircraft to fly through airspace which was being used by military aircraft not under his control.

ACN: 1778853 *(5 of 50)*

Synopsis

Captain reported due to ATC workload and failed communications, Captain entered TFR.

ACN: 1775414 *(6 of 50)*

Synopsis

GA pilot reported inadvertently entering PHL Class B airspace without a clearance due to distraction from having to troubleshoot the GPS system on the aircraft.

ACN: 1774160 *(7 of 50)*

Synopsis

Helicopter pilot reported a sporting event TFR violation.

ACN: 1773484 *(8 of 50)*

Synopsis

Air carrier flight crew reported the FMS not flying correctly during departure and having to manually turn the aircraft to avoid a possible airspace violation.

ACN: 1770928 *(9 of 50)*

Synopsis

Helicopter Captain reported getting distracted and losing situational awareness resulting in a TFR incursion.

ACN: 1770360 *(10 of 50)*

Synopsis

Helicopter Pilot reported a possible sporting event TFR violation. Pilot states the times of these active TFRs appear to change with little notice because COVID-19 is causing many changes to event schedules.

ACN: 1761542 *(11 of 50)*

Synopsis

GA pilot reported penetrating a TFR.

ACN: 1761286 *(12 of 50)*

Synopsis

A pilot flying VFR encountered IFR conditions due to unexpected smoke from wildfires.

ACN: 1760917 *(13 of 50)*

Synopsis

A light aircraft pilot reported a TFR incursion when ForeFlight was slow to display the TFR.

ACN: 1760614 *(14 of 50)*

Synopsis

Pilot reported flying nearby an area of smoke and was unable to find an associated TFR. After the flight, pilot confirmed a TFR was active but did not post in time on EFB software.

ACN: 1760311 *(15 of 50)*

Synopsis

Small aircraft pilot reported inadvertently entering a firefighting TFR that was not displayed on Foreflight.

ACN: 1760308 *(16 of 50)*

Synopsis

Pilot reported violating a sporting event TFR during the COVID-19 pandemic.

ACN: 1760292 *(17 of 50)*

Synopsis

C185 pilot reported inadvertently entering a TFR that he thought had been terminated.

ACN: 1759569 *(18 of 50)*

Synopsis

BE-36 pilot reported inadvertently entering a TFR.

ACN: 1757667 *(19 of 50)*

Synopsis

GA pilot reported entering a sporting TFR and wasn't sure if these type of TFRs are still in place during the COVID-19 pandemic.

ACN: 1757623 *(20 of 50)*

Synopsis

GA pilot reported a possible entry into a fire related TFR which was not depicted in his EFB pre-flight, but was noted post flight as the EFB updated.

ACN: 1756481 *(21 of 50)*

Synopsis

Pilot reported a sporting TFR airspace incursion due to not having it selected on the app being used.

ACN: 1756411 *(22 of 50)*

Synopsis

GA pilot reported inadvertently entering a TFR when the TFR failed to display on his ForeFlight-equipped iPad.

ACN: 1755243 *(23 of 50)*

Synopsis

Pilot reported confusion on whether a sporting TFR is in effect during the COVID-19 Pandemic when spectators are not allowed at the game.

ACN: 1752803 *(24 of 50)*

Synopsis

Pilot reported flying over a sporting event during a game and wondered if they had violated a TFR.

ACN: 1745873 *(25 of 50)*

Synopsis

UAV operator reported a TFR miscommunication that resulted in an airborne conflict with an aircraft.

ACN: 1745072 *(26 of 50)*

Synopsis

UAV pilot reported a TFR incursion.

ACN: 1743912 *(27 of 50)*

Synopsis

Captain of a corporate jet reported a TFR violation occurred in part because their XM subscription had expired.

ACN: 1743344 *(28 of 50)*

Synopsis

Center Controller reported a conflict between a firefighter aircraft in a fire TFR area and a small aircraft near the TFR.

ACN: 1738582 *(29 of 50)*

Synopsis

Pilots reported departing without clearance in what they thought was an uncontrolled airport resulting in runway incursion and airspace violations.

ACN: 1714595 *(30 of 50)*

Synopsis

EMB-120ER Captain reported that on approach they became disoriented and lined up with runway at an adjacent airport.

ACN: 1712213 *(31 of 50)*

Synopsis

Pilot reported violating Class B airspace due to unfamiliarity with new navigations systems installed on aircraft.

ACN: 1705924 *(32 of 50)*

Synopsis

Corporate Captain reported a possible IAH Class B airspace violation while using a Garmin 750 for navigation.

ACN: 1687889 *(33 of 50)*

Synopsis

Pilot reported confusion over whether or not a TFR was active, and reported ATC was unhelpful.

ACN: 1680159 *(34 of 50)*

Synopsis

C172 Instructor reported deviating to miss a possible drone resulting in TFR encroachment.

ACN: 1677820 *(35 of 50)*

Synopsis

PA32 pilot reported violating a TFR while handling an inflight engine roughness emergency likely caused by contaminated fuel.

ACN: 1629713 *(36 of 50)*

Synopsis

UAV operator reported violation of a TFR.

ACN: 1628813 *(37 of 50)*

Synopsis

Tower Controller reported an NMAC that was attributed to procedures that were not clear to the reporter relating to a TFR and go-around procedures.

ACN: 1604809 *(38 of 50)*

Synopsis

GA Pilot reported nonstandard TFR dissemination resulting in TFR violation.

ACN: 1591597 *(39 of 50)*

Synopsis

Drone operator reported penetrating Class D airspace.

ACN: 1588688 *(40 of 50)*

Synopsis

UAV operator reported possible operation in Class C airspace.

ACN: 1587031 *(41 of 50)*

Synopsis

CRJ-900 flight crew reported a track deviation and a restricted airspace incursion resulted when the FMC malfunctioned.

ACN: 1584265 *(42 of 50)*

Synopsis

B737 flight crew reported departing SJC after the tower had closed, but without a release form NorCal TRACON.

ACN: 1581670 *(43 of 50)*

Synopsis

Lancair ES pilot reported penetrating a TFR resulting in an airborne conflict with skydivers.

ACN: 1576558 *(44 of 50)*

Synopsis

GA pilot reported becoming disoriented and committing several airspace violations.

ACN: 1571346 *(45 of 50)*

Synopsis

Cessna 182 pilot reported experiencing intermittent "lost GPS signal" alerts while attempting to avoid Class B airspace and significant weather.

ACN: 1568247 *(46 of 50)*

Synopsis

Cessna pilot reported a TFR was not displayed on the preflight TFR map or on the aircraft GPS, resulting in a possible airspace violation.

ACN: 1505967 *(47 of 50)*

Synopsis

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

ACN: 1488262 *(48 of 50)*

Synopsis

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

ACN: 1483881 *(49 of 50)*

Synopsis

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

ACN: 1478689 *(50 of 50)*

Synopsis

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

Report Narratives

Time / Day

Date : 202109

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 2

Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 4

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : Small UAS (At or above 0.55 lbs and less than 55 lbs)

Crew Size.Number Of Crew : 1

Flight Plan : None

Mission : Surveying / Mapping (UAS)

Flight Phase : Cruise

Flight Phase : Landing

Flight Phase : Takeoff / Launch

Airspace.TFR : ZZZ

Airspace Authorization Provider (UAS) : Authorized Third Party

Operating Under Waivers / Exemptions / Authorizations (UAS) : Y

Waivers / Exemptions / Authorizations (UAS) : Blanket COA

Airworthiness Certification (UAS) : Special Authorization / Section 44807

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Waypoint Flying

Flying In / Near / Over (UAS) : No Drone Zone

Flying In / Near / Over (UAS) : Aerial Show / Event

Type (UAS) : Purchased

Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Commercial Operator (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Function.Flight Crew : Remote PIC (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total : 130

Experience.Flight Crew.Total (UAS) : 100

Experience.Flight Crew.Last 90 Days (UAS) : 30
Experience.Flight Crew.Type (UAS) : 120
ASRS Report Number.Accession Number : 1843066
Human Factors : Other / Unknown
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Other Person
When Detected.Other
Result.General : Police / Security Involved

Assessments

Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

I have been flying a weekly mission for a company. They have contracted with Construction company and have hired me to fly for mapping purposes. The mission was [in an area] which is controlled airspace near ZZZ. The company applied for a COA which I've been using and will last until the end of the year. Last Date I unlocked the app like usual and flew the mission. It's at 300 feet, and usually takes an hour. At the end of the mission I was approached by a Sheriff's officer. I was advised that a TFR was in place. I failed to look for any TFR's and should have known better since there was an active air show in progress. I have now learned to use tfr.faa.gov and will do so from now on.

Synopsis

Part 107 pilot reported they did not check for Temporary Flight Restrictions prior to flight and flew inside of an active TFR during an event.

Time / Day

Date : 202107

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : OLM.Tower

State Reference : WA

Relative Position.Distance.Nautical Miles : 4

Altitude.AGL.Single Value : 330

Environment

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Recreational / Hobbyist (UAS)

Make Model Name : Small UAS (At or above 0.55 lbs and less than 55 lbs)

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)

Flight Plan : None

Mission : Recreational / Hobbyist (UAS)

Flight Phase.Other

Route In Use : None

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Open Space / Field

Flying In / Near / Over (UAS) : No Drone Zone

Flying In / Near / Over (UAS) : Critical Infrastructure

Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Recreational / Hobbyist (UAS)

Function.Flight Crew : Remote PIC (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Experience.Flight Crew.Total (UAS) : 50

Experience.Flight Crew.Last 90 Days (UAS) : 6

Experience.Flight Crew.Type (UAS) : 6

ASRS Report Number.Accession Number : 1828544

Human Factors : Training / Qualification

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On Date at approximately XA:00 Hrs, I was in Olympia, WA for an unrelated event and decided to see if I could fly my drone on the Capitol complex to take videos or photos of the legislative building for recreational purposes. I checked the airspace using the ALOFT B4UFLY app, and could see that the airspace near the Capitol was Class G, but very close to Class E airspace for OLM to the south. I saw no signs or warnings of NO DRONE flying Zones. The areas for which I would take off and land were either flat, mowed grass, or empty concrete sidewalks. The temperature was in the high XA's, low XB's, and the skies were clear with a light breeze out of the south. There were very few vehicles or people in the area because the State Legislature is not in session currently. I parked on N Diagonal road and took off from the sidewalk area there. I completed 4 flights. I maintained VLOS for all my flights. The first I took off from the sidewalk near where I parked, and I elevated to 200 feet AGL, and then flew a path to the Winged Victory Monument and circled it before I returned to the area I took off from. I also walked down to the area in between the Legislative Building and the Temple of Justice and took off from the flag pole area directly in between. I elevated to approximately 330 feet AGL and completed about a 100 degree panning video to the north side around the dome of the Legislative building and then centered the drone and landed in the same spot I took off from. I did this twice for video purposes. Again, I landed safely back where I started. I then took off from mostly the same spot in between the buildings facing towards the Temple of Justice. My focus was on taking a video of the Temple of Justice from the south side of the building while I placed the drone at the same height as the tallest flag pole on the building, then scanning down the front. My last flight I walked back to where I originally parked my vehicle on N Diagonal, then I took off again from the sidewalk area and flew around the Tivoli fountain over the grassy areas, never going higher than approximately 150 feet AGL. I had no problems or concerns at the time during these flights. Now, 5 days later, I am speaking to a friend who is also a drone operator, but also a commercial pilot about my recent drone flights. After discussing these flights, he stated that it was not authorized to fly a drone on the Capitol complex. I said I checked the B4UFLY app, and did not see any signs or postings while on the grounds of the campus. Following our conversation, I then went and did more research now looking at non-aviation sites, as well as searching Sectional Aeronautical Charts on a commercial website and found that it is indeed not authorized to fly on the Capitol grounds and apparently numerous areas around there. I also then went and checked an aeronautical section chart (learning to read them) and do now see that there is airspace restrictions over the Capitol complex. My friend advised me I should report this incident to help ensure others like me potentially won't make this same mistake. As a recreational pilot, who is working on getting my Part 107 certification, I have been attending training using the FAASafety.gov site, and am operating under the understanding that any airspace restrictions, would be listed on the B4UFLY app. This is obviously NOT accurate. Following my friend's notification that I may have violated airspace, I checked again on the B4UFLY app and again found no Special Use Restrictions,

no TFR's, or any indication of not being able to fly on the Capitol grounds in the areas I flew. It was an open area and clear weather. The Class E restrictions appear to start to the south of the building. I would have never even considered flying if the Legislature was in session due to the amount of people on the ground and in the area. I will continue learning where to best get information about the areas for which I am permitted to fly and abide by the restrictions I am aware of, or should be aware of. I think this can be avoided for others in the future if the training for recreational or Part 107 pilots via the FAA, included ALL the locations to gather flight data prior to flight. Additionally training on the clear expectation that flying a drone requires you to know, use and understand Sectional Aeronautical Charts, as well as placing that information in the most accessible place to Recreational pilots. I have downloaded and used all the apps for flying a drone that have been pushed to use by the FAA on their websites. In my course of attempting to earn my Part 107 certification, I have taken the classes through the FAA websites to prepare me, and I feel very unprepared given this mistake I apparently made. I of course want to do the right thing, fly safely, and abide by the rules. I will continue to make efforts to learn and improve.

Synopsis

Recreational/Hobbyist pilot was flying UAS in an area restricted by state law.

Time / Day

Date : 202107

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : PCT.TRACON

State Reference : VA

Relative Position.Angle.Radial : 345

Relative Position.Distance.Nautical Miles : 6.4

Altitude.AGL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 12000

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 : VFR

Mission : Aerobatics

Flight Phase : Cruise

Flight Phase : Descent

Flight Phase : Climb

Route In Use : None

Airspace.Class E : ZDC

Person

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 : Instrument

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 2800

Experience.Flight Crew.Last 90 Days : 25

Experience.Flight Crew.Type : 50

ASRS Report Number.Accession Number : 1822464

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 1000
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Human Factors
Primary Problem : Chart Or Publication

Narrative: 1

I was practicing my aerobatic routine in Aerobatic Practice Area (APA) waived airspace just north of HGR and had a ground observer. The airspace NOTAM was active and the area is depicted on a sectional chart and is in software for current navigational systems. However, my concern is that I'm getting traffic coming through the airspace. I feel there are a few things that could be done to enhance the safety of my current operation. I'm writing you because I'm concerned the FAA will just close it down if I suggest there is a safety issue. The current waiver requires me to monitor Potomac Approach during my operation. That possibly may help, but sometimes there is so much chatter that it would be difficult to catch a call and their main purpose is to keep IFR traffic out of my waived airspace. In the past I would monitor HGR Tower and they were more helpful because they would look for traffic and be able to warn VFR traffic that they were communicating with also. My aircraft does not have the ability to monitor 2 frequencies simultaneously, so I'm currently only monitoring Potomac Approach as required by the waiver. As you know, TFR's are depicted boldly on digital navigational software devices. Could "Hot" APA's also be depicted boldly like TFR's? That would be a more obvious warning to other aircraft than just a drawing on a chart. Obviously, all pilots should be familiar with published NOTAMS in their route of flight, but we know that doesn't always happen. Also allowing HGR Tower to call out possible traffic conflicts would be helpful but please don't let the FAA close the area again for months until they have time to amend the paperwork! I did contact a representative from Potomac Approach about my concern and am waiting for a reply. Even if he is able to allow me to monitor HGR Tower instead of Potomac Approach, it would still be helpful if Hot APA's could show up as obvious as TFR's on digital navigational aids. Your consideration in this matter would be greatly appreciated. Thank you.

Synopsis

An aerobatic pilot who has a FAA waiver for a designated Aerobatic Practice Area reported traffic routinely flies through the airspace when it is advertised in use.

Time / Day

Date : 202107

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZOB.ARTCC

State Reference : OH

Aircraft : 1

Reference : X

ATC / Advisory.Center : ZOB

Aircraft Operator : Military

Make Model Name : Heavy Transport, Low Wing, 4 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Vectors

Airspace.Class A : ZOB

Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZOB

Aircraft Operator : Military

Make Model Name : Fighter

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Tactical

Airspace.Class A : ZOB

Aircraft : 3

Reference : Z

ATC / Advisory.Center : ZOB

Aircraft Operator : Military

Make Model Name : Stratotanker 135

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Refueling

Flight Phase : Cruise

Airspace.Class A : ZOB

Aircraft : 4

Reference : A

ATC / Advisory.Center : ZOB

Aircraft Operator : Military

Make Model Name : E-3 Sentry (AWACS)

Crew Size.Number Of Crew : 5
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Tactical
Flight Phase : Cruise
Airspace.Class A : ZOB

Person : 1

Location Of Person.Facility : ZOB.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) : 2
ASRS Report Number.Accession Number : 1819904
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Troubleshooting
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Facility : ZOB.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Supervisor / CIC
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7
ASRS Report Number.Accession Number : 1819906
Human Factors : Workload
Human Factors : Troubleshooting
Human Factors : Time Pressure
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Person : 3

Location Of Person.Facility : ZOB.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
ASRS Report Number.Accession Number : 1819911
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events

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

Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.No Specific Anomaly Occurred : Unwanted Situation
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

This is once again another report about the Steelhead MOA/ATCAA. Area X Controllers were briefed that the Steelhead ATCAA (Air Traffic Control Assigned Airspace) was going to be active from 29,000 feet to 31,000 feet from XA:00-XD:00. There would be numerous military aircraft in the MOA (Military Operations Area) due to the VIP being in TVC. When I sat down at the sector, there was already confusion. There were 3 tanker aircraft wanting a clearance into the MOA but it was not yet active. I tried to call the Minneapolis Center military desk and Black Talon (as I've repeatedly been told to do after these reports). Cleveland Center's "fix" is to call those two facilities. There was no answer at either line. I tried having my Assist call. No answer. I had the Supervisor call. No answer. I called the Minneapolis Center controller at TVC high sector to try to coordinate a new altitude block of 25,000 to 31,000 feet and was denied. The tankers were given vectors until the airspace went active. At that time, I cleared the tankers into the MOA. During this live operation, the tankers repeatedly asked for more vertical airspace. The supervisor coordinated it and it was granted. I told the Operations Manager (OM) that a dangerous situation was occurring and has been occurring with the Steelhead MOA/ATCAA. He stated that he didn't really know how it worked, but the aircraft controlled the airspace and that he did not think there was an air traffic controller working the airspace. Later on, the OM talked to my supervisor who spoke to me. The supervisor said that Black Talon is only the coordinating agency and they simply schedule the airspace but are not controllers. As the day went on, the tankers were asking to join up and were asking for permission to climb and descend. This is not the procedure for military airspace. In MOA/ATCAA, the aircraft are not under the FAA's control. Whose control are they under? I am still unclear. However, they were soliciting separation services. I didn't even have flight plans for these aircraft any longer. Their radar services had been terminated. I advised them that they are responsible for separating themselves and I was not providing separation services. They informed me that Aircraft Y told them that they had to ask my permission for altitude changes inside the Steelhead ATCAA. There were also several spillouts involving these aircraft. At least 2, I personally saw. After another break I came back to a cap and anchor drawn on the screen. Cleveland Center's military guy had come in and drawn a cap and anchor but had told the controllers it "wasn't official". Basically, what it seems happened is someone made a cap and anchor in the Steelhead MOA at 29,000 to 31,000 feet. Cap and anchors are typically inclusive vertical altitudes. The cap and anchor, however, were not in the confines of the Steelhead MOA hence the spillouts. To be clear, the Steelhead ATCAA was active just apparently with a cap and anchor that no one forwarded down the line. The aircraft were making altitude and time adjustments real time, not in advance. It went from FL290B310 to FL200B310 and from XA:00-XD:00 to now XA:00-XG:00. Very last minute

changes. To make this matter even worse was that I was controlling the VIP aircraft. I had sent the VIP aircraft through this (at the time) unknown cap and anchor because I wasn't told about it. Every pilot and every aircraft is important to me, but the VIP aircraft was placed in an unsafe proximity to randomly maneuvering military aircraft that were not radar identified, who I no longer had flight plan information on, and who were not on my frequency. It was only after the VIP aircraft flew through that a "not official" cap and anchor was drawn which not only penetrated Cleveland, but Minneapolis and Toronto Centers as well. The Steelhead MOA/ATCAA seems strangely still very confusing. My supervisor and Operations Manager were unclear, and still are unclear, about it. Does Black Talon coordinate it through the Minneapolis military desk? Does Aircraft Y control it? I give pilots a frequency for Black Talon so maybe there is a controller there? Someone needs to find this stuff out. I personally volunteer for the mission. I will be medically disqualified for weeks and I would spend that time and my own money to travel to wherever or Zoom meeting whoever to figure this out. This has been an on-going issue that was especially perverse today. I have been raising the alarm for quite some time and am passionate about it and would like to personally get/set the record straight so that all aircraft and pilots are safe. I hope this will be met with the serious spirit with which it's written.

Narrative: 2

As a Supervisor in Area X at Cleveland Center, I spent my morning attempting to coordinate and discover why the aircraft were not following what we were briefed on. Area X was briefed that due to the TFR for VIP at Traverse City, Steelhead ATCAA would be activated from 29,000 to 31,000 feet for tanker and E3 activity. These altitudes and ATCAA (Air Traffic Control Assigned Airspace) were supposed to encompass all AEW (airborne early warning) and supporting activity. The ATCAA was activated from approximately XA:45Z to XE:00Z, however aircraft showed up before it was active and then requested it to remain active past its finish time. From the start, every single aircraft requested different altitudes than what was coordinated. I attempted to get information from Minneapolis Center, our military desk and Black Talon and was unable to get any answers. Eventually, we extended the Steelhead ATCAA from 23,000 to 31,000 feet to accommodate. Later, a tanker aircraft requested a block altitude of 20,000 to 22,000 feet and a controller gave him those until established in the lateral boundaries of Steelhead, at which point the controller understood the aircraft would climb to within the altitude limits of Steelhead (FL230-FL310). The aircraft never climbed. The controller then coordinated with Minneapolis Center blocking 20,000 to 23,000 feet to accommodate the aircraft. I then coordinated with our military coordinator to extend Steelhead to include these altitudes. When any aircraft are cleared into the Steelhead complex, radar service is terminated and the aircraft track gets dropped. This occurred during this session, as we were briefed to treat the aircraft as we normally would with Steelhead. However, while Steelhead was active, we had multiple occasions where an aircraft went outside of the lateral bounds of the Steelhead complex. After trying repeatedly to find out why this was happening, we discovered that the Sentry track was not fully inside of the Steelhead complex as we were briefed. At this point I called on the phone to Minneapolis Center supervisors desk, Toronto Center sectors Hamilton and Centralia to warn and pass along that we discovered that our information was incorrect. VIP Aircraft traveled through our airspace around XB:00 Local time estimated. Having no Controller in Charge on the entire day shift, I asked the Operations Manager to cover the Supervisor position while I plugged in and monitored the VIP movement. VIP Aircraft's course traveled about 4 to 5 miles west of the Steelhead ATCAA. During this time we kept a close eye on any tracks within Steelhead due to their previous spillover events (We were not aware at this point that the Sentry was not fully enclosed within Steelhead). All tracks were on the East side of Steelhead and not in conflict with the VIP aircraft, however that potential did exist due to

the Sentry course that we were not aware of. In addition, multiple aircraft called at the Peck sector to request join ups and altitude changes while within the Steelhead ATCAA. The aircraft stated that Aircraft Y told them to do so. I had the controller inform the aircraft calling that Cleveland Center could not provide control instructions within Steelhead ATCAA. I also told the controller to state that they were not providing any separation services within Steelhead and that it was Aircraft control. At this point the floor walker was involved as well and verified that what we were doing was correct and was able to inform us why aircraft were spilling out of Steelhead. Also, we discovered around XD:00Z that the end time of XE:00Z would not be correct. This was only because I prompted my controller to ask detailed and blunt questions about if the aircraft within Steelhead would want it open longer. The aircraft's intention was at XD:45Z to ask to extend Steelhead which in no way is enough time for coordination and planning! It was only because I pressed the controller to ask about an ambiguous statement from an aircraft within Steelhead that we discovered this! There is probably more that I have left out, this was all very fluid and unorganized. Nothing occurred how we were briefed it was to occur and answers/information were slow and hard to get. [Recommend] Coordination/communication. The military did not do anything that was expected. They did not request any of the altitudes that were originally blocked for Steelhead. They did not communicate far enough in advance to extend Steelhead. Once their abnormal requests were received, there was nobody to call to get answers. Black Talon is the controlling agency, there were no Whiskey alerts called and information was very slow and untimely to be of use to us. I recommend that if Steelhead is active, Black Talon needs to be monitoring the airspace. We need a direct call/shout line for them to inform us of any Whiskey events, or us to ask questions and perform point outs in case of weather, deviations, emergencies or TCAS events.

Narrative: 3

We had military come to the Steelhead MOA/ATCAA. There was a crazy amount of miscommunication on the aircraft and controllers not knowing what was going on. They were supposed to go into the Steelhead and in certain altitudes, then the altitudes had to be corrected, and Whisky alerts were happening. Also the aircraft stayed in the airspace longer than coordinated and the Steelhead went cold with aircraft still in the airspace not talking to ATC. There needs to be better coordination when stuff is happening and what is actually happening. More coordination before aircraft get there and what is going to be happening.

Synopsis

A Center Controller and Supervisor reported Military Special Use airspace was implemented in their and adjoining facility airspace without complete coordination or established procedures being followed. The Controller unknowingly allowed an aircraft to fly through airspace which was being used by military aircraft not under his control.

Time / Day

Date : 202012

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Environment

Flight Conditions : Mixed

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Corporate

Make Model Name : Light Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use.STAR : ZZZZZ

Airspace.TFR : Y

Person : 1

Location Of Person.Facility : ZZZ.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) : 12

ASRS Report Number.Accession Number : 1778853

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 8869

Experience.Flight Crew.Last 90 Days : 35

Experience.Flight Crew.Type : 120
ASRS Report Number.Accession Number : 1779222
Human Factors : Communication Breakdown
Human Factors : Time Pressure
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

This aircraft called asking for lower, they were no longer on my scope, I did not know who was calling. The sector was completely out of control, we had a tracker, and D side. The level of traffic at the same time was unheard of, uncalled for and completely irresponsible. There was no in trail spacing for ZZZ1 and ZZZ2 arrivals, the departures out of ZZZ2, ZZZ3, And ZZZ1 were not stopped. The sector was not split. I do not believe we had the staffing to split the sector. Supervisors did not do enough to slow the sector down, TMU did not do enough to slow the sector down. This is one of the worst situations I have been put in in my XX years as a controller. People should be held responsible for the out of control sector. This event should not have happened. This event was damaging to my health. I think something like this should never be allowed to happen again, and there should be an investigation into how so many airplanes can be allowed in a sector that was already overloaded with traffic. I often asked for a couple minutes to stop the traffic and let me catch up. I several times asked for help from the D side and the Tracker neither one seemed to have any idea what was happening. There should be national flow initiatives to slow the traffic down to these saturated airports. Planes should have to wait safely on the ground. This can not be that hard to figure out. They can safely flow planes to all the ZZZ4 airports, they sure as hell can figure out how to do it to South ZZZ5 airports. Staffing needs to be returned to normal ASAP. TMU needs to get their act together. If the chief of the facility gets this, he does not need to look any further then this session to see that TMU is broken in this building.

Narrative: 2

I was flying Aircraft X, at this time. During our arrival into ZZZ6 we were on the ZZZZZ STAR talking to ZZZ Center. The controller was very busy and I would say over loaded. He instructed us to descend to 10,000 ft. so we did as we were approaching the inner 10 mile ring on the TFR we radioed many times asking for lower and waiting to be handed off to ZZZ7 Approach. When he finally handed us off we apparently entered the 10 mile ring just as ZZZ7 approach replied to us. We were instructed to turn right I believe to a 250 heading and descend to 8,000 ft. As I started the turn I got a RA and was told I was being followed by the Aircraft Y. I was then asked to descend to 5,000 ft. and he radioed the fighter that he now had radio contact with me and was released. He continued to vector us to land at ZZZ6 and told me to call Phone Number. When I parked the aircraft I called and

told him what had happened. I then had a interview with the government agency and told them what had happened. We were in and out of the clouds on the arrival and with as busy as the controller was he never gave us the hand off until it was to late. Knowing we were close to the TFR and the airspace and controller was saturated we could not make any abrupt turns to avoid the situation and could not get the controller to answer us in time to get properly vectored around.

Synopsis

Captain reported due to ATC workload and failed communications, Captain entered TFR.

Time / Day

Date : 202012

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : PHL.Airport

State Reference : PA

Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : PHL

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Nav In Use : GPS

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class B : PHL

Component

Aircraft Component : GPS & Other Satellite Navigation

Aircraft Reference : X

Problem : Malfunctioning

Person

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 : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 1700

Experience.Flight Crew.Last 90 Days : 27

Experience.Flight Crew.Type : 1300

ASRS Report Number.Accession Number : 1775414

Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

While flying a VFR flight to LOM, I may have entered the Philadelphia Bravo airspace without clearance. I was communicating with PHL ATC on 124.35 for flight following. I was told to climb from 3,000 to 3,500 to avoid a TFR but don't remember specifically being cleared into the bravo airspace. Normally I would verify with ATC before entering the bravo if I was unsure. However, on this flight, my GPS equipment lost the GPS signal near Wilmington and I got distracted troubleshooting it. I was a few miles into the Bravo airspace when I realized I had not double checked the clearance. I was still talking with PHL ATC and they did not express any concerns with my location.

Synopsis

GA pilot reported inadvertently entering PHL Class B airspace without a clearance due to distraction from having to troubleshoot the GPS system on the aircraft.

Time / Day

Date : 202011

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 321

Relative Position.Distance.Nautical Miles : 7.7

Altitude.MSL.Single Value : 1200

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Helicopter

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Passenger

Flight Phase : Cruise

Route In Use : None

Airspace.TFR : ZZZ

Person

Location Of Person.Aircraft : X

Function.Flight Crew : Single Pilot

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 1304

Experience.Flight Crew.Last 90 Days : 14

Experience.Flight Crew.Type : 716

ASRS Report Number.Accession Number : 1774160

Human Factors : Distraction

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Air Traffic Control : Issued Advisory / Alert

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I have X years of experience flying helicopters both IFR and VFR in the area. I know the area well. I know the rhythm of sporting TFRs and where to find the information (usually ForeFlight). Unfortunately, COVID in 2020 has effectively eliminated almost all of the normal sporting events. I actually thought that since fans couldn't go to sporting events that there would not be any active sporting event TFR's at all since they wouldn't meet the people density standard. Tonight, while en-route to ZZZ1 from ZZZ2, I learned that is not the case. While following my normal routing from ZZZ1 to ZZZ2 following Interstate-number Southbound and asking for a ZZZ transition over the south field to ZZZZZ, I called ZZZ Tower to ask for the transition when the Controller asked me if I knew that I was in a TFR. I apologized and informed the Controller that I didn't and that I didn't see the TFR on my Garmin GTN nor on ForeFlight. Another pilot chimed in on freq and also said that he didn't see the TFR. The Controller simply said copy and gave me the transition without mentioning the issue further. I then saw that I did not have the TFR layer on my iPad (ForeFlight) turned on. As soon as I landed in ZZZ2 I turned on the layer and sure enough there was the TFR. I must have clipped the edge of it on my track inbound just north of ZZZ. This issue really stems from unacceptable complacency to sporting event TFR's during the COVID year and also the fact that they don't populate to my Garmin GTN via XM like normal TFRs do. I really wish they would standardize the delivery of TFRs so that we can see them across all services. Regardless, it was unacceptable to not have fully reviewed the flight path for all TFRs prior to departing ZZZ1. ...a mistake I won't be making again.

Synopsis

Helicopter pilot reported a sporting event TFR violation.

Time / Day

Date : 202011

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : DCA.Tower

State Reference : DC

Aircraft : 1

Reference : X

ATC / Advisory.Tower : DCA

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 : Initial Climb

Flight Phase : Climb

Airspace.Class B : DCA

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : DCA

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 : Taxi

Airspace.Class B : DCA

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

ASRS Report Number.Accession Number : 1773484

Human Factors : Time Pressure

Human Factors : Situational Awareness

Human Factors : Distraction

Person : 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 : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1773485
Human Factors : Time Pressure
Human Factors : Other / Unknown
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

Takeoff and initial climb from DCA, Runway 01. Captain Pilot Monitoring, First Officer Pilot Flying. Pre-flight duties completed and route review completed at gate. Engine start and taxi was normal to Runway 01, before takeoff checklist completed to the line before crossing Runway 04, below the line after crossing Runway 04. As we taxied to runway, Aircraft Y was cleared to cross Runway 04 before us on another taxiway then into the box. As we were approaching Runway 01, Tower Controller asked Aircraft Y if they were ready for departure, Aircraft Y responded they needed 2 minutes. Tower asked if we were ready for departure and we responded we were ready, completed final checklist items. We lined up on Runway 01 and were cleared for takeoff. I do not recall checking FMA for NAV annunciation as we taxied on to the runway and checked final for traffic. Light passenger load/light takeoff weight. After takeoff, aircraft climb was rapid with a quick change to Departure frequency. We were at clean-up altitude quickly after takeoff. After thrust set to climb power and frequency change to departure (prior to check-in on frequency with departure) I noticed FMA annunciation was RWY TRK and we had not yet initiated a left turn for the departure. I told the First Officer to turn left, which he accomplished, initially coming left to approximately a 290-300 degree heading. I cross checked Nav Display for 1 NM circle around point PLVIA and outside references. I do not believe we entered Prohibited Area 56A or Prohibited Area 56B. After initial left turn, we then turned back to the right to rejoin the departure. A turn to point ADAXE would have required an aggressive right turn, so we turned to rejoin the departure between ADAXE and BEBLE After turning to rejoin departure I checked-in with departure control when they asked if we were on frequency. Remainder of the flight was uneventful. This was my (Captain) first flight back on the line after several months away due to combination of leave of absence and

quarantine for close contact with [someone] with COVID-19. I had just completed recurrent training the week before this flight. In the pre-flight briefing the First Officer had noted that with light passenger loads the aircraft takeoff and climb would happen quickly. Given my lack of recent flying, I should not have accepted departure prior to the aircraft in front of us on the ground, even though I felt I was in the green. I was slow to notice we had not initiated left turn on the departure where I would normally expect to begin a turn, possibly due to lack of recent line flying experience, the combination of quick climb after takeoff to acceleration altitude and frequency change slowing my monitoring and recognition of aircraft not being in NAV mode. Though I did direct the pilot flying to make a left turn, if I had done so earlier we would have been able to maintain the departure track without tracking close to Prohibited Area 56. The time from takeoff to overshooting the departure turn on takeoff from Runway 01 at DCA happens fast! I would like to see a similar event during simulator training to illustrate just how quickly you can get close to Prohibited Area 56 after takeoff from DCA when combining a timely distraction with lack of aircraft going in to NAV mode. PLVIA with 1 NM ring on NAV display did assist me as a barrier for this event.

Narrative: 2

Takeoff and initial climb from DCA, Runway 01. Captain Pilot Monitoring, First Officer Pilot Flying. Pre-flight duties completed and route review completed at gate. Engine start and taxi was normal to Runway 01, before takeoff checklist completed to the line before crossing Runway 04, below the line after crossing Runway 04. As we taxied to runway, Aircraft Y was cleared to cross Runway 04 before us on another taxiway then into the box. As we were approaching Runway 01, Tower Controller asked Aircraft Y if they were ready for departure, Aircraft Y responded they needed 2 minutes. Tower asked if we were ready for departure and we responded we were ready, completed final checklist items. We lined up on Runway 01 and were cleared for takeoff. I do not recall checking FMA for NAV annunciation as we taxied on to the runway. Light passenger load/light takeoff weight. After takeoff, aircraft climb was rapid with a quick change to departure frequency. We were at clean-up altitude quickly after takeoff. After thrust set to climb power and frequency change to departure (prior to check-in on frequency with departure) PM noticed FMA annunciation was RWY TRK and we had not yet initiated a left turn for the departure. PF was focused on aircraft control since it was a light aircraft and I did notice the PLVIA circle rapidly approaching with no direction to turn by the Flight Directors. I also noticed the route was dashed and started a shallow turn to the left primarily due to the PLVIA circle. The PM/Captain having SA told me to turn left, which I accomplished, initially coming left to approximately a 290-300 degree heading. I cross checked Nav Display for 1 NM circle around point PLVIA and outside references. I do not believe we entered Prohibited Area 56A or Prohibited Area 56B. After initial left turn, we then turned back to the right to rejoin the departure. A turn to point ADAXE would have required an aggressive right turn, so we turned to rejoin the departure between ADAXE and BEBLE. After turning to rejoin departure PM checked-in with departure control when they asked if we were on frequency. Remainder of the flight was uneventful. I used a technique taught in the school-house of Red over Blue, Climb/NAV, Flight Dir 1 and 2 while at the gate. I do this on every flight. We are supposed to check NAV again prior to departure and due to the rushed situation and proficiency I don't recall either PM or PF saying anything about NAV. We had briefed the departure in full to include Prohibited Area 56 and the EO SID. I still don't know why it was not in NAV after takeoff roll. I had seen a technique of starting the turn regardless of the flight directors in DCA but up until now I have always used the flight directors. In this case the PLVIA circle was a timely final barrier that prevented me from going into Prohibited Area 56 along with the PM's callout. The time from takeoff to overshooting the departure turn on takeoff from RWY 01 at DCA happens fast! I would like to see a similar event during simulator training to illustrate just how quickly you can get

close to Prohibited Area 56 after takeoff from DCA when combining a timely distraction with lack of aircraft going in to NAV mode. Keep the PLVIA circle in the 10-7 and emphasize in training, it is a critical last barrier.

Synopsis

Air carrier flight crew reported the FMS not flying correctly during departure and having to manually turn the aircraft to avoid a possible airspace violation.

Time / Day

Date : 202010

Local Time Of Day : 0001-0600

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : Helicopter

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 135

Flight Plan : None

Mission : Ambulance

Flight Phase : Landing

Flight Phase : Cruise

Airspace.TFR : ZZZ

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Taxi

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1770928

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Time Pressure

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Air Traffic Control

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Ambiguous

Narrative: 1

I flew into the boundary and landed with a patient during a TFR without notifying ZZZ TRACON of my departure or route. I was fully aware of the TFR. I read the NOTAM. I had the phone number for ZZZ TRACON on speed dial. I received the notification for the flight via phone and text. The extenuating circumstance that I let allow me to lose situational awareness was when the office told me that this patient was COVID positive. I started concerning myself with securing the proper PPE and the steps necessary to complete the flight. I missed a crucial step of notifying TRACON.

I have been thinking about this since the moment that I was notified. I have flown during many TFRs. On a personal level what I can do is take the time and create printed reminders all around the office. I had briefed the crew to help, however; they were fairly new and were concerned with critical patient care. It is of course my responsibility to make sure all steps are completed before, during and after the flight.

Synopsis

Helicopter Captain reported getting distracted and losing situational awareness resulting in a TFR incursion.

Time / Day

Date : 202010

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Air Taxi

Make Model Name : Helicopter

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 135

Flight Plan : VFR

Mission : Passenger

Flight Phase : Landing

Flight Phase : Final Approach

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 : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 3600

Experience.Flight Crew.Last 90 Days : 15

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 1770360

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Other / Unknown

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Ambiguous

Narrative: 1

I accepted a flight request for a patient transfer flight to ZZZ. I completed my preflight planning which included a review of possible sporting event TFRs on my route of flight, I saw none.

I departed from our base and flew to the hospital. We then loaded the patient and we departed for ZZZ. I began my descent from cruise down to approximately 500 feet AGL while about 5 miles from the hospital, we landed on top of the hospital without incident.

We were at the hospital for about 35 minutes, and I then began my flight planning for the leg home. I opened my FOREFLIGHT app to double check Weather on my phone and immediately saw that we were inside a TFR. It said the TFR was active although it listed a "Warning," "that the start time for this event could not be determined." It was a TFR for a sporting event. I am unsure whether or not this TFR was Active when we entered the Vicinity of ZZZ and landed at the hospital. I also began to wonder why No information on my G500 or G650 with TFR warnings (turned On) had Not activated. I turned my avionics On while on the roof and again there was NO red circle or any indication of a TFR being displayed.

I called ZZZ Controllers and told them I was located on top of at ZZZ Hospital roof as a medical helicopter and am requesting clearance to depart the TFR with a squawk code back enroute to ZZZ1. The Controller gave me a squawk code and said I could depart at any time and simply squawk 1200 when I was well clear of the TFR. I programmed my transponder with the code and we departed ZZZ back to ZZZ1.

Later the same day we had another flight request back to the hospital in ZZZ, I contacted ZZZ Controllers and was again given a squawk code, we entered and exited the TFR without incident. It is also noteworthy that when I departed the hospital for the second time that the TFR was showing ACTIVE on FOREFLIGHT and ZZZ1 Controllers said it was no longer active. And again, no indication of a TFR on my G500 or G650.

In the future I will be more diligent during my preflight planning and multiple Legs and stops to check Multiple sources to confirm if a TFR is on my route of Flight. I also think with COVID-19 game day schedules are more fluid and subject to change and this has made the preflight planning more challenging in determining whether or not a TFR is active or not.

Synopsis

Helicopter Pilot reported a possible sporting event TFR violation. Pilot states the times of these active TFRs appear to change with little notice because COVID-19 is causing many changes to event schedules.

Time / Day

Date : 202009

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 30000

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Skylane 182/RG Turbo Skylane/RG

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Route In Use : VFR Route

Airspace.Class E : ZZZ

Airspace.TFR : ZZZ

Component

Aircraft Component : Laptop Computer (performance, planning, etc.)

Aircraft Reference : X

Problem : Malfunctioning

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 : 410

Experience.Flight Crew.Last 90 Days : 31

Experience.Flight Crew.Type : 250

ASRS Report Number.Accession Number : 1761542

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Flight Crew : Exited Penetrated Airspace

Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Equipment / Tooling

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I briefed my flight with Garmin Pilot on my iPhone and noted the fire TFR. While enroute I was using my iPad to follow my route. Because the TFR was not yet displayed I thought I was still outside of the Southern boundary. I realized there was an error somewhere. I had recently had issues with Garmin Pilot on my iPad so I had unloaded and reloaded the program to fix the problem. Unfortunately, I had neglected to turn the TFR display back on. When I discovered this I immediately enabled the TFR display and to my dismay realized I was already approximately four miles into the TFR. I immediately turned ninety degrees east to exit the TFR as quickly as possible. Fortunately a recent snowstorm had greatly dampened the fire and there was no air traffic fighting the fire at that time. This was very educational experience for me. I learned I must be more in tune with my navigational equipment at all times. Pilot error!

Synopsis

GA pilot reported penetrating a TFR.

Time / Day

Date : 202009

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2700

Environment

Flight Conditions : IMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 1

Light : Daylight

Ceiling.Single Value : 2000

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

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

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : 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 : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 2800

Experience.Flight Crew.Last 90 Days : 10

Experience.Flight Crew.Type : 800

ASRS Report Number.Accession Number : 1761286

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Confusion

Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : VFR In IMC
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Diverted

Assessments

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

Narrative: 1

I departed ZZZ1 in VFR conditions for a four day camping trip. Our destination was a USFS wilderness airstrip. There were TFRs for fire fighting in the general area of our destination, but it was not along the route of flight which is direct except for maneuvering to land in the canyon where the airport is located. The weather forecast for the next four days was clear. The morning of the return flight, from ZZZ to ZZZ1, there was smoke at ZZZ but visibility was about seven miles. Aircraft which had departed a nearby airstrip were easily visible overhead. I chose to depart to the southwest following a river expecting to find improving conditions as we moved away from a wildfire. We flew down the canyon but visibility deteriorated to MVFR. Attempting to climb over the smoke would result in losing visual contact with the ground and I did not attempt it.

Visibility deteriorated to about one mile. Nearby airports were reporting visibility of 1 sm and 3/4 sm respectively so I did not divert there. I began following the interstate highway. Conditions deteriorated again and we descended further to keep the highway in view. We received the ASOS and it reported 1/2 sm, so we continued towards our destination. When we first received the destination ASOS the reported visibility that sounded like 1/8 mile. At that point, I turned around and headed to ZZZ2 to land visually which was uneventful. After landing at ZZZ2 I saw the visibility was reported as 1 sm at ZZZ1 but we had already landed safely. We rented a car and drove the rest of the way.

The smoke had forced me to fly a different route than I planned. It kept us confined to a river valley where a TFR was located although I do not know if we flew through the TFR. The flight conditions were mostly MVFR but the airports were reporting IFR and LIFR, so we elected to continue the flight VFR. The flight conditions worsened further and I elected to make a visual approach and landing when the ASOS was reporting 1/2 sm visibility.

Looking back at the chain of events there were several factors that led to me making this flight under these conditions. The forecast available on our departure made no mention of smoke or limited visibility and our return was four days later. The level of smoke was reported to be the most ever recorded in the region. Throughout the flight I made what appeared to be the best choice based on my knowledge of conditions to that point. Those choices led me to worse conditions and worse choices. I considered contacting ATC and requesting an IFR clearance but didn't due to not being IFR current and not having procedure charts with me. In retrospect I should have declared an emergency and requested ATC assistance rather than continuing into deteriorating conditions. A solution would have been a satellite modem to get weather information in the remote location.

Synopsis

A pilot flying VFR encountered IFR conditions due to unexpected smoke from wildfires.

Time / Day

Date : 202009

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : S46.TRACON

State Reference : WA

Relative Position.Angle.Radial : 145

Altitude.MSL.Single Value : 2800

Environment

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : Light Sport Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Component

Aircraft Component : Electronic Flt Bag (EFB)

Aircraft Reference : X

Problem : Malfunctioning

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 : Multiengine

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Engineer

Experience.Flight Crew.Total : 33000

Experience.Flight Crew.Last 90 Days : 125

Experience.Flight Crew.Type : 300

ASRS Report Number.Accession Number : 1760917

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

Prepped for a short flight to TDO, approx 55 nm. Plugged route into Foreflight on my iPad. Route came up CLEAN, I saw no TFRs. I did this as engine was warming up. After runup, departed and climbed rapidly to 2,800 feet to stay below the floor of Class B airspace. Leveled, set cruise, glanced at my iPad, and to my shock and horror found myself inside a firefighting TFR, and 200 feet into the ceiling of it!! I promptly turned away and exited it, continued on to TDO. THAT TFR WAS NOT ON MY IPAD SCREEN WHEN I BEGAN MY TAKEOFF ROLL. It either was transmitted shortly after my takeoff, OR there was some kind of snag with Foreflight in the download. I don't know. The Foreflight TFR has always been prompt and accurate for me in the past. Upon my return, 3 hours later, the TFR was on screen the moment it came up to speed.

Synopsis

A light aircraft pilot reported a TFR incursion when ForeFlight was slow to display the TFR.

Time / Day

Date : 202009

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 350

Relative Position.Distance.Nautical Miles : 9

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

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 : None

Mission : Personal

Flight Phase : Descent

Route In Use : Direct

Airspace.Class E : 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 : Private

Experience.Flight Crew.Total : 1366

Experience.Flight Crew.Last 90 Days : 22

Experience.Flight Crew.Type : 871

ASRS Report Number.Accession Number : 1760614

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Ambiguous

Narrative: 1

During a personal flight, I observed smoke associated with a fire, and lots of aerial traffic swarming around that area, according to ADS-B. The location of the fire was approximately X NM NW of ZZZ1, while I was flying a line between ZZZ and ZZZ1. My EFB software was not showing a TFR in this location, but did show other TFR's. The activity suggested there was a TFR, so I adjusted my position to be further east. Checking the FAA TFR site on my phone upon landing ZZZ1 showed there was a TFR created since my preflight briefing at home, but before entering the area in the flight. I believe I remained clear, but very close.

Contributing factors:

TFR was created in that window of time between briefing and flight. In-flight data is relied on for these updates, but the TFR did not post in time. ATC has been difficult to get flight following since Pandemic made them busier, so I stopped trying for short flights.

Discovery was recognizing the situation, and corrective action was making room for fire fighting.

Synopsis

Pilot reported flying nearby an area of smoke and was unable to find an associated TFR. After the flight, pilot confirmed a TFR was active but did not post in time on EFB software.

Time / Day

Date : 202009

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : CCB.Airport

State Reference : CA

Relative Position.Angle.Radial : 293

Relative Position.Distance.Nautical Miles : 10

Altitude.MSL.Single Value : 9000

Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 5

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 : None

Mission : Training

Flight Phase : Initial Climb

Route In Use : Direct

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Instructor

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Flight Engineer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 31000

Experience.Flight Crew.Last 90 Days : 250

Experience.Flight Crew.Type : 610

ASRS Report Number.Accession Number : 1760311

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR
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

Used Foreflight to flight plan [and] used Foreflight to check fire TFR's. Only fire TFR shown 10 mins prior to flight was [not along our planned route]. Visibility in area obscured by smoke from fires. Climbing through 9000 observed fire at our 11 o'clock position [and] took corrective action to avoid fire area [with] right 90 degree turn. Altitude 11,500 climbing to 16,500. Called tower to check on TFR, they first said no TFR, then said there was a TFR surface to 9000 msl we still didn't show a TFR on Foreflight or XM weather. Upon arrival TFR appeared on Foreflight. Possible TFR intrusion due to slow dissemination of TFR info.

Synopsis

Small aircraft pilot reported inadvertently entering a firefighting TFR that was not displayed on Foreflight.

Time / Day

Date : 202009

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Turbulence

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling.Single Value : 8000

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

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.Other

Airspace.TFR : ZZZ

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 : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 285

Experience.Flight Crew.Last 90 Days : 11

Experience.Flight Crew.Type : 280

ASRS Report Number.Accession Number : 1760308

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.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

I was level at 2,500 MSL along ZZZ1 X route northbound under ZZZ Class B airspace. Light haze, light to moderate turbulence and a strong 30 kt crosswind from about 220. I have flown this route several times. ZZZ Controllers kept me out of B airspace which begins at 3,000 MSL as they always do. After crossing XYZ I noticed bright lights of sporting field and thought about a possible TFR. I had ForeFlight running on my iPad but had accidentally disabled TFR layer. I switched on the TFR layer and found that I was in the middle of the airspace. I decided to remain on present heading noting that the sporting event was completely empty due to COVID-19, not wanting to turn out to a large area of inland water, and realizing that I would clear the TFR in less than a minute on heading. ZZZ Controllers with whom I was in constant contact did not advise of TFR nor did they seem to notice that I'd busted the airspace.

I should have been more thorough on the flight briefing. Obviously I did not consider possible TFRs in my planning. Originally I had planned on flying around Class B to the west but the winds aloft were quite strong and I realized minutes before departing that I could take the X route and cut 10-15 minutes off my enroute time. Additionally I had passengers aboard whom I thought would (and did) appreciate the scenic view of the X route at night. This caused me to change my route at the last minute. I had flown this route several times so I felt comfortable which led to some degree of complacency and corner cutting in my planning. I'm well aware that sporting events are common drivers of TFRs and I know about and have considered in the past TFRs in the area.

Synopsis

Pilot reported violating a sporting event TFR during the COVID-19 pandemic.

Time / Day

Date : 202009

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 6

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Skywagon 185

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : 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

Experience.Flight Crew.Total : 4000

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 1750

ASRS Report Number.Accession Number : 1760292

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Other Person

When Detected : Aircraft In Service At Gate
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Using the aviation layer of an app called "MyRadar" I noted the previously existing TFR was no longer displayed though a nearby TFR was. As I am a member of the local Fire Protection District this made sense because no planes were flying and the helitack crews that were formally stationed at our airport were no longer present or flying.

Feeling comfortable, I certainly won't give it credibility in the future, with the lack of TFR on MyRadar as well as my observations and knowledge about aerial firefighting activities being suspended I proceeded into the TFR on the assumption it was terminated.

When I landed a friend notified me that he thought he saw the TFR on another app. I called Flight Service and discovered the TFR was indeed still in effect. In the future I will cross check several apps and/or flight service directly.

Synopsis

C185 pilot reported inadvertently entering a TFR that he thought had been terminated.

Time / Day

Date : 202009

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZDV.ARTCC

State Reference : CO

Altitude.MSL.Single Value : 13500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 50

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZDV

Aircraft Operator : Personal

Make Model Name : Bonanza 36

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Airspace.TFR : ZDV

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 : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 7800

Experience.Flight Crew.Last 90 Days : 100

Experience.Flight Crew.Type : 524

ASRS Report Number.Accession Number : 1759569

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

Inadvertent TFR incursion: ZDV

I was on a photo flight from ZZZ in CAVU (Ceiling and Visibility Unlimited) conditions using visual navigation and maintaining situational awareness with the Foreflight moving map. Heading southbound over Granby, the Foreflight app froze and I was forced to reboot my iPad. When I restarted Foreflight a few minutes later, it immediately warned me of TFR entry for the firefighting TFR southwest of GNB. I executed an immediate 180 turn and exited the TFR to the north. The extent of incursion on the 190 heading was approximately 2-3 nm before turning northbound.

I was aware of the existence of the TFR from my preflight planning and as shown on Foreflight's moving map in the cockpit, but the absence of any visual indication of smoke in the air and/or active fire on the ground, coupled with my distraction due to the temporary loss of Foreflight's moving map led to the incursion.

Synopsis

BE-36 pilot reported inadvertently entering a TFR.

Time / Day

Date : 202008

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Angle.Radial : 100

Relative Position.Distance.Nautical Miles : 15

Altitude.MSL.Single Value : 1600

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 30

Light : Night

Ceiling.Single Value : 10000

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

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 : VFR

Mission : Personal

Flight Phase : Cruise

Route In Use : None

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 : Private

Experience.Flight Crew.Total : 700

Experience.Flight Crew.Last 90 Days : 15

Experience.Flight Crew.Type : 600

ASRS Report Number.Accession Number : 1757667

Human Factors : Situational Awareness

Human Factors : Troubleshooting

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Exited Penetrated Airspace

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Environment - Non Weather Related

Narrative: 1

This flight was a sightseeing flight along the ZZZ Skyline with two passengers; at the location at issue I was operating at 1,600 feet MSL underneath the outer shelf of ZZZ Class B Airspace (which begins at 3,600 feet MSL). Upon reaching the southeast edge of the 3 NM ring of the sporting TFR, I noticed that the lights were illuminated. Due to the issues regarding coronavirus I was not sure whether this TFR would be considered active even if a game was playing, given the fact that the games are currently being played with the facility empty. Notwithstanding that, I made an immediate turn to the east to exit that airspace, however, it is possible that I was within the outer limits of that TFR.

Because of the media hysteria regarding coronavirus, and my belief that many games have been cancelled or postponed, I was lulled into a sense of complacency regarding my usual check of active games prior to giving sightseeing flights of the ZZZ skyline.

Although I accept responsibility for this possible regulation violation, I really do not like the idea of having permanent TFRs from one hour prior to the start of an event to one hour after it ends. Regarding the latter, it is very hard to know when a game ends as there is no fixed ending time (and the websites for applicable sports teams often do not report the ending time of a game). I do not believe that having permanent TFRs of this sort do anything to enhance the safety of the fans who attend these particular events--if anyone was heck-bent on causing a serious incident at an event, using an aircraft, he/she would not care about the rules. I would urge the readers of this report to try to influence the FAA to lift these restrictions altogether, or at the very least, pass a regulation prohibiting excessive loitering (for example, continually circling around an event).

Synopsis

GA pilot reported entering a sporting TFR and wasn't sure if these type of TFRs are still in place during the COVID-19 pandemic.

Time / Day

Date : 202008

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 15

Light : Daylight

Ceiling.Single Value : 20000

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : ZZZ

Airspace.TFR : ZZZ

Component

Aircraft Component : Electronic Flt Bag (EFB)

Aircraft Reference : X

Problem : Malfunctioning

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 : 650

Experience.Flight Crew.Last 90 Days : 25

Experience.Flight Crew.Type : 400

ASRS Report Number.Accession Number : 1757623

Human Factors : Human-Machine Interface

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Other Person
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was flying to observe a friend's home after a wildfire. I was using my EFB for navigation and was very aware of the presence of multiple TFRs. According to my visual landmarks and the perimeter of the TFR according my EFB, I was clearly outside of the TFR perimeter as it paralleled the coast and was slightly inland.

I was contacted by another pilot that he thought I may have violated a TFR. I assured him I was very careful using my EFB and very identifiable landmarks. His comment was the the TFR had expanded and encompassed my course of flight.

At XM:00 pm the evening of my flight when I opened my EFB, the TFR had indeed expanded. Even though the active time was listed as XA:00, my EFB updated nearly 12 hours later.

I am Respectful of the firefighting TFRs and am grateful that the fire was nearly out and there were no fire fighting aircraft in the vicinity. I will follow up with my EFB vendor to report this incident.

Synopsis

GA pilot reported a possible entry into a fire related TFR which was not depicted in his EFB pre-flight, but was noted post flight as the EFB updated.

Time / Day

Date : 202008

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 1600

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.ATC Facility : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Cruise

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 : Private

Experience.Flight Crew.Total : 107

Experience.Flight Crew.Last 90 Days : 21

ASRS Report Number.Accession Number : 1756481

Human Factors : Confusion

Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Airspace Structure

Narrative: 1

I had a possible unintentional TFR violation by clipping the corner of a sporting TFR in ZZZ. I assumed the TFR wasn't active due to COVID-19 and there not being over 30,000 people in attendance in the event. I make my flight plans on Foreflight and didn't see an active TFR in the area. However, I later realized I didn't see the TFR because I didn't have TFR's turned on on Foreflight. I now have that setting turned on on my iPad. I will prevent another occurrence like this by making sure my settings are turned on properly and by being more diligent in my flight planning both on the ground and in air.

Synopsis

Pilot reported a sporting TFR airspace incursion due to not having it selected on the app being used.

Time / Day

Date : 202007

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US

Environment

Flight Conditions : VMC
Light : Dusk

Aircraft

Reference : X
ATC / Advisory.ATC Facility : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft
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

Component

Aircraft Component : Electronic Flt Bag (EFB)
Aircraft Reference : X
Problem : Malfunctioning

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 : Multiengine
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 750
Experience.Flight Crew.Last 90 Days : 20
Experience.Flight Crew.Type : 70
ASRS Report Number.Accession Number : 1756411
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Detector.Person : Air Traffic Control
When Detected : In-flight

Assessments

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

Narrative: 1

I packed my ForeFlight trip on my iPad and headed from ZZZ1 - ZZZ. I picked up flight following as I left ZZZ1 in order to climb through ZZZ2 airspace. I leveled off at 4,500 feet and stayed with ZZZ Approach for about 50 miles. I proceeded to cancel flight following and flew down the X River en route to ZZZ. ForeFlight did not notify me of the TFR. When I landed at ZZZ airport, the Airport Manager gave me a number to call for intruding on the TFR. I've flown this exact route dozens of times and filed flight plans or picked-up flight following every time a TFR was in effect. When I called the number given to me by the airport manager, I was told that I was the second person that night that said ForeFlight was not reporting/displaying TFRs. I'm concerned that there may be a bug in ForeFlight that is causing the software to fail to display TFRs. I will cross check with WingX Pro to ensure TFR status before flying this route again, and I'll maintain VFR flight filing to mitigate this risk in the future. I'm filing this report in case there's an issue with ForeFlight not connecting with the TFR database and properly displaying TFRs on the ForeFlight map.

Synopsis

GA pilot reported inadvertently entering a TFR when the TFR failed to display on his ForeFlight-equipped iPad.

Time / Day

Date : 202007

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : None

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 : Commercial

Experience.Flight Crew.Total : 250

Experience.Flight Crew.Last 90 Days : 20

Experience.Flight Crew.Type : 133

ASRS Report Number.Accession Number : 1755243

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was operating in the ZZZ SFRA and may have inadvertently violated a sporting TFR. The sporting event in question was played without fans due to the COVID-19 pandemic.

Prior to the flight, and as part of my preflight planning, I reviewed current TFRs for the intended flight path using the FAA's TFR website (tfr.faa.gov). Sporting TFRs do not appear on this list, however they historically have appeared in EFB applications, including Garmin Pilot which I reviewed prior to this flight. Garmin Pilot did not show any TFRs over this sporting event either prior to the flight or during the flight.

The flight operation took place in the ZZZ SFRA. I was not contacted during the flight by ATC, nor was I notified by ATC or the FBO at the destination airport of any issues with the flight.

To add to the confusion, another pilot also operating in the vicinity during the time of the game was in contact with ZZZ1 Tower and was notified that there was no TFR because there were no spectators.

A few days later, I received notification from Garmin that sporting TFRs were not appearing in the Garmin Pilot application due to an issue with Garmin's data supplier related to COVID-19.

I felt this report was prudent since even prior to COVID-19, these sporting TFRs were already difficult to find. During the COVID-19 pandemic, they are even more difficult to find since the typical data sources may or may not accurately display them.

To help avoid any issues with these TFRs in the future. I have joined a local industry group who among other services, provides notifications to pilots about sporting TFRs and other TFRs. I will also be reviewing local teams' schedules directly in addition to using the 3rd party EFB applications.

Synopsis

Pilot reported confusion on whether a sporting TFR is in effect during the COVID-19 Pandemic when spectators are not allowed at the game.

Time / Day

Date : 202007

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 1800

Environment

Flight Conditions : VMC

Light : Dusk

Aircraft

Reference : X

ATC / Advisory.ATC : 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 : Passenger

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : 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 : Flight Instructor

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 1.6

Experience.Flight Crew.Last 90 Days : 51

Experience.Flight Crew.Type : 51

ASRS Report Number.Accession Number : 1752803

Human Factors : Confusion

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Airspace Structure

Narrative: 1

I conducted a demonstration flight leaving ZZZ (home base) northbound for a scenic tour.

I checked for TFRs on tfr.faa.gov and weather pertaining to my route of flight and timing, I did not notice anything unusual.

While above a field I noticed the lights were on but the field was empty. I was approximately 1,800 feet MSL.

Upon landing, I checked the field's website and noticed a game took place that evening. I am concerned that even though the venue did not have near 30,000 people present as a result of the COVID pandemic, the TFR was still in effect. I may have conflated a venue capacity of 30,000 people with 30,000 people present at the venue, a very distinct difference that could be a point of confusion for other pilots during the COVID pandemic.

My preflight action going forward will include a review of all major venues and scheduled events along my route of flight should I not be in contact with an Air Traffic Control Facility.

Synopsis

Pilot reported flying over a sporting event during a game and wondered if they had violated a TFR.

Time / Day

Date : 202006

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 7500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Aircraft

Reference : X

Make Model Name : UAV - Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Mission : Photo Shoot / Video

Flight Phase : Takeoff / Launch

Route In Use : None

Person

Reference : 1

Location Of Person : Hangar / Base

Reporter Organization : Government

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 3200

Experience.Flight Crew.Last 90 Days : 3

Experience.Flight Crew.Type : 26

ASRS Report Number.Accession Number : 1745873

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

Detector.Person : Flight Crew

Miss Distance.Horizontal : 1

Miss Distance.Vertical : 1000

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Became Reoriented

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

[We were] requested to fly to map the perimeter of the fire. PIC was informed that the TFR was in place and clearance was issued to launch. The aircraft was launched and began to climb to its mission altitude.

Within minutes of takeoff traffic was observed inside the boundary of the TFR. Since this was not expected the crew and PIC took measures to avoid conflict with the traffic and made slight adjustments in course and altitude to avoid. Positive visual separation was achieved with the use of a ground observer and the UAS camera system.

Once conflict was mitigated further effort was made to determine if an incursion had occurred. It was identified that an error was made and that the TFR was not activated as claimed.

Immediate recovery of the UAS was conducted and the aircraft was safely landed at the intended landing site.

In order to correct and avoid another instance of this event we have implemented a procedure to confirm valid activation of the TFR before every flight operation is conducted.

Synopsis

UAV operator reported a TFR miscommunication that resulted in an airborne conflict with an aircraft.

Time / Day

Date : 202005

Local Time Of Day : 0601-1200

Place

Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC

Light : Dawn

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : UAV - Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Operating Under FAR Part.Other

Flight Plan : None

Mission : Photo Shoot / Video

Flight Phase : Cruise

Route In Use : None

Person

Reference : 1

Location Of Person : Hangar / Base

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 1000

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 500

ASRS Report Number.Accession Number : 1745072

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

I arrived at the scene of the police station. I checked my flight apps and saw that there was no TFR and so I started filming. In my mind I thought that I was clear as the rioting occurred at night and so I suspected that if another TFR was going to be put in place it wouldn't be enacted until later that day.

I already had the LAANC grid clearances for the airspace for drone flight. I had secured these the previous evening.

I consulted with the police and National Guard that were at the location and they said they were fine with me filming.

My goal was to document some of the destruction that had occurred the previous evening.

There were several fires actively burning, lots of soldiers and police moving around, loud speakers blaring - it was not a calm environment. I was focused on flying safely and filming.

I pretty much filmed a building or location and then hurried to the next one. There was a lot of stuff happening and I was very busy trying to capture it.

Although I did check for a TFR when I arrived, I did not check for one at each location that I filmed. Often I was moving one or two blocks and then taking off again with the drone, often without even turning the drone off and then on again.

I finished filming [about 3 hours later]. It was at this point when I had a chance to sit down that I looked at my aviation app and noticed that a TFR for the area had gone up [several hours earlier].

I had an officer with me - at no time where we anywhere near other manned aircraft. There were a few helicopters in the air but we stayed well clear of them.

I often go to a location and start filming. I always check for TFR's at the beginning, but the lesson from this I think is that in a tense situation I will check more frequently.

Synopsis

UAV pilot reported a TFR incursion.

Time / Day

Date : 202005

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : SJT.Tower

State Reference : TX

Relative Position.Angle.Radial : 180

Relative Position.Distance.Nautical Miles : 10

Altitude.MSL.Single Value : 5000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling.Single Value : 250

Aircraft : 1

Reference : X

Aircraft Operator : Corporate

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Climb

Route In Use.Other

Aircraft : 2

Reference : Y

Aircraft Operator : Military

Make Model Name : UAV - Unpiloted Aerial Vehicle

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 12856

Experience.Flight Crew.Last 90 Days : 58

Experience.Flight Crew.Type : 1213

ASRS Report Number.Accession Number : 1743912

Human Factors : Situational Awareness

Events

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

Assessments

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

Narrative: 1

Upon IFR departure from SJT tried to pickup IFR clearance from both FSS frequency listed and DFW frequency. Unable to get clearance on ground. At this time local Tower and Approach/Departure Control had closed. [I] decided to depart VFR and pick up clearance in the air. It was a clear night with no reported traffic so departed VFR off of Runway 18. Set initial climb alt to 17,500 ft. At about 10 NM noticed alert from iPad that TFR was ahead. Ended up clipping NW corner. As soon as error was noticed immediate corrective action was taken to clear TFR. Time in TFR estimated at less than 20 seconds.

Tower/Approach states "When you're talking with us, you can proceed through the TFR." We are normally talking to ATC, and routinely fly through the TFR without thinking about it - developed complacency toward the TFR.

Tower/Approach control had just closed. Just before Tower closed, we heard an arriving aircraft ask about the TFR, and Tower reported that the area was not in-use and allowed the aircraft to fly through the TFR.

Was unable to reach FSS or Center on the ground to open flight plan/talk to ATC. Elected to depart VFR and pick up IFR enroute.

Had TFR displayed on moving maps on both iPads. Did not get our attention (factors: complacency mentioned above, fatigue after long flying day, just a ferry home). The TFR should have been displayed graphically on the aircraft's moving map, but the XM weather subscription recently expired. "TFR" option was selected for display but not receiving XM data.

Saw another aircraft in TFR; didn't occur to us it was a military drone until they called on radio. Having never operated there at night, maybe had assumption they wouldn't be flying when Tower closed.

Synopsis

Captain of a corporate jet reported a TFR violation occurred in part because their XM subscription had expired.

Time / Day

Date : 202005

Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 8500

Person

Reference : 1

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 1743344

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.Conflict : Airborne Conflict

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Ambiguous

Narrative: 1

A firefighting TFR recently went into effect south of ZZZ airport. Aircraft X (small aircraft) was overflying that area in a route that kept them clear of the TFR. Firefighter Aircraft Y was in the TFR and briefly flashing conflict alert with Aircraft X. Aircraft Y was in the TFR and I believe it was level at X,XXX feet when I saw it. At this point I suppressed conflict alert believing that it was conducting normal firefighting operations and maneuvering within the TFR. Aircraft X was approximately 7 miles outside of the TFR. Shortly after suppressing conflict alert, I lost sight of Aircraft Y, believing it was operating in a cluster of firefighting aircraft in the TFR, I went to perform other tasks. Less than a minute later, conflict alert went off again, I looked down and Aircraft Y and Aircraft X were separated by 100 feet and less than a mile. Both aircraft were VFR and Aircraft X was receiving flight following. Aircraft Y, a high performance jet aircraft exited the TFR, rapidly climbed and

almost ran into Aircraft X that was in close proximity to the TFR. I'm unsure of weather Aircraft Y was lost on the radar at the time, its tracking on system but none of the other firefighting aircraft are. In either case, I didn't see it again until it was in close proximity to Aircraft X. I called a traffic alert, Aircraft X acknowledged saying he had them in sight.

Turbojet aircraft should be legally required to have flight following at all times.

Synopsis

Center Controller reported a conflict between a firefighter aircraft in a fire TFR area and a small aircraft near the TFR.

Time / Day

Date : 202003

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZZ.Tower

State Reference : FO

Environment

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Center : ZZZZ

Aircraft Operator : Fractional

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Flight Phase : Taxi

Person : 1

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Fractional

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1738582

Human Factors : Situational Awareness

Human Factors : Distraction

Human Factors : Troubleshooting

Human Factors : Communication Breakdown

Human Factors : Confusion

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 : Fractional

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1738583
Human Factors : Troubleshooting
Human Factors : Distraction
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Ground Incursion : Taxiway
Anomaly.Ground Incursion : Runway
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On the flight from ZZZZ to ZZZ, I picked up the clearance on ground and we were ready early. Passengers were early and after loading and starting, we couldn't contact anyone on Ground, Tower or Departure frequencies!
Aircraft Y told us the Tower just closed. We switched to update the ATIS and sure enough Info Q said the Tower was shut down due to staffing issues.
We talked with Aircraft Y landing on Runway X, he gave us the frequency for ZZZZ Center, while we self broadcast on Tower frequency that we were taxiing to Runway Y.
Prior to takeoff, we again tried Ground, Tower and Departure frequencies! No answer!
After Aircraft Y landed and cleared all runways, we broadcast in the blind on frequency and departed.

Once airborne, we tried to contact Departure on frequency. No luck. We were VMC and maintained that until establishing contact with ZZZZ Center. After radio and radar contact was established, we were cleared to FL230. After about 30 miles, ZZZZ Center told us ZZZZ Tower called and reported we had an Unauthorized Departure!

We tried again to contact them on the assigned frequency, No luck.
We continued to ZZZ with normal radio contact the whole way.

Unusual circumstances with the virus affecting operations. Tower shutdown after giving us our IFR clearance. There were only two airplanes flying at that time. Very strange circumstance.

Narrative: 2

On the flight from ZZZZ to ZZZ, The Captain picked up the clearance on the ground. When the passengers arrived early and after loading and starting, we couldn't contact anyone on Ground, Tower or Departure frequencies!

An inbound Aircraft Y told us the Tower just closed to listen to the current ATIS. We switched to update the ATIS and sure enough Info Q said the Tower was shut down due to staffing issues.

We talked with the Aircraft Y landing on Runway X on Tower frequency to coordinate his arrival with our departure on Runway Y, the Aircraft Y pilot also gave us the ZZZZ Center frequencies if we were headed towards ZZZZ. While we also self broadcast on Tower frequency that we were taxiing to Runway Y. At no time did anyone from the Tower intervene on frequency that we were using. The airport was technically at that point a uncontrolled field and we acted appropriately with proper radio calls and coordination with the inbound aircraft.

Prior to takeoff, we again tried ground frequency, tower frequency and departure frequencies with No answer.

After the Aircraft Y landed and called clear of runways we broadcast on Tower frequency and departed Runway Y. We made a right turn out over the island to avoid [Prohibited Area] and proceeded North.

Once airborne, we tried to contact Departure on frequency. We were VMC and maintained that until establishing contact with ZZZZ Center. After radio and radar contact was established, we were cleared to FL230.

After about 30 miles, ZZZZ Center told us ZZZZ Tower called and reported we had an Unauthorized Departure!

We tried again to contact them on their departure frequency, with No reply. We listened to the ATIS again and at XA:55z it was broadcasting the XB:00z ATIS with no mention of Tower closure. We continued to ZZZ with normal radio contact the whole way.

Synopsis

Pilots reported departing without clearance in what they thought was an uncontrolled airport resulting in runway incursion and airspace violations.

Time / Day

Date : 201912

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZZ.Tower

State Reference : FO

Environment

Flight Conditions : VMC

Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : Brasilia EMB-120 All Series

Operating Under FAR Part : Part 121

Mission : Passenger

Flight Phase : Initial Approach

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 Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 1714595

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Person : Air Traffic Control

When Detected.Other

Result.Flight Crew : Became Reoriented

Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

The purpose of this report is to offer information about an incident that took place during the execution of a visual approach to Runway 27 at ZZZZ, that induced the inadvertent penetration of the US Contiguous ADIZ while lining up for SDM just north of the border. We had briefed and planned en-route for the VOR DME 1 27 ZZZZ. SOCAL had already cleared us direct to TIJ VOR with progressive step downs in altitude and told us that ZZZZ was landing runway XX. Once handed off to ZZZZ Approach, the controller inquired as to whether we could accept the visual to Runway XX in effort as to make us number one for landing. I verified with my FO (First Officer) to confirm we were both comfortable with that and proceeded to brief the differences for the visual. I called the runway and airport in sight. Our clearance was to descend to 4000 ft. and establish left downwind to Runway XX. Over the airport and approximately midfield I slowed to request FLAPS 15. Established on the left downwind we received further descend clearance to pattern altitude and clearance for the visual to Runway XX with a handoff to Tower. I slowed further to call for GEAR DOWN, CONDITIONS MAX, FLAPS 25, BEFORE LANDING CHECKLIST. My FO (First Officer) was preoccupied with configuring and running the checklist while I maneuvered to establish what appeared to be just south of final for Runway XX ZZZZ. As we neared the airport ZZZZ Tower immediately alerted us that we were headed for the wrong airport and to look 10 o'clock to make correction. My FO identifies that we are in fact lined up for a visual approach to Runway 26R at SDM. It took me a moment to realize my mistake as I was conflicted with my positional awareness as well as how I had missed and/or shifted my frame of reference from ZZZZ airport to SDM north of the border. I immediately corrected towards the ZZZZ Airport at which point Tower cleared us for landing Runway XX ZZZZ. At this point I re-established a stabilized final using normal descent and normal maneuvers while proceeding to landing. The remainder of the flight was carried out without further incident.

ZZZZ Tower immediately made us aware that we were headed for the wrong airport and to correct with airport at our 10 o'clock. My First Officer also realized that I was lined up for SDM. I re-situated myself identifying the border as a reference and looking at both airports then made the correction and turned to re-establish a stable final for Runway XX ZZZZ.

My penetration of the ADIZ from Mexico to US was inadvertent, however, a clear accumulation of factors lead to a chain of events such as lining up for the wrong runway to the wrong airport and on the same token, re-penetrating the ADIZ in the commission of my error. My error was a result of a lack of situational and positional awareness on my part and my FO, as well as being task saturated flying an airplane that I do not regularly operate, closely spaced airports within close proximity to the US Contiguous ADIZ (US/Mexico Border), stronger than usual winds out of the East that may have offset my flight path to cause the airplane to fly closer than planned to ZZZZ and in effect causing me to lose my frame of reference and shifting my sights to SDM.

I took immediate evasive action to re-orient and re-establish situational and positional awareness while maneuvering the aircraft safely to a stabilized visual approach for Runway XX ZZZZ.

Staying familiar and proficient in an aircraft is a vital contributing factor that can make a sizable impact in the cockpit with regard to procedure, situational awareness, system awareness, efficiency, airmanship and safety in general. I believe that my mistake was compounded by a lack of situational awareness, high winds, and possible distraction due to lack of familiarity and practice in the aircraft type. "The first step to solving any problem is recognizing there is one." To fix this in subsequent flights faced with similar conditions, I would of course account for winds, and possibly widen out my traffic pattern to allow for

more space on downwind and therefore a wider angle and wider view to identify the airport, this would buy me time and room for error. When operating so closely to the border it's best to give myself more space by remaining farther south to account for wide turns and/or unruly winds as a margin of error.

Synopsis

EMB-120ER Captain reported that on approach they became disoriented and lined up with runway at an adjacent airport.

Time / Day

Date : 201911

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : I90.TRACON

State Reference : TX

Relative Position.Angle.Radial : 270

Relative Position.Distance.Nautical Miles : 30

Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 40

Aircraft

Reference : X

ATC / Advisory.TRACON : I90

Aircraft Operator : Corporate

Make Model Name : Citation V/Ultra/Encore (C560)

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Passenger

Flight Phase : Initial Climb

Route In Use : Direct

Airspace.Class B : HOU

Component

Aircraft Component : Tablet

Aircraft Reference : X

Problem : Improperly Operated

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 15000

Experience.Flight Crew.Last 90 Days : 60

Experience.Flight Crew.Type : 2000

ASRS Report Number.Accession Number : 1712213

Human Factors : Confusion

Events

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

Assessments

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

Narrative: 1

The mission was an empty part 91 flight from ZZZ to AUS to pick up a company passenger in AUS and return to ZZZ. The weather was VFR at both locations. ZZZ ATIS reported a 4,000 ft. broken layer with what I observed to be about 50% thin layer cloud coverage as I walked out to the airplane for my takeoff. The President of the United States was speaking in Austin and I was in a rush to pick up my passenger before the customary TFR went in effect. I deemed it safe to fly VFR with ATC flight following pickup after airborne.

The airplane was equipped with a new Garmin 750 system and recent ADS-B installation. I had spent several hours with an experienced pilot in this aircraft on the ZZZ ramp learning the basic operational system and setup for navigation and communication. I had since flown several flights in this aircraft and felt comfortable flying with the Garmin 750 system.

On my initial navigation cockpit setup at ZZZ, I placed the Captain's Garmin 750 in the Map Navigation mode to Austin. I placed the CoPilot 750 in the TCAS mode to observe traffic. Even though the Houston HUB VOR was notamed OTS, I set it on the Captain's side in case it might be operational and give me DME and radial guidance and I placed the CoPilot's VOR on IAH. This seemed to me to be a prudent and safe set up for the flight.

After takeoff from ZZZ I turned westbound and remained under the Class B airspace which requires about 4 miles of flying before you are clear for a direct flight to AUS. When clear of the ZZZ airspace I asked for a frequency change from ZZZ Tower and went to Departure on 123.8. About this time I observed about a 5 mile clear area in the reported broken cloud coverage. I then checked my radial and DME display for my HUB and IAH VORs which neither were giving me a readout. I then looked at my Captain's Garmin 750 display and thought I was westbound clear of the last outer ring of the HOU Class B airspace. I next looked at the CoPilot's Garmin 750 display and observed no traffic that would cause a conflict. I then powered up and performed a high rate climb through 10,000 ft. I then proceeded direct to AUS. Being that I was out of HOU Departure airspace, I skipped going to their 126.67 frequency and went to Houston Center on 132.15.

I next picked up the AUS ATIS and contacted AUS Approach. They told me that the Presidential TFR had now gone in effect and that airplanes could divert to GTU or ZZZ1. I chose ZZZ1. On the way to ZZZ1, AUS Approach advised me that HOU Approach had called them and wanted me to give them a call about a probable Class B violation.

After landing at ZZZ1, I called HOU Approach and talked to [the Supervisor]. He said that he had just come on duty and was advised about the incident. I told him that I thought I had avoided the Class B airspace but if he said I had violated the airspace I was not going to argue with him. I told him I realized how important Class B airspace was for Air Traffic Control and I take the violation very seriously and would do a self investigation as to where and how 'I screwed up'.

After completing my crew duties at ZZZ, I asked the linemen there to please put a power cart on the airplane and I was going to be back shortly to sit in the cockpit. I then went inside to get on a computer to pull up my flight profile on the FlightAware site. Unfortunately the owner of the airplane has that airplane blocked from that capability. I then went back to the airplane, powered up the avionics to the settings I had put in on my original ZZZ to AUS flight.

After much pontification and sitting in the aircraft for over an hour and not having the flight profile; I deduced that I may have misread the final Class B ring or had climbed too rapidly and inadvertently violated the Class B airspace. I can not investigate any further until I get a copy of the flight profile. Once again I know the seriousness of Class B airspace violations.

I would now like to comment on what I think is a mistake in the FAA shutting down and/or not maintaining the VOR's in the Operational Volume navigation system and the consequential safety concerns which goes to the crux of this report. After my USAF service, I came back home and have flown out of the Houston area for the last [XX] years. When I first flew out of Hobby they had the VOR on the field which made it compatible to fly approaches to the major runways and do VOR checks at various locations on the airport. Some FAA facilities manager then decided to move the VOR to the top of the parking garage at the main Hobby passenger terminal. The HUB VOR was then turned off during the building of the International gate facilities and has not been turned back on since. I have asked HUB Tower and others and have not been given a reasonable answer why it is still shut down.

About 2 years ago a private pilot in an older model single engine aircraft got disoriented and could not find the airport and somehow crashed and died trying to land at HUB. It is my belief that if the HUB VOR was operational this would have greatly helped her situational awareness and this accident probably would not have happened.

The epicenters of the HOU Class B airspace is based on the radials and DME of the HUB and IAH VORs. I instinctively know that as a guide if I am over 25 DME from HUB and 30 DME from IAH then I am clear of HOU Class B airspace.

In the interest of aviation safety can we get the HUB VOR turned back on and both it and the IAH VOR be properly maintained? They are the benchmarks for determining the Class B airspace in HOU.

Synopsis

Pilot reported violating Class B airspace due to unfamiliarity with new navigations systems installed on aircraft.

Time / Day

Date : 201911

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : I90.TRACON

State Reference : TX

Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Other

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.ATC Facility : I90

Aircraft Operator : Corporate

Make Model Name : Light Transport

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Passenger

Nav In Use : GPS

Flight Phase : Initial Climb

Route In Use : VFR Route

Airspace.Class B : HOU

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Engineer

Experience.Flight Crew.Total : 15000

Experience.Flight Crew.Last 90 Days : 50

Experience.Flight Crew.Type : 2000

ASRS Report Number.Accession Number : 1705924

Human Factors : Human-Machine Interface

Human Factors : Workload

Human Factors : Situational Awareness

Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Person : Flight Crew

When Detected : In-flight

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Manuals

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

Narrative: 1

The flight was an empty part 91 flight. I was in a hurry to get there before the TFR closed down the airspace. To save time I decided to takeoff VFR, go semi-direct and pick up my IFR or flight following enroute.

The aircraft was equipped with a recently installed dual Garmin 750 System and ADS B. I programmed the left Garmin 750 screen in the map enroute navigation phase and the right screen in the TCAS mode to observe location of other aircraft. I tuned in one VOR on HUB (It had a NOTAM of OTS but it would be great for situational awareness if for some reason it worked) and the other VOR I tuned in IAH.

After takeoff I turned westbound, waited a while and then asked for a frequency change and tuned in and monitored Departure Control. There was a broken layer of about 50% coverage above me. I then observed about a 5 mile clear opening, checked and saw what I thought was the last ring of the Houston Class B airspace, checked my VOR/DME displays that I had set on VOR's (which neither gave me a DME readout), checked my TCAS screen to see if there was any aircraft that might be a conflict with and after additionally giving a good outside visual scan, I made a rapid climb through the opening.

I climbed through 10,000 feet in the clear and decided rather than check in with Houston Departure that I would monitor enroute Houston Center. I picked up the destination ATIS and did not hear anything about the TFR airspace closure. I made my call to Approach control and was told the TFR was now in effect and after discussing my options, I decided to get vectors to a different airport and wait out the TFR. Approach then informed me that Houston Approach had called them and wanted me to call them about a possible Class B airspace violation.

After landing, I had a conversation with the Houston Approach Supervisor on duty who told me that I probably had gone through the Houston Class B airspace. I told him that I take that accusation very serious. I told him that I thought I had maneuvered outside the Class B airspace but if he said I had gone in it then I would not argue with him and that I would actively self-investigate the incident to see what factors contributed to my navigation error. I asked him to please save the tapes and I would await with patience hearing from the Houston FSDO for probable investigative action.

At the termination of my flight back, I asked the lineman there to hook up an external power cart to my aircraft. I then went inside to the FBO flight planning room and tried to

get a readout of my flight profile on the FltPlan.com web site. Unfortunately for me, the aircraft owner has blocked that website from that information being observed. I then went back to the aircraft, turned on the avionics and tried to recreate to the best of my memory my flight path and try to figure out how "I screwed up"! The best I can figure it out with my available data and memory is that I misread the Garmin 750 map screen thinking I was clear of the Class B airspace. I was too close in and evidently not on the optimum range selection.

I am new to the Garmin 750 navigation system. Upon finding out I would be flying airplanes that were being converted to that system I sat on the ramp in an airplane with another pilot and received several hours training. In addition, whenever possible I practice procedures and in flight changes to become more proficient in all the Garmin 750 capabilities while waiting on passengers, etc.

As a pilot I have been taught to try to use all available Navaid and resources when flying. Unfortunately, the United States Operational Service Volume navigation system seems to have downgraded the importance of the ground based VOR system. When I first started flying in the Houston area, the Hobby VOR was located near the middle of the airfield. There was an approach to every Hobby runway based off the HUB VOR. I love airfields with VOR's on the airfield because as soon as you tune in you know where you are in relationship to the airport. Instant situational awareness. Someone decided to spend millions of dollars and operational down time to move the HUB VOR to the top of the Hobby parking garage. They then shut it off while building the Hobby International Terminal (construction cranes causing signal interference) and to my knowledge it has not been turned back on since. I have asked ATC but have not been given an answer why it is still shut down or why it was moved in the first place.

The southern half of the Houston Class B airspace uses the HUB VOR as its epicenter for radials and DME. The northern half uses IAH. Last year a general aviation lady pilot crashed and died trying to land at Hobby airport. She said she could not find the airport. In the interest of aviation safety can someone get the HUB VOR turned back on and the IAH VOR maintained for a more reliable radial and DME signal since they are both the primary source for Houston Class B airspace definition?

Synopsis

Corporate Captain reported a possible IAH Class B airspace violation while using a Garmin 750 for navigation.

Time / Day

Date : 201909

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : TPA.TRACON

State Reference : FL

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory.TRACON : TPA

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 : IFR

Mission : Personal

Flight Phase : Takeoff / Launch

Route In Use : Direct

Airspace.Class D : SPG

Airspace.TFR : TROPICANA FIELD

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 640

Experience.Flight Crew.Last 90 Days : 14

Experience.Flight Crew.Type : 393

ASRS Report Number.Accession Number : 1687889

Human Factors : Communication Breakdown

Human Factors : Situational Awareness

Human Factors : Confusion

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Detector.Person : Flight Crew

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

Assessments

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

Narrative: 1

On the night of the [date], a friend (another aircraft) and I went to Saint Petersburg with the impression that there was a TFR over Tropicana Field so we filed IFR on the inbound flight. When we started back to ZZZ, we checked Foreflight for NOTAMS to which we found none applicable to our departure regarding airspace. However, the map showed that there was a TFR over the area with "seat-geek" written in parentheses next to the FDC NOTAM name. We ultimately decided we should call FSS to clear up the confusion, so they told us that they were not showing a TFR over the area, but that we should call Tampa TRACON to be sure. We called Tampa TRACON and the gentleman who we spoke to said that he didn't know of any TFR over the area, but we were not authorized to fly through a TFR. Due to this conflicting information, we asked if we could depart, and he responded we were not authorized through a TFR and that the controller was saturated. After this, we called Miami flight service in an attempt to clear up the confusion and to see if they were indicating a TFR. Miami called TAMPA TRACON through the landline, and later came back to tell us that he had spoken to the same gentleman at Tampa, and that he was not co-operating with flight service. We called Tampa afterwards in an attempt to get a simple yes/no answer if we were able to depart SPG. Tampa was unable to give us a clear answer and simply belittled us by telling us that pilots should be able to identify a TFR and that we should stop calling him. We finally decided that we would depart SPG and stay clear of all airspace. The flight back to ZZZ was successful and no further issues.

Synopsis

Pilot reported confusion over whether or not a TFR was active, and reported ATC was unhelpful.

Time / Day

Date : 201908

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : OAK.Airport

State Reference : CA

Relative Position.Angle.Radial : 330

Relative Position.Distance.Nautical Miles : 12

Altitude.MSL.Single Value : 1500

Environment

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 3

Ceiling.Single Value : 5000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : OAK

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Training

Flight Phase : Cruise

Route In Use : Visual Approach

Airspace.Class C : OAK

Aircraft : 2

Reference : Y

Aircraft Operator.Other

Make Model Name : UAV - Unpiloted Aerial Vehicle

Mission.Other

Flight Phase.Other

Airspace.Class C : OAK

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 5000

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 20

ASRS Report Number.Accession Number : 1680159

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

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 : Environment - Non Weather Related

Narrative: 1

Had to deviate from course to the left to avoid what looked like a drone and may have briefly encroached a TFR area (Cal Berkley Football Stadium) to avoid contact with this object.

Synopsis

C172 Instructor reported deviating to miss a possible drone resulting in TFR encroachment.

Time / Day

Date : 201908

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 6

Light : Daylight

Ceiling.Single Value : 3500

RVR.Single Value : 6000

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

Nav In Use : GPS

Flight Phase : Cruise

Route In Use : Visual Approach

Component

Aircraft Component : Fuel System

Aircraft Reference : X

Problem : Malfunctioning

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 : Private

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 4100

Experience.Flight Crew.Last 90 Days : 30

Experience.Flight Crew.Type : 3500

ASRS Report Number.Accession Number : 1677820

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : Ground Personnel

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Airspace Violation : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Diverted
Result.Flight Crew : Landed As Precaution
Result.Flight Crew : Landed in Emergency Condition

Assessments

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

Narrative: 1

I had seen tach fluctuation on a previous flight from ZZZ1 to ZZZ 2 days prior. Since I was in [city] on business I decided to take the airplane up for a short checkout flight to assess the tach issue. I checked the FAA TFR site for TFR restrictions and did not see any listed. I pre-flighted the airplane per my usual checklist, including visual fuel inspection and oil level. I took off VFR from ZZZ and headed north to avoid the town while I checked the airplane inflight at an altitude of 2,000'.

Approximately 10 minutes after [takeoff] my engine began surging wildly, and the tach followed. I was fearful of a catastrophic engine failure even though oil pressure and temp were normal. This persisted for approximately 1 minute consistently, even after switching tanks and applying the fuel pump. I decided to get the airplane on the ground immediately and hit my "NRST" button on my GPS and it responded that ZZZ2 was within range. I proceeded directly to ZZZ2 and saw the TFR inner ring on my GPS display, so I was fully aware that I would intrude on the TFR, but this was an emergency and I decided to proceed.

I was intercepted by a Coast Guard helicopter and I tried to communicate with him on the ZZZ2 radio frequency but we did not hear each other. I landed at ZZZ2, taxied up to the ramp and shut down. I was met by Secret Service and Coast Guard officials. I went into the FBO and contacted TRACON and told them it was an emergency landing. As it turned out, I was taking off into a TFR (outer ring) from ZZZ even though the FAA TFR site did not list it. That was completely unintentional but my error was in NOT calling FSS for a TFR report/briefing.

The mechanic at ZZZ2 proposed that I had water in my gas tank which made sense because I believe the airplane was refueled in a hard rain, so it is possible that when I pulled gas from the sumps and inspected them during my preflight, I may have seen pure water and not the light blue of AvGas. I think water was the cause of the engine problem and the mechanic at ZZZ2 corroborated that. He did a full run up and saw the tach fluctuation but said it was not serious and saw no other irregularities in the engine

performance. It is likely that the water in the tanks went through completely by the time I landed the airplane.

Synopsis

PA32 pilot reported violating a TFR while handling an inflight engine roughness emergency likely caused by contaminated fuel.

Time / Day

Date : 201903

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 385

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 20

Aircraft

Reference : X

Make Model Name : UAV - Unpiloted Aerial Vehicle

Operating Under FAR Part.Other

Airspace.TFR : ZZZ

Person

Reference : 1

Reporter Organization : Personal

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Flight Engineer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 24000

Experience.Flight Crew.Last 90 Days : 150

Experience.Flight Crew.Type : 100

ASRS Report Number.Accession Number : 1629713

Human Factors : Confusion

Human Factors : Time Pressure

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Other Person

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Drone flight into TFR. I forgot about the temporary flight restriction for the area and flew my DJI Inspire 2. I was fully aware of the TFR and the day prior had briefed production so we would avoid the area. Our plan was to film at [a] university and two other locations near the campus midtown area, not [in the TFR location]. All three locations were permitted. I filed the required campus flight plan with Icarusmap.com. I had my insurance put [the university] on the COI (Certificate of Insurance).

Here is the background of my forgetting about the [TFR]. Two days prior, production had switched our shoot from Florida to [another state] due to client cancelation. So I had to change my plans overnight. This meant checking the airspace for authorization, which I did. The plan was to catch the morning light so we met [early] in the lobby of our hotel. It was an overcast day so we called off the shoot for the morning and hoped for sun later. [Around mid-morning] the sun came out so we hustled into the van. Our team was pilot in command (me), show runner/producer and a driver. As we started from the hotel the producer liked the light on the buildings and asked if we could do a quick reveal shot. Without remembering the TFR I agreed, and we set up and launched quickly for a short 10 minute flight. It was VFR weather, VLOS (Visual Line of Sight), not over people, under 400 feet. I had a camera operator and spotter. Later while we were coordinating with Campus police, they informed us about the VIP arriving [nearby], which was going to cause highway congestion. This is when I remembered the TFR.

I am disappointed with myself for this mistake. I have been a commercial airline pilot for over 20 years and take pride in my safety record. Running my drone business has been a learning experience, which means I need to be even more cautious. I am changing my preflight checklist to include opening the app to ensure there have been no changes to the airspace, that I am in compliance, and most importantly, so this will not happen again.

Synopsis

UAV operator reported violation of a TFR.

Time / Day

Date : 201903

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Government

Make Model Name : Military

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Route In Use : Visual Approach

Airspace.Class C : ZZZ

Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Government

Make Model Name : Military

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Airspace.Class C : ZZZ

Person

Reference : 1

Location Of Person.Facility : ZZZ.Tower

Reporter Organization : Government

Function.Air Traffic Control : Other / Unknown

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7

ASRS Report Number.Accession Number : 1628813

Human Factors : Communication Breakdown

Human Factors : Training / Qualification

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 : NMAC

Anomaly.Deviation / Discrepancy - 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

Today, [an aerial demonstration team was] practicing for the air show. Their TFR significantly encroached on our airspace leaving us with no room for go-arounds. Aircraft X went around on his own and got VERY close to one of the [aerial demonstration team's aircraft]. I don't know how close, but if I were able to file an NMAC, I would.

None of this was briefed to us. We had no idea what the procedures were supposed to be while this TFR was in effect. We were using Runway 29 for arrivals and Runway 21 for departures, but we had to figure that out for ourselves. We were playing completely by ear and pretty much just hoping to get through the demo. Two controllers worked well over two hours in position and one controller stayed late because he had no one to relieve him. The TFR also was not reflected in the NOTAMs. A TFR that didn't really affect us was [in the NOTAMs], but the one that was in effect was not, at least to my knowledge.

This seems pretty obvious. When something like an air show is imminent, the controllers should receive thorough briefings on the temporary procedures and be given the opportunity to express concerns and ask questions.

Synopsis

Tower Controller reported an NMAC that was attributed to procedures that were not clear to the reporter relating to a TFR and go-around procedures.

Time / Day

Date : 201812

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : MHV.Airport

State Reference : CA

Relative Position.Angle.Radial : 200

Relative Position.Distance.Nautical Miles : 6

Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 20

Light : Daylight

Ceiling.Single Value : 12000

Aircraft

Reference : X

ATC / Advisory.TRACON : JCF

Aircraft Operator : Personal

Make Model Name : Small Aircraft

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 D : MHV

Airspace.TFR : ZZZ

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

Experience.Flight Crew.Total : 6000

Experience.Flight Crew.Last 90 Days : 10

Experience.Flight Crew.Type : 800

ASRS Report Number.Accession Number : 1604809

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Exited Penetrated Airspace
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 : Procedure
Primary Problem : Procedure

Narrative: 1

On a VFR flight to L71 at 4000 MSL/1300 AGL I contacted MHV (Mojave) Tower from a position approximately 6 miles SSW of that airport for permission to transit their Class C airspace. The Tower Controller inquired if I was aware of a TFR which impacted their facility. I was not, and although I had both ForeFlight fed by ADS-B/in running on an iPad and a GPS with XM weather, both of which display TFRs, neither was showing any. Uncertain what the situation was, I immediately reversed course and on the advice of the Tower Controller contacted Joshua Approach, who also seemed somewhat uncertain about the status of the TFR, but after some consultation with his supervisor advised me he could clear me through to my destination if I could complete the flight within 15 minutes. I could and he did. While I do not believe I initially penetrated the TFR prior to contacting the Tower Controller and was subsequently cleared through it by Joshua, some days later I received a phone call from a friend who in turn had spoken casually with another individual who asked if he knew [my name] flying [aircraft N-number] and said he had noted my ADS-B return inside the TFR. Hence this report. The situation was somewhat unusual as I have come to depend on the "live" airspace depictions and find them very dependable. I suspect the TFR was somehow not distributed in the same way as normal TFRs. In any case, I will start making it a habit to download a formal briefing.

Synopsis

GA Pilot reported nonstandard TFR dissemination resulting in TFR violation.

Time / Day

Date : 201809

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 75

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Make Model Name : UAV - Unpiloted Aerial Vehicle

Operating Under FAR Part.Other

Flight Plan : VFR

Mission : Photo Shoot / Video

Airspace.Class D : ZZZ

Person

Reference : 1

Location Of Person : Company

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 30

Experience.Flight Crew.Last 90 Days : 2

Experience.Flight Crew.Type : 30

ASRS Report Number.Accession Number : 1591597

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Other Person

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

Looked at airspace on the morning and saw Temporary flight restrictions and was notified the temporary restriction was removed early that morning. Later when flights were reviewed it appears I penetrated controlled airspace in my inspection without prior

authorization. In review with drone coordinator, it appears I confused the TFR with the Class D Controlled Airspace for ZZZ. I have updated my airspace software to prevent from future incursions.

Synopsis

Drone operator reported penetrating Class D airspace.

Time / Day

Date : 201810

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Other

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : UAV - Unpiloted Aerial Vehicle

Flight Plan : VFR

Mission : Personal

Route In Use : Visual Approach

Airspace.Class C : ZZZ

Person

Reference : 1

Location Of Person : Hangar / Base

Reporter Organization : Personal

Function.Flight Crew : Pilot Not Flying

ASRS Report Number.Accession Number : 1588688

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Other Person

When Detected : Routine Inspection

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

This pertains to a small UAV flight near [the] State University. We took all usual protocols & procedures to check airspace and confirm we are clear to safely fly. For this particular flight, we checked to confirm we were outside of the Class C airspace of ZZZ Airport and

checked for TFR's in the area - all came back clear. However, we may have flown in or near the Class C airspace during this brief flight and it was discovered after flight was over. Moving forward, we will use <https://skyvector.com/> and <https://uas-faa.opendata.arcgis.com/> to check instead of B4UFly app.

Synopsis

UAV operator reported possible operation in Class C airspace.

Time / Day

Date : 201810

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC

Light : Night

Aircraft

Reference : X

ATC / Advisory. TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Regional Jet 900 (CRJ900)

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Airspace.Class B : ZZZ

Component

Aircraft Component : FMS/FMC

Aircraft Reference : X

Problem : Malfunctioning

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 : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1587031

Human Factors : Confusion

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 : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1587032
Human Factors : Confusion
Human Factors : Situational Awareness

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Became Reoriented
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

While at the gate all normal procedures and briefings occurred. It was my leg to fly. While I programming the FMS, the Captain assisted in programming the MFD Menu and the Radio portion of the "J" pattern. While doing this, he was in the Radio portion of the programming and attempting to place Nav1 and Nav2 into "Auto" mode, however, he was unable to place my Nav2 into Auto since my side was still in green needles from the previous crew. I took the Nav Source knob and turned it fully clockwise to the right to get back into FMS white needles. The Captain then proceeded to place Nav1 and Nav2 into Auto. The briefing occurred with details discussing the complex special engine out procedure, the heading bug was set to 332 degrees, a 2.5 fix ring around [a fix] was entered for a visual reminder of the engine out turn, the climbout discussed, a review of the two Prohibited airspaces and the need to remain clear was also reviewed. I went through a full briefing.

The taxi to the runway was uneventful and had no delays. The takeoff was a flaps 20, full thrust takeoff with V2+10 to 1000 feet. After rotation and calling for speed mode/NAV mode and at 400 feet the FD did not indicate a turn to 332 degrees. Within seconds and climbing through 600 feet, I called "Autopilot On" and the Captain did so. It was engaged and NAV mode was active in the FMA. I recognized that with the AP engaged and NAV active in the FMA that the aircraft was still not turning and the FD also did not indicate a turn. At the same time I was recognizing this and quickly reassessing to ensure the AP and FMA was configured properly, which it was. The Captain said that the turn was not occurring for some reason and to switch to HDG mode, and turn left to 320 degrees. He referenced that the AP was not responding and to disregard the NAV mode issue for now and that we can figure that out later after we climb out. The Captain spun the HDG bug to about 320 and I hit the HDG on the ACP and HDG became active in the FMA and was confirmed. The aircraft seemed like it did not initially respond to the turn and finally responded at a slow rate. This scenario with a westerly strong wind in the air resulted in encroaching upon [a restricted area].

After [resuming] on course, I continued to fly the SID with the AP engaged, in HDG mode

and by referencing the FMS map on the MFD until we could figure out the navigation/autopilot issue. Shortly later, the Captain noticed the PFD showed no data in the FMS area and that the white needles had disappeared. I confirmed this fact and then I took the NAV Source knob, clicked it one click counterclockwise, then one click clockwise to reset my FMS back to white needles. The flight then continued on course with no further FMS anomalies.

The cause of this FMS/AP anomaly is unknown. This is no precursor, there is no warning, it simply occurred without reason. This is the second anomaly that I have experienced. The first anomaly was reported [a few months ago]. This was another automation anomaly in which climbing through FL250 at 290 knots with the AP engaged. Again for no reason and without any input, the bugged airspeed automatically changed from 290 knots to 140 knots. This was recognized by the PF and caught as the aircraft pitch rapidly increased and airspeed rapidly decreased. [Company] reported that they would pull all the data from the flight, however, after a week, they called to inform me that the data was lost from the aircraft as it was a newly acquired plane and the data was not pulled. They also acknowledged that they have heard of this anomaly three other times.

I discussed this FMS/AP/white needle/loss of data with Chief Pilot. During this conversation, [the Chief Pilot] explained that he too had experienced this anomaly during a cruise portion of a flight in the past similar to what we experienced. There simply is no explanation of what, why or how these happen. They just do and we have to be vigilant to catch them when one occurs.

It is easy to sit back in a chair after the [fact] and think about what we could have done or should have done. It is also easy for other pilots to suggest other actions. However, things are a bit different when in the cockpit. As we have many other complex departures in our system, we are conditioned to rely heavily on the RNAV procedure and the use automation for accuracy. When an issue arises when using automation, we can usually and quickly fix it - whether it is the HDG button that wasn't pushed all the way, or AP wasn't actually engaged, or the FMS has to be executed, etc. If the autopilot is not reacting immediately, we typically will not quickly disengage the autopilot and hand fly on a complex departure. After all the hundreds of flights we do, and if the automation is not doing what we anticipate it should be doing, we will attempt to quickly assess the situation and attempt to correct the automation which is generally pilot error. In this case, it was not pilot error, but rather, another anomaly. In an attempt to correct what should have been a simple automation issue, it could not be quickly corrected as it was verified twice that the configuration of the AP and its active modes were what it should have been. During this attempt to solve this issue, the aircraft continued on its straight-ahead flight path and with a strong westerly wind aloft, pushed us east and closer to [the restricted area]. Once realized that an anomaly occurred, the NAV mode was deselected and HDG made active.

Three things have been learned. Firstly, future briefings will include the discussion that if something with the automation is not doing what we expect, we will disengage the AP and hand fly with a left turn to stay west of the Prohibited areas and not to attempt to correct the AP/FMA/FMS. Secondly, a quick call to ATC to advise them that we are starting the turn could have prevented any security issue with encroaching [the restricted area] as they have acknowledgment from the crew.

Lastly, the anomaly should have been written up. Both the Captain and I discussed writing up the anomaly, especially since we likely encroached the [restricted area] airspace. However, after discussion of the fact that the remainder of the flight occurred without incident, that there were no indications of any further anomalies, that the flight did not

have to be delayed with a write-up which likely could not be duplicated, to not delay the subsequent flight, and that it could be conducted safely as all systems were functioning normal, the anomaly was not written up. Returning [to base], the anomaly occurred during the approach and it was written up. We waited until Maintenance arrived to discuss and to look over the onboard data logs and as expected, because the system does not record these anomalies, it could not be duplicated and no fault found.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

CRJ-900 flight crew reported a track deviation and a restricted airspace incursion resulted when the FMC malfunctioned.

Time / Day

Date : 201810

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : SJC.Airport

State Reference : CA

Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.TRACON : NCT

Aircraft Operator : Air Carrier

Make Model Name : B737 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Takeoff / Launch

Airspace.Class C : SJC

Person : 1

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 Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Last 90 Days : 329

ASRS Report Number.Accession Number : 1584265

Human Factors : Situational Awareness

Human Factors : Confusion

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 : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1584288
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

The Captain and I were getting ready to push on leg 4/4, [out of SJC], on what had become a pretty long day. The pushback crew was trying to establish communication; the Ops Agent had just given us our [information] sheet which said we had like 25 minutes left to get airborne without a waiver. We had started our first two legs each with mechanical delays, and now were roughly 2.5 hours behind schedule. I tried to get the latest ATIS for push and that's when I realized that people on Tower frequency were making CTAF calls. We were unable to get digital ATIS and had to tune it on the radio. The weather was VFR, 10 SM and clear skies. This made me scratch my head a bit as I hadn't expected the tower to close, although it was [late at night] local time so it was late enough.

There were no specific instructions regarding a closed tower in the Dispatch Release and nothing in our CPDLC which I had gotten 15 minutes earlier while the tower was still open. It then occurred to me that maybe there was some info on the airport pages regarding CTAF operations. The only reference at all was regarding the curfew - all jet operations prohibited during curfew hours of [early morning period]. Delayed scheduled air carrier flights and alternate/emergency operations excluded from restrictions. That's when the Captain asserted that since we had our CPDLC clearance and departure frequency we should be good to takeoff and talk to departure.

At this point I feel like fatigue was really hampering my decision making ability, because I had a little acorn of doubt in the back of my head that we needed to clarify what exactly we needed to do, but instead of discussing my doubt I just rationalized the Captain's reasoning as good enough and went with it. So we pushed back and I made CTAF calls that we were taxiing to the runway. Initially there was a regional aircraft landing, then a helicopter, and then it was quiet. We approached the hold short and we could see an aircraft on final which our TCAS showed at 5 NM. The Captain said he was going to keep it rolling and I made our final CTAF call announcing our departure saying that we were

making a right turnout, but I flubbed the name of the departure.

It was my leg so he gave me the aircraft and we took off uneventfully. We got the gear up, accelerated, and then at 1500 feet he gave Departure a call. Initially the Controller asked us to squawk identification and then I heard some excitement in his voice when he came back. I can't remember the exact verbiage but something to the extent of "Aircraft X, you can't just take off into controlled airspace without a clearance..." That's when my heart sank. I kept flying the SID but I was mad at myself because I knew I had that nugget of doubt and I could have asserted myself to avoid this situation. As we checked out of NorCal's airspace the Controller gave us a phone number to call for a potential Pilot Deviation.

Looking back at this situation, after having gotten some sleep, I saw a couple of factors that I believe played a role in this occurrence. First, taking off with a closed tower is something I have never done at Company. I've done it at previous jobs, but I always took off VFR and remained VFR, or got my IFR while airborne in VMC, but never from an airport with an overlying Class B airspace. At Company I have landed with a closed tower, but there were specific instructions outlined in the SIP for that airport which made it clear what we needed to do. In our situation, because of the delay, we found ourselves working late at night at an airport where we don't usually fly that late, and no amplifying instructions. I don't know why it didn't dawn on me to address with the Captain the fact that I'd never done this before at Company.

Second, we had received our CPDLC while the tower was still open but nowhere along the way did we realize, or did anybody (Dispatch, Clearance, Tower, etc.) tell us, that the tower would be closed upon departure. I actually had to call Tower and ask them to resend my CPDLC because it dropped out of our box. He said ok, and did so, but didn't mention he would be closing soon. I'm in no way trying to shift any blame, but it seems that somebody could have given us a heads up. Who knows, maybe tower did try to call? I wasn't actively monitoring them on the speaker so I don't know if they did.

Third, as I mentioned before, I was tired and that impacted my ability to scrutinize this situation. We had been on duty for roughly 10 hours at this point. I was up early with my family and was running on fumes at this point in the night. As we were arriving into SJC the Captain and I were discussing our fatigue level, but neither of us said that we were unfit to continue. Maybe a bit of "get-there-itis" paired with "we can make this happen." I've read all the stats that are put out about fatigue, and I know they're true, but honestly I've just not had all that many situations where the effects of fatigue have caused something like this to happen to me. It's pretty eye opening and I feel like we really should have talked more about it as a crew.

Fourth, I should have been more familiar with information available to me from Company publications. After the fact I have since gone back and found where this situation is discussed in the FOM. I had never read it before. While it does state clearly that we needed to get a clearance time/void time, we didn't necessarily fit the exact parameters of either paragraph regarding closed tower operations, and the airport pages had no amplifying information, but, it is something that I could have been more familiar with. Additionally, although what we did was not directly in line with the FOM, I'm still not exactly sure if/how it was illegal. As far as I know we took off from Class E airspace in VMC and contacted ATC at 1,500 feet, never entering any controlled airspace.

Lastly, and I've already fessed up to this, but I should have spoken up, plain and simple. There was that little bit of doubt in the back of my brain that said something wasn't quite

right here but I chose to bury it and press. Being more assertive and a better communicator could have easily stopped this bit of Swiss cheese from aligning and allowing the outcome. A call to Dispatch or to NorCal would have been easy enough, and free, and I wouldn't have to spend all this time discussing my day.

Narrative: 2

Arriving SJC was uneventful. Prior to departing SJC, the First Officer called ATC to resend our pre-departure clearance as we did not receive it via CPDLC.

They resent and we received it immediately. Very soon thereafter listening to the Tower frequency at push time we realized the Tower was now closed as we were hearing traffic advisories from GA aircraft in the pattern and on the airport at SJC. For us, the Crew, it was the middle of the night. We were 11.5 hours into our duty day with one more leg to fly. Any more delays and we were encroaching on duty limits. I had searched the SJC SIP and there were no references to the Tower closing. There is a curfew mentioned from 2330-0630 local time for aircraft operations with an exclusion for delayed air carrier flights. Finding no references for departing when the Tower was closed it was my intention to depart VMC and obtain our clearance with NorCal on departure.

We made Traffic Advisories for our pushback, taxi, and takeoff. As PM I contacted NorCal at 1500 feet. He was not happy to say the least. He said we could not depart without a Release. I mentioned the Tower was closed. Again it was my intention to depart VMC and obtain our clearance with NorCal on departure. He was still obviously not satisfied with this.

Handing us off to OAK Center, he gave me a phone number to call for "possible Pilot Deviation." I called the number when I got to my hotel room. The person on the other end stated the same that we needed a Release before departure. He took my name, Pilot Certificate number, phone number, and home address.

I used to do this previously at another air carrier quite frequently with no issues whatsoever. And yes it was many years ago. Once you dig it up, in our FOM states that yes we do need to get an IFR clearance (to include VOID time) from FSS, Departure Control, or En Route Center via telephone or radio. The very next paragraph same page, Departing VFR states that yes we can depart VFR provided we have VMC, maintain VMC on departure, and obtain clearance as soon as practical but no farther than 50 NM from departure airport. After sifting through the FOM in the quietness of my room I realize I should have obtained a void time through SFO Radio or other means.

Clearly, in the heat of the battle, it was not so clear. The paragraph I could recall is the one that allows departure in VMC conditions and obtaining clearance with Departure Control. I would like to conclude this with my observations and suggestions. (Next paragraph-Preventative Measures) Please do not take this as finger pointing or deferring blame/fault in any way at any level. The blame /fault rests entirely with (ME) the Captain's Responsibilities.

Synopsis

B737 flight crew reported departing SJC after the tower had closed, but without a release from NorCal TRACON.

Time / Day

Date : 201809

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 4

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Lancair ES

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Training

Flight Phase : Final Approach

Route In Use : None

Airspace.Class E : ZZZ

Airspace.TFR : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : Beechcraft King Air Undifferentiated or Other Model

Mission : Skydiving

Airspace.Class E : 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 : Private

Experience.Flight Crew.Total : 1970

Experience.Flight Crew.Last 90 Days : 40

Experience.Flight Crew.Type : 1226

ASRS Report Number.Accession Number : 1581670

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I was flying practice approaches for currency in and around ZZZ airport. I was briefed and was aware of the TFR over ZZZ1 for an air show. I was flying a practice GPS XX approach. I selected the GPS XX approach as it was on the opposite side of the airport from the TFR. I was communicating and monitoring the UNICOM frequency. I announced my position multiple times. When I was on short final, a King Air suddenly appeared on downwind for Runway XY [opposite direction] and announced his intention to land on XY, despite me having announced multiple times that I was on short final for XX. My attention was on the King Air when I glanced up and saw a windshield full of skydivers. I immediately began evasive action, turning first to the left so as to pass behind the King Air. However, I realized that turning left limited my visibility of the skydivers, so I then proceeded to turn back right parallel to the runway so I could see the skydivers. I also began a climb. I was very shaken by the event. By the time I composed myself and stopped looking for skydivers, I looked at my MFD and realized I had penetrated the TFR. I immediately executed a steep turn to the right to exit the TFR space. At the same time I switched from the UNICOM frequency to 121.5. About 20 seconds later I got a call on 121.5 from ATC. I described the situation to him, and was given a number to call.

My penetration of the TFR was inadvertent and a result of the emergency situation with the skydivers. I believe my actions were justified, as avoiding contact with a skydiver was my priority during the emergency. I believe the King Air that appeared had been carrying the skydivers and made no attempt on UNICOM to inform me of their presence. I exited the TFR promptly on my own volition once the emergency situation had resolved itself.

Synopsis

Lancair ES pilot reported penetrating a TFR resulting in an airborne conflict with skydivers.

Time / Day

Date : 201809

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : SCT.TRACON

State Reference : CA

Altitude.MSL.Single Value : 11500

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.FSS : PRC

Aircraft Operator : FBO

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

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : FBO

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 128

Experience.Flight Crew.Last 90 Days : 15

Experience.Flight Crew.Type : 4

ASRS Report Number.Accession Number : 1576558

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Fatigue

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Detector.Person : Flight Crew

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 planning a flight westbound from the Phoenix area to the LA Basin I had copied down the controlling agencies and frequencies for restricted areas as well as MOAs along my intended route of flight. Also recorded were the flight service contacts on their respective VORs.

West of the BUCKEYE VOR, I identified and verified the BARD VOR and flew a course through several restricted areas since I had made an error in my preflight planning writing down Prescott's contact and the VOR frequency where that of BLYTHE and Riverside belonged. I did not detect this error between passenger and engine management climbing out of turbulence. When I realized I was unsure of my position I tried contacting SoCal for a position check. Negative with them, I flew to the most recognizable settlement while trying to establish my position on the sectional and drifted through the ADIZ into Mexican airspace. Finding that I was now west of Yuma, I immediately requested a position check with either San Diego or Prescott flight service- I do not recall which at this time. I was given a discrete squawk and when radar contact was made 10 miles west of MCAS Yuma I requested vectors back into American airspace and reported a possible pilot deviation through the restricted areas, MOAs and the ADIZ into Mexico. Flight Service asked if my flight had originated in the US and I replied it had. They contacted Air Marine Operations Center which had been tracking me and said it was not an issue as I flew back into American airspace. I asked for any other instruction or required reporting and was advised none. Flight Service wished me a good day and I thanked them profusely before I flew a 337-degree course to Blythe to regroup and refuel, copy down the details above and carefully reconsider continuing the trip.

A lack of alertness caused by fatigue in the planning of the trip, as well as in-flight, and a desire to meet a commitment at my destination (Get-There-Itis) fueled this, my only incident. I have since established hard sleep and overtime rules to protect my airmanship and have scheduled some remedial training in navigation. I am also currently looking to purchase a GPS navigation aid for situational awareness to prevent further incursions.

Synopsis

GA pilot reported becoming disoriented and committing several airspace violations.

Time / Day

Date : 201808

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Rain

Weather Elements / Visibility : Thunderstorm

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 4000

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Personal

Make Model Name : Skylane 182/RG Turbo Skylane/RG

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use.Other

Airspace.Class B : ZZZ

Component

Aircraft Component : GPS & Other Satellite Navigation

Aircraft Reference : X

Problem : Malfunctioning

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.Last 90 Days : 27

Experience.Flight Crew.Type : 209

ASRS Report Number.Accession Number : 1571346

Human Factors : Distraction

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Airspace Violation : All Types
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

Flying my 182 from ZZZ to an avionics shop in ZZZ1 to correct autopilot issues. The weather was unsettled - standard late afternoon "pop up" convection in the greater [city] area. I decided to fly south around the west side of [the city] since the weather looked best in that area. Immediately after departing I received an indication that my panel GPS was not receiving signal. I had reviewed Airport, Obstacle, TFR, and ARTCC NOTAMS but did not see any indication of expected GPS signal loss. Given the recent challenges with my autopilot - I considered that perhaps this was yet another "issue" with my avionics. Initially - I knew the area well enough to navigate by sight (while heading SW) but I then turned on my Stratus and connected to my iPad that I keep for back up to regain situational awareness of my location. At this point my altitude was level at 3200 ft MSL and I decided to turn south flying under the 4000 foot base of the Bravo airspace. As I continued on the heading I noticed some convection forming and decided to lower my altitude to 3000 ft MSL and fly right around the corner of the Bravo shelf that sits at 3000 MSL. At this point, still about 8-10 miles from ZZZZZ I got another "lost GPS signal" from my panel and immediately reverted to my Status/iPad combination which appeared to be working. A few minutes later - the panel GPS returned and my iPad "flashed" and showed me approximate 2-4 miles at the Bravo 3000 ft MSL shelf. I immediately reduced altitude to 2800 ft and continued to fly out from under the shelf to the 4000 ft MSL Bravo shelf and then on to ZZZZ where I landed.

It is unclear if I in fact "busted" the Bravo or not - it was certainly very close. I'll also mentioned that I left ZZZZ in a different airplane headed east about 1 hour later and it initially had GPS reception challenges as well - so perhaps something was going on with the GPS network. In reflection - it is clear that I've been very comfortable with technology based navigation - and did not think to use pilotage as a backup for electronic navigation. It is also worth noting that I was flying after a full day of work, still distracted from work issues, and flying in stressful weather conditions as well - and was not as fresh as I should have been for this flight.

Synopsis

Cessna 182 pilot reported experiencing intermittent "lost GPS signal" alerts while attempting to avoid Class B airspace and significant weather.

Time / Day

Date : 201808

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZOA.ARTCC

State Reference : CA

Relative Position.Angle.Radial : 180

Relative Position.Distance.Nautical Miles : 3

Altitude.MSL.Single Value : 13500

Environment

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 5

Ceiling.Single Value : 14000

RVR.Single Value : 13500

Aircraft

Reference : X

ATC / Advisory.Center : ZOA

Aircraft Operator : Personal

Make Model Name : Cessna 337 Super Skymaster

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Person

Reference : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Personal

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 2210

Experience.Flight Crew.Last 90 Days : 11

Experience.Flight Crew.Type : 639

ASRS Report Number.Accession Number : 1568247

Human Factors : Human-Machine Interface

Human Factors : Situational Awareness

Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy

Anomaly.Inflight Event / Encounter : VFR In IMC
Detector.Person : Flight Crew
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was flying VFR from KMEV at 13500 ft and passed between the LLC VOR and the Carson Sink restricted area. I saw on my iPad after I had passed the LLC VOR that there was a round TFR with the same radius as the VOR radial which I think had a 7 mile radius to 60,000 ft of altitude for rocket launch. This was not noted on the FAA TFR map that I had checked and printed in the morning prior to flight and was not showing on my Garmin 750 as a TFR. I was receiving flight following at the time and was not told anything about the TFR either. I noticed the TFR on the way back as well. I was IFR returning due to the smoke from the fires. It was not noted on the FAA TFR list or map on the TFR website and it only showed up on my Foreflight on the iPad. I am unsure if this was a TFR or was it something wrong with the information on the Foreflight iPad?

Synopsis

Cessna pilot reported a TFR was not displayed on the preflight TFR map or on the aircraft GPS, resulting in a possible airspace violation.

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 / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - 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 / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - 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 / Discrepancy - 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 / Infrastructure

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 / Discrepancy - Procedural : Published Material / Policy

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Deviation / Discrepancy - 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.