ASRS Database Report Set

Unmanned Aerial Vehicle (UAV) Reports

Report Set Description	A sampling of reports involving Unmanned Aerial Vehicle (UAV) events.
Update Number	.8.0
Date of Update	.February 26, 2016
Number of Records in Report Set	.50
Number of New Records in Report Set	.42
Type of Records in Report Set	For each update, new records received at ASRS will displace a like number of the oldest records in the Report Set, with the objective of providing the fifty most recent relevant ASRS Database records. Records within this Report Set have been screened to assure their relevance to the topic.

National Aeronautics and Space Administration

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.

Lenda J Connell

Linda J. Connell, Director NASA Aviation Safety Reporting System

CAVEAT REGARDING USE OF ASRS DATA

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

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

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

Report Synopses

ACN: 1312110 (1 of 50)

Synopsis

A CRJ-900 on short final to JFK airport had a near miss with a UAS similar in appearance to the Raytheon Killer Bee.

ACN: 1311817 (2 of 50)

Synopsis

A C172 pilot reports sighting an object in the sky while taxiing to Runway 23 at LAF. The Tower is also able to see the object which appears to be a balloon with a metallic object swinging below. The Tower Controller was initially unaware of the object and it appeared to be in the Class D airspace.

ACN: 1309600 (3 of 50)

Synopsis

A helicopter pilot called ATC after a NMAC with an UAS at 1,400 feet over the STL metropolitan area.

ACN: 1309452 (4 of 50)

Synopsis

An air carrier Captain on JFK Runway 31R final at about 1,000 feet reported two UAS aircraft hovering about 200-300 feet away from them and left of the final approach course. Evasive action was not required.

ACN: 1307833 (5 of 50)

Synopsis

A CyPhy PARC UAS pilot reported giving a demonstration flight beneath ORD Class B airspace up to 65 feet AGL without a transponder.

ACN: 1307473 (6 of 50)

Synopsis

A helicopter pilot near AGC reported a small UAS 200 feet away from his aircraft while cruising at 2000 feet MSL.

ACN: 1307339 (7 of 50)

Synopsis

Model aircraft pilot, who is also a private pilot, discovered that he has been operating his model aircraft 4 SM from SHD airport while believing he was outside 5 SM previously.

ACN: 1305704 (8 of 50)

Synopsis

CRP Controller observed an UAV aircraft that was assigned 3,000 feet descend into the vicinity of another aircraft under his control. Controller observes the UAV aircraft climb back up to 3,000. Traffic was issued to all concerned.

ACN: 1302962 (9 of 50)

Synopsis

Flight crew on final at DEN reported a near miss with a drone at 1000 feet AGL.

ACN: 1301464 (10 of 50)

Synopsis

A heavy jet Captain on final to EWR 4R reported an Unmanned Aircraft System near miss at 2,000 feet when the craft passed beneath their aircraft.

ACN: 1301461 (11 of 50)

Synopsis

A heavy jet at 1,500 feet on the EWR Runway 4R ILS reported a UAS passed overhead their aircraft.

ACN: 1300748 (12 of 50)

Synopsis

Flight crew failed to call Tower and landed without a clearance due to a distraction of Approach Controller advising them about possible UAV traffic and birds on final.

ACN: 1298538 (13 of 50)

Synopsis

A pilot reported a near miss with a UAS while descending through 3,200 feet on an IFR flight to UMP.

ACN: 1298210 (14 of 50)

Synopsis

A JCF controller reports of bad radios along with an orbiting UAV that was in the way of descending aircraft. The Controller reports of a loss of separation between IFR aircraft a VFR aircraft leaving a MOA. The Controller reported of other issues that may have led to his lack of awareness and not feeling competent about his work that day.

ACN: 1297435 (15 of 50)

Synopsis

After takeoff an Air Carrier Captain reported a possible UAS at 200 feet, approximately one third of a mile to the left of TPA Runway 1L centerline.

ACN: 1296856 (16 of 50)

Synopsis

A B737 Passenger reported seeing a UAS on short final to LAX Runway 7R. The Pilots did not see the object.

ACN: 1296812 (17 of 50)

Synopsis

A Pilot on final approach to HTS at 800 feet reported a near miss with what appeared to be a kite but may have been a UAS.

ACN: 1295864 (18 of 50)

Synopsis

Pilot took evasive action to avoid a drone near 99CL.

ACN: 1295187 (19 of 50)

Synopsis

A PA28 Student Pilot reports seeing a spherical object 300 feet abeam and at pattern altitude, which is reported to the Tower.

ACN: 1294113 (20 of 50)

Synopsis

A UAV pilot reports filing a NOTAM and notifying the Tower prior to a series of flights but forgetting to contact the Tower via cell phone prior to each flight.

ACN: 1292242 (21 of 50)

Synopsis

An MQ-9 landing after a training mission, was delayed because the left main landing gear apparently did not fully extend. During extensive troubleshooting, communications with UAS was temporarily lost, but after communications' were re-established a normal precautionary landing followed. The gear was in fact fully extended.

ACN: 1291906 (22 of 50)

Synopsis

An observer, pilot qualified, reported a UAS at about 400 feet in conflict with several helicopters circling near the Minnesota State Fairgrounds.

ACN: 1290773 (23 of 50)

Synopsis

A ZMP Controller reports of a loss of separation because a UAV was in a MOA and another aircraft was in the same MOA. The aircraft he was in control of was inside of the MOA and should not have been.

ACN: 1290061 (24 of 50)

Synopsis

PC-12 Captain reports sighting a drone on final approach to Runway 22 at LGA. No evasive action is necessary.

ACN: 1289851 (25 of 50)

Synopsis

C172 pilot experiences a NMAC with a drone at 2,500 feet.

ACN: 1289224 (26 of 50)

Synopsis

Air carrier First Officer reports sighting a UAV or model aircraft shortly after takeoff from SKBO. The UAV was at about 700 feet AGL and below their aircraft and flying in the same direction.

ACN: 1288638 (27 of 50)

Synopsis

B737 First Officer reports a drone at 800 feet AGL during approach to Runway 4R at BOS. The drone was 200 to 400 feet below and to the right of the B737 and no evasive action was necessary.

ACN: 1287876 (28 of 50)

Synopsis

Private pilot observing from the ground, reports a NMAC between an R44 helicopter and a drone during a visual approach to Runway 13 or 14 at STP. The drone was hovering near the base leg of the VFR traffic pattern and 100 feet above the helicopter.

ACN: 1287246 (29 of 50)

Synopsis

A pilot flying near Windham High Peak in Greene County New York, at 3,500 feet was approached by an elaborate UAV with a brilliant surface on top of an inverted bowl shaped container with long rectangular antennas protruding downward. The UAV approached, tracked, and flew around the reporter before speeding off toward the west with two other like shaped UAVs.

ACN: 1286283 (30 of 50)

Synopsis

SandShark UAS landing gear departed the aircraft after touchdown.

ACN: 1286178 (31 of 50)

Synopsis

Business jet Captain reported an encounter with an unmanned aerial vehicle (UAV), at approximately 2,600 feet, during initial approach to LAX Runway 24L. No evasive action was required.

ACN: 1285713 (32 of 50)

Synopsis

Flight crew is informed of UAV at 2,700 feet on final to ORD Runway 27L. The flight crew becomes distracted while on final to Runway 28C, as they looked for the conflict.

ACN: 1284746 (33 of 50)

Synopsis

An instructor reported a close encounter with a drone (UAV) at an altitude of 5,000 feet, requiring an evasive maneuver.

ACN: 1284244 (34 of 50)

Synopsis

An air carrier First Officer reported a UAV near miss at 7,000 FT while flying the PHX BRUSR1 Arrival near the KUCOO intersection.

ACN: 1284007 (35 of 50)

Synopsis

An instructor with his flying student was entering a 45 degree left downwind for PAO Runway 31 at 1,000 FT when he detected a UAV about 2-3 FT wide, approximately 100 FT beneath his aircraft.

ACN: 1283984 (36 of 50)

Synopsis

An Instructor reported his student took evasive action at 1,000 FT from a radio controlled (RC) aircraft, which was apparently being flown with intent toward and around their maneuvering aircraft. They were near an RC park northwest of Utah Lake.

ACN: 1283969 (37 of 50)

Synopsis

Pilot took evasive action to avoid a UAV and the chase airplane behind it at 8,500 FT near a local airport.

ACN: 1283862 (38 of 50)

Synopsis

A321 flight crew reported a near miss with a UAV at 3,000 FT while on visual approach Runway 31L at JFK near the ASALT intersection.

ACN: 1283651 (39 of 50)

Synopsis

An air carrier First Officer on a JFK Runway 31R Visual Approach at 1,500 feet reported a 100 foot near miss with an UAV, approximately three square feet. The Captain, pilot flying, did not see the object.

ACN: 1282742 (40 of 50)

Synopsis

TMB Controller reports that they received a report from a pilot, which spotted a remote controlled (RC) aircraft near his aircraft on final. Pilot had to change altitude to avoid RC aircraft.

ACN: 1282401 (41 of 50)

Synopsis

A private individual reported being advised by the CLL Airport Manager that he should cease flying his drone below 400 FT within 2.6 miles of the airport.

ACN: 1281994 (42 of 50)

Synopsis

A pilot approaching an airport was warned on CTAF frequency by an unknown operator, that a drone was operating nearby. The reporter returned to his departure airport to avoid conflict with the unseen drone.

ACN: 1281118 (43 of 50)

Synopsis

Air Carrier flight crew report a four pod drone in the vicinity of their aircraft while on final for Runway 26 at PHX.

ACN: 1280786 (44 of 50)

Synopsis

NCT Controller reports of an aircraft that requested a 360 turn. The Controller used the term "Proceed as requested." The aircraft did and while halfway through the turn the pilot requested to rejoin the flight plan and climb to a higher than assigned block altitude. Controller again used the term, "Proceed as requested," but forgot to restate the altitude to maintain. Aircraft climbed through uncoordinated airspace leading to an airspace violation by the NCT Controller.

ACN: 1280456 (45 of 50)

Synopsis

A helicopter pilot reported a commercial UAV operating over CTAF TVL taxiways apparently with a local authority's permission.

ACN: 1279366 (46 of 50)

Synopsis

A VFR pilot reported a UAS shaped like an LONG-EZ near his 3,000 FT altitude and reported it to ATC with location and description. While examining his documents for the FAA he discovered his aircraft registration and physical were noncompliant to the FARs.

ACN: 1278963 (47 of 50)

Synopsis

B737 Captain reports a NMAC with a UAV at 2,500 feet near DIALS during the Expressway Visual Approach to LGA.

ACN: 1278763 (48 of 50)

Synopsis

PA-44 instructor pilot reports an airborne conflict with a drone at 2,700 feet 4 NM south of FFZ. Evasive action is taken.

ACN: 1278119 (49 of 50)

Synopsis

Air carrier First Officer reports a NMAC with a drone at 4,000 feet during approach to SAN.

ACN: 1277847 (50 of 50)

Synopsis

An air carrier Captain on a visual approach to ATL at 2,200 feet encountered an UAS about 500 feet below his aircraft on a three mile final. The encounter was so brief no evasive action was taken.

Report Narratives

ACN: 1312110 (1 of 50)

Time / Day

Date : 201511 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JFK.Airport State Reference : US Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : JFK 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 : NYC

Aircraft: 2

Reference : Y ATC / Advisory.Tower : JFK Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Phase : Cruise Airspace.Class B : NYC

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Pilot Not Flying Function.Flight Crew : Captain Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1312110 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : O Miss Distance.Vertical : 50 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

While on short final for runway 31L at 1500 feet, a drone/UAV was headed straight for our aircraft at a bearing of 135 at a high rate of closure and barely missed us. My first officer was the first to spot what he first thought was a collection [of] balloons emerging from the runway 31L center line. As the object got closer we saw that the object was some sort of diamond-shaped drone with a single pusher prop behind it. The drone passed less than 50 feet directly over the nose of our aircraft where we got a good look at it. We reported the encounter to Tower. They tried, but could [not] successfully track the vehicle on radar.

This drone incident was a great concern to me compared to the other encounters reported by aircraft this year for a variety of reasons. First, was the deliberate nature of the drone's operator in heading right for our aircraft down the center line of a major US airport runway in a difficult political climate.

Next, was the type of drone used. This drone was not your typical four-rotor toy as in previous encounters. The four to five foot fixed-wing, diamond-shape, stealthy police/military style fuselage, with short, blended, delta wings and down sloping winglets, had a belly mounted camera globe. This was closely related to an upgraded "Killer Bee (or Bat)" drone I once spotted during my time as an aviator in the military. Finally, I was concerned that ATC had no ability to track this larger UAV and find those responsible.

We need more visual binocular scanning from tower, rather than relying on Airport Radar which doesn't seem to pick up drones of the size and type I encountered. [Authorities] recommended to me that a pilot should hit the ident button on the transponder when you see a drone coming in close proximity to your aircraft. He said it helps ATC better pinpoint the location of these small vehicles.

Synopsis

A CRJ-900 on short final to JFK airport had a near miss with a UAS similar in appearance to the Raytheon Killer Bee.

ACN: 1311817 (2 of 50)

Time / Day

Date : 201511 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LAF.Airport State Reference : IN Altitude.AGL.Single Value : 0

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : LAF Aircraft Operator : FBO Make Model Name : Skyhawk 172/Cutlass 172 Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Flight Phase : Taxi

Aircraft: 2

Aircraft Operator.Other Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Airspace.Class D : LAF

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : FBO Function.Flight Crew : Instructor Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Instrument Qualification.Flight Crew : Commercial Qualification.Flight Crew : Flight Instructor Experience.Flight Crew.Total : 775 Experience.Flight Crew.Last 90 Days : 180 Experience.Flight Crew.Type : 450 ASRS Report Number.Accession Number : 1311817

Events

Anomaly.No Specific Anomaly Occurred : All Types Detector.Person : Flight Crew

Detector.Person : Air Traffic Control When Detected : Taxi Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While taxiing to Runway 23 on Taxiway E, I noticed a small white object floating approximately 1-2 miles north/northeast of the airport at approximately 2,000 AGL. It was moving very slowly, approximately 15 knots on about a 130-degree track. It appeared to be a few feet in diameter with an elliptical shape.

I queried the tower controller to ask if the facility was aware of what the object was. The controller was unaware of the object's presence. Upon further investigation, the controller informed me that it appeared to be a balloon with some sort of device tethered and freely swinging from the bottom of the balloon.

This was consistent with my observation. A bright light or perhaps the sun's reflection would illuminate off of the metallic object at the bottom of the balloon. I have seen this object once before about 4 months ago on the final approach course to Runway 10 at this airport. The controller in that situation was also unaware of what it was.

Synopsis

A C172 pilot reports sighting an object in the sky while taxiing to Runway 23 at LAF. The Tower is also able to see the object which appears to be a balloon with a metallic object swinging below. The Tower Controller was initially unaware of the object and it appeared to be in the Class D airspace.

Time / Day

Date : 201511 Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : CPS.Airport State Reference : IL Relative Position.Distance.Nautical Miles : 7 Altitude.MSL.Single Value : 1400

Environment

Flight Conditions : VMC Light : Night

Aircraft: 1

Reference : X ATC / Advisory.Tower : CPS Aircraft Operator : Air Taxi Make Model Name : Helicopter Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 135 Flight Plan : None Mission : Ambulance Flight Phase : Initial Climb Route In Use : None Airspace.Class E : T75

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Plan : None Flight Phase : Cruise Route In Use : None Airspace.Class E : T75

Person

Reference : 1 Location Of Person.Facility : CPS.Tower Reporter Organization : Government Function.Air Traffic Control : Local Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 4.5 ASRS Report Number.Accession Number : 1309600 Human Factors : Workload Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew Miss Distance.Horizontal : 100 When Detected : In-flight Result.General : Police / Security Involved Result.Flight Crew : Took Evasive Action Result.Flight Crew : Requested ATC Assistance / Clarification Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

A helicopter was flying VFR southbound not in communication with air traffic control. The pilot checked with CPS tower and reported a near miss UAS incident. The aircraft was at 1,400 ft and 7 NW of CPS. The pilot reported that the drone was less than 100 ft from the helicopter and had to take evasive action with a 60 degree banking turn to avoid the drone. There was no reported damage to the aircraft and crew was not injured. The color of the UAS was reported as black and grey, 3x3 ft, 4 propellers with balloons on top. Law enforcement was contacted and police dispatched. UAS checklist was followed and completed. Acn and no further incident occurred.

Add law enforcement procedures to checklist. I was also not sure of what was to be expected of me with law enforcement. I used my best judgment and had the police dispatch cars to the possible scene from where the UAS was launched.

Synopsis

A helicopter pilot called ATC after a NMAC with an UAS at 1,400 feet over the STL metropolitan area.

Time / Day

Date : 201511 Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : JFK.Airport State Reference : NY Altitude.MSL.Single Value : 1000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft

Reference : X ATC / Advisory.Tower : JFK 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 : Passenger Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class B : JFK

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Function.Flight Crew : Check Pilot Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1309452 Human Factors : Distraction Human Factors : Situational Awareness Human Factors : Time Pressure

Events

Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : 300 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

On final approach to Runway 31R around 1,000 feet MSL, I saw two white drones on the left side of our aircraft appeared to be hovering. I was able to see them clearly so they must have been around 200 to 300 feet away from us. They were typical recreational type drones with four props. We passed them in a few seconds and didn't have to alter the path. I notified the JFK Tower immediately. We landed uneventfully.

The authorities will have to do something about this "drone" problem. It is becoming out of control.

Synopsis

An air carrier Captain on JFK Runway 31R final at about 1,000 feet reported two UAS aircraft hovering about 200-300 feet away from them and left of the final approach course. Evasive action was not required.

Time / Day

Date : 201511 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ORD.Airport State Reference : IL Relative Position.Angle.Radial : 304 Relative Position.Distance.Nautical Miles : 8 Altitude.AGL.Single Value : 65

Environment

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

Aircraft

Reference : X Aircraft Operator : Corporate Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Plan : None Mission.Other Flight Phase : Descent Flight Phase : Cruise Flight Phase : Climb Route In Use : None Airspace.Class G : 4H1

Person

Reference : 1 Location Of Person : Hangar / Base Reporter Organization : Corporate Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Commercial Qualification.Flight Crew : Instrument Qualification.Flight Crew : Multiengine ASRS Report Number.Accession Number : 1307833 Human Factors : Situational Awareness

Events

Anomaly.No Specific Anomaly Occurred : All Types Detector.Person : Ground Personnel When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

UAS operations in accordance with COA/333.

Mode-c transponder (30 mile/Mode C veil) not required by 91.215 exemption due to operations in Class G airspace (Notification not required).

Synopsis

A CyPhy PARC UAS pilot reported giving a demonstration flight beneath ORD Class B airspace up to 65 feet AGL without a transponder.

Time / Day

Date : 201511 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : AGC.Airport State Reference : PA Relative Position.Angle.Radial : 315 Relative Position.Distance.Nautical Miles : 6 Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC Light : Daylight Ceiling : CLR

Aircraft: 1

Reference : X ATC / Advisory.TRACON : PIT Aircraft Operator : Air Taxi Make Model Name : Helicopter Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Mission : Ferry Flight Phase : Cruise Airspace.Class E : PIT

Aircraft: 2

Reference : Y Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Phase : Cruise Airspace.Class E : PIT

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Taxi Function.Flight Crew : Pilot Flying Function.Flight Crew : Captain Qualification.Flight Crew : Commercial ASRS Report Number.Accession Number : 1307473 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : 200 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

After Departing AGC, we encountered what appeared to be a small drone approximately 6 NM NW of AGC; directly across Heinz Field on the south side of the Ohio River. We were at 2000 ft MSL when we spotted the small "object" approximately 200 ft off our port side. The object was silver and was reflective. It appeared to be heading on a SE course before it executed a slight left bank to the east. We only saw the object for approximately 10 sec before it disappeared behind our aircraft. I immediately notified Approach and relayed the same info. After an uneventful flight, I called Approach and basically repeated the same info that I had passed over the radio. They told me that law enforcement in that area had been notified.

Synopsis

A helicopter pilot near AGC reported a small UAS 200 feet away from his aircraft while cruising at 2000 feet MSL.

Time / Day

Date : 201511 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SHD.Airport State Reference : VA Relative Position.Distance.Nautical Miles : 4 Altitude.AGL.Single Value : 100

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 5 Light : Daylight Ceiling.Single Value : 5000 RVR.Single Value : 6000

Aircraft

Reference : X Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Plan : None Mission : Personal Flight Phase : Cruise Airspace.Class E : SHD

Person

Reference : 1 Location Of Person : Hangar / Base Reporter Organization : Personal Function.Flight Crew : Single Pilot Qualification.Flight Crew : Private Experience.Flight Crew.Total : 100 ASRS Report Number.Accession Number : 1307339 Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew Miss Distance.Horizontal : 15840 Miss Distance.Vertical : 1500 When Detected : In-flight Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

I discovered yesterday that I have been flying model aircraft 4.02 miles from Shenandoah Regional airport without first notifying them. I had previously measured the distance as over five miles but while listening to my scanner heard an aircraft on approach to runway five report four miles out while abeam my location. I then used GPS on my phone to precisely determine my location relative to the airport and found I had made a measuring error in my initial location check. At no time have I flown models above 400 feet AGL and at no time have I ever flown while full scale aircraft were visible in the area, but I take regulations seriously and consider this a serious breach of etiquette in addition to a regulatory error.

I will visit the airport and determine the best way to notify them of my intention to fly models at any time in the future. There was never a real safety issue here, but this incident certainly points out the need for more readily available fly/don't fly information for model aircraft operators. I understand the FAA has a system that provides the necessary information in beta test now and very much look forward to seeing it go live.

Synopsis

Model aircraft pilot, who is also a private pilot, discovered that he has been operating his model aircraft 4 SM from SHD airport while believing he was outside 5 SM previously.

ACN: 1305704 (8 of 50)

Time / Day

Date : 201510 Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : CRP.TRACON State Reference : TX Altitude.MSL.Single Value : 3000

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : CRP Aircraft Operator : Military Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : IFR Flight Phase : Cruise Airspace.Class C : CRP

Aircraft: 2

Reference : Y ATC / Advisory.TRACON : CRP Aircraft Operator : Military Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Flight Phase : Final Approach Route In Use.Other Airspace.Class C : CRP

Aircraft: 3

Reference : Z ATC / Advisory.TRACON : CRP Aircraft Operator : Military Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Flight Phase : Final Approach Route In Use : Vectors Airspace.Class C : CRP

Person

Reference : 1 Location Of Person.Facility : CRP.TRACON Reporter Organization : Government Function.Air Traffic Control : Approach Function.Air Traffic Control : Departure Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 15 ASRS Report Number.Accession Number : 1305704 Human Factors : Distraction Human Factors : Confusion Human Factors : Situational Awareness Analyst Callback : Attempted

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Altitude : Excursion From Assigned Altitude Anomaly.Deviation - Procedural : Clearance Detector.Person : Air Traffic Control When Detected : In-flight Result.Air Traffic Control : Provided Assistance Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Aircraft Y radar identified and vectored for TAZ RWY31L NGP. Aircraft Z radar identified and vectored ASR RWY31L NGP. Aircraft X released Predator 2 Departure. Aircraft X radar identified and altitude verified. Aircraft X observed at 3000. Aircraft X observed and verified descending. Aircraft X reports climbing back to 3000. Aircraft X instructed to expedite climb to 3000. Traffic issued to aircraft Z. Aircraft Z reports traffic in sight and aircraft X observed level at 3000.

Synopsis

CRP Controller observed an UAV aircraft that was assigned 3,000 feet descend into the vicinity of another aircraft under his control. Controller observes the UAV aircraft climb back up to 3,000. Traffic was issued to all concerned.

ACN: 1302962 (9 of 50)

Time / Day

Date : 201510 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DEN.Airport State Reference : CO Altitude.AGL.Single Value : 1000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : DEN 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 Route In Use : Visual Approach Airspace.Class B : DEN

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Mission : Personal Flight Phase : Cruise Airspace.Class B : DEN

Person: 1

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Function.Flight Crew : Pilot Not Flying Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Total : 20000 Experience.Flight Crew.Last 90 Days : 134 ASRS Report Number.Accession Number : 1302962 Human Factors : Distraction Human Factors : Other / Unknown

Person: 2

Reference : 2 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : First Officer Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Last 90 Days : 190 Experience.Flight Crew.Type : 1209 ASRS Report Number.Accession Number : 1302959 Human Factors : Other / Unknown Human Factors : Distraction

Person: 3

Reference : 3 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) Experience.Flight Crew.Total : 12000 Experience.Flight Crew.Last 90 Days : 180 Experience.Flight Crew.Type : 8000 ASRS Report Number.Accession Number : 1303805

Events

Anomaly.Conflict : NMAC Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : 0 Miss Distance.Vertical : 50 When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

We were landing at DEN with the FO hand flying in VMC. At 1000 AGL approximately 3 miles out a large yellow drone (approximately 4 feet across) flew right underneath our aircraft. It was about 50 feet below us. We did not have time to maneuver the aircraft at all in an avoidance maneuver. From the time I saw it to it flashing under the nose was about two seconds. It appeared to bank to the right (west) as it flew under us. We landed uneventfully.

Narrative: 2

On a 3 mile final at about 1000 feet altitude while hand-flying, a bright yellow drone maybe 4 feet across passed under our nose coming from our diagonal left and passing under our nose to our right side. It came and went too fast to notice any other detail. We reported the event to ATC and the FAA.

Narrative: 3

While on the jump seat, while flying a visual approach to Runway 16L at Denver International Airport; a small to medium-sized drone or radio-controlled aircraft passed directly beneath us traveling from SE to NW. The drone passed within 100 to 200 FT of our aircraft at an altitude of 6,200 FT MSL - 6,300 FT MSL (700 - 800 FT AGL) and appeared to have swept wings with a wingspan of 4 FT to 8 FT and was painted bright school bus yellow. We initially mistook it for a bird but soon realized what it was once we were closer. We did not have to deviate from localizer or glideslope to avoid hitting the drone but it was disconcerting to see how close to the final approach of Denver International Airport it was flying. Upon landing we reported the drone near-miss to the DIA [DEN] Tower.

Synopsis

Flight crew on final at DEN reported a near miss with a drone at 1000 feet AGL.

ACN: 1301464 (10 of 50)

Time / Day

Date : 201510 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : EWR.Airport State Reference : NJ Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC

Aircraft: 1

Reference : X ATC / Advisory.TRACON : N90 Aircraft Operator : Air Carrier Make Model Name : Widebody, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Nav In Use : GPS Nav In Use.Localizer/Glideslope/ILS : Runway 04R Flight Phase : Final Approach Airspace.Class B : NYC

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Phase : Cruise Airspace.Class B : NYC

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Last 90 Days : 182 Experience.Flight Crew.Type : 5990 ASRS Report Number.Accession Number : 1301464 Human Factors : Situational Awareness Human Factors : Workload Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Near miss with Drone, while on final approach to 04R we saw a drone about 1-200 feet below us barely off centerline of 4R. We were at 2000 feet and cleared for ILS 4R had we been 200 feet lower we would have hit the drone. It was reported by several other aircraft prior to our sighting. I made phone call to TRACON as requested and subsequently got a few more calls throughout the day from Dept of Homeland security.

Synopsis

A heavy jet Captain on final to EWR 4R reported an Unmanned Aircraft System near miss at 2,000 feet when the craft passed beneath their aircraft.

ACN: 1301461 (11 of 50)

Time / Day

Date : 201510 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : EWR.Airport State Reference : NJ Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : EWR Aircraft Operator : Air Carrier Make Model Name : Widebody, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 3 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Nav In Use.Localizer/Glideslope/ILS : Runway 04R Flight Phase : Final Approach Airspace.Class B : EWR

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Mission : Personal Flight Phase : Cruise Airspace.Class B : EWR

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Function.Flight Crew : Pilot Not Flying Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Total : 12169 Experience.Flight Crew.Last 90 Days : 162 Experience.Flight Crew.Type : 6165 ASRS Report Number.Accession Number : 1301461 Human Factors : Situational Awareness Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Other / Unknown 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

Newark air traffic control announced a drone was in the vicinity of the EWR airport. The first officer was flying the aircraft for landing on runway 4R following the ILS glide path. We were looking for the drone and as I was setting the flaps as requested by the first officer; the first officer saw the drone momentarily as it flew above our aircraft. I did not see it and neither did the other first officer (We were on an international flight and so we had a crew of 3). We landed the aircraft safely and the rest of the flight was normal.

Synopsis

A heavy jet at 1,500 feet on the EWR Runway 4R ILS reported a UAS passed overhead their aircraft.

ACN: 1300748 (12 of 50)

Time / Day

Date : 201510 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : DFW.Airport State Reference : TX

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : D10 Aircraft Operator : Air Carrier Make Model Name : MD-82 Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Flight Phase : Final Approach Flight Phase : Landing Airspace.Class B : DFW

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Mission : Personal Flight Phase : Cruise Airspace.Class B : DFW

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Other / Unknown Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1300748 Human Factors : Distraction Human Factors : Workload Human Factors : Communication Breakdown Communication Breakdown.Party1 : Flight Crew Communication Breakdown.Party2 : ATC

Events
Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Landing Without Clearance Detector.Person : Flight Crew When Detected : In-flight Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I did not call the tower before landing. I was distracted by approach telling us to be on the lookout for a [UAV] on final, and seeing three big birds above us on final just miss us.

Synopsis

Flight crew failed to call Tower and landed without a clearance due to a distraction of Approach Controller advising them about possible UAV traffic and birds on final.

Date : 201509 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : UMP.Airport State Reference : IN Relative Position.Distance.Nautical Miles : 4 Altitude.MSL.Single Value : 3200

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 10 Light : Daylight Ceiling.Single Value : 3800

Aircraft: 1

Reference : X ATC / Advisory.Center : ZID Aircraft Operator : Personal Make Model Name : Small Aircraft, Low Wing, 1 Eng, Retractable Gear Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Personal Flight Phase : Descent Route In Use : Visual Approach Airspace.Class E : ZID

Aircraft: 2

Reference : Y Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class E : ZID

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Instrument Qualification.Flight Crew : Instrument Qualification.Flight Crew. Total : 1100 Experience.Flight Crew.Last 90 Days : 30 Experience.Flight Crew.Type : 800 ASRS Report Number.Accession Number : 1298538 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew Miss Distance.Horizontal : 100 Miss Distance.Vertical : 10 When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

I was on an IFR flight plan to UMP and in contact with ATC at the time of the incident. Descending through 3,200 MSL, heading 180 degrees and around 4 miles NE from UMP, a disc shaped object approx. 16 inches to 2 feet across passed within 100 feet of my right wing tip and was at or very close to my altitude. The object passed very quickly, but I had time to point it out to my wife (acting as co-pilot at the time. She holds a private pilot certificate and is IFR rated and current. Approx. 1,000 hours as pilot in command). It was the opinion of both of us that the object must be a drone and not a balloon or kite. I advised ATC of the incident.

Synopsis

A pilot reported a near miss with a UAS while descending through 3,200 feet on an IFR flight to UMP.

ACN: 1298210 (14 of 50)

Time / Day

Date : 201509 Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : JCF.TRACON State Reference : CA Altitude.MSL.Single Value : 9000

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : JCF Make Model Name : SR22 Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : IFR Flight Phase : Descent Airspace.Class E : ZLA

Aircraft: 2

Reference : Y ATC / Advisory.TRACON : JCF Aircraft Operator : Military Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Tactical Flight Phase : Descent Airspace.Class E : ZLA

Aircraft: 3

Reference : Z ATC / Advisory.TRACON : JCF Aircraft Operator : Air Carrier Make Model Name : Medium Large Transport Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Flight Phase : Descent Airspace.Class E : ZLA

Aircraft: 4

Reference : A ATC / Advisory.TRACON : JCF Aircraft Operator : Air Carrier Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Flight Phase : Descent Airspace.Class E : ZLA

Person

Reference : 1 Location Of Person.Facility : JCF.TRACON Reporter Organization : Government Function.Air Traffic Control : Approach Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 16 ASRS Report Number.Accession Number : 1298210 Human Factors : Distraction Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : Clearance Detector.Person : Air Traffic Control When Detected : In-flight

Assessments

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

Narrative: 1

I was working Antelope Sector without assistance, which can be very challenging, this was one of those challenging days. This particular day, we were dealing with a short-staffing situation that didn't provide for much opportunity of a handoff to assist me. I was dealing with an LOA matter, of descending aircraft out of ZLA airspace reference Aircraft Y orbiting at VFR/125 blocking descent from 140 to even an undesirable descent to 130. So, I had been stepping down an Aircraft Z and Aircraft A with comm issues that had me constantly switching from EDW to a backup site (Pearblossom) due to limited coverage and muffled read backs.

Uncertain what the issues were, I also was trying to switch from foot pedal to handset to determine the nature of the problem which required me to make numerous duplicate calls to the same aircraft to accomplish anything. Apparently I gave a VFR aircraft, the one in question, Aircraft X, an IFR clearance exiting a MOA too soon; perhaps there was only 2-1/2 miles instead of 3 at the time I issued the IFR clearance. Adding to the pressure of the situation was a Front Line Manager (FLM) sitting beside me, who didn't inform me of the incident until an hour later; when I received my 1st break for the day. At the end of the

day, I discussed the matter with our Air Traffic Management as I was walking out the door, having reviewed the incident with our radar review program.

There are numerous suggestions that could be made, but mostly I would say in my limited hours per month, I needed more patience at times but I also feel I was struggling with priorities: good, better, best. It's on me; in other words. Beyond that, I needed assistance with landline coordination; making calls or receiving them. There seemed to be inabilities for such matters to be handled quickly, or easily, in numerous instances.

Aircraft Z was given a crossing restriction from 130 while east of PMD [reference] VFR/115 traffic just clearing with ample time to cross JANNY at and maintain 080 but reported later unable to make it (pilot deviation?). As I called ZLA-04, with a point out they accepted, the FLM attempted to call SCT-VLY but they were unresponsive. Once told of that situation, I called them back with a more forceful tone of voice which accomplished the goal: "Point out approved." Later in the day, in an unrelated matter, [reference another aircraft] I gave "lost comm" for SCT-Pomona and accomplished a point out with SCT-Glendale that they seemed reluctant to accept, bothered as if I had called the wrong sector (expecting me to call SCT-Valley perhaps?)

I checked our approach airspace map to validate I had called the appropriate sector with that point out. So, again, frequency coverage wasn't the best, which the FLM confirmed had also been a problem the prior day; and landline coordination wasn't much better. We also discussed LOA matters of descending Aircraft Z and Aircraft A per LOA with ZLA, which honestly could not have been accomplished any better without numerous TCAS RAs unless I had a handoff assisting with requests for "control" of whatever type was required in that moment throughout the 4 plus 10 hours I worked that sector today.

Synopsis

A JCF controller reports of bad radios along with an orbiting UAV that was in the way of descending aircraft. The Controller reports of a loss of separation between IFR aircraft a VFR aircraft leaving a MOA. The Controller reported of other issues that may have led to his lack of awareness and not feeling competent about his work that day.

ACN: 1297435 (15 of 50)

Time / Day

Date : 201509 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : TPA.Airport State Reference : FL

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : TPA 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 Flight Phase : Takeoff Airspace.Class B : TPA

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class B : TPA

Person

Reference : 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 ASRS Report Number.Accession Number : 1297435 Human Factors : Distraction

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Departing TPA Runway 01L. Possible drone sighting 200 feet in altitude off the departure end of runway about on-fourth to one-half left of centerline. Reported to ATC. Flight continued normally.

Synopsis

After takeoff an Air Carrier Captain reported a possible UAS at 200 feet, approximately one third of a mile to the left of TPA Runway 1L centerline.

ACN: 1296856 (16 of 50)

Time / Day

Date : 201509 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LAX.Airport State Reference : CA

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : LAX 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 Nav In Use : FMS Or FMC Flight Phase : Final Approach Airspace.Class B : LAX

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class B : LAX

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : First Officer Experience.Flight Crew.Last 90 Days : 111 ASRS Report Number.Accession Number : 1296856 Human Factors : Other / Unknown

Events

Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Passenger When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

Upon arrival at gate, a Passenger came to the cockpit and reported seeing an aerial drone near the left wing of aircraft on short final to Runway 7R. Neither the Pilot Flying nor I saw anything on short final. A phone call was made to LAX Tower to report the alleged sighting.

Synopsis

A B737 Passenger reported seeing a UAS on short final to LAX Runway 7R. The Pilots did not see the object.

Date : 201509 Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : HTS.Airport State Reference : WV Relative Position.Distance.Nautical Miles : 2.5 Altitude.AGL.Single Value : 800

Environment

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

Aircraft: 1

Reference : X ATC / Advisory.Tower : HTS Aircraft Operator : Personal Make Model Name : Small Aircraft, Low Wing, 1 Eng, Fixed Gear Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Personal Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class D : HTS

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class D : HTS

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Instrument Qualification.Flight Crew : Private Experience.Flight Crew.Total : 753 Experience.Flight Crew.Last 90 Days : 17 Experience.Flight Crew.Type : 753 ASRS Report Number.Accession Number : 1296812 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew Miss Distance.Horizontal : 20 Miss Distance.Vertical : 20 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

On approximately 2.5 mile straight-in final to HTS Runway 12 at 800 feet AGL I saw an object just to the left of my flight path. For the first second I thought it was a bird, but I quickly realized that the object was stationary. Within another couple of seconds I recognized it to be man-made.

We ultimately descended under the object without changing our flight path or descent rate; at its closest it was approx 20 feet above and 20 feet off my left wing.

It appeared to be a kite, with a tail. I also thought I saw a flash of light glint off the string.

However, given the very short time the object was in view, it could also have been a powered UAV.

I immediately reported the near-miss to HTS Tower, and also to HTS Departure Control about 30 minutes later when I departed the airport.

Synopsis

A Pilot on final approach to HTS at 800 feet reported a near miss with what appeared to be a kite but may have been a UAS.

ACN: 1295864 (18 of 50)

Time / Day

Date : 201509 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : 99CL.Airport State Reference : CA Altitude.MSL.Single Value : 6500

Environment

Weather Elements / Visibility.Other Light : Daylight

Aircraft: 1

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

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class E : JCF

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Private Experience.Flight Crew.Total : 1760 Experience.Flight Crew.Last 90 Days : 25 Experience.Flight Crew.Type : 450 ASRS Report Number.Accession Number : 1295864 Human Factors : Other / Unknown

Events

Anomaly.Conflict : NMAC Detector.Person : Flight Crew Miss Distance.Horizontal : 100 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Narrative: 1

Cruise at 6,500 level, 270 heading, abeam 99CL (Adelanto), PCAS flashing traffic dead ahead same altitude inbound closing FAST! Made contact of drone directly in my windscreen, hard right bank with forward push of yoke to avoid this traffic. Contacted Joshua approach immediately afterwards, controller said he issued a conflict warning but did not at that time have control of the drone. I believe that if I had not conducted an evasive maneuver, I would not be writing this report. Approximately 9 months ago in this same area, I was returning home, 11,500 feet cruise, and I noticed a drone in the Edwards airspace parallel with my flight. The drone ascended to my altitude and turned directly to me on a collision course, crossed directly in front of me causing another evasive encounter on my part. Then as to hide the fact my PCAS unit quit reporting the conflict as if the drone turned off it's transponder. Who is flying these drones? I'm scared.

Synopsis

Pilot took evasive action to avoid a drone near 99CL.

ACN: 1295187 (19 of 50)

Time / Day

Date : 201509 Local Time Of Day : 1201-1800

Place

Altitude.MSL.Single Value : 2400

Environment

Flight Conditions : VMC Ceiling.Single Value : 11000

Aircraft: 1

Reference : X Aircraft Operator : FBO Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : VFR Mission : Training Flight Phase : Landing Route In Use : Visual Approach

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : FBO Function.Flight Crew : Single Pilot Qualification.Flight Crew : Student ASRS Report Number.Accession Number : 1295187

Events

Anomaly.Conflict : NMAC Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : 300 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

Just after approximately mid field downwind, after completing the landing checklist I looked out of the left hand side of the aircraft to visually check my distance from the runway. I saw a small object passing on the left hand side at the same altitude or slightly lower. I immediately reported what I saw to the tower controller and gave her a description of a small spherical looking object approximately 2 feet diameter at my current location. She then asked me for the altitude to which I replied 2,400 feet. I gave her further information on the ground and she also said that she believes she saw it through the binoculars.

Synopsis

A PA28 Student Pilot reports seeing a spherical object 300 feet abeam and at pattern altitude, which is reported to the Tower.

ACN: 1294113 (20 of 50)

Time / Day

Date : 201508 Local Time Of Day : 0601-1200

Place

Altitude.AGL.Single Value: 20

Environment

Flight Conditions : VMC Light : Daylight

Aircraft

Reference : X Aircraft Operator : Corporate Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Plan : None Mission : Personal

Person

Reference : 1 Location Of Person : Gate / Ramp / Line Reporter Organization : Corporate Function Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Multiengine Qualification.Flight Crew : Commercial Qualification Flight Crew : Flight Instructor Qualification.Flight Crew : Instrument Experience. Flight Crew. Total: 2000 Experience.Flight Crew.Last 90 Days: 100 Experience Flight Crew.Type: 20 ASRS Report Number. Accession Number: 1294113 Human Factors : Communication Breakdown Human Factors : Situational Awareness Communication Breakdown.Party1 : Flight Crew Communication Breakdown.Party2: ATC

Events

Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Air Traffic Control When Detected : In-flight Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

Launched UAV without contacting Tower, NOTAM was filed and Tower personnel were made aware of UAV flight prior to launch. Next time call tower using cell phone to let them know of each launch. Aircraft never exceeded 20 feet AGL.

Synopsis

A UAV pilot reports filing a NOTAM and notifying the Tower prior to a series of flights but forgetting to contact the Tower via cell phone prior to each flight.

Date : 200508 Local Time Of Day : 1201-1800

Aircraft

Reference : X ATC / Advisory.Tower : ZZZ ATC / Advisory.TRACON : ZZZ Aircraft Operator : Government Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 0 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Training Flight Phase : Descent Airspace.Class E : ZZZ Airspace.TFR : ZZZ Maintenance Status.Maintenance Deferred : N Maintenance Status.Released For Service : Y

Component

Aircraft Component : Indicating and Warning - Landing Gear Aircraft Reference : X Problem : Malfunctioning

Person

Reference : 1 Location Of Person : Hangar / Base Reporter Organization : Military Function.Flight Crew : Pilot Flying ASRS Report Number.Accession Number : 1292242 Human Factors : Communication Breakdown Human Factors : Troubleshooting Human Factors : Workload Human Factors : Confusion Communication Breakdown.Party1 : Flight Crew Communication Breakdown.Party2 : Other

Events

Anomaly.Aircraft Equipment Problem : Less Severe Detector.Automation : Aircraft Other Automation Detector.Person : Flight Crew When Detected : In-flight Result.General : Maintenance Action Result.Flight Crew : Landed in Emergency Condition Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

Contributing Factors / Situations : Aircraft Primary Problem : Aircraft

Narrative: 1

[Government Agency X] conducted a joint operational flight between [Government Agency Y] and [Government Agency Z]. At XA: 14 [Government Agency Y] turned over control of [Aircraft X] to [Government Agency Z] for recovery at ZZZ. Conditions were daylight, VMC with unlimited visibility. At XA25, while conducting landing checks, the nose- and starboard-gear extended normally indicating down and locked. The port gear, however, was minimally extended as verified via the onboard optics and system indicators. The crew began troubleshooting and a [Drone operator instructor] joined the crew to assist. A maintenance [crew] on the landing gear system also joined the crew in to provide additional resources and discussion. The [Commander] was joined by several personnel including additional crew and the Operations and Safety Supervisors in order to delegate workload and ensure completeness of administrative functions. The Mishap Checklist was reviewed for additional considerations. At XA46 the crew [notified the] Approach Control which was relayed to [a local] Tower and Base Ops. Approach Control did not require the [special instructions] and the assigned airspace code was maintained. The pilot requested a block altitude of 14,000-16,000 feet MSL. [Aircraft X] was safely within the assigned Temporary Flight Restriction (TFR) airspace at 15,000 feet MSL with 2,700 pounds of fuel on board. ZZZ has a parallel runway configuration with 13L being [X,000 feet] and 13R being [Y,000] feet. However, scheduled maintenance was being performed on 13R, leaving the shorter 13L as the active runway. After close coordination with airfield manager and air operations office, the longer 13R was cleared and made available as long as necessary for a landing. At approximately XB00, the crew commanded a gear retraction resulting in both the nose- and starboard-gear retracting normally. However, the port-gear actually extended further to approximately halfway down. The crew then commanded gear down resulting in the nose- and starboard-gear extending normally and the port-gear remaining in place. In accordance with the Gear Will Not Extend checklist, the crew proceeded to "bump" the gear. This action resulted in an approximately 1-2" port-gear movement down. While monitoring servo temperatures closely, this procedure was repeated approximately 25 more times. During the bump procedure, C-Band downlink signals began to degrade. Aircraft X was operating Line-of-Sight (LOS) and the crew had made no changes to the datalink configuration. The signal strengths dropped to zero on both Downlink 1 & 2. Aircraft X was approximately 16 nm from the Ground Data Terminal (GDT) and had uplink signal strengths of approximately 50%. The crew lost all video and telemetry, and the aircraft was no longer being displayed on the tracker map. The LRE crew tried changing Aircraft X's heading and switched GDT receivers with no change. The crew initiated the Inflight checklist. However, the loss of the C-Band downlink lasted for 3-4 minutes then suddenly came back on its own. Signal strengths displayed normal and did not degrade for the remainder of the flight. With C-band link re-established, the IP LRE left to call [Government Agency A] regarding the landing when its nose gear failed to extend. Additionally, the Safety supervisor requested the written findings from that incident be sent for review and application of any lessons learned. When the port-gear stopped responding to "bump" commands, the visual indications were that it was approximately 2" from locked as compared to the starboard-gear. Several attempts were made to induced further movement through G-loading with negative results. At XC01, with agreement that there were no other alternative actions that could be performed and clearance received to land on 13R, the decision was made to dump fuel down to approximately 600 pounds and commence the approach to land. Cursory research indicated that the unsafe gear indication would not clear via a gear "bump." Visual observation was the only method of ascertaining gear status. ZZZ was contacted and briefed on UAV differences and safety considerations to include no personnel on board, the 600 pound fuel load, composite

material construction, wing pods were inert, and that the aircraft would land on the right side (starboard-gear) of the runway and shut down where stopped. Another available supervisor was dispatched to the airfield control tower to act as liaison, if necessary, throughout the landing. All checklists were completed for landing and clearance was received at XC36 with winds reported at 110/14. At XC44 the crew executed a successful landing on 13R, gradually slowing the aircraft down with reverse thrust while being careful not to use the brakes. The gear remained down and the aircraft responded to steering commands. [Aircraft X] rolled to a stop approximately midfield and was shut down. Link was maintained to monitor the aircraft to tow it to the hangar. [Aircraft X] was towed without incident and it was discovered that the gear was down and on the stops. [Aircraft X] completed a modification to Trailing Arm Landing Gear (TALG) [recently]. Since completion, the port-gear electric servo accumulated 76.9 flight hours, 17 gear cycles (extensions-retractions), and 10 landings.

Synopsis

An MQ-9 landing after a training mission, was delayed because the left main landing gear apparently did not fully extend. During extensive troubleshooting, communications with UAS was temporarily lost, but after communications' were re-established a normal precautionary landing followed. The gear was in fact fully extended.

Date : 201508 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : MSP.Airport State Reference : MN Relative Position.Angle.Radial : 015 Relative Position.Distance.Nautical Miles : 6.5 Altitude.AGL.Single Value : 400

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 8 Light : Daylight

Aircraft: 1

Reference : X Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Phase : Cruise Airspace.Class E : M98

Aircraft: 2

Reference : Y Make Model Name : Helicopter Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Flight Phase : Cruise Airspace.Class E : M98

Person

Reference : 1 Reporter Organization : Personal Function.Flight Crew : Pilot Not Flying Qualification.Flight Crew : Private Experience.Flight Crew.Total : 130 Experience.Flight Crew.Last 90 Days : 0 Experience.Flight Crew.Type : 120 ASRS Report Number.Accession Number : 1291906 Human Factors : Situational Awareness

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Observer Miss Distance.Horizontal : 500 Miss Distance.Vertical : 50 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Several helicopters were circling over the Minnesota State Fairgrounds covering a protest when a multi-rotor drone copter was seen over the intersection of Como Avenue and Snelling Avenue. It appeared that one [helicopter] pilot maneuvered away from the drone as he came toward the intersection from the North. The drone was operated over people going to the fair. The FAA needs to emphasize the extreme danger of having a lost link near a manned helicopter over a large crowd of people. This hazard has not been reduced to an acceptable level of risk through certification. Furthermore, it is impossible to see nearby helicopters in time to see and avoid in urban areas like where the amateur pilot was working. Such a collision would be catastrophic (resulting in multiple fatalities).

Synopsis

An observer, pilot qualified, reported a UAS at about 400 feet in conflict with several helicopters circling near the Minnesota State Fairgrounds.

ACN: 1290773 (23 of 50)

Time / Day

Date : 201508 Local Time Of Day : 1801-2400

Place

Locale Reference.ATC Facility : ZMP.ARTCC State Reference : MN Altitude.MSL.Single Value : 49000

Environment

Light : Dusk

Aircraft: 1

Reference : X ATC / Advisory.Center : ZMP Make Model Name : Gulfstream Jet Undifferentiated or Other Model Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Flight Phase : Cruise Airspace.Class A : ZMP Airspace.Special Use : MOA

Aircraft: 2

Reference : Y ATC / Advisory.Center : ZMP Aircraft Operator : Military Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Mission : Tactical Flight Phase : Cruise Airspace.Special Use : MOA

Person

Reference : 1 Location Of Person.Facility : ZMP.ARTCC Reporter Organization : Government Function.Air Traffic Control : Enroute Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7 ASRS Report Number.Accession Number : 1290773 Human Factors : Situational Awareness Human Factors : Confusion

Events

Anomaly.ATC Issue : All Types Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Detector.Person : Air Traffic Control When Detected : In-flight

Assessments

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

Narrative: 1

Aircraft Y was in a MOA 500B590. Aircraft X was in a block 490B510 and flew into the airspace that Aircraft Y was in. I thought you had to miss the airplane but apparently you have to miss the whole airspace, which can be the whole state of ND. Aircraft Y and Aircraft X were 141 miles apart. I think this is ridiculous.

Miss just the airplane.

Synopsis

A ZMP Controller reports of a loss of separation because a UAV was in a MOA and another aircraft was in the same MOA. The aircraft he was in control of was inside of the MOA and should not have been.

Date : 201508 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : LGA.Airport State Reference : NY Relative Position.Distance.Nautical Miles : 2

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : LGA Aircraft Operator : Air Taxi Make Model Name : PC-12 Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 135 Flight Plan : IFR Mission : Passenger Flight Phase : Initial Approach Airspace.Class B : LGA

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : LGA

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Taxi Function.Flight Crew : Pilot Flying Function.Flight Crew : Captain ASRS Report Number.Accession Number : 1290061

Events

Anomaly.Conflict : Airborne Conflict Detector.Person : Flight Crew When Detected : In-flight

Assessments

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

Narrative: 1

Sighted a drone while approaching to land RWY 22 at LGA. It was seen within a 2 mile final slightly below and to the left of our aircraft at a distance of less than 100 yards. It was reported to the tower with a follow up phone call to the supervisor as requested by the controller in position.

Synopsis

PC-12 Captain reports sighting a drone on final approach to Runway 22 at LGA. No evasive action is necessary.

Date : 201508

Place

Locale Reference.Airport : ANQ.Airport State Reference : IN Relative Position.Angle.Radial : 9.1 Relative Position.Distance.Nautical Miles : 200 Altitude.MSL.Single Value : 2500

Environment

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

Aircraft: 1

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

Aircraft: 2

Reference : Y Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class E : FWA

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Military Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Private Experience.Flight Crew.Total : 600 Experience.Flight Crew.Last 90 Days : 20 Experience.Flight Crew.Type : 250 ASRS Report Number.Accession Number : 1289851

Events

Anomaly.Conflict : NMAC Detector.Person : Flight Crew Miss Distance.Horizontal : 20 Miss Distance.Vertical : 20 When Detected : In-flight

Assessments

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

Narrative: 1

We were flying training sortie for a photo reconnaissance mission flying level at 2,500 feet MSL when a Fluorescence Orange small drone appeared to the left of the wind screen for approximately 2 seconds before passing just over the left wing of the aircraft. Approach advised and pilot provided telephone number to ATC for additional info once on the ground. The brevity of the encounter did not allow for evasive action.

Synopsis

C172 pilot experiences a NMAC with a drone at 2,500 feet.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : SKBO.Airport State Reference : FO Altitude.AGL.Single Value : 1200

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 20 Light : Daylight

Aircraft: 1

Reference : X Aircraft Operator : Air Carrier Make Model Name : Heavy Transport Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Cargo / Freight Flight Phase : Initial Climb

Aircraft: 2

Reference : Y Make Model Name : UAV - Unpiloted Aerial Vehicle

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : First Officer Function.Flight Crew : Pilot Not Flying Qualification.Flight Crew : Instrument Qualification.Flight Crew : Air Transport Pilot (ATP) Qualification.Flight Crew : Multiengine Experience.Flight Crew.Total : 7500 Experience.Flight Crew.Last 90 Days : 90 Experience.Flight Crew.Type : 2500 ASRS Report Number.Accession Number : 1289224

Events

Anomaly.Conflict : Airborne Conflict Detector.Person : Flight Crew Miss Distance.Horizontal : 600 Miss Distance.Vertical : 400 When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

We were departing SKBO [Runway] 13L. I was the FO, Pilot Monitoring. Shortly after TO, in the airport traffic area, prior to the left turn on the SID, I spotted a small fixed-wing drone. It was ahead of and below us, flying relatively fast, in our same direction. We were climbing runway heading and passed it to our right. We didnt' take evasive action. I estimate it was about 200 meters to our right, below us about 300-400 feet, at closest.

I called it in to SKBO tower and they kept saying it was a helicopter that they had on radar. I kept telling them that it wasn't a helicopter, and that it was a drone/UAV/RC fixed-wing aircraft. Some other Spanish-speaking pilot on tower frequency had to explain it to them...the tower didn't give us any feedback. I got the impression they weren't at all familiar with this threat.

When I saw it, it was flying away from the airport, on a course approximately between the two runways, flying about our same heading (130 degrees), at about 700 feet AGL.

Synopsis

Air carrier First Officer reports sighting a UAV or model aircraft shortly after takeoff from SKBO. The UAV was at about 700 feet AGL and below their aircraft and flying in the same direction.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : BOS.Airport State Reference : MA Relative Position.Distance.Nautical Miles : 2 Altitude.MSL.Single Value : 800

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : BOS Aircraft Operator : Air Carrier Make Model Name : B737-700 Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Flight Phase : Initial Approach Airspace.Class B : BOS

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle

Person

Reference : 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) Experience.Flight Crew.Last 90 Days : 203 ASRS Report Number.Accession Number : 1288638 Human Factors : Distraction

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew When Detected : In-flight

Assessments

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

Narrative: 1

At 800 feet over Boston Harbor while on a visual approach to Runway 04R at BOS, what at first glance seemed to be a large white bird caught my attention at our 3-3:30 position, some 200 feet-400 feet below our altitude, and an estimated 100-200 yards to our right.

I'm sure I wouldn't have noticed the "bird" over land, but it stood out against the deep blue-green of the harbor. And its wings weren't flapping. Oops. I then quickly recognized the familiar shape of a toy, it was a DJI Phantom drone.

Because it was well beneath us, no avoidance maneuvering was necessary, but I called out its position to the Captain Pilot Flying (PF) and then to BOS Tower, who quickly relayed the alert to traffic following us on the approach, and who, after we landed, asked me to phone the Tower Supervisor with details, which I did.

Although no maneuvering was necessary, the sighting and relaying of the drone's location clearly distracted from my other duties during one of the most critical phases of flight.

I've spoken with several other Pilots who know friends and neighbors with drones, or who have purchased one for themselves or their children. I would hope they all realize that the very dense and heavy nature of the batteries on these machines are going to cause far greater damage than a bird of equivalent weight, when one finally, and it seems inevitably, impacts a windscreen, jet engine, or flap assembly. It's going to be ugly, and we really need to spread the word.

So I would urge anyone reading this who operate drones, to ask them to visit http://knowbeforeyoufly.org and make sure they fully understand where and when drones are appropriate. Because of its altitude, I wouldn't be surprised if the one we saw had been launched in complete innocence off a boat in the harbor, simply to take photos or videos of the boat's owners.

It may to be one of the most harmless drone/aircraft encounters on record, yet it was still, if for no other reason than the distraction, a hazard to air navigation.

Synopsis

B737 First Officer reports a drone at 800 feet AGL during approach to Runway 4R at BOS. The drone was 200 to 400 feet below and to the right of the B737 and no evasive action was necessary.

ACN: 1287876 (28 of 50)

Time / Day

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : STP.Airport State Reference : MN

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Operating Under FAR Part : Part 91 Flight Plan : None Route In Use : None Airspace.Class D : STP

Aircraft: 2

Reference : Y ATC / Advisory.Tower : STP Aircraft Operator : Personal Make Model Name : Robinson R44 Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class D : STP

Person

Reference : 1 Location Of Person : Hangar / Base Reporter Organization : Personal Function.Other Qualification.Flight Crew : Private Experience.Flight Crew.Total : 135 Experience.Flight Crew.Last 90 Days : 0 Experience.Flight Crew.Type : 120 ASRS Report Number.Accession Number : 1287876

Events

Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : FAR Detector.Person : Observer Miss Distance.Horizontal : 100 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 was a pilot on the ground in Battle Creek Park approximately 1 mile east of STP. I noticed a drone hovering on the base leg VFR approach to Runways 13 and 14 due north of my position and at the same altitude that a R44 helicopter was operating that day. This is not a good place to be operating a drone. I've flown this approach to STP in the past in a helicopter, and I don't want to hit a drone coming into land at STP. The R44 helicopter I saw was lower than the drone was today.

Synopsis

Private pilot observing from the ground, reports a NMAC between an R44 helicopter and a drone during a visual approach to Runway 13 or 14 at STP. The drone was hovering near the base leg of the VFR traffic pattern and 100 feet above the helicopter.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : 115.Airport State Reference : NY Relative Position.Angle.Radial : 290 Relative Position.Distance.Nautical Miles : 5 Altitude.MSL.Single Value : 3500

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 50 Light : Daylight Ceiling.Single Value : 4500

Aircraft: 1

Reference : X ATC / Advisory.CTAF : 115 Aircraft Operator : Personal Make Model Name : Sail Plane Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Personal Flight Phase : Cruise Route In Use : Visual Approach Airspace.Class E : ZBW

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class E : ZBW

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Glider Experience.Flight Crew.Total : 204 Experience.Flight Crew.Last 90 Days : 10
Experience.Flight Crew.Type : 88 ASRS Report Number.Accession Number : 1287246 Human Factors : Time Pressure Human Factors : Workload Human Factors : Distraction Analyst Callback : Completed

Events

Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew Miss Distance.Horizontal : 100 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Close encounter with UAV Sunday 5 miles Northeast of Windham High Peak in Greene County New York at about 3,500 feet altitude.

I was piloting and had a passenger along for his first flight. We could not see any kind of wings, rotors, or form of propulsion. Unfortunately my camera was stuck in my pocket under tight seat belts and I couldn't get it out while flying the glider trying to avoid hitting this thing.

It was about 6 feet tall, 2-3 feet wide. Top of UAV was extremely radiant, with black half sphere under the radiant top and what appeared to be an antenna under the half sphere, we watched it skimming over the tree tops below and to the right of our flight path. It was moving at a fast speed southwest toward Windham High Peak. It had a very sparkling appearance like sun shining on a mirror with rainbow colors. I was flying northeast from Windham High Peak at about 3500 feet. As we watched the UAV I banked to the left and half way through the turn and now pointing at Windham High Peak, the UAV turned around and came toward us at a high rate of speed. As I got 3/4 of the way through the turn was within 50 yards of my right wing, quickly got in front of me and followed me around the turn getting closer until it was off my left wing, probably no more than 25-30 yards away. It covered about 5 miles in just a few seconds. We had a really good view of it.

As it got off my left wing, my passenger looked up and saw two more UAVs come out of the cloud directly over us. At that point I told my passenger we were returning immediately to the airport, I pushed the nose down and picked up speed. The UAVs then headed to the west at a fast speed.

Callback: 1

The reporter estimated at first visual contact the UAV was approximately 3.5 miles away down the hill. It sped up hill to the reporter's aircraft at a much higher speed than the

aircraft. The reporter estimated the closure took less than a minute and as he accelerated his aircraft away from the craft it followed, maneuvering at a speed much high than his. Two other similar shaped UAVs also had brilliant tops but colors somewhat different from the first which was a shimmering, brilliant rainbow type light.

Synopsis

A pilot flying near Windham High Peak in Greene County New York, at 3,500 feet was approached by an elaborate UAV with a brilliant surface on top of an inverted bowl shaped container with long rectangular antennas protruding downward. The UAV approached, tracked, and flew around the reporter before speeding off toward the west with two other like shaped UAVs.

Date : 201508 Local Time Of Day : 0601-1200

Place

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

Environment

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

Aircraft

Reference : X ATC / Advisory.CTAF : ZZZ Aircraft Operator : Government Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 1 Flight Plan : None Mission : Training Flight Phase : Landing Route In Use.Other

Component

Aircraft Component : Main Gear Aircraft Reference : X Problem : Failed

Person

Reference : 1 Location Of Person : Hangar / Base Reporter Organization : Government Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Instrument Qualification.Flight Crew : Commercial Qualification.Flight Crew : Multiengine Experience.Flight Crew.Total : 250 Experience.Flight Crew.Last 90 Days : 1 Experience.Flight Crew.Type : 2 ASRS Report Number.Accession Number : 1286283

Events

Anomaly.Aircraft Equipment Problem : Less Severe Anomaly.Ground Event / Encounter : Other / Unknown Detector.Person : Flight Crew When Detected : Taxi Result.General : Flight Cancelled / Delayed Result.General : Maintenance Action Result.Aircraft : Aircraft Damaged

Assessments

Contributing Factors / Situations : Aircraft Primary Problem : Aircraft

Narrative: 1

Shortly after touchdown, the right MLG (main landing gear) departed the aircraft. Directional control was maintained and the aircraft skidded to a stop on the runway. After documentation procedures and mission commander clearance, the aircraft and any associated debris was removed from the runway for repair. No major damage to aircraft.

Synopsis

SandShark UAS landing gear departed the aircraft after touchdown.

ACN: 1286178 (31 of 50)

Time / Day

Date : 201508 Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : LAX.Airport State Reference : CA Altitude.AGL.Single Value : 2600

Environment

Flight Conditions : VMC Light : Dusk

Aircraft: 1

Reference : X ATC / Advisory.Tower : LAX Make Model Name : Light Transport, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Ferry Flight Phase : Initial Approach Airspace.Class B : LAX

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : LAX

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Corporate Function.Flight Crew : Pilot Flying Function.Flight Crew : Captain ASRS Report Number.Accession Number : 1286178 Human Factors : Distraction

Events

Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew When Detected : In-flight

Assessments

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

Narrative: 1

On right downwind to runway 24L at LAX, at approximately 2600 feet AGL FO noticed a drone at approximately 3000 feet AGL on the right side of the aircraft. I did not see it, and it posed no risk to our flight. FO immediately notified ATC of the drone and its location. No evasive action was needed, or taken. Flight landed safely. Only crew onboard.

Synopsis

Business jet Captain reported an encounter with an unmanned aerial vehicle (UAV), at approximately 2,600 feet, during initial approach to LAX Runway 24L. No evasive action was required.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ORD.Airport State Reference : US Altitude.MSL.Single Value : 2700

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : C90 Aircraft Operator : Air Carrier Make Model Name : Widebody Transport Crew Size.Number Of Crew : 4 Operating Under FAR Part : Part 121 Flight Plan : IFR Flight Phase : Final Approach Airspace.Class B : ORD

Aircraft: 2

Reference : Y Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Flight Phase : Final Approach Airspace.Class B : ORD

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : First Officer Experience.Flight Crew.Total : 7349 Experience.Flight Crew.Last 90 Days : 178 Experience.Flight Crew.Type : 6192 ASRS Report Number.Accession Number : 1285713 Human Factors : Confusion Human Factors : Situational Awareness Human Factors : Workload Human Factors : Distraction

Events

Anomaly.ATC Issue : All Types Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew When Detected : In-flight

Assessments

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

Narrative: 1

Upon turning final for RWY 28C, approach informed us that a UAV was spotted at 2700 on approach to RWY 27L. Pilots briefly discussed what to do if they saw it. It is a distraction when we are informed of this and now we are all looking for it as you have no idea if and when it can pop up. Very dangerous situation.

Synopsis

Flight crew is informed of UAV at 2,700 feet on final to ORD Runway 27L. The flight crew becomes distracted while on final to Runway 28C, as they looked for the conflict.

ACN: 1284746 (33 of 50)

Time / Day

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZAB.ARTCC State Reference : NM Altitude.MSL.Single Value : 5000

Aircraft: 1

Reference : X Aircraft Operator : FBO Make Model Name : Small Aircraft Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Nav In Use.VOR / VORTAC : PXR Flight Phase : Cruise Airspace.Class E : ZAB

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class E : ZAB

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : FBO Function.Flight Crew : Instructor Qualification.Flight Crew : Commercial Qualification.Flight Crew : Flight Instructor ASRS Report Number.Accession Number : 1284746

Events

Anomaly.Conflict : NMAC Anomaly.Inflight Event / Encounter : Other / Unknown Detector.Person : Flight Crew Miss Distance.Horizontal : 50 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

Drone was 2 feet in diameter at exactly 5000 MSL on PXR 030 at 23 DME, evasive action was taken. It was silver and cylindrical.

Synopsis

An instructor reported a close encounter with a drone (UAV) at an altitude of 5,000 feet, requiring an evasive maneuver.

ACN: 1284244 (34 of 50)

Time / Day

Date : 201508 Local Time Of Day : 1801-2400

Place

Locale Reference.Airport : PHX.Airport State Reference : AZ Altitude.MSL.Single Value : 7000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : P50 Aircraft Operator : Air Carrier Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Flight Phase : Descent Route In Use.STAR : BRUSR1 Airspace.Class B : PHX

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : PHX

Person

Reference : 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 : Commercial ASRS Report Number.Accession Number : 1284244 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew Miss Distance.Vertical : 100 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

I was the First Officer on flight inbound to PHX. We were at 7000 FT/210 KTS on the BRUSR1 RNAV Arrival. Just approaching KUCOO intersection I noticed a black, small object straight ahead coming toward the aircraft. At roughly 100 FT below us, it passed directly under the nose headed northbound. The unmanned aircraft was helicopter like. The drone was black and bright yellow with a black bubble top. From the short look I had, I think it was possibly 1 1/2 FT long. The Captain and Jumpseater did not see the drone. I notified ATC of the sighting and we landed without incident. Upon arrival at the gate, we spoke to Law Enforcement and I contacted Phoenix Approach Control as requested.

I don't know what can be done, but I will say this was a very disturbing incident. Had our aircraft been descending, it could have easily been struck, possibly in the windshield. I hope measures can be taken to prevent another occurrence. From what I have researched today, the FAA receives 2 reports a day involving drone/aircraft sightings. This is unacceptable and is only a matter of time before there is an accident.

Synopsis

An air carrier First Officer reported a UAV near miss at 7,000 FT while flying the PHX BRUSR1 Arrival near the KUCOO intersection.

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference. Airport : PAO. Airport State Reference : CA Relative Position. Angle. Radial : 220 Relative Position. Distance. Nautical Miles : .5 Altitude. MSL. Single Value : 1000

Environment

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

Aircraft: 1

Reference : X ATC / Advisory.Tower : PAO Aircraft Operator : FBO Make Model Name : Small Aircraft Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Flight Phase : Initial Approach Route In Use : Visual Approach Airspace.Class D : PAO

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class D : PAO

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : FBO Function.Flight Crew : Instructor Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Flight Instructor Qualification.Flight Crew : Commercial Qualification.Flight Crew : Instrument Experience.Flight Crew.Total : 1000 Experience.Flight Crew.Last 90 Days : 25 Experience.Flight Crew.Type : 250 ASRS Report Number.Accession Number : 1284007 Human Factors : Workload Human Factors : Situational Awareness Human Factors : Distraction

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Flight Crew Miss Distance.Horizontal : 100 Miss Distance.Vertical : 5 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

I was acting as a CFI on a training flight with a student returning to our home base PAO when we flew past a drone in the traffic pattern. My student was flying. We were entering the left downwind for runway 31 at PAO from a standard 45 degree entry when I spotted an unmanned drone 2-3 feet in size at our altitude, which was the standard left pattern altitude for 31 at PAO. We passed within approximately 100 feet of the drone and took no evasive action. It appeared to be hovering with no discernible motion. My student indicated that he did not see it. There were no prior traffic advisories from PAO tower or PAO ATIS regarding the drone or drone activity in the area. I reported the drone to PAO tower and tower made a broadcast to all aircraft of our drone report.

By the time I saw the drone and recognized it as such, we had nearly flown past it. Such a small vehicle is difficult to spot until very close in. I usually focus on traffic scanning at distances that are further away. I had recently attended a meeting at PAO for CFIs where reports of nearby drone activity was mentioned and I think this helped me recognize it as a drone more quickly. Some pilot awareness of local drone activity may help facilitate close-in visual scanning and faster recognition of these small vehicles.

Legislation requiring firmware in these commercially manufactured drones that prevents operation outside of the FAA limits would improve safety. The distribution of information to drone purchasers regarding local flight restrictions, airport locations, etc. may also help prevent this incident from occurring.

To put this event into some context, bird activity also creates hazards at PAO and I have had several near collisions with birds there and elsewhere flying over many years. However, birds usually dive out of the way while the drone did not. This drone also likely weighed significantly more than a bird.

Synopsis

An instructor with his flying student was entering a 45 degree left downwind for PAO Runway 31 at 1,000 FT when he detected a UAV about 2-3 FT wide, approximately 100 FT beneath his aircraft.

Date : 201507 Local Time Of Day : 0601-1200

Place

Locale Reference.ATC Facility : S56.TRACON State Reference : UT Altitude.MSL.Single Value : 5500

Environment

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

Aircraft: 1

Reference : X ATC / Advisory.TRACON : S56 Aircraft Operator : Personal Make Model Name : Light Sport Aircraft Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Flight Phase : Cruise Route In Use : None Airspace.Class E : S56

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class E : S56

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Instructor Function.Flight Crew : Pilot Not Flying Qualification.Flight Crew : Multiengine Qualification.Flight Crew : Flight Instructor Qualification.Flight Crew : Commercial Experience.Flight Crew.Total : 2500 Experience.Flight Crew.Last 90 Days : 100 Experience.Flight Crew.Type : 800 ASRS Report Number.Accession Number : 1283984 Human Factors : Workload Human Factors : Time Pressure Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : FAR Anomaly.Deviation - Procedural : Published Material / Policy Detector.Person : Flight Crew Miss Distance.Horizontal : 300 Miss Distance.Vertical : 0 When Detected : In-flight Result.Flight Crew : Took Evasive Action Result.Flight Crew : Became Reoriented

Assessments

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

Narrative: 1

The student was forced to maneuver our aircraft in order to avoid a radio controlled (RC) airplane being operated near the RC Park on the northwest end of Utah Lake. We were performing ground reference maneuvers over the Lehi/Saratoga Springs area at 5,500 FT MSL putting us about 1,000 FT AGL. While in a left hand turn the student saw the RC plane and reacted immediately by turning the aircraft to the right in order to avoid the hazard. As the student turned our airplane to the right I was able to see the RC plane approximately 200 feet above us performing maneuvers and dives to include a dive through our original flight path and altitude. The student wisely decided to move to a different area to perform his ground reference maneuvers. As I watched the RC plane maneuver I felt that it was intentional and that he was attempting to "mess with us" or show off. Based on the size of the RC plane and the skill at which it was being operated I feel like the operator would have been somebody familiar with RC plane operations and regulations.

Synopsis

An Instructor reported his student took evasive action at 1,000 FT from a radio controlled (RC) aircraft, which was apparently being flown with intent toward and around their maneuvering aircraft. They were near an RC park northwest of Utah Lake.

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : P03.Airport State Reference : AZ Relative Position.Angle.Radial : 360 Relative Position.Distance.Nautical Miles : 8 Altitude.MSL.Single Value : 8500

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 10 Light : Daylight Ceiling.Single Value : 13000

Aircraft: 1

Reference : X ATC / Advisory.CTAF : P03 Aircraft Operator : Government Make Model Name : Small Aircraft, High Wing, 1 Eng, Retractable Gear Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Flight Phase : Cruise Route In Use : Direct Airspace.Class E : ZAB

Aircraft: 2

Reference : Y Aircraft Operator : Military Make Model Name : UAV - Unpiloted Aerial Vehicle Mission : Training Flight Phase : Cruise Airspace.Class E : ZAB

Aircraft: 3

Reference : Z Make Model Name : Cessna Single Piston Undifferentiated or Other Model Operating Under FAR Part : Part 91 Flight Phase : Cruise Airspace.Class E : ZAB

Person

Reference : 1 Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck Reporter Organization : Government Function.Flight Crew : Pilot Flying Function Flight Crew : Single Pilot Qualification Flight Crew : Flight Instructor Qualification.Flight Crew : Commercial Qualification.Flight Crew : Instrument Experience.Flight Crew.Total: 283 Experience.Flight Crew.Last 90 Days : 6 Experience.Flight Crew.Type: 6 ASRS Report Number. Accession Number: 1283969 Human Factors : Situational Awareness Human Factors : Workload Human Factors : Communication Breakdown Communication Breakdown.Party1 : Flight Crew Communication Breakdown.Party2 : Flight Crew

Events

Anomaly.Conflict : NMAC Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew Miss Distance.Horizontal : 200 Miss Distance.Vertical : 250 When Detected : In-flight Result.Flight Crew : Took Evasive Action

Assessments

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

Narrative: 1

While flying westbound approximately 8 miles north of P03 at 8500 feet MSL we encountered a small grey UAV (possibly a Hunter) followed by Aircraft Z acting as chase. UAV was slightly below us and crossed in front of us from left to right. Aircraft Z crossed underneath us. Collision avoidance was taken by climbing and turning to the Southwest. Approximately 8 minutes prior to the event I called on CTAF 122.8 of our location over P03 and received no response. After seeing the UAV and Aircraft Z I called once again on 122.8 and no answer was received. The UAV and Aircraft Z continued to the North and no change in altitude or direction was seen.

Synopsis

Pilot took evasive action to avoid a UAV and the chase airplane behind it at 8,500 FT near a local airport.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JFK.Airport State Reference : NY Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC

Aircraft: 1

Reference : X ATC / Advisory.Tower : JFK Aircraft Operator : Air Carrier Make Model Name : A321 Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Nav In Use.Localizer/Glideslope/ILS : Runway 13L Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class B : JFK

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : JFK

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1283862 Human Factors : Distraction Human Factors : Workload Human Factors : Situational Awareness

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew Miss Distance.Horizontal : 0 Miss Distance.Vertical : 300 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

3 miles south of ASALT intersection on the RNAV Visual 13L at 3000 FT both pilots observed a small drone the size of a street garbage can cover with four vertical engines passes approximately 300 FT directly below our aircraft. We were on a north heading and drone appeared to be traveling south. However with our speed of approximately 220 KTS it may have been traveling in our direction with us overtaking it. The color of the drone was metallic in apprehended with orange colors near its four engines. Possibly the propellers were orange? No evasive action required. ATC notified around 10 seconds after both pilots confirmed our sighting. Upon landing JFK tower gave me a phone number with Radar to follow up on the verbal report.

Synopsis

A321 flight crew reported a near miss with a UAV at 3,000 FT while on visual approach Runway 31L at JFK near the ASALT intersection.

Date : 201508 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : JFK.Airport State Reference : NY Altitude.MSL.Single Value : 1500

Environment

Flight Conditions : VMC

Aircraft: 1

Reference : X ATC / Advisory.Tower : JFK 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 Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class B : JFK

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : JFK

Person: 1

Reference : 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 Experience.Flight Crew.Total : 7000 Experience.Flight Crew.Last 90 Days : 138 Experience.Flight Crew.Type : 245 ASRS Report Number.Accession Number : 1283651 Human Factors : Situational Awareness Human Factors : Distraction

Person: 2

Reference : 2 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Function.Flight Crew : Pilot Flying Experience.Flight Crew.Total : 12717 Experience.Flight Crew.Last 90 Days : 179 Experience.Flight Crew.Type : 9408 ASRS Report Number.Accession Number : 1283765 Human Factors : Other / Unknown

Events

Anomaly.Airspace Violation : All Types Anomaly.Conflict : NMAC Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew Miss Distance.Horizontal : 100 When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

On approach to 31R into JFK we had a near miss with a silver or white colored drone. It passed approximately 100 FT or less off the left wing at our altitude on approach. It appeared to be approximately 3 feet square in size. I only saw it momentarily as we flew past it. The Captain did not see it.

Narrative: 2

I was the pilot flying and at some point First Officer said he may have seen a drone out of one of the windows. There was no TCAS alert and I saw nothing while on visual approach and ATC didn't report any traffic in our area. Landed normally.

Synopsis

An air carrier First Officer on a JFK Runway 31R Visual Approach at 1,500 feet reported a 100 foot near miss with an UAV, approximately three square feet. The Captain, pilot flying, did not see the object.

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : TMB.Airport State Reference : FL Relative Position.Distance.Nautical Miles : 5 Altitude.MSL.Single Value : 1000

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : TMB Make Model Name : Small Aircraft, High Wing, 1 Eng, Fixed Gear Crew Size.Number Of Crew : 1 Flight Plan : VFR Flight Phase : Final Approach Airspace.Class D : TMB

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class D : TMB

Person

Reference : 1 Location Of Person.Facility : TMB.Tower Reporter Organization : Government Function.Air Traffic Control : Local Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2 ASRS Report Number.Accession Number : 1282742 Human Factors : Distraction

Events

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

Assessments

Contributing Factors / Situations : Aircraft Primary Problem : Aircraft

Narrative: 1

Aircraft X reported SW of TMB, inbound to land Runway 27L. At about 5 SW of TMB, the pilot reported that there was a small, red, Remote Control (RC) type aircraft flying in the vicinity of the canal, above his altitude. The pilot stated that he had to change his altitude and that he observed the aircraft flying up and down repeatedly. The pilot joined the downwind for Runway 27L and landed safely.

Advise owners of RC aircraft not to fly so high especially near the vicinity of a training area for student pilots.

Synopsis

TMB Controller reports that they received a report from a pilot, which spotted a remote controlled (RC) aircraft near his aircraft on final. Pilot had to change altitude to avoid RC aircraft.

Date : 201507 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : CLL.Airport State Reference : TX Altitude.AGL.Single Value : 400

Environment

Weather Elements / Visibility : Cloudy Light : Daylight

Aircraft

Reference : X Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Mission : Personal Airspace.Class D : CLL

Person

Reference : 1 Location Of Person : Gate / Ramp / Line Reporter Organization : Personal Function.Flight Crew : Other / Unknown ASRS Report Number.Accession Number : 1282401 Human Factors : Situational Awareness Human Factors : Training / Qualification Human Factors : Confusion

Events

Anomaly.Airspace Violation : All Types Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Detector.Person : Observer Result.Flight Crew : Became Reoriented Result.Flight Crew : FLC complied w / Automation / Advisory

Assessments

Contributing Factors / Situations : Procedure Primary Problem : Procedure

Narrative: 1

I was given false information about where I could fly my drone. I was told I would be okay if I was 2 miles away from the airport and under 400 feet. I flew my drown 2.6 miles away from CLL Airport in College Station TX. Although I was under the 400 feet limit I was within the 5 mile limits. I was informed about my mistake by the Manager of the Airport

and was recommended to contact ASRS and report my problem. I was also given instructions on what to do in the future if I wanted to fly my drone around the area.

Synopsis

A private individual reported being advised by the CLL Airport Manager that he should cease flying his drone below 400 FT within 2.6 miles of the airport.

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : ZZZ.Airport State Reference : US Altitude.MSL.Single Value : 2000

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 10 Light : Daylight Ceiling.Single Value : 5000

Aircraft: 1

Reference : X 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 : Initial Approach Route In Use : Visual Approach Airspace.Class E : ZZZ

Aircraft: 2

Make Model Name : UAV - Unpiloted Aerial Vehicle Airspace.Class E : ZZZ

Person

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Reference : 1
Location Of Person Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Personal
Function Flight Crew : Single Pilot
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Total: 2652
Experience.Flight Crew.Last 90 Days: 14
ASRS Report Number. Accession Number: 1281994
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
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Communication Breakdown.Party2 : Other Communication Breakdown.Party2 : ATC

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Detector.Person : Flight Crew When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification Result.Flight Crew : Took Evasive Action Result.Flight Crew : Returned To Departure Airport

Assessments

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

Narrative: 1

I departed my home airport to practice landings at ZZZ. A short distance from the airport, ATC said there was no observed traffic and that I should squawk 1200 and change to advisory frequency. I overflew the airport to the South to see the windsock, came over the runway on a cross wind and then entered downwind. I announced that I was downwind for Runway 3 on CTAF of 122.8. Then someone came on the radio warning me that there was a drone in the vicinity of the airport and gave the altitude and distance. I forgot the altitude they gave, but I vaguely recall the distance was 1 or 2 miles to the south of the airport (in the vicinity where I had just circled the airport). The person initially called themselves "[city] Tower". There is no airport in [that city]. Alarmed that there was a drone nearby and not being able to see it and wondering who was talking on 122.8, I asked the individual to identify themselves. They wouldn't identify themselves. I asked if they were [company X]. The individual told me to stop asking questions over and basically get off the Unicom frequency and said nothing more other than that the drone "shouldn't be a factor". (This was of little reassurance, coming from some unknown individual on 122.8.)

I was on final now. Not knowing where the drone was and not having visual contact, I decided to abort my landing, turn towards the North and away from the airport and drone. (I never did have a sighting of the drone and do not know how close I came while I was in the pattern which included being South of the airport where I was told the drone was). I did ask ATC if they had drone activity on the radar in my area and they said not.

I returned and landed and called ATC. I learned over the course of two phone calls the following: 1) [company X] uses the call sign "[city tower]", 2) There was a NOTAM for drone operations that day. 3) At some time (it may have been after the incident) [company X] had let ATC know that they had "lost control" of one of their drones. The ATC controller believed it to be a "[UAV]". Later I was told that the drone had [been lost] somewhere.

My concerns are these: 1) I'm sure that [company X] has permission to test fly their drone aircraft in certain unpopulated areas. I'm sure that it does not include a mile or two from an airport. 2) I don't know when they communicated to ATC that they had lost control of one of their drones, but this information was never communicated to me by departure control who told me that there was no traffic in the vicinity of ZZZ. 3) The [drone] staff

tried to conceal their identity on 122.8 only creating confusion for myself. I thought that some private drone owner was on the 122.8 frequency and flying their personal drone around the airport. (There has been instances of privately owned drones flying illegally in our area of recent past.)

I would think that ATC should be notified immediately and updated as to the location of the drone. ATC, in turn, needs to communicate this to pilots operating in the area. (In this case, the drone operator apparently had GPS data as to where the drone was.)

Synopsis

A pilot approaching an airport was warned on CTAF frequency by an unknown operator, that a drone was operating nearby. The reporter returned to his departure airport to avoid conflict with the unseen drone.

ACN: 1281118 (43 of 50)

Time / Day

Date : 201507 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : PHX.Airport State Reference : AZ Altitude.MSL.Single Value : 8000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.TRACON : P50 Aircraft Operator : Air Carrier Make Model Name : Large Transport, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Flight Phase : Descent Route In Use.STAR : BRUSR 1 Airspace.Class B : PHX

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Flight Phase : Cruise Route In Use : None Airspace.Class B : PHX

Person: 1

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : First Officer Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Last 90 Days : 224 Experience.Flight Crew.Type : 502 ASRS Report Number.Accession Number : 1281118 Human Factors : Distraction Human Factors : Situational Awareness Analyst Callback : Completed Person: 2

Reference : 2 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Last 90 Days : 144 Experience.Flight Crew.Type : 8000 ASRS Report Number.Accession Number : 1282107 Human Factors : Confusion Human Factors : Distraction Human Factors : Situational Awareness Human Factors : Workload

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew When Detected : In-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

Flying the BRUSR 1 Arrival for Runway 26 into PHX, and a four-pod drone was spotted in front of our aircraft moving right to left.

Continue to report high flying drones in the vicinity of all airports and give full detail to ATC of its current location, and description.

Callback: 1

The reporter stated his aircraft was at 9,000 feet. The UAV was west of his aircraft about 1,000 feet below and near SDL.

Narrative: 2

On the BRUSR 1 Arrival, we saw what looked like a drone about 1,000 feet below us heading northwest bound around the BRIEZ waypoint. The drone appeared to be a chopper- quad. We were surprised to see something like this operating in busy airspace. Previous to this, my First Officer noted what appeared to be a drone to our right, but I did not see it, this would have been a different sighting then the craft we both saw fly underneath us. We reported it immediately to the Controller and he asked us a few questions about its description.

Synopsis

Air Carrier flight crew report a four pod drone in the vicinity of their aircraft while on final for Runway 26 at PHX.

ACN: 1280786 (44 of 50)

Time / Day

Date : 201507 Local Time Of Day : 0001-0600

Place

Locale Reference.ATC Facility : NCT.TRACON State Reference : CA Altitude.MSL.Single Value : 18000

Environment

Light : Night

Aircraft

Reference : X ATC / Advisory.TRACON : NCT Aircraft Operator : Military Make Model Name : UAV - Unpiloted Aerial Vehicle Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 91 Flight Plan : IFR Mission : Tactical Flight Phase : Climb Airspace.Class E : NCT

Person

Reference : 1 Location Of Person.Facility : NCT.TRACON Reporter Organization : Government Function.Air Traffic Control : Approach Function.Air Traffic Control : Departure Qualification.Air Traffic Control : Fully Certified Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 1 ASRS Report Number.Accession Number : 1280786 Human Factors : Confusion Analyst Callback : Attempted

Events

Anomaly.Airspace Violation : All Types Anomaly.ATC Issue : All Types Anomaly.Deviation - Altitude : Excursion From Assigned Altitude Anomaly.Deviation - Procedural : Clearance Detector.Person : Air Traffic Control When Detected : In-flight

Assessments

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

Narrative: 1

Aircraft X [a UAV] departed BAB and began a normal climb out to FL190 on their filed route of flight. As Aircraft X was leaving approximately 140 the pilot requested a left 360. I responded with "Proceed as requested" and restated to maintain FL190. As Aircraft X was about halfway into the unplanned turn the pilot asked if they could rejoin their filed route of flight and climb to FL510 block FL590. I responded with "Proceed as requested" and did not restate the altitude to maintain. At that point Aircraft X rejoined the filed route of flight and began a climb into ZOA airspace without coordination or communications transfer as the Aircraft X pilot missed the frequency change.

I failed to restate the altitude to maintain on the second "Proceed as requested" instruction. Additionally I will refrain from using "Proceed as requested" with IFR aircraft as it can lead to confusion. I don't usually use that phraseology with IFR aircraft, but I felt that the pilot was a little confused and that giving them less complicated instructions would be more expeditious. In this case it led to confusion with the altitude and an airspace violation occurred.

Synopsis

NCT Controller reports of an aircraft that requested a 360 turn. The Controller used the term "Proceed as requested." The aircraft did and while halfway through the turn the pilot requested to rejoin the flight plan and climb to a higher than assigned block altitude. Controller again used the term, "Proceed as requested," but forgot to restate the altitude to maintain. Aircraft climbed through uncoordinated airspace leading to an airspace violation by the NCT Controller.

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : TVL.Airport State Reference : CA

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 20 Light : Daylight

Aircraft

Reference : X ATC / Advisory.CTAF : TVL Aircraft Operator : Corporate Make Model Name : Helicopter Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : VFR Mission : Passenger Flight Phase : Final Approach Route In Use : Direct Airspace.Class E : ZOA

Person

Reference: 1 Location Of Person Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Corporate Function Flight Crew : Pilot Flying Function Flight Crew : Single Pilot Qualification.Flight Crew : Private Experience.Flight Crew.Total: 220 Experience.Flight Crew.Last 90 Days : 51 Experience. Flight Crew. Type: 105 ASRS Report Number. Accession Number: 1280456 Human Factors : Distraction Human Factors : Situational Awareness Human Factors : Troubleshooting Human Factors : Workload Human Factors : Confusion

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Deviation - Procedural : Published Material / Policy Anomaly.Deviation - Procedural : FAR Anomaly.Ground Event / Encounter : Object
Anomaly.Ground Event / Encounter : Aircraft Detector.Person : Flight Crew Detector.Person : Ground Personnel When Detected : Pre-flight Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

On final phase of a flight to TVL. On 3-mile final approach to Taxiway A at TVL from the West (Echo Summit), 36 heading.

At approximately 1.5 miles from the approach end of taxiway A, I observed a crowd of approximately 6 people on the ramp just across the grass strip/ditch from the west side of taxiway alpha, near the intersection with F. Since the taxiway itself was clear, and my touchdown point was beyond that intersection, I continued the approach, with caution, and landed near our hangar at the north end of the field. We had been in contact with Oakland Center for the last segment of our flight (from approximately JAQ to Echo Summit), and were not advised of any unusual hazards in the TVL airspace. We had self-announced on the TVL CTAF at several points during the final approach, and heard no response.

After landing, my passenger and I went to the TVL terminal, and talked to Mr. X, one of the flight instructors at [an area helicopter flying club]. I learned that a drone had been flying over the taxiway, directly in our approach path, approximately 2-3 minutes before we arrived. It would have posed a serious collision risk for us, but had in fact crashed into a private jet parked on the ramp just as we arrived. He had cell phone video of the drone flight. I told him that we had been talking to Oakland center, and had received no advisories, and asked if he knew whether the operators had permission from Oakland. He told me that he had called Oakland, and was told that they had not been informed. He also told me that the drone operators had been taking photos for compensation, and had told him that they had received permission to operate from the airport manager. However, I doubt that this represents sufficient authority, and I know from my own observation that the operators were not observing the most simple safety precautions such as monitoring and communicating on the CTAF frequency.

It is my understanding that the new rules governing unmanned drone flights for commercial purposes prohibit flights near airports without specific authorization from the FAA. Since the operation of this drone in that area posed a serious risk of mid-air collision , substantial damage to our aircraft, and mortal risk to myself and my passengers, I view this as a very serious incident. I am hoping that the FAA can follow up, and take any action required to prevent a recurrence.

Synopsis

A helicopter pilot reported a commercial UAV operating over CTAF TVL taxiways apparently with a local authority's permission.

ACN: 1279366 (46 of 50)

Time / Day

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.ATC Facility : ZZZ.TRACON State Reference : US Altitude.MSL.Single Value : 3000

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 10 Light : Daylight Ceiling.Single Value : 12000 RVR.Single Value : 5000

Aircraft: 1

Reference : X ATC / Advisory.TRACON : ZZZ Aircraft Operator : Personal Make Model Name : Cheetah, Tiger, Traveler AA5 Series Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Personal Flight Phase : Cruise Route In Use : None Airspace.Class E : ZZZ

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Flight Phase : Cruise Route In Use : None Airspace.Class E : ZZZ

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Qualification.Flight Crew : Private Experience.Flight Crew.Total : 603 Experience.Flight Crew.Last 90 Days : 15 Experience.Flight Crew.Type : 553 ASRS Report Number. Accession Number : 1279366 Human Factors : Confusion Human Factors : Situational Awareness Human Factors : Training / Qualification Human Factors : Workload

Events

Anomaly.Deviation - Procedural : FAR Anomaly.Ground Event / Encounter : Object Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew When Detected : In-flight When Detected : Routine Inspection Result.General : Release Refused / Aircraft Not Accepted Result.Flight Crew : Requested ATC Assistance / Clarification

Assessments

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

Narrative: 1

I was flying at 3000 feet headed to Airport ZZZ1 on a personal flight. I got ATC flight following when near Airport ZZZ. I got my squawk code and after approach had me on radar contact I saw another small aircraft or drone about 2 to 3 miles at my 11 o'clock position. The drone was headed on a 360 course and was just below my altitude and moving at a fast speed. The drone did not get close enough to cause me to need to change course or altitude. I reported because ATC did not see it and I thought in interest of safety they (ATC) needed to know about that activity. ATC did not see it and I gave them a pilot report on the object. A few minutes later the controller's manager asked for more details on location and size etc. and I gave him size and a landmark. It was a couple miles east of the chemical plant and white on top with delta shaped wing. 1/4 scale of a Long-EZ. I realized after talking to the FSDO that the registration on my aircraft was expired. I moved several times during the time the registration policy changed and that the airplane has been flying with expired registration. I have sent in application and the fee to FAA registration and will not allow plane to fly until registration is complete. I also went through all of my other documents and saw that my 3rd class medical expired. I erroneously thought that my driver's license would serve as medical if I had less than 180 HP and a no complex aircraft. I thought I could operate under the sport pilot rules. Upon my review of FARs I saw that I was incorrect and went to a local AME and had my medical exam and received my 3rd class medical certificate. I was incorrect on the difference in sport pilot and recreational pilot requirements. I had been inactive and not flying at all for several years and got back into aviation recently. I was not clear on all the changes and I should have asked my instructor and done a better job of reviewing FARs and staying up to date with [notes from a general aviation association].

Synopsis

A VFR pilot reported a UAS shaped like an LONG-EZ near his 3,000 FT altitude and reported it to ATC with location and description. While examining his documents for the FAA he discovered his aircraft registration and physical were noncompliant to the FARs.

Time / Day

Date : 201507 Local Time Of Day : 1201-1800

Place

Locale Reference.Airport : LGA.Airport State Reference : NY Altitude.MSL.Single Value : 2500

Environment

Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : LGA ATC / Advisory.TRACON : N90 Aircraft Operator : Air Carrier Make Model Name : B737-800 Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Flight Phase : Initial Approach Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class B : LGA

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : LGA

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Captain Function.Flight Crew : Pilot Flying Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1278963

Events

Anomaly.Conflict : NMAC When Detected : In-flight Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

During the hand-off to final approach controller we were advised the previous aircraft had sighted a UAV in the vicinity of DIALS while on the Visual Approach to RWY 31. We were told the UAV was below and to the right side of the flight path. The First Officer began to look outside for the UAV. Approximately 1.5 miles prior to DIALS he saw a UAV.

UAV was: 100-200 FT off the right wing 50-100 FT above the aircraft (aircraft was at 2,500 FT) Shape: Rectangular Size: Approximately 2 FT long Color: Silver/White Configuration: 2 propeller areas - front and back

We advised the Final Approach Controller and the LGA Tower of all the details.

Synopsis

B737 Captain reports a NMAC with a UAV at 2,500 feet near DIALS during the Expressway Visual Approach to LGA.

Time / Day

Date : 201506 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : FFZ.Airport State Reference : AZ Relative Position.Distance.Nautical Miles : 4 Altitude.MSL.Single Value : 2700

Environment

Flight Conditions : VMC Weather Elements / Visibility.Visibility : 40 Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : FFZ Aircraft Operator : Personal Make Model Name : PA-44 Seminole/Turbo Seminole Crew Size.Number Of Crew : 1 Operating Under FAR Part : Part 91 Flight Plan : None Mission : Training Flight Phase : Cruise Route In Use : Visual Approach Airspace.Class D : FFZ

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class D : FFZ

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Personal Function.Flight Crew : Pilot Flying Function.Flight Crew : Single Pilot Function.Flight Crew : Instructor Qualification.Flight Crew : Flight Instructor Qualification.Flight Crew : Multiengine Qualification.Flight Crew : Commercial ASRS Report Number.Accession Number : 1278763

Events

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

Assessments

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

Narrative: 1

Flying the PA44 north of CHD, about 4 miles south of FFZ, the drone appeared to the left of the left wing tip, at close proximity. Drone was red with black and approximately half a foot in diameter. Tower was immediately notified.

Synopsis

PA-44 instructor pilot reports an airborne conflict with a drone at 2,700 feet 4 NM south of FFZ. Evasive action is taken.

ACN: 1278119 (49 of 50)

Time / Day

Date : 201507 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : SAN.Airport State Reference : CA Relative Position.Distance.Nautical Miles : 9 Altitude.MSL.Single Value : 4000

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : SAN Aircraft Operator : Air Carrier Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Nav In Use.Localizer/Glideslope/ILS : Runway 27 Flight Phase : Final Approach Airspace.Class B : SAN

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : SAN

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Pilot Flying Function.Flight Crew : First Officer Qualification.Flight Crew : Air Transport Pilot (ATP) Experience.Flight Crew.Last 90 Days : 131 Experience.Flight Crew.Type : 2220 ASRS Report Number.Accession Number : 1278119

Events

Anomaly.Conflict : NMAC 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

Turning final for Runway 27 at SAN, abeam CIJHI, at approximately 4000 FT MSL, I saw what appeared to be a drone/Unmanned Aerial Vehicle (UAV), fly directly across my nose within 100 FT vertical and 100 FT horizontal. The vehicle was silver in color, shiny on the right and appeared to be in the shape of an "H", with the center portion being longer than the edges. I estimate the entire vehicle was 12-24 inches long and possibly had Props on the left and right edges. The vehicle was moving from my left to my right, heading south to north. I immediately called it out to my Captain, but the glare-shield kept him from seeing it. I did not have to maneuver to avoid the UAV, as it passed off my right side and I had already established a clear line of sight.

I landed uneventfully at SAN; upon landing, I reported the UAV and close pass to ATC with the same description as above. San Diego Ground informed me that another carrier aircraft had just reported the same UAV traffic and near miss on their landing just minutes prior to our arrival. I spoke with Company Flight Safety and gave my report. No damage was taken to Company equipment and no Passengers were affected by the incident.

Synopsis

Air carrier First Officer reports a NMAC with a drone at 4,000 feet during approach to SAN.

Time / Day

Date : 201507 Local Time Of Day : 0601-1200

Place

Locale Reference.Airport : ATL.Airport State Reference : GA Relative Position.Distance.Nautical Miles : 3 Altitude.MSL.Single Value : 2200

Environment

Flight Conditions : VMC Light : Daylight

Aircraft: 1

Reference : X ATC / Advisory.Tower : ATL Aircraft Operator : Air Carrier Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng Crew Size.Number Of Crew : 2 Operating Under FAR Part : Part 121 Flight Plan : IFR Mission : Passenger Nav In Use : FMS Or FMC Nav In Use.Localizer/Glideslope/ILS : Runway 27L Flight Phase : Final Approach Route In Use : Visual Approach Airspace.Class B : ATL

Aircraft: 2

Reference : Y Aircraft Operator : Personal Make Model Name : UAV - Unpiloted Aerial Vehicle Flight Plan : None Route In Use : None Airspace.Class B : ATL

Person

Reference : 1 Location Of Person.Aircraft : X Location In Aircraft : Flight Deck Reporter Organization : Air Carrier Function.Flight Crew : Pilot Flying Function.Flight Crew : Captain Qualification.Flight Crew : Air Transport Pilot (ATP) ASRS Report Number.Accession Number : 1277847 Human Factors : Distraction Human Factors : Situational Awareness

Events

Anomaly.Conflict : Airborne Conflict Anomaly.Ground Event / Encounter : Object Anomaly.Inflight Event / Encounter : Object Detector.Person : Flight Crew When Detected : In-flight Result.General : None Reported / Taken

Assessments

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

Narrative: 1

While on a visual approach to RWY 27L, we encountered an Unmanned Aerial Vehicle. The event occurred on approximately a three mile final. Our altitude was approximately 2200 feet MSL; and the UAV was 500 feet below us and slightly off to the Captain's side of the aircraft. The closure rate was far too fast for us to take any evasive action. We continued the approach and landed without incident. We reported the event to the tower controller. During the taxi-in, ATC requested information about the incident. The vehicle appeared to have some sort of disk in the center, with rotors/propellers on the corners.

Upon landing and deplaning, a [company employee] met me at the aircraft and requested that I call a phone number. I called the number from the telephone in the jetbridge.

Synopsis

An air carrier Captain on a visual approach to ATL at 2,200 feet encountered an UAS about 500 feet below his aircraft on a three mile final. The encounter was so brief no evasive action was taken.