

ASRS Database Report Set

Unmanned Aircraft Systems (UAS) Reports

Report Set Description.....Reports involving Unmanned Aircraft Systems (UAS)
events reported by operators of manned or unmanned
aircraft.

Update Number.....18

Date of UpdateMarch 7, 2024

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

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

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

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

A handwritten signature in cursive script that reads "B. Hooley".

Becky L. Hooley, 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: 2051851 *(1 of 50)*

Synopsis

Part 107 UAS pilot reported briefly flying above 400 feet AGL without authorization.

ACN: 2051533 *(2 of 50)*

Synopsis

Part 107 UAS pilot reported members of their company used a UAS in violation of FAA regulations.

ACN: 2051191 *(3 of 50)*

Synopsis

Part 107 UAS pilot reported flying above 400 feet without authorization.

ACN: 2050758 *(4 of 50)*

Synopsis

Recreational / Hobbyist FPV UAS pilot reported their visual observer lost Visual Line of Sight (VLOS). VLOS was re-established and the flight continued without issue.

ACN: 2048985 *(5 of 50)*

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization.

ACN: 2048984 *(6 of 50)*

Synopsis

A civilian observer reported seeing a UAS near an airport's arrival flight path.

ACN: 2048445 *(7 of 50)*

Synopsis

Recreational / Hobbyist UAS pilot reported their UAS was not following control inputs. The pilot used the return-to-home function and the UAS then landed without incident.

ACN: 2046143 *(8 of 50)*

Synopsis

Part 107 UAS crew reported their UAS had an engine failure during flight. They landed the aircraft without issue.

ACN: 2045331 *(9 of 50)*

Synopsis

Part 107 UAS pilot reported a battery failure which caused the UAS to crash.

ACN: 2044875 *(10 of 50)*

Synopsis

Air carrier pilot reported an airborne conflict during cruise with a UAS.

ACN: 2043838 *(11 of 50)*

Synopsis

Recreational / Hobbyist UAS pilot reported flying in controlled airspace without authorization. Officials informed the pilot after the pilot landed.

ACN: 2043835 *(12 of 50)*

Synopsis

Fixed wing pilot reported a near miss with a UAS while in cruise flight at 10,000 feet.

ACN: 2042088 *(13 of 50)*

Synopsis

Part 107 UAS pilot reported briefly exceeding their authorized altitude. Pilot descended and completed mission as planned.

ACN: 2042087 *(14 of 50)*

Synopsis

Part 107 UAS pilot reported their UAS flew into the basket of a hot air balloon.

ACN: 2042086 *(15 of 50)*

Synopsis

Recreational / Hobbyist UAS pilot reported flying in controlled airspace without authorization. Reporter stated that due to time pressure they had not checked preflight apps for airspace restrictions.

ACN: 2041066 *(16 of 50)*

Synopsis

Air carrier pilot reported a near mid-air collision with a UAS on final approach.

ACN: 2040565 *(17 of 50)*

Synopsis

Part 107 UAS pilot reported flying before sunrise and in controlled airspace without authorization.

ACN: 2040564 *(18 of 50)*

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without proper authorization.

ACN: 2039033 *(19 of 50)*

Synopsis

Air carrier captain reported an airborne conflict with a UAS during initial climb. Reporter stated the UAS passed below their aircraft and they continued their flight.

ACN: 2037268 *(20 of 50)*

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization.

ACN: 2037267 *(21 of 50)*

Synopsis

Part 107 UAS pilot reported a lost link during a flight. The reporter stated they believe the lost link may have been caused by possible jamming or counter UAS technology.

ACN: 2036755 *(22 of 50)*

Synopsis

Part 107 government UAS pilot reported having a miscommunication with the FAA and the local control tower about the area of the UAS flight. There were no airborne conflicts and the flight was completed without issue.

ACN: 2036575 *(23 of 50)*

Synopsis

Corporate First Officer reported the pilot monitoring saw UAS fly close below the aircraft during departure climb. Flight crew reported the event to ATC.

ACN: 2036454 *(24 of 50)*

Synopsis

Part 107 UAS pilot reported flying above 400 feet AGL. The UAS was set to meters and the UAS pilot was unaware until after landing.

ACN: 2036079 *(25 of 50)*

Synopsis

Multi-person UAS flight crew reported operating two aircraft at a towered airport. The UAS crew reported misunderstanding ATC instructions and took off without being cleared.

ACN: 2036041 *(26 of 50)*

Synopsis

UAS Instructor reported they taxied in a movement area without a clearance. ATC then informed them of this incursion.

ACN: 2035626 *(27 of 50)*

Synopsis

Part 135 helicopter pilot reported a near midair collision with a UAS during initial climb.

ACN: 2035126 *(28 of 50)*

Synopsis

Air carrier flight crew reported a near midair collision with a UAS while on arrival. They reported the incident to ATC and landed with no other problems.

ACN: 2034073 *(29 of 50)*

Synopsis

GA pilot reported during cruise their passenger saw a UAS flying toward the reporter's aircraft. Reporter stated there was a commercial aircraft descending above the drone. Reporter reported the event to ATC and continued the flight.

ACN: 2032790 *(30 of 50)*

Synopsis

Part 107 UAS pilot reported they failed to confirm LAANC authorization prior to flight in controlled airspace.

ACN: 2032768 *(31 of 50)*

Synopsis

Government UAS pilot reported conducting operations in deteriorating conditions. They chose to land after they were unable to comply with VFR cloud clearance requirements.

ACN: 2032541 *(32 of 50)*

Synopsis

General aviation pilot reported seeing a UAS nearby the aircraft while they were on initial approach. Reporter stated no evasive action was needed.

ACN: 2031325 *(33 of 50)*

Synopsis

General aviation pilot reported landing at an airport reportedly closed for UAS operations. After landing the pilot checked for NOTAMS and saw the airport was closed.

ACN: 2030982 *(34 of 50)*

Synopsis

Corporate First Officer reported a near midair collision with a UAS while they were on approach.

ACN: 2030554 *(35 of 50)*

Synopsis

An observer of a golf event reported seeing a UAS flying dangerously over crowds.

ACN: 2030165 *(36 of 50)*

Synopsis

Recreational / Hobbyist UAS pilot reported a lost link which resulted in the UAS flying away and crashing into a tree.

ACN: 2029197 *(37 of 50)*

Synopsis

Recreational/Hobbyist UAS pilot reported they flew in controlled airspace without authorization.

ACN: 2028929 *(38 of 50)*

Synopsis

Air carrier flight crew reported a NMAC with a UAS that flew over them while they were on initial approach. The pilots stated that due to the close proximity of the UAS, they did not have time to take evasive action.

ACN: 2028887 *(39 of 50)*

Synopsis

Recreational/Hobbyist pilot of a RC fixed wing aircraft reported a control issue causing the RC aircraft to crash.

ACN: 2028226 *(40 of 50)*

Synopsis

Part 107 UAS pilot reported they were flying the UAS back to its landing location when it struck a set of power lines. The UAS remained in the power lines and the power company was notified.

ACN: 2027263 *(41 of 50)*

Synopsis

Part 107 UAS crew member reported operating in their approved area at a non-towered airport when a military transport aircraft entered the area near the UAS and did not communicate on the CTAF. The aircraft took evasive action and then departed the area.

ACN: 2026990 *(42 of 50)*

Synopsis

Part 107 UAS pilot reported flying in a TFR without authorization.

ACN: 2026233 *(43 of 50)*

Synopsis

Recreational/Hobbyist UAS pilot reported a hawk attacked their UAS causing it to crash.

ACN: 2026209 (44 of 50)

Synopsis

Air carrier First Officer reported a near midair collision with a UAS while they were on climb out. Reporter stated they did not have time to take evasive action and reported the event to ATC.

ACN: 2025758 (45 of 50)

Synopsis

Air Carrier Captain reported a near mid-air collision with a UAS while they were on final approach.

ACN: 2024171 (46 of 50)

Synopsis

Recreational/Hobbyist UAS pilot reported hearing and seeing an approaching fixed wing aircraft. The UAS pilot avoided the aircraft and landed safely.

ACN: 2023946 (47 of 50)

Synopsis

Air carrier Captain reported a near mid air collision with a UAS while they were descending on arrival.

ACN: 2023501 (48 of 50)

Synopsis

Government UAS pilot reported departing their assigned altitude without a clearance.

ACN: 2023183 (49 of 50)

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization. Pilot exited the airspace upon recognizing the unauthorized entry.

Synopsis

Part 107 UAS pilot reported misinterpreting their LAANC altitude and flew their UAS higher than allowed.

Report Narratives

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : TCY.Airport
State Reference : CA
Relative Position.Distance.Nautical Miles : 2
Altitude.AGL.Single Value : 1000

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 (At or above 0.55 lbs and less than 55 lbs)
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Mission : Surveying / Mapping (UAS)
Flight Phase : Return to Home (UAS)
Flight Phase : Cruise
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) : Autonomous / Fully Automated
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 : Commercial Operator (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Dispatch : Dispatcher
Qualification.Flight Crew : Private
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 107
Experience.Flight Crew.Total (UAS) : 112.5
Experience.Flight Crew.Last 90 Days (UAS) : 23.25
Experience.Flight Crew.Type (UAS) : 15.5
ASRS Report Number.Accession Number : 2051851
Human Factors : Situational Awareness

Human Factors : Fatigue
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 : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

I was operating my UAS on a mapping mission with a base station for RTK (Real-Time Kinematic Positioning) corrections. I was running an automated mapping mission using the KMZ file using the app. This was my first operation of the KMZ file as opposed to a KML file. As per the KMZ file, I was having the mission fly to remain no more than 400 feet AGL to the terrain, and in order to maintain a visual line of sight I would move throughout the hilled/undeveloped area in order to maintain VLOS. I would have to remove the cap on the application in order to allow the drone to fly the 400 feet AGL over the hilled areas. This mission became lengthy as I would return to the home start point, move a few hundred feet to a good vantage point that would keep a VLOS, then start the drone and move with it. I would then have to return the drone to home and I came along with it, which proved to be fatiguing. Part of this fatigue was caused by me being hypervigilant to the nearby airport, as there were airplanes practicing landings/touch and gos, (across the highway, but still closeby) and I wanted to ensure no airplanes were moving towards the south (towards me). Towards the end of the mission, the drone began the return to home. During this the drone began to rise to 1000 ft. I was keeping visual line of sight directly and realized it was becoming increasingly difficult to see. I looked at the remote and realized it was at 1000 ft AGL. I then ceased the operation, and took manual control and brought the drone down as quickly as possible. Upon investigating the issue, I soon realized that because I set the return to home safely at 1000 feet, the drone automatically went to that height. My error was not setting it at the 400 feet that I normally set it to. I set the max altitude in the application to 1000 feet, in order to move along the hillsides. (this height would only happen in relation to the altitude). This was also my first operation in a hilled/varying terrain area which added another layer of difficulty. I mostly run mapping missions on smaller flatter terrain. For future flights with varying terrain areas, I will set the return to home altitude no more than 250 feet, which is one of the highest points in the area above my start point. I will also manually fly the drone home at a much lower altitude instead of letting the drone automate itself for a return to home when it comes to unfamiliar sites or varying terrain sites.

Synopsis

Part 107 UAS pilot reported briefly flying above 400 feet AGL without authorization.

Time / Day

Date : 202311

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Environment

Light : Daylight

Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI Mavic Undifferentiated

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Photo Shoot / Video

Airspace.Special Use : ZZZ

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Private Property

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 : Other / Unknown

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total (UAS) : 25.25

Experience.Flight Crew.Last 90 Days (UAS) : 8.5

Experience.Flight Crew.Type (UAS) : 8.5

ASRS Report Number.Accession Number : 2051533

Human Factors : Situational Awareness

Human Factors : Training / Qualification

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

When Detected.Other

Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I work for a roofing contractor and utilize a Mavic II for inspections. This afternoon, my boss and another coworker took the drone from my possession to do perspective photos and overview photos without me, despite my warning about airspace and drone pilot regulations. During the conversation it was stated that I had to remain at the office to meet with the business owner. They called me at XA: 49 to ask how to place the drone into manual mode. I again reminded them that the airspace in the area of the road is known to me to have special flight restrictions and that is a violation to fly without a licensed pilot but was told it's just for a few photos. Upon returning, they admitted to me that he had flown over 400 ft. above ground level and overrode the DJI Fly zone checklist for authorizations.

Synopsis

Part 107 UAS pilot reported members of their company used a UAS in violation of FAA regulations.

Time / Day

Date : 202311
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 20
Altitude.AGL.Single Value : 427

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 Undifferentiated
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Mission : Training
Flight Phase : Cruise
Airspace.Class G : ZZZ
Weight Category (UAS) : Small
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 : Commercial Operator (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 1
Experience.Flight Crew.Last 90 Days (UAS) : 2.19
Experience.Flight Crew.Type (UAS) : 8.11
ASRS Report Number.Accession Number : 2051191
Human Factors : Confusion
Human Factors : Situational Awareness
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
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Pilot was flying alone. Pilot failed to maintain disciplined pre-flight check for jump resulting in exceeding altitude limit (130.1m). After launching 2nd jump of UAS practice, pilot discovered the remote system had logged out of account for flying app (DJI) - causing a limit of 30m altitude. Pilot landed to inspect the issue, and began the process of logging back in. This disrupted normal mental progression of flight operation, resulting in unintentional manipulation of control settings for UAS including Altitude max and distance max. Pilot exceeded the altitude limits in subsequent jump. The jump in question completed after roughly 15min, with no damage, no danger of mid air collision with other air crafts.

Callback: 1

The reporter indicated a jump is when a battery swap is completed with the UAS.

Synopsis

Part 107 UAS pilot reported flying above 400 feet without authorization.

Time / Day

Date : 202311

Local Time Of Day : 0601-1200

Place

Altitude.AGL.Single Value : 200

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 FPV

Crew Size.Number Of Crew : 2

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

Mission : Recreational / Hobbyist (UAS)

Flight Phase : Cruise

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) : Y

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 : Recreational / Hobbyist (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

ASRS Report Number.Accession Number : 2050758

Human Factors : Situational Awareness

Human Factors : Confusion

Analyst Callback : Attempted

Events

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Ground Event / Encounter : Loss Of VLOS (UAS)

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Primary Problem : Ambiguous

Narrative: 1

While I was flying, My observer lost sight of the drone and once sight was lost, a return back to visual conditions. They thought they had visual of the drone still but ended up being a bird. Drone was returned to visual conditions as normal. No more than a minute without visual on the drone.

Synopsis

Recreational / Hobbyist FPV UAS pilot reported their visual observer lost Visual Line of Sight (VLOS). VLOS was re-established and the flight continued without issue.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SCH.Airport
State Reference : NY
Relative Position.Distance.Nautical Miles : 4.75
Altitude.AGL.Single Value : 390

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
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
Operating Under FAR Part : Part 107
Mission : Photo Shoot / Video
Airspace.Class D : SCH
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) : Airport / Aerodrome / Heliport
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) : 30
Experience.Flight Crew.Last 90 Days (UAS) : 6
Experience.Flight Crew.Type (UAS) : 20
ASRS Report Number.Accession Number : 2048985
Human Factors : Confusion
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 : Clearance
Detector.Person : UAS Crew
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On Day 0 I conducted two UAS flights in two different locations. Each flight lasted less than 5 minutes, the purpose of each flight to collect 2-3 birdseye images at each location. Upon arriving at the first location I checked airspace on B4UFly, received the all-clear, and conducted the flight without incident. When I arrived at the second location I again checked B4UFly, saw the all-clear and conducted the flight. I flew straight up to a height just below 400 feet, collected 2 images and flew straight down, being in the air for less than 3-5 minutes. After the flight, I turned my mobile device back on and noticed that the B4UFly app was now showing that I was just inside an area of controlled airspace (+/- 0.25 miles from the outermost edge of the airspace). Upon further investigation I discovered that when I loaded the app at the second location it had not updated my location and the "all-clear" that I saw was remaining from the previous flight's location. After opening my mobile device the second time, the app had updated and was showing me just inside of the controlled airspace area. The important take-aways from this experience have been to pay closer attention to the details when checking airspace, ensuring that the app has updated for my current location, and to provide more time for pre-flight planning.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization.

Time / Day

Date : 202310

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : MFR.Airport

State Reference : OR

Relative Position.Distance.Nautical Miles : 3

Environment

Weather Elements / Visibility.Visibility : 2

Light : Night

Ceiling : CLR

Aircraft

Reference : X

Make Model Name : UAV: Unpiloted Aerial Vehicle

Flight Phase : Hovering (UAS)

Airspace.Class D : MFR

Configuration (UAS) : Multi-Rotor

Flying In / Near / Over (UAS) : Private Property

Flying In / Near / Over (UAS) : People / Populated Areas

Flying In / Near / Over (UAS) : Moving Vehicles

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Person

Location Of Person : Outdoor / Field Station (UAS)

Function.Other

ASRS Report Number.Accession Number : 2048984

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Analyst Callback : Attempted

Events

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

At XA: 30 was completing dishes and decided to step out front for a tobacco break. When I looked up, there was a 4 rotor drone roughly 300, to 600 ft away. The bright lights on this vehicle go as follows 4 red inner people arms and 2 white light just placed in between the 4 red. I am betting the farm on it that the location of the current aerial snoops is directly

charted also as the approach final decent pattern of roughly, 8 to 10 large commercial airline that requires to land at the Medford International Airport. This is the second time that I have witnessed these drones that obviously don't have FAA authority, and within eyesight of myself.

Synopsis

A civilian observer reported seeing a UAS near an airport's arrival flight path.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Navaid : ZZZ.VOR
State Reference : US
Altitude.AGL.Single Value : 30

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 30
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
Aircraft Operator : Recreational / Hobbyist (UAS)
Make Model Name : DJI Air 2S
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)
Mission : Photo Shoot / Video
Flight Phase : Descent
Airspace.Class G : 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
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Transmitter (UAS)
Manufacturer : DJI
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Recreational / Hobbyist (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 50
ASRS Report Number.Accession Number : 2048445
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem

Assessments

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

Narrative: 1

Flight over water. When returned to home location (a floating dock), the drone refused to descend when commanded with down left stick on the remote controller. I ended up using the Return-to-home (RTH) button. Laterally, the drone only needed to move a few feet. Then it did descend and land on its own. Disconcerting that it would not fly as commanded.

Synopsis

Recreational / Hobbyist UAS pilot reported their UAS was not following control inputs. The pilot used the return-to-home function and the UAS then landed without incident.

Time / Day

Date : 202310
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 1.8
Altitude.AGL.Single Value : 1850

Environment

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

Aircraft

Reference : X
ATC / Advisory.UNICOM : ZZZ
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : Medium UAS (At or above 55 lbs and less than 1320 lbs)
Crew Size.Number Of Crew : 4
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Airspace.Class E : ZZZ
Airspace Authorization Provider (UAS) : FAA Authorization
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Airworthiness Certification (UAS) : Special
Weight Category (UAS) : Medium
Configuration (UAS) : Fixed Wing
Flight Operated As (UAS) : VLOS
Flight Operated with Visual Observer (UAS) : Y
Control Mode (UAS) : Waypoint Flying
Flying In / Near / Over (UAS) : Open Space / Field
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Type (UAS) : Homebuilt / Custom
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Motor / Engine Unit (UAS)
Aircraft Reference : X
Problem : Failed

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Remote PIC (UAS)

Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 240
Experience.Flight Crew.Total (UAS) : 484
Experience.Flight Crew.Last 90 Days (UAS) : 82.3
Experience.Flight Crew.Type (UAS) : 45.3
ASRS Report Number.Accession Number : 2046143
Human Factors : Troubleshooting
Human Factors : Time Pressure
Analyst Callback : Completed

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Landed in Emergency Condition

Assessments

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

Narrative: 1

Who: Certified UAS operator with Commercial Pilot License with Instrument Rating. What: UAS Engine Out Event. Why: The RPM of the Engine suddenly dropped to zero mid-flight and an emergency landing was executed at ZZZ on Runway X, resulting in the successful recovery of all aircraft components. Once recovered, the engine was found to have significant compression loss. Note that, the UAS engine can only be started from the ground. Root Cause Analysis Findings: Debris entering the intake valve guide. Large exhaust valve gap clearance. Intake Valve became stuck in the open position.

Callback: 1

Reporter indicated the fixed wing UAS lost power and was able to return safely without issue.

Synopsis

Part 107 UAS crew reported their UAS had an engine failure during flight. They landed the aircraft without issue.

Time / Day

Date : 202310
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 4.0
Altitude.AGL.Single Value : 139

Environment

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

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : DJI Mavic 2 Zoom
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Mission : Surveying / Mapping (UAS)
Flight Phase : Cruise
Airspace.Class G : 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) : Autonomous / Fully Automated
Flying In / Near / Over (UAS) : Open Space / Field
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Battery (UAS)
Manufacturer : DJI
Aircraft Reference : X
Problem : Failed

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Government
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 268.0
Experience.Flight Crew.Last 90 Days (UAS) : 7.1
Experience.Flight Crew.Type (UAS) : 233.2

ASRS Report Number.Accession Number : 2045331
Human Factors : Situational Awareness
Human Factors : Time Pressure
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : UAS Crew
When Detected : In-flight
Result.Aircraft : Aircraft Damaged
Result.Aircraft : Lost Link (UAS)

Assessments

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

Narrative: 1

I was piloting the UAS. I am in good health. I'm not a smoker. I had a good night's sleep and was hydrated. I stood in the middle of the flight area and could easily see the UAS at all times. I arrived around XA:00 and walked the area to be mapped and chose a spot near the middle of the mission area that had great visibility to set up home and battery exchange point. Conditions: I utilized the Aloft app (v2.2.2.XXXX) stated the flight weather as: 64F wind at 7 from North gusting to 17 with visibility greater than 10. ALOFT showed no advisories for the location with a green zero box. Utilizing the DJI pilot app (V2.5.1.XX), in mission flight mode. The flight altitude for the mission was 138' AGL of home point. The total area of the mission was 32.0 acres and an estimated time of 55m and 1 sec. The estimated flight time means that the UAS returns to home point for battery exchange about every 15 minutes. How it was noticed: I was watching the UAS and thought it came to hover as it finished flying waypoints prior to returning to the home point. At that point it looked down at the controller to see if it was complete and noticed caution that the UAS was not connected. I looked up and the UAS was no longer in the air. I walked over and found the UAS in the field with damage to two arms and approximately 15 feet away I found the battery that had expanded and separated on one side of its casing. No battery materiel leakage or seepage was visible. It is my belief that the gust wind conditions required the UAS to utilize increased rate of battery power draw, the battery expanded causing the UAS to lose power resulting in an uncontrolled descent/fall from the sky into the field. No property was damaged, and no fire occurred. Management was in the final set of purchasing a MAVIC 3 to meet the remote identification requirement and upgrades us with multispectral capability. Because of this, management made a decision to utilize the approximately \$400 repair funds towards the new/upgraded UAS in lieu of repairing the Mavic 2.

Synopsis

Part 107 UAS pilot reported a battery failure which caused the UAS to crash.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZJX.ARTCC

State Reference : FL

Altitude.MSL.Single Value : 22000

Aircraft : 1

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : Medium Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Flight Phase : Cruise

Airspace.Class A : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class A : ZZZ

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2044875

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

In cruise flight at FL 220, just north of the WURFL waypoint on Q83 airway I had a near miss with what I thought to be a drone at 21,800 ft. I was headed southbound and the drone was headed northbound. I just looked up for a second and I saw a black and silver object which appeared to be drone pass right below us. It looked to be two feet wide and two feet in length. I reported the incident with ATC and dispatch.

Synopsis

Air carrier pilot reported an airborne conflict during cruise with a UAS.

Time / Day

Date : 202310
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Relative Position.Distance.Nautical Miles : 5
Altitude.AGL.Single Value : 100

Environment

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

Aircraft

Reference : X
Aircraft Operator : Recreational / Hobbyist (UAS)
Make Model Name : DJI Undifferentiated
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)
Mission : Recreational / Hobbyist (UAS)
Flight Phase : Hovering (UAS)
Airspace.Class B : 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) : Airport / Aerodrome / Heliport
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 : Remote Pilot (UAS)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total (UAS) : 22.9
Experience.Flight Crew.Last 90 Days (UAS) : 2.0
Experience.Flight Crew.Type (UAS) : 2.0
ASRS Report Number.Accession Number : 2043838

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 : Other Person
When Detected.Other
Result.General : Police / Security Involved

Assessments

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

Narrative: 1

I'm an experienced 107 and military multi-engine aircraft pilot. I took my new UAS out to get familiar with it and to try to take pictures of Location A. I relied on DJI's built-in app to avoid restricted or warning airspace. The app allowed me to fly up to 200 feet north of Airforce Base at a spot it called an "warning zone" with an "altitude zone" of 60m, and the DJI Fly App allowed me to fly the drone to 60m without prior authorization through LAANC. However, as I was leaving, officials pulled up and asked me if I was flying a drone they detected on their surveillance system. I said yes and they asked me if I realized I was flying in Class B airspace. I said no, I was flying where the app allowed me to but not inside the geo-fenced area further south (closer to the airfield). They said I was still in the Class B airspace from surface to 10000 ft MSL. I apologized and told them I would be sure to stay out of the Class B airspace in the future. What I'm concerned about is that the DJI software allows the drones to fly in Class B airspace even when it starts at the surface. This oversight in the software will continue to contribute to drones flying in close proximity of airfields/airports when drone pilots assume the software takes Class B airspace into account.

Synopsis

Recreational / Hobbyist UAS pilot reported flying in controlled airspace without authorization. Officials informed the pilot after the pilot landed.

Time / Day

Date : 202310
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : F70.Airport
State Reference : CA
Relative Position.Distance.Nautical Miles : 11.7
Altitude.MSL.Single Value : 10000

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 50
Light : Dusk
Ceiling : CLR

Aircraft : 1

Reference : X
Aircraft Operator : Air Taxi
Make Model Name : Single Engine Turboprop Undifferentiated
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Utility / Infrastructure
Flight Phase : Cruise
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class E : ZZZ
Configuration (UAS) : Multi-Rotor
Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X
Reporter Organization : Air Taxi
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 900
ASRS Report Number.Accession Number : 2043835
Human Factors : Situational Awareness
Analyst Callback : Completed

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 5
Miss Distance.Vertical : 0
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was piloting Aircraft X under IFR flight rules on our return from an Aerial Surveying Mission. While Direct Paradise VOR and 11.9 Miles heading 073 from F70 we had an extremely close call with a UAS aircraft. A black hexagonal sphere-like multi-rotor drone came within a few feet of our right wing. No ATC warning was given and no NOTAM's for UAV flight were posted. Drones should carry a version of ADSB at high altitudes.

Callback: 1

The reporter described the UAS as a hexagon in shape with a red laser. They described it as a flying box of hardware compared to a commercial UAS.

Synopsis

Fixed wing pilot reported a near miss with a UAS while in cruise flight at 10,000 feet.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : PWA.Airport

State Reference : OK

Relative Position.Distance.Nautical Miles : 1.9

Altitude.AGL.Single Value : 196

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 (At or above 0.55 lbs and less than 55 lbs)

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Training

Flight Phase : Climb

Airspace.Class D : PWA

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

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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 : Instrument

Qualification.Flight Crew : Remote Pilot (UAS)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 673.4

Experience.Flight Crew.Total (UAS) : 43

Experience.Flight Crew.Last 90 Days (UAS) : 8

Experience.Flight Crew.Type (UAS) : 14.5

ASRS Report Number.Accession Number : 2042088
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 : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

While flying under a LAANC authorization to 100ft I inadvertently set the maximum altitude to 196 feet on my controller instead of my intended 98 feet. I climbed to max altitude. Looking at my UA I thought that seems high for here. I checked and saw my altitude. I immediately descend to below 100 AGL and continued my flight. No other aircraft were in the area. At no time was safety an issue I just inadvertently exceeded my authorized altitude. The flight was in a 100 block on the UAS Facility Map.

Synopsis

Part 107 UAS pilot reported briefly exceeding their authorized altitude. Pilot descended and completed mission as planned.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 10

Altitude.AGL.Single Value : 50

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

Aircraft : 1

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

Mission : Photo Shoot / Video

Flight Phase : Hovering (UAS)

Airspace.Class E : 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) : Y

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Aircraft / UAS

Type (UAS) : Purchased

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

Aircraft : 2

Reference : Y

Make Model Name : Balloon

Airspace.Class E : ZZZ

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 : 120

Experience.Flight Crew.Total (UAS) : 100

Experience.Flight Crew.Last 90 Days (UAS) : 30

Experience.Flight Crew.Type (UAS) : 139
ASRS Report Number.Accession Number : 2042087
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Inflight Event / Encounter : Aircraft
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Landed As Precaution

Assessments

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

Narrative: 1

My Drone was involved in an incident with a flying hot air balloon. My drone was hovering under 50 ft while filming guest who where taking a balloon ride before taking off. A flying balloon came within few feet of the balloon i was filming causing my drone to lose control and striking a side of the basket from the flying balloon. The incident was inadvertent and not deliberate.

Synopsis

Part 107 UAS pilot reported their UAS flew into the basket of a hot air balloon.

Time / Day

Date : 202310
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 : 350

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 Mavic 3
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)
Mission : Photo Shoot / Video
Flight Phase : Cruise
Airspace.Class D : 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) : Airport / Aerodrome / Heliport
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 : Air Transport Pilot (ATP)
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 100
Experience.Flight Crew.Last 90 Days (UAS) : 5
Experience.Flight Crew.Type (UAS) : 5
ASRS Report Number.Accession Number : 2042086
Human Factors : Time Pressure

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

Assessments

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

Narrative: 1

We are traveling down the river by boat and trying to document our travels as we go. We came upon an anchorage that I wanted to get some video of, right as we were passing a large tow boat with multiple barges. Between monitoring my wife at the helm, staying cognizant of the passing tow, and my haste to get the drone in the air before the opportunity passed - I neglected to check my preflight apps for any airspace restrictions. As it turn out, I was flying the drone in the far northeast reaches of ZZZ's airspace. There were no air traffic conflicts that I am aware of. My DJI remote gave no indication that I was about to operate close to an airport (I do not use it as a sole source, also B4UFLY and AutoPilot). I discovered my mistake on AutoPilot afterward, and also found that LAANC Auto Approval is not active for that airport. Task saturation and self-imposed time limitations were major factors, as well as complacency as there had been no airspace restrictions in the past 90 miles of our travels. Going forward, I will place higher priority on checking the apps for restriction and not allow myself to fly when my attention is divided elsewhere.

Synopsis

Recreational / Hobbyist UAS pilot reported flying in controlled airspace without authorization. Reporter stated that due to time pressure they had not checked preflight apps for airspace restrictions.

Time / Day

Date : 202310
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : PBI.Tower
State Reference : FL
Altitude.MSL.Single Value : 2000

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Airspace.Class C : PBI

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class C : PBI
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2041066
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 0
Miss Distance.Vertical : 50
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

At 2000 ft. on base leg to runway 10L PBI we passed over what appeared to be a drone. I estimate we were about 50 ft. above his altitude.

Synopsis

Air carrier pilot reported a near mid-air collision with a UAS on final approach.

Time / Day

Date : 202310

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 0

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI Mavic 2 Pro

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Photo Shoot / Video

Flight Phase : Takeoff / Launch

Airspace.Class D : ZZZ

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

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Control Mode (UAS) : Manual Control

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

Flying In / Near / Over (UAS) : Aircraft / UAS

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

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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 : 8

Experience.Flight Crew.Total (UAS) : 205

Experience.Flight Crew.Last 90 Days (UAS) : 10

Experience.Flight Crew.Type (UAS) : 165

ASRS Report Number.Accession Number : 2040565

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.Flight Crew : Landed As Precaution

Assessments

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

Narrative: 1

RPIC had been conducting flights over the non-movement areas of ZZZ [airport] for approximately 1 week without concern or incidents and under the direction and authorization of the ATCT. The sUAS was being used to capture photos and video of an airplane that was conducting high speed taxis and takeoff and landings. On the morning of Day 0 the RPIC was located about 500 ft. North of Taxiway X and about 200 ft. East of the Runway X edge line over the infield. At approximately XA:27 the airplane took the runway to conduct a high speed taxi. The RPIC heard the taxi clearance given via VHF radio and observed the airplane take Runway X. The operator then immediately launched the drone, ascended to 69 feet AGL and positioned about 75 feet to the South in order to get video of the passing airplane. After the taxi was complete the RPIC realized that they had not requested clearance from ATCT for "UAS operations" and landed immediately. The sUAS was airborne for 1.5 minutes. Typically after the high speed taxi the airplane would then taxi to the South end of the runway, make a 180 degree turn and takeoff on Runway Y. The sUAS would stay airborne for the entire sequence. As the airplane was still enroute to the approach end of Runway Y the RPIC called the Tower to request permission for "UAS Ops". The controlled replied with "negative you'll need to wait 3 more minutes until sunrise". The RPIC decided to discontinue all UAS Operations for the remainder of the day. Safety: No other air traffic was in the area. Only the one participating airplane. Visual Observer was used. Contributing factors to the unapproved sUAS flights at a Class D airport: Human Error and environmental. Human Error: The RPIC was rushed due to changes in the plan the night prior. Small events occurred in the morning at the airport that delayed the RPIC in setting up equipment and pre-flight activities. Being rushed to get video of the plane's taxi and takeoff led the RPIC to inadvertently takeoff prior to contacting the tower. The prior week's UAS operations were very methodical in regards to timing and sequencing. In the unexpected expedited timeline of the airplane being photographed on that morning, the RPIC forgot one very important step; call the Tower for clearance. Environmental: The RPIC believed that it was daylight. It was bright enough to see the sUAS, the airplane and the entire airfield clearly. The video on the remote was also properly exposed. It wasn't until the Tower stated that they needed to wait "another 3 minutes for sunrise" did they realized the sun was not fully "up". This was the earliest that this operation had been conducted all week, which also shows the condensed timeline for prep as stated above. Corrective Actions: An internal review of operating procedures at airports is being reviewed by the safety group. Additional training is being given to the RPIC and the rest of the team to include: Review of Part 107 requirements/regulations,

radio procedures at airports and in controlled airspace, definitions of night / civil twilight operations, etc. Lessons learned are being discussed with management, the RPIC and other team members.

Synopsis

Part 107 UAS pilot reported flying before sunrise and in controlled airspace without authorization.

Time / Day

Date : 202309

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 9.7
Altitude.AGL.Single Value : 400

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 Matrice 300 RTK
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Utility / Infrastructure
Flight Phase : Hovering (UAS)
Flight Phase : Takeoff / Launch
Airspace.Class D : 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
Flight Operated with Visual Observer (UAS) : Y
Control Mode (UAS) : Autonomous / Fully Automated
Flying In / Near / Over (UAS) : Open Space / Field
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : 0
Experience.Flight Crew.Total (UAS) : 1000
Experience.Flight Crew.Last 90 Days (UAS) : 500
Experience.Flight Crew.Type (UAS) : 1000
ASRS Report Number.Accession Number : 2040564

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

Assessments

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

Narrative: 1

I'm currently contracted to fly inspections at a wind farm. On Day 0 I tried to take off at location and was promptly notified of air space restrictions. I was under the assumption that because the FAA had cleared us that I was good to operate since then we have reached out to DJI to obtain the proper clearance to fly within the 150 foot exclusion zone. The inspections only require altitude of no more than 150 m.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without proper authorization.

Time / Day

Date : 202309

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : PCT.TRACON

State Reference : VA

Altitude.MSL.Single Value : 2000

Aircraft : 1

Reference : X

ATC / Advisory.Tower : IAD

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 : Initial Climb

Flight Phase : Climb

Airspace.Class B : IAD

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class B : IAD

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Type : 12000

ASRS Report Number.Accession Number : 2039033

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : Airborne Conflict

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

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

Departing IAH-ZZZ during initial climb out and following ATC instructions we flew on Heading 360 after takeoff. Passing between 2000-3000 ft. altitude I looked outside and figured something like a bird, huge bird was flying close to our route. I was keeping an eye on it during the visual climb out, and looks because our acceleration speed it was flying towards our plane. Finally, the item was a "Drone" passing below us on the right side of our trajectory. My First Officer mentioned it was a drone, so immediately He made a call and let them know to the ATC about this situation. Our flight continue with no further issues.

Synopsis

Air carrier captain reported an airborne conflict with a UAS during initial climb. Reporter stated the UAS passed below their aircraft and they continued their flight.

Time / Day

Date : 202307

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 5

Altitude.AGL.Single Value : 400

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 Mini 2

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Photo Shoot / Video

Airspace.Class C : 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) : People / Populated Areas

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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 : 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) : 15

Experience.Flight Crew.Last 90 Days (UAS) : 3.75

Experience.Flight Crew.Type (UAS) : 15

ASRS Report Number.Accession Number : 2037268

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 : Other Person

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

I am a wedding videographer who was filming a wedding at the stadium on Day 0. I had checked the sectional chart prior to take off and my interpretation was that the stadium was outside of the class C airspace for ZZZ. So I proceeded as normal and began my flight with my UAS. The app also did not inform me that I was within in sort of controlled airspace and allowed me to take off as normal. I flew for approximately 8 minutes in and around the stadium, capturing video for the wedding couple. After I concluded my flight I was informed by the event staff that the police had been notified and they had come over to stop me for flying. I was then informed that I was not permitted to fly because of the helicopter pads nearby for the hospitals. After that, I later figured out that the stadium is also indeed right on the edge of the class C airspace for ZZZ. Going forward I now am totally aware of the airspace occupying the stadium and will no longer conduct any UAS operations without prior authorization.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization.

Time / Day

Date : 202309
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 210

Environment

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

Aircraft

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : Micro UAS, Multirotor
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Mission : Photo Shoot / Video
Flight Phase : Cruise
Airspace.Class G : 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) : 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) : 158.6
Experience.Flight Crew.Last 90 Days (UAS) : 2.9
Experience.Flight Crew.Type (UAS) : 158.6
ASRS Report Number.Accession Number : 2037267
Human Factors : Human-Machine Interface
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Aircraft : Lost Link (UAS)
Result.Aircraft : Automated Return to Home (UAS)

Assessments

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

Narrative: 1

I was in the area and decided to take my drone to capture some sunset photos of the skyline. I researched the area fully and completely both several days prior to the trip and the day of the trip. I recognized that it was an area where there were several no-fly zones. I first recognized that it was part of the special flight rules area for Washington, DC. I measured out and confirmed that it was in the outer ring, 15 to 30 miles, where flights below 400 feet were authorized if they were compliant with regulations. There were also four DOD non fly areas. I ensured that my launch point and flight path would not take me over any of those facilities. I launched from my launch point which was at Location A. This would allow me to keep visible line of sight of the drone and ensure that I did not fly over any boats navigating in and out of the harbor. I did a full systems checkout of the drone prior to launch. I ensured that all navigational databases were up to date and that it had the latest firmware. Since it was at dusk, I also had the drone equipped with its strobe lights and port and starboard orientation lights. This was a well-researched and fully compliant flight. I launched at XA:01 PM and proceeded to take position for a sunset around XA:13. Having set up my lateral alignment of the sun with the town, I began descending to get the perfect vertical profile for the photo shoot. It was at this moment, approximately 6 minutes into the flight, that the drone went lost link. I could not tell whether or not the drone was receiving a signal from the control system, so I pressed the return to home button. Visually, I could tell from the strobes that the drone was still stationary. So, I impatiently waited for the lost signal timeout feature to establish a return-to-home (RTH) profile. Fortunately, the drone executed an RTH as advertised. As the drone got closer, I kept trying to reestablish the link and take control of the drone, but it was not responding. When the drone started its descent for landing, I noticed that there was an offset in its home point and that the drone was about to auto land where some innocent bystanders were standing. Immediately, I walked over to the innocent bystanders and politely asked them to step back. I tried one more time before the drone landed to establish control of the UAS. It would not do so. The drone landed without incident and shut down. I powered down and re-powered the drone and my base station and could not reestablish the link. I decided to do a hard shutdown of the drone by swapping out the batteries. Again, I could not reestablish a link. Then, almost exactly 5 minutes after the original flight had lost link, communications were reestablished with the drone as if somebody had turned off a switch. I was not touching any controls or software controls at the time that link was reestablished. I executed a second flight as a test flight and had no issues. I continued out to a position near where I was before, but not as close to any of the facilities and had no issues. All the symptoms of the first flight matched what could be experienced if a Counter UAS (C-UAS) system on a facility had jammed the radio frequency, including the way that communications were eventually reestablished, as if

somebody had turned off a switch. I cannot prove that a station jammed my radio frequency. However, it is very suspicious. I have verified and re-verified through post-flight data that at no time did my drone fly through any no-fly areas. My closest point of approach to one facility was .1 miles. My closest approach to another facility was .3 miles. The airspace was Class G airspace with no restrictions. I would like to know whether a facility activated its C-UAS system on that evening. If they did, they induced a hazard to aviation safety. First, there was the fact that I had no control over the UAS when it did its RTH and that I had to ask innocent bystanders to step away from the area where the drone was returning to. Second, when a drone loses its link, it becomes unpredictable and uncontrollable. I could have had a flyaway that could have harmed citizens. I was not far distant from many populated areas, on a night where there was an event going on. I did not go anywhere near the event, but it would have been within range of the drone had it had a fly away. If a facility is activating counter UAS equipment on drones that are not in the no-fly zone, and not showing hostile intent, they are creating a hazard to aviation safety. They need to be instructed to cease such activities if they are doing it. Once again, I cannot prove anything. But my system has been incredibly reliable in the past. I have never lost a link with this system, yet. I was well within range of my equipment and had no obstructions between me and the drone. Post-flight data shows 100% signal strength right up to the point where there was loss of link. I have not had any other indications of equipment failure on any other flight since this flight. This is highly suspicious of jamming. I would like to know if there are any additional steps I need to take in the future to prevent being jammed, if that is what occurred. I plan to return for sunset photos again.

Synopsis

Part 107 UAS pilot reported a lost link during a flight. The reporter stated they believe the lost link may have been caused by possible jamming or counter UAS technology.

Time / Day

Date : 202309

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 1.5

Altitude.AGL.Single Value : 170

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Night

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Government

Make Model Name : DJI Mavic 2 Pro

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Flight Plan : None

Mission : Public Safety / Pursuit (UAS)

Flight Phase : Cruise

Airspace.Class C : ZZZ

Airspace Authorization Provider (UAS) : FAA Authorization

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

Waivers / Exemptions / Authorizations (UAS).Other

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) : Emergency Services

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Type (UAS) : Purchased

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

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Government

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Private

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total : 97.2

Experience.Flight Crew.Total (UAS) : 30

Experience.Flight Crew.Last 90 Days (UAS) : 11.25
Experience.Flight Crew.Type (UAS) : 30
ASRS Report Number.Accession Number : 2036755
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Analyst Callback : Completed
UAS Communication Breakdown.Party1 : Remote PIC
UAS 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 : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : FAR
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

I received a radio call for a call for service. I was requested as a Drone Unit to search the surrounding fields. I knew that the location of this call was extremely close to the local International Airport which is surrounded by Class C airspace. I called the FAA number for SGI Emergency Waiver. I advised the FAA employee of my location and needs. The FAA Employee advised that he would call me back with a clearance. When the FAA Employee called me back with my SGI Authorization, I was given a 1/2 NM radius around the residence and 100 ft. ceiling for my clearance. I advised the FAA Employee that the Control Tower was calling my dispatch. The FAA Employee told me to contact tower and follow their instructions. I was advised I was clear to fly under the guidance of the air traffic controllers. I attempted to make contact with the Tower multiple times but was unable to. I called the FAA Employee back who gave me the number for regional approach/departure control. I called this number and spoke with a controller. The controller asked if there would be any interference with my drone. Knowing this area extremely well from flying actual fixed wing aircraft both IFR and VFR into this airport and with my knowledge of the city and where I was located, I did not believe there to be any potential conflicts with my drone. I advised the controller of this and he advised I was clear to fly and to call him when I landed. I advised I understood. For some reason based on my conversation with the controller, I believed I was cleared to fly where I needed and at whatever altitude I needed to for this mission. I proceeded to fly my mission. During this mission, I flew approximately .7NM away from the residence which was slightly father then I had received authorization for through SGI. I also flew to a maximum altitude of 170 ft. AGL which was 70 ft. above my SGI authorization. I called the approach/departure control again and spoke with the same controller. I am not entirely sure where the miscommunication came from, but it was likely that I was not specific enough when I called the SGI authorization number for clearance. The controller then advised I was again clear to fly and this time he specified that I was cleared up to 100 ft. AGL. It was at this time that I realized my error. I realized that the SGI authorization limits were still in effect, and I had busted the limits on my first flight. I had incorrectly believed that the air

traffic controller had overwritten the original clearance, and I believed that I did not have an altitude or area limit when, in fact, I did. I accepted this clearance and proceeded to fly a second time. This time, I remained in the parameters original assigned to me. At no time did I come close to another aircraft during my first flight and no accident resulted. From this incident, I learned to not assume the parameters of my clearance and to clarify better. I also determined that I was in too much of a rush to get my drone in the air as a result I speed through the process as quickly as possible. I failed to be specific enough with both the FAA employee on the SGI hotline and with the Air traffic controller which resulted in some level of miscommunication. Finally, from now on I am going to assume that the parameters set by my SGI authorization are still in effect unless otherwise clarified. This was a good learning experience for any future flights I may have near the airport.

Callback: 1

The reporter had no additional information to share.

Synopsis

Part 107 government UAS pilot reported having a miscommunication with the FAA and the local control tower about the area of the UAS flight. There were no airborne conflicts and the flight was completed without issue.

Time / Day

Date : 202309

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ABE.Airport

State Reference : PA

Altitude.MSL.Single Value : 2500

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

Aircraft Operator : Corporate

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Ferry / Re-Positioning

Flight Phase : Initial Climb

Flight Phase : Climb

Airspace.Class C : ABE

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class C : ABE

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 2036575

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 0
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Crew was flying out of ABE when Pilot Monitoring saw a quad copter pass right below the nose of the airplane by about 200 feet when we were at 2,500 ft. MSL. Pilot Monitoring (PM) asked if I (Pilot Flying) saw it as well to which I replied that I saw something out of the corner of my eye but since I was looking inside hand flying during it that I didn't see any details. PM reported the drone to ATC giving relevant position and type information. Pilot Monitoring saw the aircraft pass below the nose of the airplane. Cause: Unknown flying close to departure end of runway. Reported to ATC. Suggestion: The drone operator to be in communication with ATC

Synopsis

Corporate First Officer reported the pilot monitoring saw UAS fly close below the aircraft during departure climb. Flight crew reported the event to ATC.

Time / Day

Date : 202309

Local Time Of Day : 1201-1800

Place

Altitude.AGL.Single Value : 490

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

Make Model Name : DJI Mavic 3

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 107

Mission : Training

Flight Phase : Climb

Airspace.Class G : ZZZ

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated As (UAS) : VLOS

Flight Operated with Visual Observer (UAS) : Y

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 : Remote PIC (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total (UAS) : 3.1

Experience.Flight Crew.Last 90 Days (UAS) : 3.1

Experience.Flight Crew.Type (UAS) : 3.1

ASRS Report Number.Accession Number : 2036454

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 : UAS Crew

When Detected.Other

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Software and Automation

Primary Problem : Ambiguous

Narrative: 1

During my practice hours, I flew above 400 ft AGL in Class G Airspace. Since my drone is set in meters, it didn't translate to me at the time that I was flying above 400 ft AGL. Since I knew I was in uncontrolled airspace Class G from my sectional chart, I thought I was clear as long as I stayed in Class G. However, as noted in the Advisory Circular, I was not allowed to fly above 400 ft AGL. In Class G, it is as if my drone has an imaginary string extending 400 feet - I needed to be within 400 feet of something terrestrial, and I was not, thus causing an Altitude Violation. All rules always apply - I now realize that even if I am in Class G, I must stay below 400 ft AGL (in relation to something terrestrial). I also have written down the metric to feet conversion and memorized it for future endeavors, and set my maximum flight altitude to 150 meters.

Synopsis

Part 107 UAS pilot reported flying above 400 feet AGL. The UAS was set to meters and the UAS pilot was unaware until after landing.

Time / Day

Date : 202309

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 0

Altitude.AGL.Single Value : 300

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 8

Light : Daylight

Ceiling : CLR

Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : Large UAS, Fixed Wing

Crew Size.Number Of Crew : 5

Operating Under FAR Part : Public Aircraft Operations (UAS)

Flight Plan : VFR

Mission : Test Flight / Demonstration

Flight Phase : Takeoff / Launch

Airspace.Class D : ZZZ

Airspace Authorization Provider (UAS) : Authorized Third Party

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

Waivers / Exemptions / Authorizations (UAS) : Blanket COA

Weight Category (UAS) : Large

Configuration (UAS) : Fixed Wing

Flight Operated As (UAS) : VLOS

Flight Operated with Visual Observer (UAS) : Y

Control Mode (UAS) : Transitioning Between Modes

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Passenger Capable (UAS) : N

Type (UAS) : Homebuilt / Custom

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

Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : Large UAS, Fixed Wing

Crew Size.Number Of Crew : 5

Operating Under FAR Part : Public Aircraft Operations (UAS)

Flight Plan : VFR

Mission : Test Flight / Demonstration
Flight Phase : Takeoff / Launch
Airspace.Class D : ZZZ
Airspace Authorization Provider (UAS) : Authorized Third Party
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Waivers / Exemptions / Authorizations (UAS) : Blanket COA
Weight Category (UAS) : Large
Configuration (UAS) : Fixed Wing
Flight Operated As (UAS) : VLOS
Flight Operated with Visual Observer (UAS) : Y
Control Mode (UAS) : Transitioning Between Modes
Flying In / Near / Over (UAS) : Aircraft / UAS
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Passenger Capable (UAS) : N
Type (UAS) : Homebuilt / Custom
Number of UAS Being Controlled (UAS).Number of UAS : 1

Person : 1

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 67
Experience.Flight Crew.Total (UAS) : 3000
Experience.Flight Crew.Last 90 Days (UAS) : 15
Experience.Flight Crew.Type (UAS) : 12
ASRS Report Number.Accession Number : 2036079
Human Factors : Communication Breakdown
Analyst Callback : Attempted
UAS Communication Breakdown.Party1 : Remote PIC
UAS Communication Breakdown.Party2 : Person Manipulating Controls

Person : 2

Location Of Person : Indoor / Ground Control Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Remote Pilot (UAS)
Qualification.Flight Crew : Private
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 297.8
Experience.Flight Crew.Total (UAS) : 367.9
Experience.Flight Crew.Last 90 Days (UAS) : 45.4
Experience.Flight Crew.Type (UAS) : 1.0
ASRS Report Number.Accession Number : 2036080
Human Factors : Communication Breakdown
Analyst Callback : Attempted
UAS Communication Breakdown.Party1 : Person Manipulating Controls
UAS Communication Breakdown.Party2 : ATC

Person : 3

Location Of Person : Indoor / Ground Control Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 0
Experience.Flight Crew.Total (UAS) : 902
Experience.Flight Crew.Last 90 Days (UAS) : 26
Experience.Flight Crew.Type (UAS) : 6
ASRS Report Number.Accession Number : 2036083
Human Factors : Communication Breakdown
Analyst Callback : Completed
UAS Communication Breakdown.Party1 : Person Manipulating Controls
UAS Communication Breakdown.Party2 : Remote PIC

Person : 4

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 142.6
Experience.Flight Crew.Total (UAS) : 3411
Experience.Flight Crew.Last 90 Days (UAS) : 24
Experience.Flight Crew.Type (UAS) : 87
ASRS Report Number.Accession Number : 2036082
Human Factors : Communication Breakdown
Analyst Callback : Completed
UAS Communication Breakdown.Party1 : Person Manipulating Controls
UAS Communication Breakdown.Party2 : Remote PIC

Person : 5

Location Of Person : Indoor / Ground Control Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Other / Unknown
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 16
Experience.Flight Crew.Total (UAS) : 500
Experience.Flight Crew.Last 90 Days (UAS) : 100
Experience.Flight Crew.Type (UAS) : 0
ASRS Report Number.Accession Number : 2036081
Human Factors : Communication Breakdown
Analyst Callback : Completed
UAS Communication Breakdown.Party1 : Remote PIC
UAS Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

On Day 0 we planned to test flight two aircraft. I was pilot Aircraft X. After completing preflight activities and prep, my ground control station (GCS) operator indicated that we were cleared to lineup and wait on Runway X. Myself and Aircraft Y began to taxi to the 1000Ft. bars where we would turn around and line up for takeoff. My GCS operator reported to me cleared for takeoff and I replied cleared for takeoff and he replied cleared for takeoff brakes off full throttle, and I replied brakes off full throttle "rolling" a few seconds later I replied airborne gear up flaps up and he replied loading flight plan, I began a climbing at a right turn and asked "ready for auto?" pilot replied "ready for auto" and I put the plane in auto. Aircraft Y began its takeoff roll, as I was walking back to the trailer with eyes on my bird. The mission proceeded quite normally until the end. However, we had received a call from tower that we had committed a pilot deviation in which I was informed we actually took off without being cleared for takeoff. As a result we held a debrief meeting and reviewed both our procedures for take off and landing and tower communications. With the Tower contractors we discussed ways to improve our communications exchanges. Our team did update our internal documents to reflect this and have not had any issues since.

Narrative: 2

I participated in a test flight of two aircraft, specifically Aircraft X and Aircraft Y, at ZZZ Airport, on Day 0. I was GCS Operator for Aircraft Y and also responsible for communications between the operations team, ZZZ Airport, and ZZZ ATC. After being granted permission from ZZZ ATC for the flight operations team to enter Runway X to prepare our two UAS for flight, ZZZ ATC communicated to "advise on takeoff." I interpreted this communication as permission for the Aircraft X and Aircraft Y to takeoff from runway X and to advise ZZZ ATC of when our aircraft took off. Shortly after takeoff of Aircraft X and Aircraft Y from Runway X, I informed ZZZ ATC we had reached "Point 1". ZZZ ATC requested Aircraft X and Aircraft Y to call ZZZ Tower. During the phone call, ZZZ Tower informed us that we had taken off on Runway X without proper ATC clearance, and I had created a Pilot Deviation from my misinterpretation of ZZZ ATC instructions. We completed our flight plan and procedures, then met together with a few folks from the Tower. Tower shared their concerns and explained what they needed for communications. We apologized for the confusion and explained our request for an 'option for runway.' This is needed to address our landing gear before landing but can imply another meaning for manned aircraft. Tower appreciated the exchange, and the discussion was helpful for everyone. We did update our internal documents to reflect some of the points discussed. Overall, it was a positive exchange. Given my role this day, I realize the responsibility involved and apologize for the Pilot Deviation between ZZZ ATC and Aircraft X and Aircraft Y. This situation is a lesson learned for my betterment as an aviator and the entire flight operations team.

Narrative: 3

On Day 0, at approximately XA:00, the Test Team went out near Runway X to start setting up for the 2-ship flight that was going to take place that morning. The two aircraft slated for this flight test event had call-signs of Aircraft X and Aircraft Y. I was the GCS Operator for Aircraft X. During this time, I was also training the second GCS Operator for Aircraft Y. At approximately XB:00, the team held a brief. In that brief, test objectives were gone

through and approved, roles and responsibly were understood, and risk mitigations were laid out. After that brief, I finished setting up the trailer and ground systems needed for flight. Once completed, I started the Aircraft X Preflight Checklist v1. I had communication over headset with the second GCS Operator, both Pilots, and Crew Chief. Going through the checklist, I would get confirmation from the second GCS operator and both Pilots before proceeding to the next bullet point. When moving onto the sections highlighted in bold, I would get an extra confirmation with the person in communication with tower that we were cleared to proceed. Before takeoff, and starting the 'Take Off' checklist, I asked again to the second GCS operator, two pilots, and person in communication with tower if we were approved and that we were all ready for takeoff. I got "Yes" all around. At approximately XC:29, I then started the 'Take Off' checklist and once Aircraft X was airborne, I selected the 'Hold Point 2' waypoint and the pilot switched to 'Auto'. Once I confirmed that Aircraft X was at mission altitude (1000ft AGL) and established at 'Hold Point 2' the second GCS operator went through the 'Take Off' checklist for Aircraft Y. Once both aircraft were airborne, the person in communication with tower said that he had to call tower via cellphone. After that phone call, I believe his wording was that we had a "flight plane deviation", but we were cleared to proceed and once we landed, we needed to go have a meeting at the airport tower with the personnel there. I proceeded with the main mission objective of sending the aircraft from 'Hold Point 2' to Hold Point 3' for a total of three times. Once we got around bingo fuel, both aircrafts were holding at 'Hold Point 2.' When the Pilot was ready to land and the tower was cleared, I sent Aircraft X it to 'Hold Point 1' to prepare for landing. At 'Hold Point 1' tower called back asking if we can have that Aircraft X back at 'Hold Point 2.' So, I sent it back to 'Hold Point 2.' After we got clearance again from tower that we were all clear to land, we started preparing by sending Aircraft X back to 'Hold Point 1.' Once Aircraft X established 500ft AGL at 'Hold Point 1' and the pilot had good line of sight, the Pilot manually took over the aircraft and landed it. This happened at approximately at XD:18. Once cleared of the runway, Aircraft 2 proceeded to execute the same sequence of events. After both aircrafts were safe on deck, the Test Team headed to the Airport Tower for a debrief of the events. Debrief of events reviewed both our procedures for take off and landing. Tower contractors and the team discussed better ways to improve our communications exchanges, and the team updated our internal documents to reflect this discussion.

Callback: 3

The reporter had no additional information to share about the incident. The reporter did indicated they made even more changes to their checklists and procedures to ensure compliance with ATC for future flights.

Narrative: 4

On Day 0 I was an External Pilot for Aircraft Y. This was one of two aircraft of which we were conducting flights test at the ZZZ. During the process of run-up on Runway X I went through the start checklist maintaining Aircraft Y in idle until cleared to lineup for takeoff. After the GCS cleared for takeoff Aircraft X took off first. Then, Aircraft Y second receiving communications through the GCS. I also visually monitor for any traffic on around Runway X. After back Taxi and Position for Takeoff Runway X was clear without any traffic. After returning to the GCS we were notified of a pilot deviation. As a result we did a briefing when the flights completed. The communications with the Tower were discussed and what comms the Tower needed for cleared takeoff. We also explained our operations and sequence with the unmanned system especially landing and needing 'option for runway' for our landing gear.

Callback: 4

The reporter had no additional information to share.

Narrative: 5

On Day 0 our team conducted flight operation for two aircraft, Aircraft X and Aircraft Y. I was part of the GCS communications crew. I supported providing instructions and maintaining contact with the ATC (air traffic control) tower. Our GCS was located at Location A. We were cleared to taxi onto the runway and continue the preflight check list. Tower communicated with GCS to 'Advise ready for takeoff'. We understood this to mean we had clearance to take off. Shortly after the aircraft had taken off, we communicated to Tower "Point 1" and received communication back asking us to call a phone number. When I called ATC, the person I called asked for information not readily available and we continued our communications and flight plan. We did make several calls during this to ATC ensuring our location and ATC confirming our request to move within the airspace. About halfway through the flight, personnel Privileged and Confidential from the airport arrived at our location. Our mission continued and after completed we held a meeting all together. Tower explained what they expected with respect to comms and the confusion about the comms we received. We also discussed our operations including need for 'option for runway' for our landing gear and other procedures. It was helpful for the whole team.

Callback: 5

The reporter indicated this was their first time operating at a towered airport. During the debrief with the UAS crew, changes were made so only rated Part 61 pilots would be communicating with ATC.

Synopsis

Multi-person UAS flight crew reported operating two aircraft at a towered airport. The UAS crew reported misunderstanding ATC instructions and took off without being cleared.

Time / Day

Date : 202309

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Aircraft

Reference : X

ATC / Advisory.Ground : ZZZ

Aircraft Operator : Government

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 4

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Training

Flight Phase : Taxi

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

Weight Category (UAS) : Large

Configuration (UAS) : Fixed Wing

Flight Operated As (UAS) : BVLOS

Control Mode (UAS) : Manual Control

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

Person

Location Of Person : Indoor / Ground Control Station (UAS)

Reporter Organization : Government

Function.Flight Crew : Person Manipulating Controls (UAS)

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Instructor

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 520

Experience.Flight Crew.Last 90 Days : 20

Experience.Flight Crew.Type : 2000

Experience.Flight Crew.Total (UAS) : 3000

Experience.Flight Crew.Last 90 Days (UAS) : 20

Experience.Flight Crew.Type (UAS) : 3000

ASRS Report Number.Accession Number : 2036041

Human Factors : Situational Awareness

Analyst Callback : Completed

Events

Anomaly.ATC Issue : All Types
Anomaly.Ground Incursion : Taxiway
Detector.Person : Air Traffic Control
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

The crew was performing a launch of the aircraft and was in the movement portion of the taxi out. We perform all of the ground operation on a ramp on the southwest corner of the airport at the end of [the] taxiway. The airport has a gate that is blocking taxiway and the crew was briefed that this is a non movement area behind the gate on [the] taxi way. We began our taxi up to and holding short of the gate remaining outside the movement area to our knowledge. Ground asked who approved us to taxi? We briefed them that we were told this was a non movement area and they said that we needed permission to taxi.

There is no movement lines that we observed and we thought the gate was the boundary to the movement area. There should be a clear defined visual boundary to the movement and non movement area.

Callback: 1

The reporter indicated ATC did not issue a brasher warning. In the ramp area where the UAS is operated there are no markings on the ramp to delineate between the non movement area and the movement area. The UAS crew was unfamiliar with the airport and ATC provided them with information on how they could safely conduct operations.

Synopsis

UAS Instructor reported they taxied in a movement area without a clearance. ATC then informed them of this incursion.

Time / Day

Date : 202309
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JRA.Airport
State Reference : NY
Relative Position.Angle.Radial : 270
Relative Position.Distance.Nautical Miles : .1
Altitude.MSL.Single Value : 200

Environment

Weather Elements / Visibility.Visibility : 10
Ceiling.Single Value : 10000

Aircraft : 1

Reference : X
Aircraft Operator : Fractional
Make Model Name : Helicopter
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 135
Flight Plan : VFR
Mission : Passenger
Flight Phase : Initial Climb
Route In Use : Visual Approach
Airspace.Class E : JRA

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class E : JRA
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Fractional
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Total : 4850
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 4600
ASRS Report Number.Accession Number : 2035626

Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 30
Miss Distance.Vertical : 20
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Shortly after takeoff from 30th St Heliport JRA in NYC at approximately 300 ft. and 30 kts, the right seat pilot (pilot monitoring) observed an quad copter type drone off our nose (20-30 ft.) and slightly below (20 ft.) moving right to left. Shortly after seeing the drone he saw it pitch over and descend from view. Left seat pilot (flying) never saw the drone. There was no NOTAM for drone ops and JRA was not aware of any drone ops in the area.

Synopsis

Part 135 helicopter pilot reported a near midair collision with a UAS during initial climb.

Time / Day

Date : 202309

Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : PHL.TRACON

State Reference : PA

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : PHL

Aircraft Operator : Air Carrier

Make Model Name : Widebody, Low Wing, 2 Turbojet Eng

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Nav In Use : FMS Or FMC

Flight Phase : Initial Approach

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Flying In / Near / Over (UAS) : Aircraft / UAS

Person : 1

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Not Flying

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Total : 10000

Experience.Flight Crew.Last 90 Days : 50

ASRS Report Number.Accession Number : 2035126

Human Factors : Situational Awareness

Human Factors : Training / Qualification

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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 8000
ASRS Report Number.Accession Number : 2035145
Human Factors : Situational Awareness
Human Factors : Training / Qualification

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 50
Miss Distance.Vertical : 0
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Flight XXXX ZZZ-PHL. After being handed off from ZZZ Center to PHL approach, and before checking in, we experienced a near miss with a small aircraft or drone. Our altitude was six thousand feet. We were approximately thirty miles south of PHL. The First Officer and I happened to be looking outside at the time and were both startled by the appearance of a small silver colored craft with wings, co-altitude with excessive closure. I estimate the closure was 300 knots. The craft appeared in my peripheral vision at about the one o'clock position and passed directly off our right wing by roughly 50 feet. The encounter lasted for perhaps only one or two seconds. When I checked in with PHL approach, I reported the sighting whereupon the controller instructed me to call on landing. I did so and reported the event to Person A at TRACON. In accordance with the FOM, I called dispatch the next day and spoke to the shift manager and an Assistant Chief Pilot (ACP). The ACP asked me to fill out a general safety form and provide these details.

Narrative: 2

Flying XXXX from ZZZ to PHL. I was the First Officer (FO) and Pilot Flying (PF). We were flying the PAATS4 RNAV arrival with the autopilot engaged. I believe we were level at 6,000 ft. MSL near CANNY intersection when the Captain said, "what's that?". I looked up and he pointed to an object off our right side at our same altitude. We were flying at approximately 250 KIAS so it zoomed past us rather quickly. The object appeared to be either a large drone or a small aircraft. Its color was white or light grey. I'd estimate its distance from us to be around 200 meters but it's difficult to say for sure. We did not receive any TCAS TA or RA or any warning from ATC about traffic. The Captain was Pilot Monitoring (PM) and reported the object to PHL Tracon via voice radio. He was also given a phone number to call after landing. The Captain called the number after we landed and spoke with ATC.

Synopsis

Air carrier flight crew reported a near midair collision with a UAS while on arrival. They reported the incident to ATC and landed with no other problems.

Time / Day

Date : 202309

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : F11.TRACON

State Reference : FL

Altitude.MSL.Single Value : 1738

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : F11

Aircraft Operator : Personal

Make Model Name : Amateur/Home Built/Experimental

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : None

Mission : Personal

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class E : ZZZ

Configuration (UAS) : Multi-Rotor

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

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 : Private

Experience.Flight Crew.Total : 442

Experience.Flight Crew.Last 90 Days : 17

Experience.Flight Crew.Type : 166

ASRS Report Number.Accession Number : 2034073

Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Passenger
Miss Distance.Horizontal : 1000
Miss Distance.Vertical : 250
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Was flying back from TIX to ZZZ. While flying below the MCO Bravo, my passenger who is not a pilot, called out an aircraft quickly closing at our 2 O'clock. We both identified a 4 rotor drone, similar to a consumer DJI model, about 1/4 NM off our right wing and slightly higher. I could not tell if the drone was stationary or moving. There was a commercial aircraft approaching approximately 1,500 ft. higher than the drone and descending. I quickly took a picture of my EFB to capture the location. The commercial aircraft mentioned earlier was approaching final at MCO. I immediately dialed up MCO Approach and once I raised the controller I shared the information about the drone sighting. The remainder of the flight continued without issue.

Synopsis

GA pilot reported during cruise their passenger saw a UAS flying toward the reporter's aircraft. Reporter stated there was a commercial aircraft descending above the drone. Reporter reported the event to ATC and continued the flight.

Time / Day

Date : 202306

Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : GON.Airport

State Reference : CT

Relative Position.Distance.Nautical Miles : 10

Altitude.AGL.Single Value : 200

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 9

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

Airspace.Class D : GON

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) : Airport / Aerodrome / Heliport

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 : 280

Experience.Flight Crew.Total (UAS) : 4500

Experience.Flight Crew.Last 90 Days (UAS) : 55

Experience.Flight Crew.Type (UAS) : 1500

ASRS Report Number.Accession Number : 2032790

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 : Procedure
Contributing Factors / Situations : Software and Automation
Primary Problem : Ambiguous

Narrative: 1

At the time of the flight, I operated under the assumption that I had successfully obtained the required airspace authorization through airspace link, as per my application. However, I subsequently discovered that there had been a recent overhaul of their website, and it appears that despite my clicking the "submit" button, the information failed to register on their system.

Callback: 1

Reporter had no additional information to share.

Synopsis

Part 107 UAS pilot reported they failed to confirm LAANC authorization prior to flight in controlled airspace.

Time / Day

Date : 202309
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Angle.Radial : 270
Relative Position.Distance.Nautical Miles : 1.0
Altitude.AGL.Single Value : 1500

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 6
Light : Daylight

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : Large UAS, Fixed Wing
Crew Size.Number Of Crew : 4
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Descent
Route In Use : Visual Approach
Airspace.Class D : ZZZ
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Weight Category (UAS) : Large
Configuration (UAS) : Fixed Wing
Flight Operated As (UAS) : BVLOS
Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Location Of Person : Indoor / Ground Control Station (UAS)
Reporter Organization : Government
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 2500
Experience.Flight Crew.Last 90 Days : 30
Experience.Flight Crew.Type : 700
ASRS Report Number.Accession Number : 2032768
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : VFR In IMC

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Landed As Precaution

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Weather

Primary Problem : Weather

Narrative: 1

Conducting training flight as instructor pilot in an unmanned Aircraft X. Tower weather per ATIS was reported as Few clouds 1100 ft. Prior to that, skies had been reported as clear. Took off planning on VFR pattern work and found that the clouds had thickened and pushed in. Decision was made and communicated to tower that we would make a full stop landing. VFR cloud clearances were not maintained at times during the pattern. Full stop landing was successfully completed after which Tower stated that clouds were now Broken at 1200 ft. AGL.

Synopsis

Government UAS pilot reported conducting operations in deteriorating conditions. They chose to land after they were unable to comply with VFR cloud clearance requirements.

Time / Day

Date : 202309
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ISM.Airport
State Reference : FL
Relative Position.Angle.Radial : 330
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : MCO
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 : IFR
Mission : Personal
Flight Phase : Initial Approach
Airspace.Class E : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Flying In / Near / Over (UAS) : Aircraft / UAS
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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 : 450
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 175
ASRS Report Number.Accession Number : 2032541
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 0
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On approach into ISM, while being handled by Orlando Approach, noticed a large drone at same altitude (2000 ft. MSL). Was prepared for evasive action, but none was needed. Drone was close enough to clearly see it. [The drone] was not transmitting anything on ADSB.

Synopsis

General aviation pilot reported seeing a UAS nearby the aircraft while they were on initial approach. Reporter stated no evasive action was needed.

Time / Day

Date : 202308

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling.Single Value : 12000

Aircraft

Reference : X

ATC / Advisory.CTAF : ZZZ

Aircraft Operator : Personal

Make Model Name : Bonanza 36

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Landing

Route In Use : Vectors

Airspace.Class E : ZZZ

Person

Location Of Person.Aircraft : X

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 : 1190

Experience.Flight Crew.Last 90 Days : 60

Experience.Flight Crew.Type : 600

ASRS Report Number.Accession Number : 2031325

Human Factors : Confusion

Human Factors : Situational Awareness

Analyst Callback : Attempted

Events

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

When Detected : Aircraft In Service At Gate

Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I flew from ZZZ1 to ZZZ on IFR flight plan in late August. I was cleared to ZZZ by the ground controller at ZZZ1. En route I checked NOTAMS on the Garmin G1000 and saw nothing indicating any alert situation at the airport. I was put on vectors by ZZZ approach as I neared the ZZZ VOR and then handed off to ZZZ1 Approach. As ZZZ1 approach issued a clearance for the visual to land at ZZZ, I cancelled the IFR plan and proceeded VFR. At no point through this--my initial clearance to ZZZ, my check of notams en route, or my clearance for the approach was I notified that the airport had been closed by the authorities for drone operations. I made the usual traffic calls on the CTAF frequency as I flew a normal left downwind pattern for landing. On landing I noticed a car with lights on at the approach end of the runway, but I had remembered seeing a notice the day before indicating that there was work being done at the end of the runway and these lights were consistent with that notice and I landed long. Upon landing I saw several police cars on the property and was notified by an officer that I had just landed at a closed airport. He said a NOTAM had been issued closing the airport and asked if I had seen it. I said, no, and that I had only seen a notice saying (I thought) that there was work being done at the end of the runway, but no notice of closure. He asked if I had checked the FAA site and I said, no, but that I had checked foreflight and the Garmin system on the airplane. I also said that I was on an IFR flight plan, had been cleared to the airport, that I had been cleared for a visual approach, and that I had made radio calls (suggesting of course that no one else knew it was closed either). He said he'd find out what was wrong. I was asked how long before I could take off, got permission to fuel the aircraft and departed about 45 minutes later. I was never told the resolution of the investigation. I did check the NOTAMS when I arrived at my destination and saw that, after I landed, a NOTAM was issued for ZZZ closing the runway. The NOTAM was issued after I landed. Obviously I wished I had questioned more than I had the car at the airport threshold, but I also think that the police should have been monitoring the CTAF for cases such as mine, should have filed a timely NOTAM in the system filed under the ZZZ airport, and also that the police should have alerted ZZZ1 Approach and ZZZ Approach about the closure.

Synopsis

General aviation pilot reported landing at an airport reportedly closed for UAS operations. After landing the pilot checked for NOTAMS and saw the airport was closed.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : APA.Airport

State Reference : CO

Altitude.MSL.Single Value : 8000

Aircraft : 1

Reference : X

Aircraft Operator : Corporate

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Ferry / Re-Positioning

Flight Phase : Final Approach

Airspace.Class D : APA

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class D : APA

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Corporate

Function.Flight Crew : Pilot Not Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

ASRS Report Number.Accession Number : 2030982

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Detector.Person : Flight Crew

Miss Distance.Vertical : 100

When Detected : In-flight

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

While on the left downwind for runway 17L at approximately 8000 feet we encountered a near miss with a drone. The drone flew from north to south at about 100 feet above our altitude and missed us slightly high and left of the aircraft. The drone was black, about the size of the football, and had a red light. No deviation had to take place to avoid it.

Synopsis

Corporate First Officer reported a near midair collision with a UAS while they were on approach.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Altitude.AGL.Single Value : 5

Environment

Flight Conditions : VMC

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Make Model Name : UAV: Unpiloted Aerial Vehicle

Mission : Photo Shoot / Video

Flight Phase : Cruise

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Crowds

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

Person

Location Of Person : Outdoor / Field Station (UAS)

Function.Other

ASRS Report Number.Accession Number : 2030554

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Analyst Callback : Attempted

Events

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Anomaly.Inflight Event / Encounter : Other / Unknown

Detector.Person : Other Person

When Detected : In-flight

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Ambiguous

Narrative: 1

Witnessed a small drone flying dangerously over the crowd at the golf event at Location A. The drone also nearly hit a person. The operator repeatedly flew over the crowd at a low

altitude and multiple times unnecessarily. As a person who is qualified to operate a UAS, this was a totally unsafe act and risked persons on the ground without due regard for their safety.

Synopsis

An observer of a golf event reported seeing a UAS flying dangerously over crowds.

Time / Day

Date : 202308

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 3

Altitude.AGL.Single Value : 90

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 5

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Recreational / Hobbyist (UAS)

Make Model Name : DJI Avata

Crew Size.Number Of Crew : 1

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

Flight Plan : None

Mission : Recreational / Hobbyist (UAS)

Flight Phase : Climb

Airspace.Class D : 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

Component

Aircraft Component : Communication Module (UAS)

Manufacturer : DJI

Aircraft Reference : X

Problem : Failed

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Recreational / Hobbyist (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total (UAS) : 1000

Experience.Flight Crew.Last 90 Days (UAS) : 10

Experience.Flight Crew.Type (UAS) : 5
ASRS Report Number.Accession Number : 2030165
Human Factors : Troubleshooting
Analyst Callback : Completed

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Fly Away (UAS)
Anomaly.Inflight Event / Encounter : Object
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : UAS Crew
When Detected : In-flight
Result.Aircraft : Lost Link (UAS)
Result.Aircraft : Lost / Unrecoverable (UAS)

Assessments

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

Narrative: 1

I'm in Location A. I live in the middle of class D airspace with an executive airport right down the road. I was just up flying my DJI Avata out my back door, flying Line of Sight (LOS) just to run down a couple batteries so that I could put the drone up. I received Low Altitude Authorization and Notification Capability (LAANC) for a few hours today and I am cleared for 100 ft. Was only up less than a minute and was at 30m when the Avata started drifting and shot straight back into a wooded conservation area that backs up to my back yard. I had absolutely no control over the Avata in just a split second, shot back into the woods and I lost it. I put on the [First Person View] goggles to see what was going on with it and apparently it hit a random tree and is down somewhere around the middle of the wooded area. All I could see through the goggles was the ground, a log, and some plants where it has stopped. This wooded area (Swamp) will be impossible for me to try to get in and find it. The Avata shut down within a minute as it said it was overheated so I can't use a "find my drone" to get it either. Do I need to now file a report with the NTSB since I lost radio (TX) control between the drone and myself? No injuries or damage to anything other than the loss of the drone.

Callback: 1

Reporter indicated they sent information to DJI. DJI didn't advise the reporter what the issue was but did send a replacement UAS.

Synopsis

Recreational / Hobbyist UAS pilot reported a lost link which resulted in the UAS flying away and crashing into a tree.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : ZZZ.Tower
State Reference : US
Relative Position.Distance.Nautical Miles : 3
Altitude.AGL.Single Value : 275

Environment

Flight Conditions : VMC
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 : Hovering (UAS)
Airspace.Class D : 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) : Open Space / Field
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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) : 20
Experience.Flight Crew.Last 90 Days (UAS) : .5
Experience.Flight Crew.Type (UAS) : 20
ASRS Report Number.Accession Number : 2029197
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

Primary Problem : Human Factors

Narrative: 1

On Day 0, at approximately XA:00, I initiated a drone operation near Location A, with the aim of gaining a clearer view of a distant plume of smoke. My primary objective was to pinpoint the smoke's origin. I selected a mostly empty parking lot for the flight, ensuring my drone, a DJI Mini 2 weighing less than 249g, remained within my line of sight throughout the operation. Unfortunately, I mistakenly flew the drone to an altitude of about 275 feet, unintentionally surpassing the LAANC ceiling of 100 feet designated for Class D airspace. At the time, I was unaware of my presence within this specific airspace. The clear midday conditions further compelled me to seek out the source of the smoke without realizing the potential violation. I was later contacted by a local drone pilot and informed that my action may have been in violation of the class D airspace. I was the only individual manipulating the controls, and no other parties were involved in this operation. The breach into the Class D airspace was a direct result of my lack of awareness about the regulations governing that area. After concluding the flight, a local drone enthusiast approached me to highlight the potential infringement. Acknowledging this oversight, I am now committed to improving my comprehension of UAS regulations. I am determined to complete the Recreational UAS Safety Test (TRUST) and will ensure that I procure any necessary licenses or certifications before embarking on future recreational drone activities. This measure is crucial in preventing similar inadvertent breaches in the future.

Synopsis

Recreational/Hobbyist UAS pilot reported they flew in controlled airspace without authorization.

Time / Day

Date : 202308

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : SJC.Airport

State Reference : CA

Relative Position.Distance.Nautical Miles : 12

Altitude.MSL.Single Value : 4000

Environment

Light : Night

Aircraft : 1

Reference : X

Aircraft Operator : Air Carrier

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

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Approach

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Flying In / Near / Over (UAS) : Aircraft / UAS

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 : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2028929

Human Factors : Time Pressure

Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : First Officer

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2029229
Human Factors : Time Pressure

Events

Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Vertical : 50
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

At about 4,000 ft. AGL, while on a 12 mile final to 30L, we saw a drone pass by the cockpit windows. We flew just underneath it. When we saw it we had no time to react. I estimate we were within 50 ft. of colliding with it. We advised ATC and landed without further incident. We had a Near Mid Air Collision with a drone while on final. Strict adherence to FARs needs to be preached to drone operators. Infractions need to be punished with maximum consequences. Until rogue Drone Operators are made to pay for airspace transgressions with jail time and fines this will continue. It's unbelievably unacceptable to fly a drone almost a mile high into the final approach corridor of one of the busiest airports in the US.

Narrative: 2

After rolling final on the ILS 30L, just past the point KLIDE at 4,000 ft. AGL, we missed a drone by about 50 ft. over the cockpit windows. There was no time to react after seeing it. We need the FAA to pursue and enforce punishments to prevent illegal drone operations especially at 4000 ft. on a final approach corridor in one of the busiest airports in the United States.

Synopsis

Air carrier flight crew reported a NMAC with a UAS that flew over them while they were on initial approach. The pilots stated that due to the close proximity of the UAS, they did not have time to take evasive action.

Time / Day

Date : 202308

Place

Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Recreational / Hobbyist (UAS)

Make Model Name : Horizon Hobby Undifferentiated

Crew Size.Number Of Crew : 1

Mission : Recreational / Hobbyist (UAS)

Flight Phase : Takeoff / Launch

Weight Category (UAS) : Small

Configuration (UAS) : Fixed Wing

Flight Operated As (UAS) : VLOS

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Recreational Club / Fixed Flying Site

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

Flying In / Near / Over (UAS) : Moving Vehicles

Type (UAS) : Purchased

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

Component

Aircraft Component : Flight Control System (UAS)

Manufacturer : Horzion Hobby

Aircraft Reference : X

Problem : Failed

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Recreational / Hobbyist (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Experience.Flight Crew.Total : 400

Experience.Flight Crew.Last 90 Days (UAS) : 12

Experience.Flight Crew.Type (UAS) : 400

ASRS Report Number.Accession Number : 2028887

Human Factors : Troubleshooting

Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Critical
Anomaly.Inflight Event / Encounter : Fly Away (UAS)
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Automation : Collision Avoidance System (UAS)
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Lost my new airplane due to a system failure, this is the second Carbon Cub 1300mm RTF from Horizon. One crashed shortly after take off after total failure. Company A replaced it, and the other flew several flight, and then lost it's mind. It would veer to the right extremely hard, could not correct in any of the panic modes. It crashed in a huge bean field and I could not find it. Had to let it crash to avoid the highway. This is a potential fly away issue.

Synopsis

Recreational/Hobbyist pilot of a RC fixed wing aircraft reported a control issue causing the RC aircraft to crash.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 1.5
Altitude.AGL.Single Value : 25

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 : 2
Operating Under FAR Part : Part 107
Mission : Photo Shoot / Video
Flight Phase : Descent
Airspace.Class B : 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) : Y
Control Mode (UAS) : Manual Control
Flying In / Near / Over (UAS) : People / Populated Areas
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : 0
Experience.Flight Crew.Total (UAS) : 61.9
Experience.Flight Crew.Last 90 Days (UAS) : 2.9
Experience.Flight Crew.Type (UAS) : 26.5
ASRS Report Number.Accession Number : 2028226
Human Factors : Situational Awareness

Human Factors : Communication Breakdown
Analyst Callback : Attempted
UAS Communication Breakdown.Party1 : Person Manipulating Controls
UAS Communication Breakdown.Party2 : Visual Observer

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Inflight Event / Encounter : Object
Detector.Person : UAS Crew
When Detected : In-flight
Result.Aircraft : Lost / Unrecoverable (UAS)
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

We were flying a commercial real estate photo job and during ascent to return to home overhead power lines were impacted and drone was tangled in power lines. No power issues were apparent, and the utility company was contacted immediately. Utility company has confirmed the situation on-site and will retrieve UAS when a bucket truck is available. Remote Pilot In Command (RPIC) and Visual Observer (VO) were not communicating at the highest level possible, and RPIC did not accurately estimate the location of the power lines when ascending. Additionally, flight crew did not continue awareness after initial site survey and accurately assess overhead hazards. Complacency was the main contributing factor to this incident, and RPIC and VO have worked together for significant flight hours and felt comfortable with past results. RPIC was not located close enough to the VO to receive information in a timely manner and missed the VO's verbal warning due to background noise in the area. VO exhibited signs of distraction and complacency as well, and both parties should have worked together to keep awareness and communication at a higher level.

Synopsis

Part 107 UAS pilot reported they were flying the UAS back to its landing location when it struck a set of power lines. The UAS remained in the power lines and the power company was notified.

Time / Day

Date : 202308
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 1.1
Altitude.AGL.Single Value : 180

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : Medium UAS, Single Rotor / Helicopter
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Cruise
Airspace.Class G : ZZZ
Airspace Authorization Provider (UAS) : FAA Authorization
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Waivers / Exemptions / Authorizations (UAS).Other
Airworthiness Certification (UAS) : Special Authorization / Section 44807
Weight Category (UAS) : Medium
Configuration (UAS) : Helicopter
Flight Operated As (UAS) : VLOS
Control Mode (UAS) : Waypoint Flying
Flying In / Near / Over (UAS) : Open Space / Field
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Number of UAS Being Controlled (UAS).Number of UAS : 1

Aircraft : 2

Reference : Y
Aircraft Operator : Government
Make Model Name : Military Transport
Crew Size.Number Of Crew : 2
Airspace.Class G : ZZZ

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Other / Unknown

Function.Other
Qualification.Flight Crew : Private
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 59
Experience.Flight Crew.Total (UAS) : 2000
Experience.Flight Crew.Last 90 Days (UAS) : 60
Experience.Flight Crew.Type (UAS) : 275
ASRS Report Number.Accession Number : 2027263
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Conflict : Airborne Conflict
Detector.Person : UAS Crew
Miss Distance.Horizontal : 1500
Miss Distance.Vertical : 0
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

During a normal flight operation of our UAS we experienced an encounter with a low level Aircraft Y at ZZZ. Our typical area of operation is in the North West corner of the airport property at or below 400 ft. AGL. Our flight area is 1,500 ft. and greater west of centerline and directly west of the numbers on the departure of Runway XX. We were operating well below that at roughly 180 ft AGL (5,200 ft. MSL exactly). We were monitoring radio frequency and listening to the other traffic in the pattern. We have a NOTAM filed, and our operation is described in the remarks on the AWOS at ZZZ. The Aircraft Y appeared without a radio call, from our north east, in a steep 60-70 degree bank to the left. It appeared that it had made a low level pass over Runway XX and made a left hand departure at low level, entering our operation area. We attempted to communicate among the ground crew to command the helicopter to a safe area, but with the closing speed of Aircraft Y at approximately 150 kts approaching our UAV which was at 25 kts ground speed there was no time to maneuver. In the short amount of time I had to make a radio transmission notifying Aircraft Y pilot that our UAV was at its altitude and they were approaching it from behind. Aircraft Y then rolled hard to the right and departed to the west of the field at low level, never exceeding roughly 400 ft. AGL, and skimming the hilltop heading west to Location A. The closest lateral distance is estimated at approximately 1,500 ft., with near zero altitude separation. No incident occurred and no further communication was conducted between aircraft. It is likely that Aircraft Y pilot was unaware of the NOTAM or AWOS information describing our location and operation. It is also possible that terrain obstructed any call Aircraft Y pilot made about his intentions, leading to a delay in our ability to respond to their presence at a very low altitude and in an unconventional path for the airport. We actively monitor air traffic using Flight Radar 24, Foreflight, and Flight Aware. Aircraft Y was not broadcasting any positional data on any of those mediums, so we were unable to identify the aircraft or obtain their ground track prior to the interaction.

Synopsis

Part 107 UAS crew member reported operating in their approved area at a non-towered airport when a military transport aircraft entered the area near the UAS and did not communicate on the CTAF. The aircraft took evasive action and then departed the area.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Relative Position.Distance.Nautical Miles : 4

Altitude.AGL.Single Value : 200

Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI Mavic Air 2

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Photo Shoot / Video

Flight Phase : Hovering (UAS)

Airspace.Class C : ZZZ

Airspace.TFR : ZZZ

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

Weight Category (UAS) : Small

Configuration (UAS) : Multi-Rotor

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : Private Property

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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 : Commercial Operator (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Function.Flight Crew : Remote PIC (UAS)

Qualification.Flight Crew : Remote Pilot (UAS)

Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Instrument

Experience.Flight Crew.Total : 2800

Experience.Flight Crew.Total (UAS) : 4

Experience.Flight Crew.Last 90 Days (UAS) : 0.20

Experience.Flight Crew.Type (UAS) : 0.14

ASRS Report Number.Accession Number : 2026990

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.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

This situation is something that should not happen and is the reason why corrective actions must be taken by the pilots to avoid them. I was making the second flight of the day, the first and the second were real estate missions, only take photos of several some, nothing complicated, in the second mission as I was approximately 4 miles from the ZZZ airport I checked the normal apps such as B4UFLY and Air Control (Aloft) which did not show any TFR in the area on the map, request the normal authorization for a period of 2 hours starting at approximately XA: 34 local time, for about 2 hours to anticipate that the equipment or the wind would be very strong, finish the flight in 14 minutes and upload the photos again in the post work, when it was through social networks that I realized the TFR. Taking this into consideration and how to take corrective actions, I proceeded to call the local FSDO inspector and two other pilots to discuss what happened, the main thing we can learn and the actions that should be taken is to check other applications and other systems like ForeFlight that give immediate updates, and any other app that shows you more specifically what is happening in the area, in this way to avoid this from happening again, I already have it written in my checklist, not to trust alone in third-party applications, if not also, check in the planning other pages related to this type of restrictions, it is something that can happen to anyone else if we are flying commercial missions more often, report and share this type of experience with other pilots and help them increase safety actions to avoid this type of misunderstanding. When an authorization is obtained from these third-party applications, it does not mean immediately that we are authorized, corrective actions must continue to be taken and the action of SMS (Safety Management Systems) as a report is something that all pilots must take into account, in my experience as a pilot commercial and military for more than 20 years, are things that can happen but can be avoided by increasing situational awareness, to avoid actions in the future, this for me is self-remedial training to avoid making these mistakes again, share this with the community of drone pilots within my district and known so that they not only trust third-party applications but also check all other types of applications, web pages and aids to improve the operational safety system of the missions flown.

Callback: 1

The reporter indicated they have implemented a new checklist to prevent this from happening in the future.

Synopsis

Part 107 UAS pilot reported flying in a TFR without authorization.

Time / Day

Date : 202308
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 250

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 : Hovering (UAS)
Airspace.Class G : 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
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 : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 50
Experience.Flight Crew.Last 90 Days (UAS) : 15
Experience.Flight Crew.Type (UAS) : 15
ASRS Report Number.Accession Number : 2026233
Analyst Callback : Attempted

Events

Anomaly.Inflight Event / Encounter : Bird / Animal
Detector.Person : UAS Crew

When Detected : In-flight
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

I was flying in Location A across the street from the park. A hawk came out from hiding in the sun and attacked my drone. It was damaged and fell 250 feet. I recovered the parts. It looks like it is a complete loss.

Synopsis

Recreational/Hobbyist UAS pilot reported a hawk attacked their UAS causing it to crash.

Time / Day

Date : 202308
Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ROC.TRACON
State Reference : NY
Relative Position.Angle.Radial : 275
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 15000

Environment

Flight Conditions : VMC
Light : Dusk

Aircraft : 1

Reference : X
ATC / Advisory.Center : ZOB
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 : Climb
Route In Use : Vectors

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Experience.Flight Crew.Total : 4035
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 725
ASRS Report Number.Accession Number : 2026209
Human Factors : Training / Qualification
Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : NMAC

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR

Miss Distance.Horizontal : 100

Miss Distance.Vertical : 300

Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

We were on an IFR Part 121 flight plan BUF to ZZZ. On climb out from BUF on radar vectors, we were climbing through 15,000 ft. 10-15NM west of GVO and I spotted a large drone as it passed a couple hundred feet to the right side of our aircraft approximately 300 feet below us going the opposite direction. I did not have time to perform any avoidance actions. ZOB ARTCC had no indications of an aircraft in the area and it did not show up on TCAS. I reported the drone sighting to ZOB Center as an unknown object and estimated it to be approximately 6-10 ft. in length. The drone I believe I saw has a service ceiling of 21,000 ft. and a wing span of 11 feet.

Synopsis

Air carrier First Officer reported a near midair collision with a UAS while they were on climb out. Reporter stated they did not have time to take evasive action and reported the event to ATC.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : B757 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Flying In / Near / Over (UAS) : Aircraft / UAS

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Pilot Flying

Function.Flight Crew : Captain

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Multiengine

Experience.Flight Crew.Total : 5086

Experience.Flight Crew.Last 90 Days : 137

Experience.Flight Crew.Type : 5086

ASRS Report Number.Accession Number : 2025758

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : NMAC

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

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

Anomaly.Deviation / Discrepancy - Procedural : FAR
Detector.Person : Flight Crew
Miss Distance.Horizontal : 50
When Detected : In-flight
Result.General : Police / Security Involved
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

At 3,000 ft. MSL on final just prior to intercepting the glideslope for the ILS approach to Runway XX, we spotted a drone that was co-altitude and it rapidly passed down the left hand side of the our aircraft. I would estimate that it missed our left wing by less than 50 ft. It was a black quadcopter that was rectangular and approximately one foot across the front. We reported the drone to Tower. I filled out a police report with local police after the flight.

Synopsis

Air Carrier Captain reported a near mid-air collision with a UAS while they were on final approach.

Time / Day

Date : 202308

Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 6

Altitude.AGL.Single Value : 350

Environment

Flight Conditions : VMC

Weather Elements / Visibility : Haze / Smoke

Weather Elements / Visibility.Visibility : 10

Light : Night

Aircraft : 1

Reference : X

Aircraft Operator : Recreational / Hobbyist (UAS)

Make Model Name : DJI FPV

Crew Size.Number Of Crew : 2

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

Mission : Recreational / Hobbyist (UAS)

Flight Phase : Cruise

Airspace.Class G : 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) : Y

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : People / Populated Areas

Flying In / Near / Over (UAS) : Aircraft / UAS

Type (UAS) : Purchased

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

Aircraft : 2

Reference : Y

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

Flight Phase : Descent

Person

Location Of Person : Outdoor / Field Station (UAS)

Reporter Organization : Recreational / Hobbyist (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Experience.Flight Crew.Total : 0

Experience.Flight Crew.Total (UAS) : 84

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

Experience.Flight Crew.Type (UAS) : 18

ASRS Report Number.Accession Number : 2024171
Human Factors : Time Pressure
Human Factors : Situational Awareness
Analyst Callback : Completed

Events

Anomaly.Conflict : Airborne Conflict
Detector.Person : UAS Crew
Miss Distance.Horizontal : 1000
Miss Distance.Vertical : 1000
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

At XA:09 Day 0 was a near miss between a crewed aircraft and my sUAS I was Remote Pilot In Command (RPIC) flying above myself and my visual observer and out at 350 ft. AGL by around 500 ft. to the west. Upon hearing the engine of an aircraft from the north, I began to bring my aircraft in to land as to give way for the crewed aircraft. My sUAS was not descending as fast as normal (it may have only felt like it is descending slower). I did hear the engine of the crewed aircraft change in pitch as well as saw a course change. After landing and observing the flight path of the crewed aircraft which seemed to be en-route to land at ZZZ, I powered down my equipment and started trying to find out how to report the near miss. Could not find correct contact information for ZZZ ATC to report. At time of flight and near miss, no active TFR's or NOTAM's in place.

Callback: 1

The reporter learned during post flight review this wasn't a near miss. There was more than 1000 feet of vertical and lateral separation between the UAS and the fixed wing aircraft.

Synopsis

Recreational/Hobbyist UAS pilot reported hearing and seeing an approaching fixed wing aircraft. The UAS pilot avoided the aircraft and landed safely.

Time / Day

Date : 202308

Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : N90.TRACON

State Reference : NY

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X

ATC / Advisory.TRACON : N90

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Airspace.Class B : EWR

Aircraft : 2

Reference : Y

Make Model Name : UAV: Unpiloted Aerial Vehicle

Crew Size.Number Of Crew : 1

Airspace.Class B : EWR

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

Flying In / Near / Over (UAS) : Aircraft / UAS

Person

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Air Transport Pilot (ATP)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

ASRS Report Number.Accession Number : 2023946

Human Factors : Training / Qualification

Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types

Anomaly.Conflict : NMAC

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

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

Detector.Person : Flight Crew

Miss Distance.Vertical : 300

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

Contributing Factors / Situations : Human Factors

Primary Problem : Human Factors

Narrative: 1

While descending via the PHLBO 4 RNAV arrival, an object that appeared to be a drone passed below our flight path. It appeared to be within three to five hundred feet below us and directly on the centerline of the airway. Our position was approximately 2 DME to position DYLIN, and our altitude was 8,400 feet (Descending). We advised ATC of the object. The rest of the flight was uneventful. Cause: Uncertain. Suggestions: Enforcement of current air regulations.

Synopsis

Air carrier Captain reported a near mid air collision with a UAS while they were descending on arrival.

Time / Day

Date : 202308

Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 10

Altitude.MSL.Single Value : 16000

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 10

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Government

Make Model Name : Large UAS, Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Public Aircraft Operations (UAS)

Flight Plan : IFR

Mission : Public Safety / Pursuit (UAS)

Flight Phase : Cruise

Airspace.Class A : ZZZ

Airspace Authorization Provider (UAS) : FAA Authorization

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

Waivers / Exemptions / Authorizations (UAS).Other

Airworthiness Certification (UAS) : Special

Weight Category (UAS) : Large

Configuration (UAS) : Fixed Wing

Flight Operated As (UAS) : BVLOS

Flight Operated with Visual Observer (UAS) : N

Control Mode (UAS) : Transitioning Between Modes

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

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

Person

Location Of Person : Indoor / Ground Control Station (UAS)

Reporter Organization : Government

Function.Flight Crew : Remote PIC (UAS)

Function.Flight Crew : Person Manipulating Controls (UAS)

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Remote Pilot (UAS)

Qualification.Flight Crew : Flight Instructor

Qualification.Flight Crew : Commercial

Experience.Flight Crew.Total : 3975
Experience.Flight Crew.Total (UAS) : 373
Experience.Flight Crew.Last 90 Days (UAS) : 50
Experience.Flight Crew.Type (UAS) : 373
ASRS Report Number.Accession Number : 2023501
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
UAS Communication Breakdown.Party1 : Remote PIC
UAS Communication Breakdown.Party2 : ATC

Events

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation / Discrepancy - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Returned To Clearance

Assessments

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

Narrative: 1

At approximately XA:00 on Day 0 Aircraft X was performing a routine patrol over the lake at FL210 in conjunction with the Public Official Agency. The pilot was flying while monitoring an ADS-B display adjacent to the Pilot In Command (PIC) station. At approximately XA:03 Aircraft X received a call for aerial support for a search for a missing person. At this time the pilot was communicating with the ground units to move the aircraft into position to effectuate the search. The point of search was within the current clearance area for delay so no further communication with ATC was required. During this time a point-and-click loiter (PCL) was initiated. This was done without double checking the altitude settings. The PCL was set to 15,000 ft. MSL. As the aircraft moved toward the area to search for the missing person the aircraft initiated a descent towards 15,000 ft. As comms slowed down with the ground agents, ZZZ Center called to verify Aircraft X's altitude. At this point the PIC edited the PCL to climb from its current setting of 15,000 ft. to the assigned altitude of FL210. Aircraft X's lowest altitude during this time was 16,000 ft. MSL.

Synopsis

Government UAS pilot reported departing their assigned altitude without a clearance.

Time / Day

Date : 202307
Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : IND.Tower
State Reference : IN
Relative Position.Distance.Nautical Miles : 7
Altitude.AGL.Single Value : 100

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
Mission : Photo Shoot / Video
Flight Phase : Climb
Airspace.Class C : IND
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) : Open Space / Field
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : 0
Experience.Flight Crew.Total (UAS) : 7
Experience.Flight Crew.Last 90 Days (UAS) : 2.5
Experience.Flight Crew.Type (UAS) : 7
ASRS Report Number.Accession Number : 2023183
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 : Clearance
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Exited Penetrated Airspace
Result.Flight Crew : Landed As Precaution

Assessments

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

Narrative: 1

As the Remote Pilot In Command (RPIC), I was operating a sUAS quadcopter to get photos on an open piece of land off the side of the road. It was daytime about midday with clear skies. My drone was flying in Class C Airspace without authorization which is an FAA violation. The UAS was about 100 ft up when I realized that the checking of where I was and if airspace authorization (would typically use the B4UFLY and Aloft apps) was needed was missed in my pre-flight checklist. Upon the realization this step was missed the drone was brought down immediately. After bringing the drone down I checked both B4UFLY and Aloft apps and turns out for a brief moment I was flying in class C without authorization. I aborted the mission called the client and told them even with being able to get LAANC auto authorization I would not be getting photos. It should be noted that no one and nothing was harmed or involved. No planes were in sight nor were there people flown over. After the incident I have reevaluated my pre-flight planning to involve a more detailed look at the process and rearrange my steps in which I take pre-flight action. With the small amount of flight time I have under my belt I am still getting used to everything I am supposed to check before flight so to correct this I have also revisited my Part 107 course for a more in depth look at how to have better systems in place to avoid this in the future.

Callback: 1

The reporter had no additional information to share.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization. Pilot exited the airspace upon recognizing the unauthorized entry.

Time / Day

Date : 202307

Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Relative Position.Distance.Nautical Miles : 7

Altitude.AGL.Single Value : 158

Environment

Flight Conditions : VMC

Weather Elements / Visibility.Visibility : 7

Light : Daylight

Ceiling : CLR

Aircraft

Reference : X

Aircraft Operator : Commercial Operator (UAS)

Make Model Name : DJI Air 2S

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 107

Mission : Photo Shoot / Video

Flight Phase : Climb

Airspace.Class C : 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

Control Mode (UAS) : Manual Control

Flying In / Near / Over (UAS) : People / Populated Areas

Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport

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) : 11.3

Experience.Flight Crew.Last 90 Days (UAS) : 5.8

Experience.Flight Crew.Type (UAS) : 12.1

ASRS Report Number.Accession Number : 2021216

Human Factors : Human-Machine Interface

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 : In-flight

Result.General : None Reported / Taken

Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Primary Problem : Ambiguous

Narrative: 1

On Day 0 at approximately XA: 29 pilot climbed 48.2 m. to capture the exterior of a water tower in Location A. Pilot applied for a LAANC approval and was approved to climb up to 100 ft. Pilot misinterpreted the LAANC approval to be measured in meters rather than feet based on the FAA Visualize it website graphic. Recommendation for improvement or prevention: it would be helpful if LAANC grids provided units adjacent to the absolute altitudes rather than in popups that have to be clicked into.

Synopsis

Part 107 UAS pilot reported misinterpreting their LAANC altitude and flew their UAS higher than allowed.