

**ASRS Database Report Set**

**Penetration of Prohibited Airspace Incidents**

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Report Set Description.....A sampling of reports that reference unauthorized entry into prohibited or restricted airspace.

Update Number.....29

Date of Update .....December 6, 2023

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

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

National Aeronautics and  
Space Administration

**Ames Research Center**  
Moffett Field, CA 94035-1000



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 cursive script that reads "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: 2007199 *(1 of 50)*

### Synopsis

Recreational/hobbyist UAS pilot reported that they learned during post flight they flew within an active TFR without authorization.

ACN: 2005236 *(2 of 50)*

### Synopsis

Center Controller reported they were instructed by a Supervisor to descend a military aircraft conducting a special operation to an altitude below the minimum IFR altitude. The aircraft entered adjacent facilities airspace without a point out and came into conflict with an air carrier.

ACN: 1993160 *(3 of 50)*

### Synopsis

Recreational/hobbyist UAS pilot reported flying their UAS in an active TFR without authorization. The UAS was also not registered.

ACN: 1993159 *(4 of 50)*

### Synopsis

Part 107 UAS pilot reported they flew in an active TFR without authorization.

ACN: 1980433 *(5 of 50)*

### Synopsis

Part 107 UAS pilot learned during post-flight they inadvertently flew in a TFR without authorization.

ACN: 1946585 *(6 of 50)*

### Synopsis

Recreational/hobby UAS pilot reported flying during an active Temporary Flight Restriction (TFR). Once they learned of the TFR the pilot exited the airspace by landing.

ACN: 1941675 *(7 of 50)*

### Synopsis

Recreational/Hobby UAS pilot reported they flew during an active Temporary Flight Restriction (TFR) without authorization.

ACN: 1936399 *(8 of 50)*

### Synopsis

Part 107 pilot learned after a flight they inadvertently flew in an active TFR.

ACN: 1926318 *(9 of 50)*

### Synopsis

Pilot reported entering TFR without a clearance.

ACN: 1925063 *(10 of 50)*

### Synopsis

Air Carrier flight crew reported an airspace violation by overflying an airspace which prohibits overflights when transporting Hazmat cargo. Captain recommends better crew briefing and training of new pilots.

ACN: 1910447 *(11 of 50)*

### Synopsis

Part 107 pilot reported flying a UAS in an active TFR. It was during the post-flight the UAS pilot learned of the TFR.

ACN: 1877214 *(12 of 50)*

### Synopsis

Part 107 pilot reported learning after a flight that they had flown in an active TFR.

ACN: 1866179 *(13 of 50)*

## Synopsis

UAS pilot reported they unknowingly flew their UAS into a TFR. Reporter stated there were no TFRs prior to launch and the TFR became active during the flight.

ACN: 1866178 *(14 of 50)*

## Synopsis

UAS pilot reported flying into an active TFR due to misunderstanding of LAANC authorization.

ACN: 1861680 *(15 of 50)*

## Synopsis

Part 107 UAS pilot was flying in an area of a natural disaster. Prior to the flight the UAS pilot checked for NOTAMs/TFRs and saw none. Reporter learned during post flight that they flew in a TFR that had been created after takeoff.

ACN: 1857860 *(16 of 50)*

## Synopsis

Pilot of a small aircraft reported flying through a TFR after being advised by a weather briefer and electronic flight app that the TFR applied only to UAS and not to fixed wing aircraft. The pilot stated the NOTAM verbiage wasn't clear and may have led to the airspace incursion.

ACN: 1843066 *(17 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 *(18 of 50)*

## Synopsis

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

ACN: 1822464 *(19 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 *(20 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 *(21 of 50)*

### Synopsis

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

ACN: 1775414 *(22 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 *(23 of 50)*

### Synopsis

Helicopter pilot reported a sporting event TFR violation.

ACN: 1773484 *(24 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 *(25 of 50)*

### Synopsis

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

ACN: 1770360 *(26 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 *(27 of 50)*

### Synopsis

GA pilot reported penetrating a TFR.

ACN: 1761286 *(28 of 50)*

### Synopsis

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

ACN: 1760917 *(29 of 50)*

### Synopsis

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

ACN: 1760614 *(30 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 *(31 of 50)*

## Synopsis

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

ACN: 1760308 *(32 of 50)*

## Synopsis

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

ACN: 1760292 *(33 of 50)*

## Synopsis

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

ACN: 1759569 *(34 of 50)*

## Synopsis

BE-36 pilot reported inadvertently entering a TFR.

ACN: 1757667 *(35 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 *(36 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 *(37 of 50)*

## Synopsis

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

ACN: 1756411 *(38 of 50)*

### Synopsis

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

ACN: 1755243 *(39 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 *(40 of 50)*

### Synopsis

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

ACN: 1745873 *(41 of 50)*

### Synopsis

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

ACN: 1745072 *(42 of 50)*

### Synopsis

UAV pilot reported a TFR incursion.

ACN: 1743912 *(43 of 50)*

### Synopsis

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

ACN: 1743344 *(44 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 *(45 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 *(46 of 50)*

### Synopsis

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

ACN: 1712213 *(47 of 50)*

### Synopsis

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

ACN: 1705924 *(48 of 50)*

### Synopsis

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

ACN: 1687889 *(49 of 50)*

### Synopsis

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

ACN: 1680159 *(50 of 50)*

## Synopsis

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

# Report Narratives

## Time / Day

Date : 202306  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : CVG.Airport  
State Reference : KY  
Altitude.AGL.Single Value : 400

## Environment

Flight Conditions : VMC  
Light : Dusk  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Recreational / Hobbyist (UAS)  
Make Model Name : Small UAS, Multi Rotor  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)  
Mission : Photo Shoot / Video  
Flight Phase : Takeoff / Launch  
Airspace.TFR : ZZZ  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
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) : People / Populated Areas  
Flying In / Near / Over (UAS) : Crowds  
Flying In / Near / Over (UAS) : No Drone Zone  
Type (UAS) : Purchased  
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 : Person Manipulating Controls (UAS)  
Experience.Flight Crew.Total : .5  
Experience.Flight Crew.Total (UAS) : 1  
ASRS Report Number.Accession Number : 2007199  
Human Factors : Training / Qualification  
Human Factors : Situational Awareness  
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 : UAS Crew

When Detected.Other

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Human Factors

## Narrative: 1

Last night I decided to fly my drone on the other side of the river to capture some footage of the city in smoke from the Canada fires along with the stadium. Last night there was an event, and I thought I was being respectful of avoiding the stadium. However, I was not aware of the rules of it needing to be over 3 miles away an hour before and after the event. This is completely my fault and I should've done more research. However, I made sure to absolutely not go near the stadium or over the stadium. However, I was definitely within 100 yards at takeoff. This is something that I was not aware of and I'm going to go out of my way to also take the drone flying course. I did not know that recreational drone pilots needed to take the TRUST (The Recreational UAS Safety Test) course so I will be doing that as well. I will also be going out of my way to get my 107 license to learn more about the other rules that drone pilots may not know about. Overall, I would like to apologize for my recklessness, and I do realize that I have made a mistake in which I thought I was respecting, but greatly violating. I will do my best from this point forward to educate myself, and make sure that nothing like this happens again. I respect everything and all the regulations that were put in place for this event, and it is my fault for not making sure that it was perfect. This will not happen again and I do apologize.

## Synopsis

Recreational/hobbyist UAS pilot reported that they learned during post flight they flew within an active TFR without authorization.



## Time / Day

Date : 202305  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 20000

## Aircraft : 1

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Military  
Make Model Name : Military  
Crew Size.Number Of Crew : 1  
Flight Plan : IFR  
Mission : Tactical  
Flight Phase : Descent  
Route In Use : None  
Airspace.Class A : ZZZ  
Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y  
Aircraft Operator : Air Carrier  
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Cruise  
Airspace.Class E : ZZZ

## 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) : 20  
ASRS Report Number.Accession Number : 2005236  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : ATC

## Person : 2

Location Of Person.Facility : ZZZ.ARTCC  
Reporter Organization : Government  
Function.Air Traffic Control : Instructor  
Function.Air Traffic Control : Enroute  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 10  
ASRS Report Number.Accession Number : 2004955  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Distraction  
Human Factors : Workload  
Human Factors : Training / Qualification  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : ATC

## Events

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

## Assessments

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

## Narrative: 1

Working the TFR, the aircraft were two Aircraft X's. Monitoring Supervisor received a call to have Aircraft X fly heading 005 and descend to nine thousand ft. I gave that clearance to Aircraft X. Told the Supervisor that the altitude was below the MIA. Supervisor amended the altitude to twelve thousand which was also below the current MIA but I knew that altitude would be fine further North so I did not stop Aircraft X higher. Apparently nobody from ZZZ Approach was monitoring the situation, and I was supposed to point the Aircraft X out to ZZZ1 Approach and ZZZ which I did not. Turns out the Aircraft X tracked the wrong target and got too close to Aircraft Y. I do not know what altitude the incident happened, where it exactly happened or what target the Aircraft X was supposed to be tracking. This entire thing was an circus that started the day previous with Person A dropping off a handful papers (briefings) that were briefly discussed with the Controller in Charge (CIC) at the time. Each CIC after that glanced through those "briefings" and the area discussed and tried to "decipher" what they said, what our actual responsibilities are and what to expect. When I arrived in the area at XA:30 the mid shift informed us that the mid shift Supervisor instructed us to open sector X by itself first thing in the morning. Well, that did not make any sense as all the days "special use airspace" was in sector Y.

By that logic y would have had all the "special" operations and all high sectors in the area while sector X sat and worked in some arrivals. The opening Supervisor had little to no information about what was going on and was as confused or more than we were in the area, they did try to help as much as they could. When the aircraft arrived Aircraft X, the mid shift cleared them to operate within the confines of their "next 4 lat/long points as they did not know what else to call it or how else to clear them to do whatever it was they wanted to do. As I got to the area the aircraft arrived to hold in the "ZZZZZ track" which we could not really understand on the radio and did not know what that was. We eventually found it in one of the briefing sheets.

## Narrative: 2

My trainee and I had just received the sector from the previous Controller. The previous Controller was working Aircraft X that was taking instructions through ZZZZZ1. My understanding when taking the sector was that the previous Controller via ZZZZZ1 had coordinated everything since the aircraft was well inside of Approach airspace (approximately 15-20 miles). The Person A was asking what frequency Approach used and I assumed that they were coordinating with ZZZZZ1 that we were going to be placing the aircraft on Approach since they were headed for a large group of limited data blocks and a track that I saw they tagged up Track of Interest (TOI). I switched Aircraft X to Approach as my trainee updated the flight plan and handed the aircraft off. This all occurred within a minute of taking the sector. Later on I was informed that there had been a loss between Aircraft X and Aircraft Y. When there will be complex operations such as this, brief the Controllers verbally. The TFR was at a special location and we had moving TFR's, a TFR for aircraft, an Organization with multiple sets of aircraft in and out, a refueling track with multiple tankers in and out. The aircraft would move between the Organization aircraft and the refueling track. The only briefing, if you called it one, was a bunch of papers that had some drawings and the textual TFRs. All of these operations were in conflict with all four of ZZZ South departures which climbed to 23000 ft. All facilities that could potentially be affected by a TFR violator should be on the ZZZZZ1 call. If someone was to violate the TFR, it would more than likely have been in ZZZ1 or ZZZ airspace and it was my understanding after the event that neither were on. If the event is preplanned and they know they will be using ZZZZZ1, brief them on the airspace and terrain. I believe they led the previous Controller down the path by instructing them to issue the aircraft an altitude 9000 ft. and a northerly heading. The MIA for that area was 16000 ft. and that put the aircraft in ZZZ1 and ZZZ airspace. If I remember right, the ZZZZZ1 training we receive is in the middle of our sectors, not through multiple facilities. Maybe update the training to a more complex situation such as this.

## Synopsis

Center Controller reported they were instructed by a Supervisor to descend a military aircraft conducting a special operation to an altitude below the minimum IFR altitude. The aircraft entered adjacent facilities airspace without a point out and came into conflict with an air carrier.

## Time / Day

Date : 202304  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 10  
Altitude.AGL.Single Value : 180

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Recreational / Hobbyist (UAS)  
Make Model Name : DJI Mini 2  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)  
Mission : Recreational / Hobbyist (UAS)  
Flight Phase : Landing  
Airspace.TFR : ZZZ  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
Weight Category (UAS) : Micro  
Configuration (UAS) : Multi-Rotor  
Flight Operated As (UAS) : VLOS  
Control Mode (UAS) : Manual Control  
Flying In / Near / Over (UAS) : Open Space / Field  
Type (UAS) : Purchased  
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 : Person Manipulating Controls (UAS)  
Experience.Flight Crew.Total (UAS) : 145  
Experience.Flight Crew.Last 90 Days (UAS) : 14  
Experience.Flight Crew.Type (UAS) : 90  
ASRS Report Number.Accession Number : 1993160  
Human Factors : Confusion  
Human Factors : Training / Qualification

## Events

Anomaly.Airspace Violation : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)

Anomaly.Deviation / Discrepancy - Procedural : FAR  
Detector.Person : Other Person  
Result.General : Police / Security Involved

## Assessments

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

## Narrative: 1

I inadvertently operated a sUAS flight inside a TFR zone. It was a single flight that lasted 2 minutes and 49 seconds. UAS details: DJI Mini 2, Firmware version XXX.XX.XXX, FlySafe database version XXX.XXX.XX I was unaware of the TFR as no visual indications were posted at the site and normally DJI FlySafe would indicate me about any unauthorized flight zones, it just let me launch the sUAS and I proceeded to a short flight within 400 ft. AGL and not over any crowd/people. Beside the TFR zone violation, the flight operated normally without incident at all phases. Quickly after landing, I was immediately met by a security officer from an adjacent private company property who called up the local authorities to file an incident report with the FAA. The security officer educated me about the TFR which I completely ignored of its existence. These events made me reflect about FAA regulations in place and that it is my own responsibility to be aware and comply to them. This sUAS has not flown in US airspace since and I do not plan to fly it again. Additionally, I brought this Country X-registered sUAS into the United States without proper FAA registration which I now understand, it was a violation as well. Again, this event alone deters me from ever flying a sUAS device into US airspace ever again and I should had never assumed that Country X rules were similar to US ones and also that the drone manufacturer software should not be my source of truth as far as authorized flying zones go. Lots of lessons learned here.

## Synopsis

Recreational/hobbyist UAS pilot reported flying their UAS in an active TFR without authorization. The UAS was also not registered.

## Time / Day

Date : 202304  
Local Time Of Day : 1201-1800

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility. Visibility : 10  
Work Environment Factor : Excessive Wind (UAS)  
Light : Daylight  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Commercial Operator (UAS)  
Make Model Name : DJI Mavic 2 Pro  
Crew Size. Number Of Crew : 1  
Operating Under FAR Part : Part 107  
Mission : Surveying / Mapping (UAS)  
Flight Phase : Cruise  
Airspace. TFR : ZZZ  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
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) : People / Populated Areas  
Flying In / Near / Over (UAS) : No Drone Zone  
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)  
Qualification. Flight Crew : Remote Pilot (UAS)  
Qualification. Flight Crew : Private  
Experience. Flight Crew. Total (UAS) : 165  
ASRS Report Number. Accession Number : 1993159  
Human Factors : Situational Awareness  
Analyst Callback : Attempted

## Events

Anomaly. Airspace Violation : All Types  
Anomaly. Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly. Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)  
Anomaly. Deviation / Discrepancy - Procedural : FAR  
Detector. Person : UAS Crew  
Result. General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

## Narrative: 1

Was flying an automated mapping mission in the city and didn't check airspace for conflicts. TFR was active during the time of the mission.

## Synopsis

Part 107 UAS pilot reported they flew in an active TFR without authorization.

## Time / Day

Date : 202303  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 12  
Altitude.AGL.Single Value : 127

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Commercial Operator (UAS)  
Make Model Name : Small UAS, Multi Rotor  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 107  
Mission : Photo Shoot / Video  
Flight Phase : Takeoff / Launch  
Flight Phase : Landing  
Flight Phase : Cruise  
Airspace.TFR : ZZZ  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
Weight Category (UAS) : Micro  
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) : Emergency Services  
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)  
Qualification.Flight Crew : Remote Pilot (UAS)  
Experience.Flight Crew.Total (UAS) : 76  
Experience.Flight Crew.Last 90 Days (UAS) : 0.55  
Experience.Flight Crew.Type (UAS) : 11  
ASRS Report Number.Accession Number : 1980433  
Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

I wish to report an accidental violation of a TFR. I am a Part 107 Commercial Pilot working for Company X. We had an event near ZZZ over this past weekend. I checked AirMap (the app I use regularly to check airspace and have never had cause to question) for a TFR the morning of Day 0 before leaving the house and again when I arrived at the scene. There was no TFR indicated so I flew, keeping a reasonable distance and altitude as to not disturb and/or distract the working crews. I was operating from the edge of the event, plainly visible and wore a bright safety vest identifying myself as a UAS pilot. No one looked at me twice. I was in the air for about 11 minutes. Day 1 while talking to another pilot, he mentioned a TFR being in effect until XA: 30, I was surprised and immediately pulled out my phone to checked AirMap again, it still showed as being unrestricted. I then opened a second app, Aloft and there it was. I cannot begin to describe how upset I am with myself. I had thought due diligence was done but I was wrong. Moving forward I will no longer trust commercial apps, I will be going to TFR.FAA.gov exclusively to ensure I have the most up to date information. Please let me know if I can provide any further information. I have taken screen shots of each app, but fully understand that AirMap is not to blame here, the mistake was my own, and it will not happen again.

## Callback: 1

The reporter indicated they did not need airspace authorization for airspace when they were using AirMap. It wasn't until a day later they reviewed Aloft and the FAA TFR website that they learned of the TFR they had flown in.

## Synopsis

Part 107 UAS pilot learned during post-flight they inadvertently flew in a TFR without authorization.

## Time / Day

Date : 202210

Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 20

Altitude.AGL.Single Value : 75

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

## Aircraft

Reference : X

Aircraft Operator : Recreational / Hobbyist (UAS)

Make Model Name : DJI Spark

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Recreational / Hobbyist (UAS)

Flight Phase : Hovering (UAS)

Airspace.TFR : ZZZ

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

Weight Category (UAS) : Small

Control Mode (UAS) : Manual Control

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 : Recreational / Hobbyist (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Remote Pilot (UAS)

Qualification.Flight Crew : Flight Instructor

Experience.Flight Crew.Total : 25000

Experience.Flight Crew.Total (UAS) : 25

Experience.Flight Crew.Last 90 Days (UAS) : 0.5

Experience.Flight Crew.Type (UAS) : 50

ASRS Report Number.Accession Number : 1946585

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Confusion  
Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.Flight Crew : Landed As Precaution

## Assessments

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

## Narrative: 1

I was flying drone within 3 miles of the sporting event at XA:10, the game started at XB:00, I had lost track of time and didn't realize I had violated the time restriction. I was flying near my location and was not trying to fly near stadium. This was a total unintentional violation of the airspace and I will be more diligent in the future of any event going on within the proximity of an event of the stadium. I am adding this report in addition to one filed to add information that I forgot to include. I was flying my drone near my residence in ZZZ which is within a mile proximity of the stadium. I was not flying with intent of going near the stadium, I was, however, within the restricted area when it went hot [Temporary Flight Restriction (TFR)]. I lost track of time and didn't realize that I was within the 1 hour of game time. The time was XA:10 and the game started at XB:00. I can say that this was an absolute learning event regarding the fact that I had not made myself acutely aware of the time of the restricted airspace being activated while I was flying my drone. I was also surprised that my drone software didn't give me an alert to the airspace issue. I thought that the DJI drones were programmed to alert the user if it was near restricted airspace. I have had the drone for quite a while but am not a very active user of it. I am sorry for the incident and can say it will not occur again.

## Callback: 1

The reporter had no additional details to share.

## Synopsis

Recreational/hobby UAS pilot reported flying during an active Temporary Flight Restriction (TFR). Once they learned of the TFR the pilot exited the airspace by landing.

## Time / Day

Date : 202210  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 9.55  
Altitude.AGL.Single Value : 200

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Rain  
Weather Elements / Visibility : Thunderstorm  
Weather Elements / Visibility.Visibility : 10  
Light : Dusk  
Ceiling.Single Value : 5000

## Aircraft

Reference : X  
Aircraft Operator : Recreational / Hobbyist (UAS)  
Make Model Name : DJI Mini 2  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 107  
Mission : Photo Shoot / Video  
Flight Phase : Hovering (UAS)  
Airspace.TFR : ZZZ  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
Weight Category (UAS) : Micro  
Configuration (UAS) : Multi-Rotor  
Flight Operated As (UAS) : VLOS  
Flight Operated with Visual Observer (UAS) : N  
Control Mode (UAS) : Transitioning Between Modes  
Flying In / Near / Over (UAS) : Open Space / Field  
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 : Recreational / Hobbyist (UAS)  
Function.Flight Crew : Person Manipulating Controls (UAS)  
Experience.Flight Crew.Total (UAS) : 150  
Experience.Flight Crew.Last 90 Days (UAS) : 20  
Experience.Flight Crew.Type (UAS) : 80  
ASRS Report Number.Accession Number : 1941675  
Human Factors : Situational Awareness  
Human Factors : Training / Qualification  
Analyst Callback : Completed

## Events

Anomaly.Airspace Violation : All Types

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Other Person

When Detected.Other

## Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Ambiguous

## Narrative: 1

My name is Person A, I flew my drone within a 12 mile radius of the Event on Day 0. I flew the drone because I wanted to capture some footage of the event that was happening that night. The announcer had announced that the event was canceled because of a developing thunderstorm nearby. I made a mistake of flying so close to the event. I am wrong and I will seek official part 107 UAS training from instructors, and I will start reading the FAR Part 107 and obtain a UAS license. I will never violate a no fly zone again.

## Callback: 1

The reporter indicated they were flying in an area with approaching thunderstorms but they were able to maintain control of the UAS. After the flight the reporter learned from a local official they had flown during an active Temporary Flight Restriction (TFR).

## Synopsis

Recreational/Hobby UAS pilot reported they flew during an active Temporary Flight Restriction (TFR) without authorization.

## Time / Day

Date : 202209  
Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Relative Position.Distance.Nautical Miles : 3.5  
Altitude.AGL.Single Value : 99

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling : CLR

## Aircraft

Reference : X  
Aircraft Operator : Commercial Operator (UAS)  
Make Model Name : DJI Mavic 3  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 107  
Mission : Photo Shoot / Video  
Flight Phase : Takeoff / Launch  
Airspace.Class B : ZZZ  
Airspace.TFR : ZZZ  
Airspace Authorization Provider (UAS) : Authorized Third Party  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
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  
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)  
Qualification.Flight Crew : Remote Pilot (UAS)  
Experience.Flight Crew.Total (UAS) : 250  
Experience.Flight Crew.Last 90 Days (UAS) : 50  
ASRS Report Number.Accession Number : 1936399  
Human Factors : Human-Machine Interface  
Human Factors : Training / Qualification  
Human Factors : Confusion  
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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

I apparently flew in a TFR yesterday in Location. I requested and received LAANC approval authorization. There was a TFR over ZZZ as a Public Official was in the area. When you I used B4UFLY, there were overlapping graphics for that area and it appeared to have the same colorization as always. When my LAANC was automatically and immediately approved I thought there was no issue. I was flying as a certified Part 107 by the way. After posting a few pics in a private group on social media, some folks started asking and I realized I may have been in the wrong. I went back and read the email (I usually just read the text message that says you're approved) and it does clearly state that pilots are responsible for adhering to TFRs. What will I do differently? First, I won't do this again. I will learn how to subscribe to TFRs and check during my pre-flight (which I did do but didn't realize I was wrong). I will also go back and educate everyone in the group with what happened. This morning I contacted the FAA and they called me. Basically they said don't beat yourself up over it, but to report it here, use it as a teaching moment and to improve from this. If I could encourage - maybe all TFRs should be a unique color so as to not be confused with regular airspace issues. But yes, 100% the pilot is responsible for following the rules. Thank you

## Synopsis

Part 107 pilot learned after a flight they inadvertently flew in an active TFR.

## Time / Day

Date : 202208

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 1000

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling.Single Value : 5000

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

Make Model Name : Cheetah, Tiger, Traveler AA5 Series

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Takeoff / Launch

Route In Use : Direct

Airspace.TFR : ZZZ

## Person

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 : Private

Experience.Flight Crew.Total : 696

Experience.Flight Crew.Last 90 Days : 3

Experience.Flight Crew.Type : 274

ASRS Report Number.Accession Number : 1926318

Human Factors : Situational Awareness

Human Factors : Human-Machine Interface

## 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 : Exited Penetrated Airspace  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : Software and Automation  
Primary Problem : Human Factors

## Narrative: 1

Prepped for a .5 hour VFR flight between ZZZ and ZZZ1. Had just drove the same route and was familiar with weather. Powered up aircraft and checked AWOS, then checked Garmin Pilot on iPad for any NOTAMs. The only NOTAM reflected for ZZZ was MISC for Radio Altimeter and N/A to my flight. Departed ZZZ and immediately rec'd call on Unicom that I was busting a TFR. Immediately contacted ATC and explained that I was inadvertently inside the TFR on a direct course to leave the TFR. ATC assigned a discrete code and requested I contact them upon arrival at ZZZ1. The TFR never appeared on my iPad. It did appear on my Garmin 760 after several minutes of flight. I can only assume there is lag with ADSB data. Arrived ZZZ1 and contacted ATC to provide information on my flight. I then took screenshots of Garmin Pilot on my iPad. The TFR did not appear as graphic, nor was it listed under NOTAM tab for ZZZ. I then opened Garmin Pilot on my iPhone to compare. The iPhone version did show the TFR, both graphically and under the NOTAM tab. I took screenshots of these displays as well. I reported this issue to Garmin and have asked how this could happen (user error, system error, version issue). Am awaiting a reply.

## Synopsis

Pilot reported entering TFR without a clearance.

## Time / Day

Date : 202208

Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : ZZZZ.Airport

State Reference : FO

Altitude.MSL.Single Value : 33000

## Aircraft

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B747-400

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Flight Phase : Cruise

## 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 : 1925063

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## 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 Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 1925062

Human Factors : Communication Breakdown

Human Factors : Training / Qualification

Communication Breakdown.Party1 : Flight Crew

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Airspace Violation : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Hazardous Material Violation  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : FAR  
Detector.Person : Dispatch  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.Flight Crew : Overcame Equipment Problem

## Assessments

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

## Narrative: 1

A few minutes prior to crossing the fix ZZZZZ, the Relief Pilot and the Relief Pilot Monitoring was asked by ATC if they would like a shortcut. The said yes and was given a direct to the fix ZZZZZ1. This caused our flight track to penetrate ZZZZ airspace and follow just north of the coast line. It appears we did not overfly any ZZZZ landmass. Around XX40Z the Relief Pilots called me in the bunk and when I came up to the cockpit, I was informed of what had happened. The Relief Pilots may have forgotten we cannot overfly ZZZZ with the [Hazmat] cargo we were carrying at the time. Better brief before departure emphasizing special cargo and the need to stay on flight plan to avoid overflying certain countries. Better brief of Relief Pilots reminding them of the need to stay out of certain airspace.

## Narrative: 2

I was in the crew bunk resting when our flight may have come close to ZZZZ airspace while we were operating [a special mission] flight with Hazmat aboard. I was told that the Relief Crew had been given a "direct to" shortcut on our flight plan by ATC and that we received a question from Dispatch if we overflew [prohibited airspace]. That's all I know of this situation. In general, I don't think our pilots (especially FOs (First Officers)) get enough training on the potential pitfalls of operating these types of flights where overflight permits and alternate availability really have to be well thought through. I say this only in hindsight after realizing that this close-call could have happened to many crews unaware of where we are. Can we also suggest that Jeppesen put country names somewhere on the enroute/high altitude portion of the moving map so we have better special awareness of countries' flown over/around us and possible limitations on which countries can be flown over or not.

## Synopsis

Air Carrier flight crew reported an airspace violation by overflying an airspace which prohibits overflights when transporting Hazmat cargo. Captain recommends better crew briefing and training of new pilots.

## Time / Day

Date : 202206

Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Relative Position.Distance.Nautical Miles : 6.5

Altitude.AGL.Single Value : 100

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 20

Light : Daylight

Ceiling : CLR

## Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI M30T

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Photo Shoot / Video

Flight Phase : Hovering (UAS)

Airspace.TFR : ZZZ

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

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Emergency Services

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)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total : 206

Experience.Flight Crew.Total (UAS) : 200

Experience.Flight Crew.Last 90 Days (UAS) : 4

Experience.Flight Crew.Type (UAS) : 2

ASRS Report Number.Accession Number : 1910447

Human Factors : Situational Awareness

Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Environment - Non Weather Related  
Contributing Factors / Situations : Software and Automation  
Contributing Factors / Situations : Procedure  
Primary Problem : Ambiguous

## Narrative: 1

I accidentally flew in a TFR. There was a fire yesterday evening just outside of ZZZ. I sometimes do free video and pictures, of news events, for a local news organization. I checked sky vector app on my phone to see if there's any restrictions. It did not say that there was. I also checked Flightradar24 to see if there were any aircraft in the area. There was not. I was south of the road and flew for about 10 minutes. As I got done and was leaving a Public Official that I know pulled up and said that I shouldn't be flying and that the Public Information Officer wanted to talk to me. When I got over to the other side where the Public Information Officer was he informed me of the TFR. And search-and-rescue we fly in and deal with TFRs all the time. So I know the importance of them. The Information Officer name was Person A. He stated that he would probably not report it, since there were no aircraft in the area. But I want to make sure that I'm doing everything by the book. I apologize to him and his guys for any issues that it may have caused. I do fly in conjunction with law enforcement and other emergency service agencies so am very well aware of what needs to happen and thought my bases were covered when I checked the apps.

## Callback: 1

The reporter indicated the UAS was brand new and had not been connected to the internet. The UAS was unable to load information about TFR's.

## Synopsis

Part 107 pilot reported flying a UAS in an active TFR. It was during the post-flight the UAS pilot learned of the TFR.

## Time / Day

Date : 202202

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : CLE.Airport

State Reference : OH

Relative Position.Distance.Nautical Miles : 15

Altitude.AGL.Single Value : 100

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 6

Work Environment Factor : Excessive Wind (UAS)

Light : Daylight

Ceiling.Single Value : 1000

## Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : Small UAS, Multi Rotor

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Utility / Infrastructure

Flight Phase : Hovering (UAS)

Route In Use : None

Airspace.TFR : ZZZ

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

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) : Private Property

Flying In / Near / Over (UAS).Other

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)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total (UAS) : 22

Experience.Flight Crew.Last 90 Days (UAS) : 4

Experience.Flight Crew.Type (UAS) : 22

ASRS Report Number.Accession Number : 1877214

Human Factors : Situational Awareness  
Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

On Date at XA: 25 AM I flew a UAV to do a roof inspection in Ohio. I was unaware of the temporary flight restriction. I trusted that the drone would not fly in a restricted zone. In the future I will utilize an FAA authorized app to identify temporary flight restrictions. This was a replacement drone for one that had a battery problem and has not yet been registered. The UAV will be registered within 24 hours.

## Callback: 1

The reporter had no additional information to share.

## Synopsis

Part 107 pilot reported learning after a flight that they had flown in an active TFR.

## Time / Day

Date : 202112

Local Time Of Day : 0601-1200

## Place

Altitude.AGL.Single Value : 200

## Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Dawn

Ceiling : CLR

## Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI Mavic 3

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Photo Shoot / Video

Flight Phase : Cruise

Route In Use : None

Airspace.TFR : ZZZ

Airspace Authorization Provider (UAS) : FAA Authorization

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

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Emergency Services

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 : Remote PIC (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total (UAS) : 1400

Experience.Flight Crew.Last 90 Days (UAS) : 34

Experience.Flight Crew.Type (UAS) : 22

ASRS Report Number.Accession Number : 1866179

Human Factors : Confusion

Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

Got prior authorization through the Aloft App. Confirmed no TFR on B4Ufly app. Flight started at XA: 45am. TFR went into effect at XB: 00am. I landed at XB: 24am and unknowingly violated the TFR as flight was in progress when TFR went into effect. I checked two official sources and the DJI geofence did not notify when a TFR went up. I made every attempt to fly legally. There were no active fire operations, no active air operations and the airspace was clear of all aircraft. Upon realization, I opted to self report.

## Callback: 1

Reporter stated they looked at B4UFLY and the DJI app prior to launch to check for TFRs and NOTAMs. There were none showing at the time of launch nor planned in the several hours after the launch. Several hours after landing the UAS, the Pilot learned of the TFR. The UAS Pilot spoke with the FAA and learned the TFR was issued directly from a nearby ATC Tower and this is why it wasn't posted prior to becoming active.

## Synopsis

UAS pilot reported they unknowingly flew their UAS into a TFR. Reporter stated there were no TFRs prior to launch and the TFR became active during the flight.

## Time / Day

Date : 202112  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.Tower  
State Reference : US  
Altitude.AGL.Single Value : 99

## Environment

Flight Conditions : VMC  
Weather Elements / Visibility : Cloudy  
Weather Elements / Visibility.Visibility : 6.0  
Light : Daylight  
Ceiling.Single Value : 3000

## Aircraft

Reference : X  
Aircraft Operator : Personal  
Make Model Name : DJI Mavic 3  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)  
Flight Plan : None  
Mission : Photo Shoot / Video  
Flight Phase : Takeoff / Launch  
Route In Use : None  
Airspace.TFR : ZZZ  
Airspace Authorization Provider (UAS) : Authorized Third Party  
Operating Under Waivers / Exemptions / Authorizations (UAS) : N  
Airworthiness Certification (UAS) : Standard  
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) : Natural Disaster  
Type (UAS) : Purchased  
Number of UAS Being Controlled (UAS).Number of UAS : 1

## Person

Location Of Person : Outdoor / Field Station (UAS)  
Reporter Organization : Personal  
Function.Flight Crew : Person Manipulating Controls (UAS)  
Qualification.Flight Crew : Remote Pilot (UAS)  
Experience.Flight Crew.Total : 0  
Experience.Flight Crew.Total (UAS) : 1  
Experience.Flight Crew.Last 90 Days (UAS) : 1  
Experience.Flight Crew.Type (UAS) : 1  
ASRS Report Number.Accession Number : 1866178

Human Factors : Training / Qualification  
Human Factors : Confusion  
Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

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

## Narrative: 1

This morning, I hoped to fly my DJI Mavic 3 and check on some houses [in a] development. I used the Aloft app to check for TFR's and NOTAM's and noticed the restriction due to the fire. I was a bit confused by the wording in the Operating Restriction and Requirements section where it stated, "except as described". The app allowed me to apply for LAANC authorization which was granted. My drone will not fly without approval, and it was not until permission was granted that my drone would even take off. I came back to my office and asked a colleague about the incident and he educated me that even though the app granted me permission it was inadequate in providing a waiver of the TFR.

## Callback: 1

UAS pilot indicated the ALOFT LAANC app provided approval to fly in an area within the TFR. After further review there was small fine print towards the bottom of the approval which indicated a need to confirm and not fly in TFRs.

## Synopsis

UAS pilot reported flying into an active TFR due to misunderstanding of LAANC authorization.

## Time / Day

Date : 202112

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 3

Altitude.AGL.Single Value : 50

## Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

## Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : Small UAS, Multi Rotor

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Photo Shoot / Video

Flight Phase : Hovering (UAS)

Route In Use : None

Airspace.TFR : ZZZ

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

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

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

Flying In / Near / Over (UAS) : Natural Disaster

Type (UAS) : Purchased

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

## Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Corporate

Function.Flight Crew : Person Manipulating Controls (UAS)

Function.Flight Crew : Remote PIC (UAS)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Remote Pilot (UAS)

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 3500

Experience.Flight Crew.Total (UAS) : 1500

Experience.Flight Crew.Last 90 Days (UAS) : 100

Experience.Flight Crew.Type (UAS) : 200

ASRS Report Number.Accession Number : 1861680

Human Factors : Situational Awareness  
Human Factors : Workload  
Human Factors : Confusion  
Analyst Callback : Completed

## 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 : UAS Crew  
When Detected.Other  
Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Chart Or Publication  
Contributing Factors / Situations : Environment - Non Weather Related  
Contributing Factors / Situations : Software and Automation  
Contributing Factors / Situations : Human Factors  
Primary Problem : Ambiguous

## Narrative: 1

I had been operating the UAS from early morning through approximately XA:00 am, providing news coverage of the tornado disaster in City, State. I had been checking periodically for TFR's using Foreflight on my cell phone and none were being imposed. I resumed flying at approximately XC:00 and again checked for TFR's using the same method. Upon returning to the hotel that evening I checked again when online as I was preparing for flights the next day and also to see if a VIP TFR may be upcoming, and saw to my surprise that a TFR had been imposed for the area that I had been flying in that took effect at XB:30 that day. I do not know why it did not appear on Foreflight other than I was in an area of poor cell coverage and perhaps the map loaded but the application was not communicating for updates. In the future when doubt is cast on the reliability of internet based mapping applications, a phone call to FSS is in order. Then there is no doubt.

## Callback: 1

Reporter had no additional information to share.

## Synopsis

Part 107 UAS pilot was flying in an area of a natural disaster. Prior to the flight the UAS pilot checked for NOTAMs/TFRs and saw none. Reporter learned during post flight that they flew in a TFR that had been created after takeoff.

## Time / Day

Date : 202111

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : PNE.Airport

State Reference : PA

Altitude.MSL.Single Value : 1100

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft

Reference : X

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Mission : Personal

Flight Phase : Cruise

Airspace.Class E : NYC

## Person

Function.Flight Crew : Single Pilot

Qualification.Flight Crew : Private

Experience.Flight Crew.Total : 110

Experience.Flight Crew.Last 90 Days : 10

Experience.Flight Crew.Type : 100

ASRS Report Number.Accession Number : 1857860

Human Factors : Confusion

## 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 : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Chart Or Publication

## Narrative: 1

On Date, XB: 30am I was scheduled to depart PNE airport and fly to the special flight rules area over Hudson river for the tour of Manhattan; fly through it once and then return back to PNE airport. I was the PIC (Pilot in Command). Before departing I called 1-800-WxBrief at XA: 42am to get the latest information about weather in-flight and possible TFRs. The briefer responded with the weather (all VMC) and informed me about TFR over Manhattan and Hudson river that does NOT apply to me. TFR was only concerning usage of drones due to [event] and only restricted usage of drones in that area; did not apply to aircraft. Having received that information, I departed PNE per plan and flew through the Hudson River SFRA as planned on 1100 ft. altitude and provided calls as instructed by the training on SFRA. I noticed that one airplane made a 180 turn before that TFR and did not fly into the area through Hudson river. I flew through that area having been informed that there is no active TFR for manned aircraft. I'm reporting this event because I want to make sure that I have not accidentally flown through the aircraft TFR that was active not only for drones, but was active for aircraft as well at the time. ForeFlight did not show anything except UAS restriction; neither did the briefer told me about any restrictions. That airplane making a 180 turn and avoiding the area made me think that there might have been another active TFR that briefer or ForeFlight did not inform me of. As a recommendation, may I suggest that FAA publishes TFRs with a bit more clear language of who they apply and do not apply to: e.g., stating clearly "Following TFR applies only to UAS" or "TFR applies to all manned and unmanned aircraft".

## Synopsis

Pilot of a small aircraft reported flying through a TFR after being advised by a weather briefer and electronic flight app that the TFR applied only to UAS and not to fixed wing aircraft. The pilot stated the NOTAM verbiage wasn't clear and may have led to the airspace incursion.

## 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](http://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 : Person Manipulating Controls (UAS)

Function.Flight Crew : Remote PIC (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

Analyst Callback : Attempted

## 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 friends 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 Whiskey 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 : Human Factors

Contributing Factors / Situations : Equipment / Tooling

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 : Distraction

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Confusion

## 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 : Exited Penetrated Airspace  
Result.Flight Crew : Became Reoriented

## 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.TRACON : 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.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 : 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](http://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.TRACON : 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](http://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 : Procedure  
Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : Chart Or Publication  
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 : Clearance

Anomaly.Deviation / Discrepancy - Procedural : FAR

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.TRACON : 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.