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.....21

Date of Update.....July 2, 2025

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.

B Hooey

Becky L. Hooey, Director
NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 2230585 *(1 of 50)*

Synopsis

Air carrier pilot reported being given a last minute change to runway assignment during final approach due to a UAS flying at the approach end of the runway. The approach to the new runway became unstabilized, but the pilot continued to landing.

Synopsis

Pilot reported an NMAC with a UAS during descent. No evasive action was taken.

Synopsis

Small aircraft pilot reported an airborne conflict with a UAS while in cruise flight. No evasive action was taken.

Synopsis

Government UAS pilot reported the UAS struck a parked vehicle during ascent.

Synopsis

Air carrier First Officer reported an NMAC with a UAS at 12,000 feet. No evasive action was taken.

Synopsis

Air carrier Captain reported an NMAC with a UAS during cruise flight. No evasive action was taken.

ACN: 2224762 *(7 of 50)*

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken.

Synopsis

Part 107 UAS pilot reported an airspace violation.

Synopsis

Part 107 UAS pilot reported that the UAS team inadvertently crashed the UAS into power lines during a nighttime operation. Only the UAS was damaged in the impact.

Synopsis

A Center Controller reported a military drone spilled out of Special Use Airspace and caused a conflict with a descending air carrier. Controller expressed concern that operation of drones near the Control Extension is unsafe and could result in a collision.

Synopsis

Small aircraft pilot reported an NMAC with a UAS during cruise flight. No evasive action was taken.

Synopsis

Air carrier Captain reported Approach Control alerted the crew of a UAS in the approach path. The Captain never encountered the UAS.

ACN: 2221432 *(13 of 50)*

Synopsis

Flight Instructor with student reported an NMAC with a UAS during cruise flight. The student pilot took evasive action to avoid possible collision with the UAS.

Synopsis

Government UAS pilot reported exceeding authorized altitude during a flight.

Synopsis

Air carrier First Officer reported an NMAC with a UAS during initial approach. No evasive action was taken.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during approach. No evasive action was taken.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during descent. The Captain took evasive action to avoid a possible collision with the UAS.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during approach. No evasive action was taken.

ACN: 2220285 *(19 of 50)*

Synopsis

Air carrier pilot reported an NMAC with a UAS during approach. No evasive action was taken.

Synopsis

Part 107 UAS pilot reported a flyaway that was due to an unknown aircraft issue or possible signal loss. The UAS was recovered with minor damage.

Synopsis

Part 107 UAS pilot reported a near miss with a low flying helicopter operating at a nearby medical center. Neither pilot took evasive action.

Synopsis

Government UAS crew reported flying in controlled airspace without authorization.

Synopsis

Air ambulance employee reported an NMAC between one of the company's helicopters and a supposed UAS or balloon during a flight. The helicopter crew took evasive action to avoid a collision.

Synopsis

Air carrier flight crew reported an NMAC on final approach with what was possibly a UAS or balloon. No evasive action was taken.

ACN: 2215684 *(25 of 50)*

Synopsis

Flight Instructor reported an NMAC with a UAS while in the traffic pattern. No evasive action was taken and the flight continued without further incident.

Synopsis

Air carrier Captain reported an NMAC with a UAS while on climbout. No evasive action was taken.

Synopsis

Air carrier Captain reported an airborne conflict on final approach with a UAS. No evasive action was taken.

Synopsis

Air carrier flight crew reported an NMAC on final approach with a UAS. No evasive action was taken.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization when the software did not alert the pilot that the airspace was nearby.

Synopsis

Part 107 UAS pilot reported a malfunction with the UAS that caused a rapid climb above 400 feet AGL. The pilot was able to regain control of the UAS and land safely.

ACN: 2213848 *(31 of 50)*

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken.

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken and the flight continued without further incident.

Synopsis

Recreational / Hobbyist UAS pilot reported flying their UAS without being aware of new UAS regulations that were enacted since they last flew the UAS.

Synopsis

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

Synopsis

Part 107 UAS pilot reported a brief entry into controlled airspace without authorization. The pilot immediately exited the controlled airspace.

Synopsis

Part 107 UAS pilot reported an airborne conflict with a helicopter. The UAS avoided the helicopter.

ACN: 2209465 *(37 of 50)*

Synopsis

Air carrier pilot reported an airborne conflict with a UAS during descent. No evasive action was taken.

Synopsis

Air carrier Captain reported a ground conflict while holding short of the runway due to a UAS flying around the runway. The pilot stayed in position until the UAS was out of the takeoff path.

Synopsis

A government helicopter pilot reported a near miss with a UAS in controlled airspace. The helicopter pilot took evasive action to avoid a possible collision.

Synopsis

Student pilot reported an NMAC with a UAS while climbing with no time to react.

Synopsis

Flight Instructor reported an NMAC with a UAS during final approach. Flight Instructor took evasive action to avoid a possible collision.

Synopsis

Air carrier Captain reported experiencing an airborne conflict with a UAS during descent.

ACN: 2207738 *(43 of 50)*

Synopsis

Government UAS Pilot reported the UAS battery system attempted a reboot mid-flight causing a power loss to the motors, resulting in the UAS crashing.

Synopsis

Recreational / Hobbyist UAS pilot reported flying the UAS from a moving vehicle.

Synopsis

Part 107 UAS pilot reported learning the Remote ID Broadcast Module stopped operating for an unknown amount of time during the flight.

Synopsis

Air carrier Captain reported an NMAC with a UAS while on final approach. No evasive action was taken and the flight continued without further incident.

Synopsis

Recreational / Hobbyist UAS pilot reported flying in a restricted area without authorization.

Synopsis

Part 107 UAS pilot reported during an autonomous mission, momentarily climbing above the authorized altitude restriction due to improper settings in the UAS software. The pilot took manual control of the UAS and landed it upon noticing the error.

ACN: 2204651 *(49 of 50)*

Synopsis

Part 107 UAS pilot reported an uneventful flight but was not sure if the Remote ID Broadcast Module was turned on.

Synopsis

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

Report Narratives

ACN: 2230585 *(1 of 50)*

Time / Day

Date : 202503

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B757 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
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) : Airport / Aerodrome / Heliport

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 : 2230585
Human Factors : Workload
Human Factors : Time Pressure
Human Factors : Situational Awareness

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
Anomaly.Inflight Event / Encounter : Unstabilized Approach
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

We were arriving from the east planning on a visual to Runway XXL backed up by the ILS. In my mind I was anchored to the XXL approach and not considering any other options. I was surprised by the approach controller when he asked us our approach preference, XYR LOC or XYR RNAV. We asked about XXL (as advertised on ATIS) and were told a drone was at 200 ft over the approach end of XXL and XYR was now the runway in use. I wanted the vertical guidance of the RNAV approach but didn't feel we could get setup in time. Our speed and altitude profile were configured for an extended right downwind arrival for XXL. I suddenly found myself on a high right base for XYR. I accepted the XYR localizer approach and that was my first mistake. I started to setup and brief the approach while doing my best to lose altitude and airspeed in anticipation for an inbound turn. I felt rushed but for some reason didn't ask for delay vectors. During my haste to, "make it work" I failed to note the distance from the FAF to the runway threshold. This oversight negated my stabilized approach plan and caused me to be, "behind the aircraft" for the remainder of the approach. My speed and configuration did not meet my planned approach criteria or stabilized approach criteria. It wasn't until after we completed an uneventful landing that I realized how far behind I was. We thoroughly debriefed the approach at the gate and resolved to take delay vectors or go around the next time this type of situation presents itself.

Synopsis

Air carrier pilot reported being given a last minute change to runway assignment during final approach due to a UAS flying at the approach end of the runway. The approach to the new runway became unstabilized, but the pilot continued to landing.

ACN: 2227333 *(2 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : AUN.Airport
State Reference : CA
Relative Position.Distance.Nautical Miles : 4
Altitude.MSL.Single Value : 3500

Aircraft : 1

Reference : X
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Crew Size.Number Of Crew : 1
Flight Phase : Descent
Airspace.Class E : NCT

Aircraft : 2

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

Person

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Function.Flight Crew : Pilot Flying
ASRS Report Number.Accession Number : 2227333

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

Assessments

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

Narrative: 1

I was the pilot in command descending out of 3,500' on the 45 into AUN. I saw what looked like a red ball coming at my right wing. When it passed a few hundred feet below me, I saw that it was a drone.

Synopsis

Pilot reported an NMAC with a UAS during descent. No evasive action was taken.

ACN: 2227281 *(3 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CDW.Airport
State Reference : NJ
Relative Position.Distance.Nautical Miles : 10
Altitude.MSL.Single Value : 2500

Environment

Weather Elements / Visibility.Visibility : 20
Light : Daylight
Ceiling.Single Value : 25000

Aircraft : 1

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

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
Reporter Organization : Personal
Function.Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Private
ASRS Report Number.Accession Number : 2227281

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
Miss Distance.Horizontal : 1000

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

Assessments

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

Narrative: 1

Flying at 2500' MSL northbound after departing CDW (Essex Cty), saw a medium-sized unmanned drone southbound in level flight, starting from my 1:00 and passed by. That's it - just very surprised to see a drone at that altitude - originally thought it was a large bird but as I passed by saw it was clearly colored like a drone.

Synopsis

Small aircraft pilot reported an airborne conflict with a UAS while in cruise flight. No evasive action was taken.

ACN: 2225749 *(4 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 12.70
Altitude.AGL.Single Value : 15

Environment

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

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : DJI Mavic 3
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Takeoff / Launch
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Waivers / Exemptions / Authorizations (UAS) : 91
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 : Government
Function.Flight Crew : Remote PIC (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 12.50
Experience.Flight Crew.Last 90 Days (UAS) : 1.50
Experience.Flight Crew.Type (UAS) : 4.50
ASRS Report Number.Accession Number : 2225749
Human Factors : Situational Awareness
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Object
Detector.Person : UAS Crew
When Detected : In-flight
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

Pilot started up propellers of the UAS, began to ascend into the air, a gust of wind moved the aircraft toward a parked car, aircraft struck the car causing only damage to the propellers. It is determined the aircraft did not have GPS lock, due to quick startup and being adjacent to a large concrete structure. No GPS Signal and Wind / Environment

Synopsis

Government UAS pilot reported the UAS struck a parked vehicle during ascent.

ACN: 2224780 *(5 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Navaid : IGN.VOR
State Reference : NY
Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger

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
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
Experience.Flight Crew.Last 90 Days : 166.12
Experience.Flight Crew.Type : 1086.08
ASRS Report Number.Accession Number : 2224780

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.Vertical : 200

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

Assessments

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

Narrative: 1

We were at 12,000 ft., slowed down to 250 knots. Conditions were into the sun, scattered clouds above us. I was pilot flying. This occurred between Nelie Intersection and IGN VOR. We were flying along, at the corner of my eye I saw what appeared to be a large black object approx. at my 1-2 o'clock position. Something like a large black bird you generally see at low attitudes sometimes. I go "hey look! What is that! That's a drone!!" We all quickly glance over and see this triangular object, with a distinct reflection probably from the sun angle. And it appeared to be large as we go by it. It was slightly below altitude, I would consider this a close miss. Within a couple hundred feet. No lights on the object. I turn around and look at the crew and I'm like "you guys saw that correct?" All 3 of us did. Now what's interesting is that particular area is a low populated area. No military bases close by.

Synopsis

Air carrier First Officer reported an NMAC with a UAS at 12,000 feet. No evasive action was taken.

ACN: 2224768 *(6 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BDL.Airport
State Reference : CT
Altitude.MSL.Single Value : 12000

Environment

Flight Conditions : VMC

Aircraft : 1

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

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 : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 217.48
Experience.Flight Crew.Type : 4604.05
ASRS Report Number.Accession Number : 2224768

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

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

Assessments

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

Narrative: 1

While at cruise we passed a drone at very close range. It was just off and slightly below our right wing. Its size was approximately 2ft x 2ft, square shaped.

Synopsis

Air carrier Captain reported an NMAC with a UAS during cruise flight. No evasive action was taken.

ACN: 2224762 *(7 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LAX.Airport
State Reference : CA
Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : ILS 25L
Flight Phase : Final Approach
Airspace.Class B : LAX

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : LAX
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.Last 90 Days : 124.77
Experience.Flight Crew.Type : 1293.08
ASRS Report Number.Accession Number : 2224762

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 : 20
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While descending through approximately 4000 feet on the ILS 25L LAX an unmanned drone (approximate size about 2-3 feet) passed just left of the Captain’s windshield approximately 20 feet above aircraft's altitude. We were slowing through 210 Kts and the drone was flying eastbound at a pretty quick speed. We only caught sight of it as it was close to the aircraft and it was gone before we could really get a good view of it. There was no time to maneuver to avoid it if needed and if it had had collided with our windshield it wouldn't have been pretty.

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken.

ACN: 2224634 *(8 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CWF.Airport
State Reference : LA
Relative Position.Distance.Nautical Miles : 1.13
Altitude.AGL.Single Value : 100

Environment

Weather Elements / Visibility.Visibility : 2
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)
Operating Under FAR Part : Part 107
Mission : Utility / Infrastructure
Flight Phase : Cruise
Airspace.Class D : CWF
Operating Under Waivers / Exemptions / Authorizations (UAS) : N
Airworthiness Certification (UAS) : Standard
Weight Category (UAS) : Small
Configuration (UAS) : Multi-Rotor
Flight Operated As (UAS) : VLOS
Flight Operated with Visual Observer (UAS) : Y
Control Mode (UAS) : Manual Control
Flying In / Near / Over (UAS) : Critical Infrastructure
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
Number of UAS Being Controlled (UAS).Number of UAS : 0

Person

Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Other / Unknown
Qualification.Flight Crew : Remote Pilot (UAS)
ASRS Report Number.Accession Number : 2224634

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
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Airspace Incursion / Excursion

Synopsis

Part 107 UAS pilot reported an airspace violation.

ACN: 2223564 *(9 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 9
Altitude.AGL.Single Value : 15

Environment

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

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : DJI M30T
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 107
Mission : Public Safety / Pursuit (UAS)
Flight Phase : Takeoff / Launch
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) : Open Space / Field
Flying In / Near / Over (UAS) : Emergency Services
Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Reporter Organization : Government
Function.Flight Crew : Other / Unknown
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 58
Experience.Flight Crew.Last 90 Days (UAS) : 9
Experience.Flight Crew.Type (UAS) : 31
ASRS Report Number.Accession Number : 2223564
Analyst Callback : Completed

Events

Anomaly.Inflight Event / Encounter : Object
Detector.Person : Flight Crew
When Detected : In-flight
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

One of our Deputy Pilots was assisting another agency with the tracking of a suspect who ran into a wooded area. The area was a dark, mountainous area, with tall trees. The Deputy observed power poles in the area and tracked what he believed to be the only power lines in the launch area. The Deputy began his launch and began to ascend. The UAS was about 15 feet off the ground when it struck a power line. The power line arced and sparked. The UAS fell to the ground and was completely destroyed. There were no injuries or damage to other property other than the drone. The Deputy had a visual observer working in coordination, but the power line was not visible until after a flashlight was pointed toward the area post collision. All UAS operator flight experience is based on the deputies experience and hours of operation and not the reporter's. The reporter was not at the scene of the incident and is only recording the incident.

Callback: 1

Reporter stated they were not involved in the event and that there was no damage to any property other than the UAS.

Synopsis

Part 107 UAS pilot reported that the UAS team inadvertently crashed the UAS into power lines during a nighttime operation. Only the UAS was damaged in the impact.

ACN: 2223224 *(10 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZLA.ARTCC
State Reference : CA
Altitude.MSL.Single Value : 18000

Aircraft : 1

Reference : X
ATC / Advisory.Center : ZLA
Aircraft Operator : Air Carrier
Make Model Name : Large Transport
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Cargo / Freight / Delivery
Flight Phase : Descent
Route In Use : Oceanic
Airspace.Class A : ZLA

Aircraft : 2

Reference : Y
Aircraft Operator : Military
Make Model Name : UAV: Unpiloted Aerial Vehicle
Flight Plan : IFR
Mission : Training
Flight Phase : Cruise
Airspace.Class A : ZLA

Person

Location Of Person.Facility : ZLA.ARTCC
Reporter Organization : Government
Function.Air Traffic Control : Enroute
Qualification.Air Traffic Control : Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 8
ASRS Report Number.Accession Number : 2223224
Human Factors : Communication Breakdown
UAS Communication Breakdown.Party1 : Other
UAS Communication Breakdown.Party2 : ATC

Events

Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was working ZLA Sector XX/XY combined. The Military had taken the Ocean to a configuration that leaves us with one control extension to work all planes into and out of Southern California to/from the Pacific Ocean. South of this only control extension is W291, controlled by Fleet Area Control and Surveillance Facility (FACSFAC) San Diego. FACSFAC was working a Drone right on the border of their airspace and Sector XY, and never called me with any kind of Point Out, Coordination, or Whisky Alert. The Drone indicated FL186. Aircraft X was descending out of FL190 to cross GOATZ at 160, when it started flashing conflict alert with this Drone that was now violating my airspace, in direct conflict with Aircraft X. I keyed up to give Aircraft X a traffic alert. This control extension is so narrow that vectoring Aircraft X is not possible without violating Warning airspace on either side. Taking ZLA down to 1 Control Extension, where all traffic into and out of SoCal from the Pacific Ocean is Climb and Dive in a narrow extension that we cannot vector in is already unsafe. Allowing the military to run drones right on the border of this airspace, when they have thousands of miles of open airspace, is ludicrous. There will be a collision one day between a passenger jet and a Navy Operation if this does not change, and the quality of "controller" at FACSFAC allowed to work by themselves does not improve. FACSFAC needs to be held to a much higher standard, and make pointouts on aircraft that are going to enter my airspace. Luck is the only reason that Aircraft X did not crash into this drone.

Synopsis

A Center Controller reported a military drone spilled out of Special Use Airspace and caused a conflict with a descending air carrier. Controller expressed concern that operation of drones near the Control Extension is unsafe and could result in a collision.

ACN: 2223207 *(11 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1801-2400

Place

State Reference : NJ
Altitude.MSL.Single Value : 3000

Environment

Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Personal
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Personal
Flight Phase : Cruise

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 : Personal
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 364.9
Experience.Flight Crew.Last 90 Days : 64.4
Experience.Flight Crew.Type : 31.4
ASRS Report Number.Accession Number : 2223207

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 : 100
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While in cruise, a drone passed about 100 feet beneath the aircraft. No evasive action was required to avoid the drone. The drone was a little smaller than the aircraft (small aircraft). The drone was triangle shaped and silver/ white in color. There were no visible lights on it. The drone was heading opposite the flight path. This was reported to ZZZ Approach. Flight visibility was unrestricted with clear skies. Negative turbulence.

Synopsis

Small aircraft pilot reported an NMAC with a UAS during cruise flight. No evasive action was taken.

ACN: 2222454 *(12 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : DEN.Airport
State Reference : CO
Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : D01
Aircraft Operator : Air Carrier
Make Model Name : Widebody, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : ILS 35R
Flight Phase : Initial Approach
Airspace.Class B : DEN

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : DEN
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 Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 6361.35
Experience.Flight Crew.Last 90 Days : 141.48
Experience.Flight Crew.Type : 607.92
ASRS Report Number.Accession Number : 2222454

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.Automation : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

On downwind to Runway 35R, Approach reported UAV activity at 9000' 10 mile south of runway. We were descending on downwind to 8000' to intercept localizer but never saw UAV. Uneventful landing on 35R.

Synopsis

Air carrier Captain reported Approach Control alerted the crew of a UAS in the approach path. The Captain never encountered the UAS.

ACN: 2221432 *(13 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CXO.Airport
State Reference : TX
Relative Position.Angle.Radial : 296
Relative Position.Distance.Nautical Miles : 4.2
Altitude.MSL.Single Value : 1200

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : FBO
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : None
Mission : Training
Flight Phase : Cruise
Route In Use : Visual Approach
Airspace.Class D : CXO

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Airspace.Class D : CXO
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 : FBO
Function.Flight Crew : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 510
Experience.Flight Crew.Last 90 Days : 50
Experience.Flight Crew.Type : 480

ASRS Report Number.Accession Number : 2221432
Human Factors : Time Pressure

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 : 20
Miss Distance.Vertical : 5
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Shortly after entering the CXO airport's class D airspace, flying southbound directly over the highway I-45 on the left edge of the airspace, while my student had the controls of the airplane, I noticed a dark object through the windshield slightly to the left and seemingly level with our flight path. It initially looked like a bird and we assumed it would fly out of the way. As we continued forward shortly after, we noticed that it was a dark black drone with white markings on the top and four propellers. I called it out and my student turned slightly to the right to avoid contact with drone. We were flying at 1200ft MSL inside class D airspace and came extremely close to colliding with said drone, however with slight evasive action were able to avoid collision. The drone came within 15-20ft of our wing strut, at level altitude with our plane.

Synopsis

Flight Instructor with student reported an NMAC with a UAS during cruise flight. The student pilot took evasive action to avoid possible collision with the UAS.

ACN: 2220885 *(14 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 0601-1200

Place

Altitude.AGL.Single Value : 704

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 15
Light : Daylight
Ceiling : CLR

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : DJI M30T
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Training
Flight Phase : Climb
Operating Under Waivers / Exemptions / Authorizations (UAS) : N
Weight Category (UAS) : Small
Configuration (UAS) : Multi-Rotor
Flight Operated As (UAS) : VLOS
Flight Operated with Visual Observer (UAS) : N
Control Mode (UAS) : Manual Control
Flying In / Near / Over (UAS) : Private Property
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)
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 0
Experience.Flight Crew.Total (UAS) : 5
Experience.Flight Crew.Last 90 Days (UAS) : 2
Experience.Flight Crew.Type (UAS) : 2
ASRS Report Number.Accession Number : 2220885
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 : Chart Or Publication
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

Flying a training mission. New to 107 and flying this UAS. Misunderstood previous instruction from another pilot and flew too high while attempting to take pictures of objective. Spoke with other pilot who corrected misconception and educated on limits.

Synopsis

Government UAS pilot reported exceeding authorized altitude during a flight.

ACN: 2220725 *(15 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Airspace.Class B : ZZZ

Aircraft : 2

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

Person

Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Type : 219
ASRS Report Number.Accession Number : 2220725

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.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

During operation of Aircraft X ZZZ1-ZZZ on Day 0 we encountered a drone in close proximity to an assigned altitude while being vectored by ATC ZZZ Approach. I was Pilot Flying, once we reached the assigned 4000MSL the Captain spotted the drone on his side of the aircraft and immediately communicated it to me and then reported it to ATC. The Captain reported being within 50ft of the drone. ATC amended assigned altitudes for traffic following us, advising other aircraft of the conflict. Due to the location in relation to me I did not have a visual on the drone. We continued with ZZZ Approach for vectors to final and safely proceeded to land at ZZZ. Cause: Unplanned or unauthorized drone activity at altitudes and in proximity to aircraft being vectored to the approach course at ZZZ. Suggestions: Continuous scanning which the Captain used to detect the object. Also communication which again the Captain used to make me aware of the drone as well as ATC.

Synopsis

Air carrier First Officer reported an NMAC with a UAS during initial approach. No evasive action was taken.

ACN: 2220575 *(16 of 50)*

Time / Day

Date : 202503

Place

Locale Reference.Airport : IAH.Airport
State Reference : TX
Altitude.MSL.Single Value : 1700

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class B : IAH

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : IAH
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 75.08
Experience.Flight Crew.Type : 772.53
ASRS Report Number.Accession Number : 2220575

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 : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 168.53
Experience.Flight Crew.Type : 988.27
ASRS Report Number.Accession Number : 2220600

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.Vertical : 50
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On approach into IAH-established on the visual approach Rwy 27, we noticed a drone with a red light right above the flight deck. The drone was rising above us as we were descending and as no further conflict existed after the encounter, an uneventful approach and landing followed. The position was approx 6-7 miles out around 1700ft. ATC was promptly notified to help following aircraft. Report filed, Chief Pilot and dispatcher verbally debriefed.

Narrative: 2

At approximately 7 mile final at 1700' on a visual approach to Rwy 27 at IAH I witnessed what appeared to be a drone pass just overhead down the left side of the aircraft within approximately 50 to 100 feet. It was spotted too late to attempt any maneuver to avoid. It was night, type and size unknown but it had a red flashing light. It was appropriately reported via captain report and a call to dispatch and Chief Pilot.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during approach. No evasive action was taken.

ACN: 2220564 *(17 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Descent
Route In Use.STAR : ZZZZZ
Airspace.Class B : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : ZZZ
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 152.98
Experience.Flight Crew.Type : 742.77
ASRS Report Number.Accession Number : 2220564

Person : 2

Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer

Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 115.28
Experience.Flight Crew.Type : 115.28
ASRS Report Number.Accession Number : 2220573

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

Assessments

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

Narrative: 1

During descent, on vectors on the ZZZZZ arrival, we were issued a clearance to descend from 6000 to 5000 feet. We saw what appeared to be a fairly large drone at our 11:30 position and closing rapidly towards the aircraft. I disconnected the auto pilot, made a bank turn to the right and ducked my head under the glareshield because I thought the object was going to hit the aircraft. I estimate that the aircraft missed the drone by approximately 5 to 10 feet off the left side of the aircraft. We leveled out at 5000 feet; the auto pilot was then reengaged. The drone appeared to be approximately 3 feet wide, had red and green lights. The drone appeared in the shape of an "X" and appeared to have rotors. We then proceeded on vectors and landed at ZZZ airport with no further action. After the parking checklist was completed, I notified the Chief Pilot of the incident and made an Electronic Log Book (ELB) entry to have maintenance perform a walk around inspection with me to ensure that the drone had not hit the aircraft. No damage was observed after the walk around with airline maintenance personnel.

Narrative: 2

A near miss with a small size drone.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during descent. The Captain took evasive action to avoid a possible collision with the UAS.

ACN: 2220332 *(18 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 3300

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
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 : Final Approach
Airspace.Class B : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : ZZZ
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : First Officer
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2220332

Person : 2

Location Of Person.Aircraft : X
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 : 2220745

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 : 20
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

On approach to RXXC in ZZZ, approach control advised there was unauthorized drone use in the area. We were trying to ascertain how long ago the report was made when I observed a drone pass just left of the aircraft, approximately 20 feet from our left wing. We reported this immediately to ATC, including our altitude of 3,300 FT MSL. We were established on the ILS to XXC. After landing ATC had us make a phone call to tower. The drone appeared to be a relatively large quadcopter, gray or silver, and 4-5 feet in diameter. The incident happened too quickly to take any evasive maneuvers.

Narrative: 2

Encounter with a Drone on Final approach Near miss with a drone on final. I was the PF and my FO saw and voiced the drone when observed. I looked up for my instruments and saw the drone out my front left window at eye level. I saw it pass by off the left approaching the wing. We did not hear any noise or felt any collision. I did not take evasive measures as the aircraft was still on autopilot. We were between 3300 and 3500 MSL. We did hear and were told about drone activity closer to the runway. After landing we called the tower as requested to give further information. The only details of the drone we could give was it was larger than a typical personal drone. It looked grayish in color but not sure due to the sun and reflection. The FO said it looked home built and size was 3 to 5 feet and looked to be a quad. The FO inspected the aircraft and did not observe any damage.

Synopsis

Air carrier flight crew reported an NMAC with a UAS during approach. No evasive action was taken.

ACN: 2220285 *(19 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : PHX.Airport
State Reference : AZ
Altitude.MSL.Single Value : 6000

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Initial Approach
Flight Phase : Descent
Route In Use.STAR : BRUSR 1
Airspace.Class B : PHX

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : PHX
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 : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2220285

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.Vertical : 5

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

Assessments

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

Narrative: 1

On descent into PHX on the BRUSR 1 Rnav arrival at approximately PGSKN intersection at 6000 msl. It look like a blackish colored drone approximately 1 foot squared flew approximately 5 to 7 feet above the front flight deck windows. Appeared to be traveling in a south to north directions. No further incident. Glad we did not hit the drone.

Synopsis

Air carrier pilot reported an NMAC with a UAS during approach. No evasive action was taken.

ACN: 2218118 *(20 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 35
Altitude.AGL.Single Value : 150

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 M30T
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Public Safety / Pursuit (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) : Manual Control
Flying In / Near / Over (UAS).Other
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : UAS Component Unknown / Undifferentiated
Manufacturer : DJI
Aircraft Reference : X
Problem : Malfunctioning

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) : 450

Experience.Flight Crew.Last 90 Days (UAS) : 125
Experience.Flight Crew.Type (UAS) : 75
ASRS Report Number.Accession Number : 2218118
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Human-Machine Interface
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Anomaly.Inflight Event / Encounter : Fly Away (UAS)
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 : Software and Automation
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

DJI M30T Flight Log and Crash DRAFT Day 0 (XA00 - XC00), Person A written Day 1 My Home Point for this training mission was the west side of the horse trailer parking lot at Location A. There was only one other car in the parking lot all morning. The weather was very good. Clear blue skies, 42 degrees, and just a small amount of wind around 5-10mph. My plan was to look for subjects in a forested area to determine the best height and sun angle for RGB visual detection. My subject was about 100 yards away from the home point up and over a small hill and in some trees. I checked my drone for proper arm extension and lock and propeller condition. All was good. I checked the controller preflight screen for height and distance and changed the height in case I needed to fly higher than 400' AGL to go up a mountain. I set it for 600. I glanced at the low battery and signal loss behaviors and did not notice my signal loss was set to hover. I knew, having been up here last time, that there was RC signal loss behind some of the close-by hills but I made a mental note to keep an eye on the RC signal and just fly higher if it became a problem - as I did last time It was nice enough to not have to be inside the vehicle at all so I got my chair out and sat in the shade of the vehicle so I could see the screen clearly and brightly. After getting the coordinates of my lost subject and dropping a pin on the controller, I launched the drone to my first search altitude which was 150' AGL. I documented last time that this was sufficient height to clear the nearest hill and trees and maintain visual line of sight. I was going to flew to the pin using the wide camera. I was able to see the subject almost immediately upon leaving the parking lot. He was under a tree but had on a brightly-colored jacket and was not shaded by the trees. He was a little off from where the pin was - about 20 feet - so I created a second pin for his actual location. I settled on a distance away from the subject to make my circles. I switched to the zoom (zoomed out) to see the subject clearly but also to be able to see some of the surrounding area, I guessed the circle had a radius of about 100'. I flew around the subject manually one time and determined that except for when he was blocked by trees, he was very visible from all angles. It was actually better when the drone was NOT directly between him and the sun

because the sun made the brightly-colored jacket very bright and almost washed out. I was able to mostly correct this however by decreasing the exposure to make everything darker but it was interesting to observe that with the camera in auto he was too bright. I then tried the Point of Interest (POI) feature and flew around the subject a couple of times to see how this worked and it worked very nicely. I was manually adjusting the speed of the circle by using the side movement stick. I noted that the actual POI center point was NOT where the pin was unless the pin and the center of the camera were the exact same spot when I activated the POI. At least this is what I thought based on my observations of the drone behavior when I initiated the POI. I flew both clockwise and counterclockwise a couple of times to get a feel for everything and making observation of the surrounding area and what I was seeing. I was not paying attention to the RC signal after the first five minutes or so because it never dropped below full bars. The subject switched to camo clothing as I brought the drone home to change batteries. Everything was going very smoothly up to this point. I hot swapped the batteries and flew back to the coords to begin searching. Again I set my altitude to be 150' AGL from the home point. I could not see the subject at all this time with wide, zoom or thermal. I flew to within about 100' of the pin and circled while I tried different camera settings to no avail. The subject began moving to different spots and I was finally able to pick him out. I had to zoom in a couple of steps to consistently see him well - maybe 5X. I had to add a new pin because the subject has relocated to a different set of trees. I had trouble adding a new pin for an undetermined reason. I also was not able to figure out how to make the POI start at his exact location - it kept wanting to fly around a point that was about 10 feet to the left of where he was standing. I gave up so that I could focus on determining the best angle. I made at least one circle and I'm pretty sure that the center point of the POI was not holding steady. I was only able to determine that at any angle where the subject was not blocked by tress we equally effective at being able to see him. As I was trying to confirm this by continuing to circle using the right stick pushed full left the drone took off and I lost RC. It is very possible that I was changing positions slightly of where I stood but I guess the radio signal was getting blocked by the small hill to the south of where I was standing. Panic set in. The subject confirmed that the drone had moved rapidly to the south and was quickly out of his sight as well. I tried everything I could think of to get RC back but I was never able to re-acquire. I finally checked my setting for RC loss and found it set to Hover. Based on the fact that the drone was one-half to three quarters of a mile from home I don't feel it went into hove mode very quickly but this is just a guess because I was not paying attention to the RC strength and when I actually completely lost the RC signal. Better one half mile that one or two miles AND it looked like - or I was strongly praying - that the controller had the final location of the drone. In my panic and confused state and not able to think clearly I put my faith in the controller and began walking toward the drones last plotted location that it was able to communicate to the controller which - without RC - I felt could be a fair bit off of actual. I had enough sense to lock my vehicle and get the important things inside before taking off. The subject had radioed that he would be leaving his position to walk in the direction he saw the drone last heading. I caught up to him and continued to follow the controller screen. It look bad as we were heading right for a much higher hill in the distance. I was convinced the drone had crashed into the rocky peak. As we got closer it looked like the drone had flown around the peak and was on the other side. We tried to hike up and over the peak but it got steep so we worked our way around the east side to a saddle and the map said I was close and the drone was a little more south and west. I got to where the controller and drone were on top of each other and took a break. During the break looked up and saw the drone directly in front of me about 10' away and partially buried in a patch of crusty hard snow in an 20' diameter area clear of trees. I realized at this moment that I did not bring my phone and could not take any pictures. CRAP! The left rear propeller was completely buried in snow down to the ground but all the other quadrants look pretty good and especially the camera. The camera was

up high on the snow and appeared untouched which it still looks pristine! I carefully lifted the drone out of the snow and set it on a clear spot while I considered what to do next. Also did more damage inspection. The right front propeller had the only other damage of having just the tip broken off. The left rear major damage was one propeller broke off (and recovered from the snow bank) and the other prop on this motor had a very small piece broken off near the tip but otherwise was attached to the motor. I did not have a camera or my phone so I was not able to take any pictures of the crash in situ. I am going to guess that the drone flew to this spot and began it's hover. When the batteries got low it tried to land. It got to it's landing height and didn't land because the bottom vision sensor did not know how to interpret the snow and it just continued to fly until the battery reached critical low and it did a force landing in the snow and for some reason it was not a very controlled landing. The ground and snow were not perfectly level but my opinion is that it should have been able to land gently while also level and not made this significant of an impact. It landed ass first and both batteries were ejected but still inside the drone - one almost fully inside and the other half slid out. This was battery pair set 2. Upon testing it has one solid light and one flashing light. I would have expected only one flashing light. For comparison, battery set 1 which was the first used also has the same battery light flashes. I powered up the drone this morning and all systems checked out. I ran the cameras through their paces and they all worked fine. I will be initiating a repair ticket today. After checking the flight log for the crash flight it turns out that after I launched and flew to the subject, and hovered trying to pin his location and having trouble with the pin, the drone made about a half of a rotation in the manual POI mode before flying off into a much larger loop and losing RC so... I am not sure if the loss of RC was the root cause (probably) or the fact that I didn't set the POI correctly due to the pinning issue or some other function for setting POI's. I did not have a sterile cockpit due to having radio comms with lost subject. There ended up being non-essential comms when the flyaway initiated. HP elevation 8090MSL Crash elevation 8200MSL per Google Earth - does not include forest height. Just shipped M30T off for repairs. Day 0 @XD45hrs There were several things I didn't do once I realized I lost comms with the drone, and that it was set to hover for lost RC rather than RTH. I could see that I may have the crash or hover location. I considered that, when the batteries got low, the drone may initiate RTH and come home and I also may re-acquire the RC. I waited around the area for a while (5 - 10 minutes) and maybe even long enough that I knew the batteries must have gotten to the low point and if it was coming home, I should have seen it by now. At some point I decided the drone was most likely not coming back so I started off in the direction I saw on the RC. I did not take food, water, phone, or GPS, but I did have the RC in a harness on my chest. Many scenarios were playing out in my mind as we got closer to the Last Known Position (LKP). All I cared about was not losing a good drone. I was hopeful that there would not be extensive damage and that maybe it was able to initiate a controlled landing near the LKP before losing power. I just finished recovering the corrupted video of the drone's last flight and it clearly shows the drone flying away and ultimately flying into trees. It never went into hover mode after I lost control. I didn't feel the damage supported a high speed crash into trees but it is clear to me from the video that this is what happened. It also explains why the batteries were not more depleted. It should have stopped and hovered at about a minute before crashing because it should have detected the loss of RC but did not. I will be looking at the flight log more closely... Day 3 Having thought about this and having slept on it I am now entertaining the possibility that this was at least partially a flyaway situation and a failure of the drone to detect loss of RC and initiate the hover. I am trying to find a way to convert the downloaded flight log file from the drone into readable data. When you download about 8 months worth of flight logs (because you have never done this before) you get a .DAT file that is 3.5 Gigs in size. There is software that will convert .DAT files but nothing for files over a gig in size. What I would specifically be looking for is the timing around the loss of RC - if it was detected - and the crash. I looked at the data

from the controller that showed the GPS breadcrumb of the flight path but got distracted and never went back to the drone or the controller before I packaged and shipped.

Synopsis

Part 107 UAS pilot reported a flyaway that was due to an unknown aircraft issue or possible signal loss. The UAS was recovered with minor damage.

ACN: 2218117 *(21 of 50)*

Time / Day

Date : 202503
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 4.45
Altitude.AGL.Single Value : 188

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : DJI M30T
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : 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) : Private Property
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Aircraft : 2

Reference : Y
Make Model Name : Helicopter
Flight Phase : Cruise

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 : Instrument
Qualification.Flight Crew : Remote Pilot (UAS)
Qualification.Flight Crew : Commercial

Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Total : 2875
Experience.Flight Crew.Total (UAS) : 405
Experience.Flight Crew.Last 90 Days (UAS) : 3.6
Experience.Flight Crew.Type (UAS) : 5.98
ASRS Report Number.Accession Number : 2218117
Human Factors : Time Pressure
Human Factors : Situational Awareness
Analyst Callback : Attempted

Events

Anomaly.Conflict : NMAC
Detector.Person : UAS Crew
Miss Distance.Horizontal : 200
Miss Distance.Vertical : 100
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

On Day 0, I conducted two autonomous flights to capture imagery of a hotel located in Class G airspace. Two flights were planned, the first approximately 2 hours before sunset (XA:33 Hours), utilizing a DJI Mavic 3 Enterprise. An autonomous flight plan was created, capturing RGB images along parallel flight lines oriented 258/78 degrees with a 90% overlap directly over the hotel property at approximately 165' AGL altitude. Upon completion of the autonomous portion of the flight, oblique images were captured by manual flight around the property's perimeter. The UAS captured images with the camera angled at 45 degrees and oriented towards the building throughout the flight while manually flying around the entire perimeter at 5-7 MPH. Upon completing the perimeter flight/oblique image capture, the UAS pilot decided to execute a second autonomous flight, adjusting the UAS speed to 9 MPH vs 15 MPH of the first autonomous flight. All three of these flights (autonomous flights 1 & 2, plus 1 perimeter oblique flight) were conducted without incident and concluded approximately 1.5 hours before sunset. The second half of the mission was flown with a DJI M30T, a UAS with a thermal sensor to capture IR images of the hotel's roof. This flight could not begin until 30 minutes after sunset (XB:03). While waiting for the flight window to open, I heard a helicopter close by and noticed it approximately 1/4 SM East, likely landing at the medical center approaching from the south. Coincidentally, I took a photo of the helicopter at XA:48, just before it disappeared behind the buildings. As soon as the thermal window opened, the M30T was launched and commenced its autonomous flight. The UAS was operating at 188' AGL, and the flight was expected to be completed in 7 minutes. The flight path maintained the orientation of 78/258 degrees and a 90% overlap. About midway through the flight, the helicopter was heard, but it did not sound like it was taking off, or if it was, it was hovering for a period of time. The helicopter suddenly appeared; the drone was on a 78-degree leg and directly over the hotel. The helicopter was on a westerly flight path at a very low altitude and high rate of speed. I noticed dual landing lights on the helicopter's nose were illuminated, which assisted in assessing the altitude and direction of flight. The instant I determined the

helicopter's flight direction could conflict with my UAS operation, I anticipated terminating the flight and taking evasive action. The UAS anti-collision beacons (strobes, upper and lower) had been activated before launch, and the helicopter pilot likely saw them. While they did not appear to take evasive action, the helicopter passed just south of our operation, parallel to the UAS's autonomous flight path. The altitude at which the helicopter pilot departed the area was too low. As a manned pilot with several hours of helicopter flight instruction, I understand helicopters operate at much lower altitudes than fixed-wing aircraft. Remember that the UAS was operating at 188' AGL - but only 90-95' above the hotel's roof. As a pilot since 19XX, with ASEL/AMEL ratings, and a CFII for 30+ years, this is the first time I've filed a report, and the first time in nearly 3,000 hours of flight time it felt necessary, not because this is sometimes viewed as a way to cover yourself. I'm not concerned about the compliance of the UAS flight - but more concerned that the helicopter flight could have put themselves or someone on the ground in danger if their flight path had been a few degrees to the right.

Synopsis

Part 107 UAS pilot reported a near miss with a low flying helicopter operating at a nearby medical center. Neither pilot took evasive action.

ACN: 2217701 *(22 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 231

Environment

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

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : Small UAS (At or above 0.55 lbs and less than 55 lbs)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Search & Rescue
Flight Phase : Takeoff / Launch
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) : Y
Control Mode (UAS) : Manual Control
Flying In / Near / Over (UAS) : Critical Infrastructure
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)
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 7.04
Experience.Flight Crew.Total (UAS) : 11.25
ASRS Report Number.Accession Number : 2217701
Human Factors : Time Pressure
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 : Procedure
Primary Problem : Ambiguous

Narrative: 1

On Day 0, I responded to the scene to attempt to locate endangered missing child. This location is X.X nautical miles south of ZZZ airport. The child was in an area where heavy vehicle traffic was present and a major road was nearby. Due to the exigent circumstance I responded to the scene lights/sirens to conduct a search and resecure mission with a drone to locate the child. After the child was found, the conclusion of the mission, I discovered no contact was made to FAA for approval in the airspace.

Synopsis

Government UAS crew reported flying in controlled airspace without authorization.

ACN: 2216450 *(23 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 10
Altitude.AGL.Single Value : 1200

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : Air Taxi
Make Model Name : Helicopter
Crew Size.Number Of Crew : 3
Operating Under FAR Part : Part 135
Mission : Ambulance
Flight Phase : Cruise

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

Reporter Organization : Air Taxi
Function.Other
ASRS Report Number.Accession Number : 2216450
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 : 5
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I represent a part 135 Air Ambulance Operator. On Day 0 @ approx XA30 hours one of our helicopters was involved in a near miss with an Unidentified Flying Object, believed to be a drone, at approx 7200'MSL, or 1200' AGL over the nearby region (10 miles SE of ZZZ). The Pilot and Medical Crew were flying under Night Vision Goggles (NVGs) on departure from the ZZZ area, returning to ZZZ1. One of the crew saw an object directly in front of the windscreen and called to the pilot to take evasive action. The pilot banked hard to the left, and another crewmember witnessed the object pass to the right of the fuselage and just below the main rotor disc. It was estimated that the object was less than 10' from the aircraft. The crew believed the object to be a drone, but was unable to positively identify it due to the night time conditions.

Callback: 1

The reporter stated it is uncertain whether the object was a drone or balloon. Reporter also stated this is the first time an NMAC with an unknown object has happened to any of the company helicopter crews but they have had drone sightings previously.

Synopsis

Air ambulance employee reported an NMAC between one of the company's helicopters and a supposed UAS or balloon during a flight. The helicopter crew took evasive action to avoid a collision.

ACN: 2216156 *(24 of 50)*

Time / Day

Date : 202502

Place

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

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : B737 Undifferentiated or Other Model
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Airspace.Class B : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : ZZZ
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : Check Pilot
Function.Flight Crew : Pilot Not Flying
Function.Flight Crew : Captain
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total : 3341.90
Experience.Flight Crew.Last 90 Days : 192.22
Experience.Flight Crew.Type : 2401.98
ASRS Report Number.Accession Number : 2216156

Person : 2

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.Last 90 Days : 18.28
Experience.Flight Crew.Type : 621.85
ASRS Report Number.Accession Number : 2216172

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 : 200
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I reported to tower that some balloons or possible drone just flew right over us at about 1200'. It was quick, but if I remember correctly, it was 2 or 3 balloons and attached to the bottom was a black square looking box. When the sun reflected off of it, it had a tint of blue. They asked for a description, but we were coming up to 500' and told them I will tell them on the ground. However, tower notified the Commercial Aircraft I believe who was behind us. They reported seeing these Mylar ballon's at 1200' on the extended runway centerline. Since they gave the description, I did not bother to relay the information.

Narrative: 2

On approach to RWY XXR. (ZZZ visual), crew noticed what appeared to be balloons or drone on final approach. It was not in the flight path of the aircraft but PM notified tower. Altitude was around 1000-1500', roughly 2-3 miles from approach end of RWY. (Drone was above aircraft altitude and south). Landed uneventfully. Subsequent aircraft also were visual with traffic.

Synopsis

Air carrier flight crew reported an NMAC on final approach with what was possibly a UAS or balloon. No evasive action was taken.

ACN: 2215684 *(25 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : CHD.Airport
State Reference : AZ
Relative Position.Angle.Radial : 320
Relative Position.Distance.Nautical Miles : 0.5
Altitude.MSL.Single Value : 2300

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : FBO
Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Mission : Training
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class D : CHD

Aircraft : 2

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

Person

Location Of Person.Aircraft : X
Reporter Organization : FBO
Function.Flight Crew : Instructor
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Experience.Flight Crew.Total : 962
Experience.Flight Crew.Last 90 Days : 57
Experience.Flight Crew.Type : 443
ASRS Report Number.Accession Number : 2215684

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 : 25
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

Small aircraft training flight in CHD right pattern for 22R. Midfield in the downwind a drone was spotted at 2300 feet pattern altitude on the right side of the aircraft. Was a mid sized drone with a green light and was not showing up on ADSB. No evasive maneuvers were needed to avoid and was not seen after incident. No damage to aircraft and landing was made no issues.

Synopsis

Flight Instructor reported an NMAC with a UAS while in the traffic pattern. No evasive action was taken and the flight continued without further incident.

ACN: 2215494 *(26 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Intersection : FIRMN
State Reference : TX
Relative Position.Distance.Nautical Miles : 13
Altitude.MSL.Single Value : 15500

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : D10
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Climb
Route In Use.SID : HRPER3
Airspace.Class E : D10

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class E : D10
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 : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2215494

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.Vertical : 100

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

Assessments

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

Narrative: 1

Climbing through 15,500 feet on the HRPER3 departure off 18L Just as I looked up from my instruments and out the window I saw what appeared to be a drone pass about 100 feet above the cockpit. It happened very fast and the only features I was able to identify was that it was longer than it was wide, the color was white, and I saw something black which may have been rotors. It appeared to be not a small hobby drone and it looked maybe 3 to 4 feet long. The First Officer did not see the drone. This event probably lasted about a second. Considering the altitude I believe the sighting took place about 13nm past FIRMN waypoint. I understand this may not be a very detailed report and my description may lack some accuracy, however, I may not be the only pilot to report a drone in that area or there may be others in the future. At least this generates a history.

Synopsis

Air carrier Captain reported an NMAC with a UAS while on climbout. No evasive action was taken.

ACN: 2215463 *(27 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : PDX.Airport
State Reference : OR
Altitude.AGL.Single Value : 600

Aircraft : 1

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

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class C : PDX
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 : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2215463

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

While on final approach for the ILS 10R into PDX and between the points of JADNU and the beginning of the runway threshold as we were passing over the INTERSTATE I-5 Bridge over the Colombia River I saw the drone flying underneath the aircraft off to my left side. The only reason I had looked out off to the left is because an aircraft was taking off from the local Pearson VUO airport on the other side of the river and when I was looking that way is when I noticed the drone flying underneath us by the bridge. It was heading west up the river and towards downtown Portland. No disruption nor damage to the aircraft occurred. Suggestions: There shouldn't be even any drone activity around a major airport like that especially when aircraft are landing in the vicinity of where the drone was flying.

Synopsis

Air carrier Captain reported an airborne conflict on final approach with a UAS. No evasive action was taken.

ACN: 2214670 *(28 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US

Aircraft : 1

Reference : X
ATC / Advisory.TRACON : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 900 (CRJ900)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Flight Phase : Final Approach
Airspace.Class B : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : ZZZ
Flying In / Near / Over (UAS) : Airport / Aerodrome / Heliport
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 : First Officer
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Type : 1100
ASRS Report Number.Accession Number : 2214670
Human Factors : Situational Awareness

Person : 2

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 : 1200
ASRS Report Number.Accession Number : 2216617

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
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

We were flying into ZZZ I was pilot monitoring. The Captain was pilot flying. Over the Captain's left shoulder next to the left wing the Captain claimed that he saw a drone. However I was unable to actually get a visual on the object to see what it was. However I did see a shadow in my peripheral vision. He had claimed that it was a drone and told me let ATC know. [I was] pilot monitoring, and I was communicating on the radios. I believe at this time we had been flying on the arrival or a possible vector onto the final approach course for the runway. I replied with his request a notified ATC of what the Captain thought he saw. About 2 minutes after that PIREP ATC respond with a couple questions about the object he saw. I had not seen the object so I was communicating with the Captain as ATC was asking the questions. A few examples of the questions are: Was it a quadcopter? Was it a rotor craft a fixed wing-craft? What size would you say it was? I would look over to him and he would respond the best that he could describe what he had saw. After all the reporting I had made to ATC he then looked over and said you know maybe it was the kids balloon or something. I wish I could contribute more details however I personally did not see the object. I can account for a slight blur or shadow in my peripheral vision.

Narrative: 2

Drone Near Miss Cause: Drone or similar object unreported in controlled airspace. Object passed near left side of aircraft. Within the wingspan.

Synopsis

Air carrier flight crew reported an NMAC on final approach with a UAS. No evasive action was taken.

ACN: 2214505 *(29 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : AUO.Airport
State Reference : AL
Relative Position.Distance.Nautical Miles : 4.3
Altitude.AGL.Single Value : 50

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
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
Flight Plan : None
Flight Phase : Cruise
Airspace.Class D : AUO
Operating Under Waivers / Exemptions / Authorizations (UAS) : N
Weight Category (UAS) : Small
Configuration (UAS) : Multi-Rotor
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 : Private
Qualification.Flight Crew : Remote Pilot (UAS)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 2214505
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 : Airspace Structure
Contributing Factors / Situations : Chart Or Publication
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

I was unaware that the AUO airport class D expanded into my operation, as before it was only a class E. I thought I was clear to fly in the area but upon my post flight I realized I had accidentally entered the new class D. Typically my drone alerts me when I near controlled airspace, but on this occasion the drone software did not alert me of the impending incursion to the recently added class D airspace.

Synopsis

Part 107 UAS pilot reported flying in controlled airspace without authorization when the software did not alert the pilot that the airspace was nearby.

ACN: 2214186 *(30 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 12
Altitude.AGL.Single Value : 2000

Environment

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

Aircraft

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : Argosdyne Aquila-2
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Test Flight / Demonstration
Flight Phase : Climb
Airspace Authorization Provider (UAS) : Authorized Third Party
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) : Y
Control Mode (UAS) : Waypoint Flying
Flying In / Near / Over (UAS) : Private Property
Flying In / Near / Over (UAS) : Open Space / Field
Flying In / Near / Over (UAS) : Moving Vehicles
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : GPS Module (UAS)
Manufacturer : Argosdyne
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Commercial Operator (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Function.Flight Crew : Visual Observer (UAS)

Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 100
Experience.Flight Crew.Total (UAS) : 60
Experience.Flight Crew.Last 90 Days (UAS) : 15
Experience.Flight Crew.Type (UAS) : 20
ASRS Report Number.Accession Number : 2214186
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
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
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

Performing demo of two drones flying at around 200 ft, with proper authorization from ZZZ with LAANC. Performed a test 25 minutes before the incident and everything worked as normal with the automated flight plan mission. When performing the real demo, I walked to other side of parking lot in order to maintain VLOS during entire flight. I arm the drone and command to takeoff with the 900 MHz RC link. The drone then goes full throttle for around 30 seconds as I attempt to take control of the aircraft unsuccessfully. I was able to gain control once I cross the parking lot and could see what the telemetry was saying. The GPS vertical position glitched out and the automated mission, along with the Loiter mode(which is GPS based) thought the drone was falling, so it commanded the drone to throttle up to full throttle for around 30 seconds. After 30 seconds of trying to control it in loiter mode, I flipped it into Altitude Hold mode, based on barometer, and then I could see the telemetry vertical speed stabilize. Now that I had control with Alt Hold mode, telemetry feed, and even a live video feed, I could navigate the drone back to being over our parking lot and eventually down to land. looking back at the video footage, the barometer said that it was able 1800 meters once stabilized, and then 1000 meters once landed. Given this, I'd say the drone reached 800 meters AGL.

Synopsis

Part 107 UAS pilot reported a malfunction with the UAS that caused a rapid climb above 400 feet AGL. The pilot was able to regain control of the UAS and land safely.

ACN: 2213848 *(31 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SFO.Airport
State Reference : CA
Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Final Approach
Route In Use : Visual Approach
Airspace.Class B : SFO

Aircraft : 2

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

Person

Location Of Person.Aircraft : X
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 165.82
Experience.Flight Crew.Type : 1743.73
ASRS Report Number.Accession Number : 2213848

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

Assessments

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

Narrative: 1

On the visual approach to RWY28L to SFO at XA59 local time, while scanning for traffic, I saw a red quad-copter drone off the right wing pass from 0130 to behind the aircraft in less than 2 seconds. It was mere yards from the right wing tip as we flew past it. I immediately called the traffic, but it had passed behind the wing before the FO (PF) could even turn to look. (It was too late to take evasive action.) We continued to an uneventful landing. After landing I debriefed Dispatch and authorities.

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken.

ACN: 2213419 *(32 of 50)*

Time / Day

Date : 202502

Place

Locale Reference.Airport : SJC.Airport
State Reference : CA
Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Dusk

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Nav In Use.Localizer/Glideslope/ILS : 30L
Flight Phase : Final Approach
Airspace.Class C : SJC

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class C : SJC
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 : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days : 113.25
ASRS Report Number.Accession Number : 2213419

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

Assessments

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

Narrative: 1

Autopilot and autothrust on. I was PF on LOC and GS for 30L going into SJC. If I recall correctly, just prior to the FO calling "1000" I noticed an anomalous red light appear out of the PAPI and rapidly move towards the aircraft. Within 2 seconds of observing the new light it passed over the left wing at roughly eye level (roughly cabin window height). Light conditions were challenging for visual observation. The sun had already gone below the horizon to our left but enough red/orange light was still present in a narrow band above the terrain to the left that I could observe some glossy shine off the edges of the object in addition to the red light on it. The terrain and city below and in front of us was visually presenting as night conditions (black with lights). Other than the narrow band of light over the terrain on our left, the sky was also presenting as night. With that small amount of light it wasn't possible to quickly ascertain details about the object, other than the relative size, shape, and movement in relation to our jet. I ascertained almost immediately upon seeing it that its relative movement in relation to our glide path was slightly to the left, so it was not coming directly at our fuselage and would pass to our left. In the next second it did indeed pass to my left at eye level and I visually tracked it as it passed over the top of our left wing. It was roughly 2-3 feet in diameter, symmetrical width and length (squarish or roundish in overall shape) and much shorter in height than it was in length or width. While the details of shape weren't supremely apparent , it appeared to have structural elements consistent with drone construction symmetry. We landed without incident. I also called the dispatcher and reported the event with some detail to them as well.

Synopsis

Air carrier Captain reported an NMAC on final approach with a UAS. No evasive action was taken and the flight continued without further incident.

ACN: 2213378 *(33 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Altitude.AGL.Single Value : 60

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 Phantom 3
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)
Flight Plan : None
Mission : Recreational / Hobbyist (UAS)
Flight Phase : Takeoff / Launch
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) : 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 : Recreational / Hobbyist (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
ASRS Report Number.Accession Number : 2213378
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 : Chart Or Publication
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

I got this drone years ago, I wanted to make sure it still worked so I hovered over my backyard to maybe 60 feet, for less than a minute. I landed the drone, put it away, went back inside, and realized I should have looked up if regulations had changed in the past few years. I soon realized my drone was incapable of doing the Remote ID thing and that I am supposed to take the Trust Completion Certificate (TRUST) test before flying. I did check airspace restrictions before I flew and the area I flew was free and clear of restrictions. I will be taking the TRUST test and installing a Remote ID device before flying again.

Synopsis

Recreational / Hobbyist UAS pilot reported flying their UAS without being aware of new UAS regulations that were enacted since they last flew the UAS.

ACN: 2211163 *(34 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ORD.Airport
State Reference : IL
Relative Position.Distance.Nautical Miles : 6
Altitude.AGL.Single Value : 15

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 5
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
Flight Plan : None
Mission : Photo Shoot / Video
Flight Phase : Takeoff / Launch
Airspace.Class B : ORD
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 : Remote PIC (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 10
Experience.Flight Crew.Last 90 Days (UAS) : 1
Experience.Flight Crew.Type (UAS) : 1
ASRS Report Number.Accession Number : 2211163
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 : In-flight
Result.Flight Crew : Exited Penetrated Airspace

Assessments

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

Narrative: 1

I was trying to take photos of a crypt at the cemetery from above. Once I took off, I saw a plane fly over, and I realized that I could be in a class B airspace. I landed the drone and took photos from the ground instead with a different camera. I was in the air for less than 10 minutes, and I only hovered above one spot, no more than 15 feet above the ground. When I got home, I checked and found that I was in a Class B airspace, less than .25 miles from the unrestricted airspace. I thought that I was far enough away from the airport that I wouldn't be in restricted airspace anymore, but I was mistaken. I only flew the drone 15 feet above the ground and landed it once I saw a plane fly overhead. I realize I could have gotten a LAANC approval, as well, but I didn't. Next time, I will be sure to check the airspace at my location instead of assuming I am safe. I will be especially cautious in airspace that is relatively close to airports and will ensure that I check if I need LAANC authorization before I takeoff anywhere.

Synopsis

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

ACN: 2210806 *(35 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 17
Altitude.AGL.Single Value : 105

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Turbulence
Weather Elements / Visibility.Visibility : 5
Ceiling : CLR

Aircraft

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : DJI Mini 4 Pro
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Photo Shoot / Video
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) : Transitioning Between Modes
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)
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 197.5
Experience.Flight Crew.Total (UAS) : 10.00
Experience.Flight Crew.Last 90 Days (UAS) : 0.45
Experience.Flight Crew.Type (UAS) : 0.45
ASRS Report Number.Accession Number : 2210806
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
Contributing Factors / Situations : Software and Automation
Primary Problem : Ambiguous

Narrative: 1

As the Remote Pilot in Command (RPIC), I was operating a DJI Mini 4 Pro with a Plus Battery (total weight 291g) for a commercial photography flight. The flight took place at Location A in Class C Airspace with a designated maximum altitude of 100 feet. Day 0 approx. XA:40am The incident occurred during an automated MasterShots flight. My drone was flying an automated MasterShots circuit. Upon realizing that the automation would exceed the 100-foot altitude restriction, I stopped the flight immediately. However, due to inertia, the drone continued to climb slightly, reaching a maximum altitude of 32 meters (104.9 feet)--4.9 feet into controlled airspace. I immediately lowered the altitude back below 100 feet. The altitude violation occurred due to the inertia of the drone after stopping the automated flight. I failed to anticipate the impact of momentum in an automated flight mode. To prevent this in the future, I will never fly automated MasterShots in areas with height restrictions. Additionally, I will manually control flights in restricted airspace to ensure strict adherence to altitude limits.

Synopsis

Part 107 UAS pilot reported a brief entry into controlled airspace without authorization. The pilot immediately exited the controlled airspace.

ACN: 2209653 *(36 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : JLN.Airport
State Reference : MO
Relative Position.Distance.Nautical Miles : 5.3
Altitude.AGL.Single Value : 398

Environment

Flight Conditions : Marginal
Weather Elements / Visibility : Cloudy
Weather Elements / Visibility.Visibility : 5
Light : Daylight
Ceiling.Single Value : 5000

Aircraft : 1

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
Flight Plan : None
Mission : Photo Shoot / Video
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) : Manual Control
Flying In / Near / Over (UAS) : Private Property
Flying In / Near / Over (UAS) : Open Space / Field
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Aircraft : 2

Reference : Y
Make Model Name : Helicopter
Flight Phase : Cruise

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) : 13.50

Experience.Flight Crew.Last 90 Days (UAS) : 13.50
Experience.Flight Crew.Type (UAS) : 2.00
ASRS Report Number.Accession Number : 2209653
Human Factors : Situational Awareness
Human Factors : Time Pressure
Analyst Callback : Completed

Events

Anomaly.Conflict : Airborne Conflict
Detector.Person : UAS Crew
When Detected : In-flight
Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

I was at Location A to take some construction progression photos. After arriving, I spoke with some workers on-site to get permission to be on the property. Eventually, I received approval from Person A after explaining my purpose for being there. Earlier that morning, I checked the METAR, TAF, and NOTAMs for the area. The weather had warmed up to 37°F after a stretch of freezing temperatures. The area is approximately several hundred thousand square feet accounting for a perimeter of dirt and the surrounding terrain. Launching from near the top, I set the maximum altitude to 378 feet on the controller and limited the maximum speed to 11 mph. The first flight, which lasted approximately 35 minutes, went smoothly. After a short rest, I changed the batteries and prepared for a second flight. This time, I aimed to capture images of a bulldozer moving dirt in the center of the area. I initiated a slow, straight flight from one side of the area toward the other side. I was maintaining VLOS and heard sounds of a helicopter. I scanned around the area and saw the helicopter approaching from my 9 o'clock position at the far end of the southside of the area. I began descending the UAS for a few seconds. Then the helicopter flew over the area and near the UAS. I'm not certain if the UAS was directly in the helicopter's path or off to the side. The UAS was under the helicopter from my position as it passed.

Callback: 1

The reporter was still unsure of the miss distance but believed it could have been several hundred feet. The reporter indicated it was plenty of time to hear and avoid the incoming helicopter.

Synopsis

Part 107 UAS pilot reported an airborne conflict with a helicopter. The UAS avoided the helicopter.

ACN: 2209465 *(37 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DFW.Airport
State Reference : TX
Altitude.MSL.Single Value : 5800

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
Mission : Passenger
Flight Phase : Descent
Airspace.Class B : DFW

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : DFW
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 : Pilot Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 2209465

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

While on descent at approx 5800' MSL, we noticed an object pass by the left wing. I initially thought it was a drone but could not be certain as it passed by quickly. It seemed to be grey in color. Object was of irregular shape so very well could have been a balloon. I did not have to maneuver aircraft as it did not pose a threat of impact. We originally thought it was a near miss. However, it was not a near miss. Other aircraft were notified and we continued with no issues. Cause: Potential ballon or drone from personnel on ground. Mitigate by reporting objects to ATC to alert other air traffic.

Synopsis

Air carrier pilot reported an airborne conflict with a UAS during descent. No evasive action was taken.

ACN: 2209459 *(38 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.AGL.Single Value : 0

Aircraft : 1

Reference : X
ATC / Advisory.Tower : ZZZ
Aircraft Operator : Air Carrier
Make Model Name : Commercial Fixed Wing
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Taxi

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class B : ZZZ
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 : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2209459

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Holding short of runway XXC for Takeoff when I spotted what appeared to a turkey vulture flying in a strange manner compared to their normal flying styles. It was coming in our direction at about 30- 50 feet high. When it got closer I noticed it was not a vulture but what looked like a remote controlled model aircraft or glider. I asked my First Officer if he saw the same thing and did confirm what I was seeing and reported it to tower controllers. It had red elliptical wings as thin as a kite's wings with a pencil thin fuselage and a white triangular rudder on top and bottom of the tail. It was the size of a turkey vulture wing span and length. I could not see any type of a motor box that a propeller(s) would come off of and/or a housing for control surfaces that would attach to a regular model aircraft. It looked more like a glider. There was enough wind and thermals for a glider to sustain flight using thermals like the vultures were doing that day to stay aloft. It circled around the beginning of XXC and flew down the runway staying just to the left of the runway, and circled around the far end maybe at taxi 1 or 2 then flew back on the same side. Tower finally picked it up when it was circling around taxi ways and followed it back to the beginning of [runway] XXC. We held in position of XXC till it was safely out of our takeoff and climb out path. Make sure airspace round airports are drone/UAS are free zones unless authorized to fly close to landing and departing aircraft.

Synopsis

Air carrier Captain reported a ground conflict while holding short of the runway due to a UAS flying around the runway. The pilot stayed in position until the UAS was out of the takeoff path.

ACN: 2208999 *(39 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 2
Altitude.MSL.Single Value : 900

Environment

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

Aircraft : 1

Reference : X
Aircraft Operator : Government
Make Model Name : Eurocopter AS 350/355/EC130 - Astar/Twinstar/Ecureuil
Crew Size.Number Of Crew : 2
Flight Plan : None
Mission : Public Safety / Pursuit (UAS)
Flight Phase : Cruise
Airspace.Class C : ZZZ

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Flight Plan : None
Flight Phase : Hovering (UAS)
Airspace.Class C : ZZZ
Configuration (UAS) : Multi-Rotor
Flying In / Near / Over (UAS) : People / Populated Areas
Flying In / Near / Over (UAS) : Crowds
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 : Government
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Rotorcraft
Qualification.Flight Crew : Commercial
ASRS Report Number.Accession Number : 2208999

Human Factors : Time Pressure
Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : Unauthorized Flight Operations (UAS)
Detector.Person : Flight Crew
Miss Distance.Horizontal : 100
Miss Distance.Vertical : 100
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

On Day 0 at around XA25 hours I was flying my law enforcement helicopter, Airbus AS350, Aircraft X, for the local law enforcement over the city. While orbiting over a law enforcement call at 900 feet MLS, I saw a UAS/Drone, within about 100 feet of my aircraft at the same altitude then it climbed between 1000 feet and 1100 feet. This occurred within ZZZ surface Class C airspace approximately, 2 miles northwest of the airfield. The nearest cross streets on the ground were, Street X and Street Y. I had to do evasive maneuvers to avoid a collision with the drone. The drone appeared to be a possible quadcopter and had flashing red and green lights. I avoided the drone and flew away from it to the north while we continued to work our law enforcement mission. We were unable to locate the source/operator of the drone because of the priority for our law enforcement call that were were assigned. Our law enforcement call was watching an event move in the city and this drone may have been related to that incident.

Synopsis

A government helicopter pilot reported a near miss with a UAS in controlled airspace. The helicopter pilot took evasive action to avoid a possible collision.

ACN: 2208562 *(40 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LGB.Airport
State Reference : CA
Relative Position.Angle.Radial : 160
Relative Position.Distance.Nautical Miles : 7
Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : VMC
Weather Elements / Visibility : Haze / Smoke
Weather Elements / Visibility.Visibility : 5
Light : Daylight
Ceiling.Single Value : 15000
RVR.Single Value : 4000

Aircraft : 1

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

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
Reporter Organization : Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Single Pilot
Qualification.Flight Crew : Student
Experience.Flight Crew.Total : 110
Experience.Flight Crew.Last 90 Days : 40
Experience.Flight Crew.Type : 110
ASRS Report Number.Accession Number : 2208562

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 : 100
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I had departed LGB 26L to ZZZ. GPS waypoints were LGB 26L - VPLQM - VPLHP - ZZZZZ - ZZZZZ1 - ZZZ XX. Climbing through 3500 feet about 7 NM south-southeast of LGB (between VPLQM and VPLHP, over the Long Beach practice area), I experienced a near-miss with a drone. I was climbing at 85-90 KIAS with a 10-know tailwind. Looking outside to scan for traffic, I briefly observed a bright red, multi-rotor drone that flashed past me. It appeared to be about 50 feet off my left wing and 100 feet below my altitude. There was no warning. It appeared to be moving opposite direction, though given my airspeed, it could have been hovering. It took about 90 seconds for me to break in to the busy SoCal Departure frequency. Had the drone intersected my flight path, it could have caused a catastrophic midair collision, with probable impact to control surfaces, propeller, engine, fuel tank, or canopy. Had it impacted the canopy head-on, I would have been killed instantly. I suggest zero-tolerance enforcement against operators of drones that violate airspace restrictions throughout the NAS. There should be a mechanism for instantaneous reporting of drones so that operators can be apprehended immediately. Another effective countermeasure could be jamming of radio frequencies used to control drones. Thank you.

Synopsis

Student pilot reported an NMAC with a UAS while climbing with no time to react.

ACN: 2208541 *(41 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : TJIG.Airport
State Reference : FO
Relative Position.Distance.Nautical Miles : 6
Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC
Light : Daylight

Aircraft : 1

Reference : X
ATC / Advisory.Tower : TJIG
Aircraft Operator : Personal
Make Model Name : Small Aircraft, High Wing, 1 Eng, Retractable Gear
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 91
Flight Plan : VFR
Mission : Training
Flight Phase : Final Approach
Route In Use : Direct

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 : Instructor
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Commercial
ASRS Report Number.Accession Number : 2208541

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.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

On approach to land at TJIG we were instructed by ATC to make a straight in approach for runway 9 at 1,000MSL while approaching Levittown Water tank approx. 6 miles final form TJIG approx. at XA56am local time while flying over an RC airplane runway, my student and I saw in front of us what appeared to be a RC airplane in a vertical climb at our same altitude and climbing passing in front of us and then making a steep turn toward us. We had to deviate to the left (north) to avoid the object. We resumed normal flight to land.

Synopsis

Flight Instructor reported an NMAC with a UAS during final approach. Flight Instructor took evasive action to avoid a possible collision.

ACN: 2208291 *(42 of 50)*

Time / Day

Date : 202502
Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : CLT.Airport
State Reference : NC
Altitude.MSL.Single Value : 2000

Aircraft : 1

Reference : X
Aircraft Operator : Air Carrier
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Mission : Passenger
Flight Phase : Descent
Route In Use.STAR : STOCR4

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 : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2208291

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

While descending on the STOCR4 into CLT, near the FIBBR intersection at approximately 13,xxx feet, I noticed a target appear on the MFD. These targets are typically false targets or aircraft that are on the ground at airports. I looked out the left window and immediately saw a black drone pass the left side of the aircraft approximately 2,000 feet below us. I would estimate the distance at a mile or less. I phoned dispatch after landing.

Synopsis

Air carrier Captain reported experiencing an airborne conflict with a UAS during descent.

ACN: 2207738 *(43 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 0001-0600

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 8
Altitude.AGL.Single Value : 394

Environment

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

Aircraft

Reference : X
Aircraft Operator : Government
Make Model Name : Skydio X10
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Public Aircraft Operations (UAS)
Flight Plan : None
Mission : Observation / Surveillance (UAS)
Flight Phase : Hovering (UAS)
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) : Open Space / Field
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Battery Management System (UAS)
Manufacturer : Skydio
Aircraft Reference : X
Problem : Malfunctioning

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Government
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total : 0
Experience.Flight Crew.Total (UAS) : 150
Experience.Flight Crew.Last 90 Days (UAS) : 14

Experience.Flight Crew.Type (UAS) : 20
ASRS Report Number.Accession Number : 2207738
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : UAS Crew
When Detected : In-flight
Result.Aircraft : Lost Link (UAS)
Result.Aircraft : Aircraft Damaged

Assessments

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

Narrative: 1

On Day 0 at approximately XA00 hours local time Pilot [person manipulating the controls] was providing an overwatch stream for a unit. While on station at approximately 394' AGL Pilot experience a signal loss warning on his Ground Control Station (GCS). At the time the system was approximately 1500' from the GCS and connected via the native SL connect for both control and video. When he looked up the UAS was no longer observable. After the scene was secured he proceeded to the last reported GPS position and located the UAS in an open field. No injury or damage was reported beyond the airframe itself. During the debrief forward VOs state that they saw the anti-collision strobes stop and solid blue lights (Standby Indicator Lights) come on the aircraft as it descended. A review of the logs by the manufacturer revealed that there was a battery control board software issue that he initiated a restart mid-flight cutting power to the motors and causing the failure. System replaced by manufacturer. ***Related to [previous] incident with systems*** (Same defect.) At the time of the incident this airframe had several dozen flights totaling XX.XX air hours. All proper pre-flight procedures had been conducted. After interview and debrief there were no adjustments to CRM or policy that could mitigate future risks.

Synopsis

Government UAS Pilot reported the UAS battery system attempted a reboot mid-flight causing a power loss to the motors, resulting in the UAS crashing.

ACN: 2207067 *(44 of 50)*

Time / Day

Date : 202411
Local Time Of Day : 0601-1200

Place

Altitude.MSL.Single Value : 177

Environment

Flight Conditions : VMC
Weather Elements / Visibility.Visibility : 10
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 : Photo Shoot / Video
Flight Phase : Takeoff / Launch
Flight Phase : Cruise
Flight Phase : Final Approach
Operating Under Waivers / Exemptions / Authorizations (UAS) : N
Weight Category (UAS) : Small
Configuration (UAS) : Multi-Rotor
Flying In / Near / Over (UAS) : Moving Vehicles
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) : 25
Experience.Flight Crew.Last 90 Days (UAS) : 3
Experience.Flight Crew.Type (UAS) : 25
ASRS Report Number.Accession Number : 2207067
Human Factors : Situational Awareness
Human Factors : Training / Qualification
Analyst Callback : Completed

Events

Anomaly.No Specific Anomaly Occurred : Unwanted Situation
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Late last year, my friend and I made a video flying a drone around our local city. In the video, I flew from the passenger seat of a car while my friend drove. We both have our part 107 license, and made sure we were careful to not cause any issues while flying. After showing the video to others, we had some concern about possibly breaking FAA laws. We do not think we did, but to be safe I wanted to make sure I self reported before posting the video. We had no malicious intent with any part of the video, we caused no issues to ourselves or anything around us, and we conducted the flight without any issues whatsoever.

Callback: 1

The reporter was unsure if the flight they completed broke any FARs. They reiterated they flew in a non-populated area away from vehicle and persons.

Synopsis

Recreational / Hobbyist UAS pilot reported flying the UAS from a moving vehicle.

ACN: 2206407 *(45 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 8
Altitude.AGL.Single Value : 125

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
Flight Plan : None
Mission : Photo Shoot / Video
Flight Phase : Landing
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) : Private Property
Flying In / Near / Over (UAS) : Open Space / Field
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Remote ID Broadcast Module
Manufacturer : Dronetag
Aircraft Reference : X
Problem : Malfunctioning

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)
Qualification.Flight Crew : Private

Experience.Flight Crew.Total (UAS) : 38.3
Experience.Flight Crew.Last 90 Days (UAS) : 3.5
Experience.Flight Crew.Type (UAS) : 37.8
ASRS Report Number.Accession Number : 2206407
Human Factors : Troubleshooting
Analyst Callback : Attempted

Events

Anomaly.Aircraft Equipment Problem : Less Severe
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 : Aircraft
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Software and Automation
Contributing Factors / Situations : Weather
Primary Problem : Ambiguous

Narrative: 1

While performing flight, my DroneTag Beacon cease to operate. It was fully charge with all of my equipment before I departed for the flight. Preflight checks were good. Beacon confirmed to have GPS lock prior to launch. Upon return, all indications were black. Device would not activate or even indicate charge level when button was push. I do not know how much of the flight was without RID (Remote ID). Upon return to home, I searched the web for answers. Suggestion was to press and hold button for 15 seconds. At 10 seconds, device activated. Device had full charge still. Used DroneTag toolbox app to troubleshoot, but no indication of an issue. Device was able to obtain full GPS lock with location verified through app. Only deviation noted was that there was a firmware update available. I performed the update, but the device was functioning properly without the update. I have no idea why it failed in flight. It was very cold, about 33 degrees at the time of flight. That is the only possible cause that I can imagine, other than software glitch.

Synopsis

Part 107 UAS pilot reported learning the Remote ID Broadcast Module stopped operating for an unknown amount of time during the flight.

ACN: 2205778 *(46 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : RSW.Airport
State Reference : FL

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 : Final Approach
Airspace.Class C : RSW

Aircraft : 2

Reference : Y
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 1
Airspace.Class C : RSW
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 : Instrument
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 2205778

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 : 100
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While on short final to Runway 24 RSW on a visual approach backed up by the RNAV, an object was seen passing underneath the right wing approximately 100 feet below the aircraft. I was the PF and in the CA seat so I could only see the object for a brief amount of time, but it was black/silver and appeared to be a large quad copter moving in the opposite direction of the aircraft it did appear that the object initially moved from the left front to the right front of the aircraft, then passed underneath the right wing crossing the final approach course of runway 24 then made an almost 90 degree turn to pass out the right side of the aircraft. No evasive action was required and a normal landing was made. The PM in the FO seat had a much better and longer view of the object. There were several aircraft behind us stacked for landing sequencing. Cause: Possible unauthorized UAV operations.

Synopsis

Air carrier Captain reported an NMAC with a UAS while on final approach. No evasive action was taken and the flight continued without further incident.

ACN: 2204653 *(47 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 10

Environment

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

Aircraft

Reference : X
Aircraft Operator : Recreational / Hobbyist (UAS)
Make Model Name : DJI Avata
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Recreational Operations / Section 44809 (UAS)
Flight Plan : None
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
Flying In / Near / Over (UAS) : Open Space / Field
Flying In / Near / Over (UAS).Other
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Person

Location Of Person : Outdoor / Field Station (UAS)
Reporter Organization : Recreational / Hobbyist (UAS)
Function.Flight Crew : Person Manipulating Controls (UAS)
Function.Flight Crew : Remote PIC (UAS)
Experience.Flight Crew.Total (UAS) : 20
Experience.Flight Crew.Last 90 Days (UAS) : 0.5
Experience.Flight Crew.Type (UAS) : 2.25
ASRS Report Number.Accession Number : 2204653
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 : Chart Or Publication
Contributing Factors / Situations : Human Factors
Primary Problem : Ambiguous

Narrative: 1

On Day 0, I the pilot in command, was operating a FPV (First Person View) small UAS in the vicinity of a BLM (Bureau of Land Management) Wildlife Zone at approximately XA00 PM. It was daytime with clear skies. I did not [have] reliable cell service and I did not properly check the airspace requirements during my preflight procedures and subsequently launched. I preformed a flight of less than ten minutes. Once in a cell serviceable area I reviewed the airspace requirements and realized I was not authorized to fly.

Synopsis

Recreational / Hobbyist UAS pilot reported flying in a restricted area without authorization.

ACN: 2204652 *(48 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 0601-1200

Place

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

Environment

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 : 3
Operating Under FAR Part : Part 107
Mission : Utility / Infrastructure
Flight Phase : Cruise
Airspace.Class D : ZZZ
Airspace Authorization Provider (UAS) : FAA Authorization
Operating Under Waivers / Exemptions / Authorizations (UAS) : Y
Waivers / Exemptions / Authorizations (UAS).Other
Airworthiness Certification (UAS) : Standard
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) : Airport / Aerodrome / Heliport
Flying In / Near / Over (UAS) : Aircraft / UAS
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Ground Control Station (UAS)
Aircraft Reference : X
Problem : Improperly Operated

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 : 330
Experience.Flight Crew.Total (UAS) : 355
Experience.Flight Crew.Last 90 Days (UAS) : 15
Experience.Flight Crew.Type (UAS) : 10.8
ASRS Report Number.Accession Number : 2204652
Human Factors : Human-Machine Interface
Analyst Callback : Completed

Events

Anomaly.Aircraft Equipment Problem : Less Severe
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 : In-flight
Result.Flight Crew : Landed As Precaution

Assessments

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

Narrative: 1

At the completion an autonomous inspection of an aircraft the UAS climbed from ~30ft AGL to ~80ft AGL automatically. The FAA airspace authorization was for a maximum altitude of 50ft AGL. The RPIC noticed the climb and immediately took manual control of the aircraft and returned the aircraft to the ground. The UAS was above 50ft for less than five seconds. After the UAS was returned to the ground the PIC investigated how the breach occurred and discovered that the ground control software had two separate maximum altitude limits. One for autonomous flight, and one for manual flight. The manual flight limit was set correctly at 49ft, while the autonomous flight limit was left at 400ft AGL. During a review of procedures and settings, it was noted that this difference is not highlighted in any of the quick reference manuals that come with the UAS. Instead, it is buried in the manual for the ground control software. Internal procedures and trainings have been adjusted to note this difference with the intention to avoid any incursions with this specific aircraft.

Callback: 1

Reporter stated the inspection is performed outdoors by Part 107 Operators. The inspection process consists of the pilot manually flying the drone to capture the sides of the aircraft and an automated pattern for the top down view.

Synopsis

Part 107 UAS pilot reported during an autonomous mission, momentarily climbing above the authorized altitude restriction due to improper settings in the UAS software. The pilot took manual control of the UAS and landed it upon noticing the error.

ACN: 2204651 *(49 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ZZZ.Airport
State Reference : US
Relative Position.Distance.Nautical Miles : 5
Altitude.AGL.Single Value : 245

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 Phanton 4
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Photo Shoot / Video
Flight Phase : Ground / Preflight (UAS)
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) : N
Control Mode (UAS) : Waypoint Flying
Flying In / Near / Over (UAS) : Private Property
Flying In / Near / Over (UAS) : People / Populated Areas
Flying In / Near / Over (UAS) : Moving Vehicles
Type (UAS) : Purchased
Number of UAS Being Controlled (UAS).Number of UAS : 1

Component

Aircraft Component : Remote ID Broadcast Module
Manufacturer : Holy Stone
Aircraft Reference : X
Problem : Malfunctioning
Problem : Improperly Operated
Problem : Design

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)
Qualification.Flight Crew : Commercial
Qualification.Other
Experience.Flight Crew.Total (UAS) : 16.00
Experience.Flight Crew.Last 90 Days (UAS) : 0.34
Experience.Flight Crew.Type (UAS) : 16.00
ASRS Report Number.Accession Number : 2204651
Human Factors : Human-Machine Interface
Analyst Callback : Completed

Events

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy
Anomaly.Deviation / Discrepancy - Procedural : FAR
Anomaly.No Specific Anomaly Occurred : Unwanted Situation
Detector.Person : UAS Crew
When Detected.Other
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

This morning I arrived on the job site and spoke with my contact. After speaking I began to set up the equipment, verify that my airspace authorization was still valid, perform a site safety assessment, check weather, fill out paperwork and preflight my aircraft. The DJI Phantom 4 that I operate requires an aftermarket remote ID. The make of the remote ID is Holy Stone. In accordance with my operation and requirements I attached the remote ID module and pressed the power button. After thoroughly going over all my other items I checked that the area was clear and I launched. The max flight altitude was 245 feet and it varied for the operation to get videos and stills but never exceeded 245. Max distance from my station at one point was roughly 400 feet. The aircraft was always within visual line of sight. The aircraft was operating near a road and an active construction site. Care was taken not to directly overfly people or moving vehicles. The flight went well, no issues at all. After landing it didn't appear that the remote ID light was on. The battery was fully charged. I cycled the power button on the unit and got a green indication. I'm not sure if the remote ID was not powered on before flight, if it turned off during flight, or if it was on and I just couldn't see the light in the bright sunlight. Weather was clear, very light winds and very bright morning sunlight. Moving forward I will verify the remote ID is on by covering the unit to ensure I see the status light. I will also try to avoid the direct sunlight when preflighting and remove tinted safety glasses. My recommendation for the remote ID units is to not only have a brighter status light but also a tone when the power button is pressed to indicate the unit has received the command. I could see this being useful with any Remote ID Module. I may suggest this to the manufacturer.

Callback: 1

The reporter indicated they were still unsure if the Remote ID module was transmitting or not. There is no way to check after the fact with this module. This is not a known issue and the reporter did not find any other data with similar incidents.

Synopsis

Part 107 UAS pilot reported an uneventful flight but was not sure if the Remote ID Broadcast Module was turned on.

ACN: 2204650 *(50 of 50)*

Time / Day

Date : 202501
Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : GWO.Airport
State Reference : MS
Relative Position.Distance.Nautical Miles : 3
Altitude.AGL.Single Value : 295

Environment

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

Aircraft

Reference : X
Aircraft Operator : Commercial Operator (UAS)
Make Model Name : UAV: Unpiloted Aerial Vehicle
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 107
Flight Plan : None
Mission : Agriculture
Flight Phase : Takeoff / Launch
Flight Phase : Hovering (UAS)
Flight Phase : Landing
Airspace.Class D : GWO
Operating Under Waivers / Exemptions / Authorizations (UAS) : N
Weight Category (UAS) : Small
Configuration (UAS) : Hybrid
Flight Operated As (UAS) : VLOS
Flight Operated with Visual Observer (UAS) : Y
Control Mode (UAS) : Autonomous / Fully Automated
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 : Visual Observer (UAS)
Function.Flight Crew : Remote PIC (UAS)
Qualification.Flight Crew : Remote Pilot (UAS)
Experience.Flight Crew.Total (UAS) : 150
Experience.Flight Crew.Last 90 Days (UAS) : 60
Experience.Flight Crew.Type (UAS) : 10
ASRS Report Number.Accession Number : 2204650

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

Narrative: 1

Working scanning operations for under Part 107, RPIC failed to verify airspace in the vicinity of the operation. After review of the day and flight, it was found we operated in Class D airspace without LAANC or an airspace authorization waiver. We are self-reporting this oversight, which highlighted the need to reinforce airspace awareness during operations. Moving forward this will directly impact our operations by adding redundant airspace verification's into our process. The vast majority of the sites previously scanned in the area were in uncontrolled airspace, leading to complacency of controlled airspace verification. We had a Visual Observer during the entirety of the operation and verified no aircraft operating in the vicinity of the scan. Corrective Action: Morning of or night before, brief the entire crew for the areas we are operating in is our current process. Once the crew arrives on site, completing a double check of the surrounding area for controlled airspace will be added for redundancy.

Synopsis

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