

**ASRS Database Report Set**

**Controller Reports**

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Report Set Description.....A sampling of reports from Air Traffic Controllers.

Update Number.....35

Date of Update .....March 7, 2024

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

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

National Aeronautics and  
Space Administration

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



TH: 262-7

**MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data**

**SUBJECT: Data Derived from ASRS Reports**

The attached material is furnished pursuant to a request for data from the NASA Aviation Safety Reporting System (ASRS). Recipients of this material are reminded when evaluating these data of the following points.

ASRS reports are submitted voluntarily. Such incidents are independently submitted and are not corroborated by NASA, the FAA or NTSB. The existence in the ASRS database of reports concerning a specific topic cannot, therefore, be used to infer the prevalence of that problem within the National Airspace System.

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

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

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

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

Becky L. Hooey, Director  
NASA Aviation Safety Reporting System

## CAVEAT REGARDING USE OF ASRS DATA

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

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

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

# Report Synopses

ACN: 2045337 *(1 of 50)*

### Synopsis

ORF TRACON Controller reported numerous frequencies routinely fail at their facility and no action has been taken to address the frequent outages.

ACN: 2044287 *(2 of 50)*

### Synopsis

A Tower Controller reported they had to vector an IFR helicopter that departed from a nearby hospital below the minimum vectoring altitude to avoid conflicting traffic.

ACN: 2043853 *(3 of 50)*

### Synopsis

N90 TRACON Controller reported an aircraft on the JFK5 SID turned the wrong direction on initial climb and entered into LGA's airspace. The reporter stated that this problem keeps reoccurring.

ACN: 2043844 *(4 of 50)*

### Synopsis

N90 Controller reported an aircraft on the JFK5 SID turned the wrong way on initial climb. Reporter stated this is a recurring issue for departures from Runway 31L.

ACN: 2042505 *(5 of 50)*

### Synopsis

S46 TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.

ACN: 2042097 *(6 of 50)*

### Synopsis

A TRACON Controller reported an aircraft on final approach to a satellite airport encountered a NMAC when a VFR aircraft climbed towards it.

ACN: 2040868 *(7 of 50)*

### Synopsis

A TRACON Controller reported an aircraft on base leg reported malfunctioning flight controls and vibrations. The aircraft turned on its own towards the airport on a conflicting heading with another aircraft on final approach.

ACN: 2040867 *(8 of 50)*

### Synopsis

A Tower Controller in Charge reported a NMAC between two Cessna 172's on short final.

ACN: 2040853 *(9 of 50)*

### Synopsis

Tower Controller reported a possible minimum vectoring altitude violation due to a miscommunication in regards to the assigned altitude of a go around instruction.

ACN: 2040849 *(10 of 50)*

### Synopsis

A TRACON Controller reported a small aircraft on approach in IMC repeatedly deviated from their course and descended below assigned and published altitudes flying below Minimum Vectoring Altitudes.

ACN: 2040570 *(11 of 50)*

### Synopsis

A Center Controller and flight crew reported the Controller issued a revised route via controller pilot data link communications. The flight crew did not load the route correctly into the FMC and deviated off course towards restricted special use airspace.

ACN: 2040203 *(12 of 50)*

### Synopsis

A Center Controller reported a flight of two RV8's descended from their assigned altitude and flew below the Minimum IFR Altitude. Later in the flight the same aircraft deviated from their assigned route.

ACN: 2038928 *(13 of 50)*

### Synopsis

A TRACON Controller reported they lost communications in their sector and could not communicate with aircraft in time to prevent a NMAC.

ACN: 2038921 *(14 of 50)*

### Synopsis

A Tower Controller reported an aircraft which acknowledged a clearance to line up and wait, took off conflicting with an arrival to an intersecting runway.

ACN: 2038915 *(15 of 50)*

### Synopsis

A Local Controller reported an aircraft descended in response to a TCAS/RA for traffic abeam landing on the parallel runway and flew below the Minimum Vectoring Altitude.

ACN: 2038628 *(16 of 50)*

### Synopsis

A Center Controller reported an aircraft deviated for weather from their assigned heading and flew below the Minimum Vectoring Altitude.

ACN: 2038616 *(17 of 50)*

### Synopsis

A Flight Service Station specialist reported they failed to get all the required flight plan information from a VFR aircraft that called them to report a rough running engine.

ACN: 2038613 *(18 of 50)*

## Synopsis

A Tower Local Control trainee reported they cleared a turbojet for takeoff behind a slower moving aircraft which had begun its turn away from the runway. The first aircraft unexpectedly turned back into the path of the jet departure and stopped climbing resulting in a Low Altitude Alert.

ACN: 2038373 *(19 of 50)*

## Synopsis

A Tower Local Controller and their trainee reported TRACON shipped an aircraft to their frequency without issuing conflicting orbiting traffic in TRACON airspace which resulted in a NMAC.

ACN: 2038028 *(20 of 50)*

## Synopsis

A TRACON Controller reported a NORDO aircraft flew below the Minimum Vectoring Altitude and into an adjacent facility's airspace. A previous sector failed to issue a frequency change to the aircraft resulting in the loss of contact.

ACN: 2036764 *(21 of 50)*

## Synopsis

A Center Controller in training reported they issued a clearance off of a non towered airport to 5,000 ft. which is below the Minimum IFR Altitude.

ACN: 2036756 *(22 of 50)*

## Synopsis

A TRACON Controller reported an aircraft on approach descended below the charted altitude and flew below the Minimum Vectoring Altitude.

ACN: 2036468 *(23 of 50)*

## Synopsis

A Center Controller reported he approved a weather deviation for an aircraft which resulted in it flying below the Minimum Vectoring Altitude.



ACN: 2036459 *(24 of 50)*

### Synopsis

A TRACON Controller reported a NMAC between an aircraft on an approach and an unidentified VFR aircraft flying through the final approach course.

ACN: 2036089 *(25 of 50)*

### Synopsis

A TRACON Controller reported their Manager questioned them about a NMAC between an IFR aircraft they had handed off to the Tower and a VFR aircraft in the Tower's Class D airspace.

ACN: 2035723 *(26 of 50)*

### Synopsis

ATC Controller reported a flight of two military trainers exited their training route prior to the coordinated fix and were flying below the Minimum Vectoring Altitude.

ACN: 2035032 *(27 of 50)*

### Synopsis

A TRACON Controller, trainee and the Controller in Charge reported an IFR departure was assigned a VFR departure procedure and assigned a VFR data tag identifier which resulted in the aircraft flying below the Minimum Vectoring Altitude.

ACN: 2035031 *(28 of 50)*

### Synopsis

A TRACON Controller reported a Corporate jet deviated off course from the approach and flew below the Minimum Vectoring Altitude.

ACN: 2034436 *(29 of 50)*

### Synopsis

A TRACON Controller reported they vectored an aircraft below the Minimum Vectoring Altitude.

ACN: 2034433 *(30 of 50)*

### Synopsis

A TRACON Controller reported they descended an aircraft below the Minimum Vectoring Altitude.

ACN: 2034127 *(31 of 50)*

### Synopsis

A Tower Controller reported they received a Minimum Safe Altitude Warning for an aircraft on short final and advised the aircraft.

ACN: 2033079 *(32 of 50)*

### Synopsis

A Tower Controller reported a departing aircraft deviated from the SID and flew below the minimum vectoring altitude.

ACN: 2033075 *(33 of 50)*

### Synopsis

N90 TRACON Controller reported an aircraft failed to follow the Kennedy 5 Departure, resulting in a course deviation that put the aircraft into potential conflict with LGA arrivals. Controller vectored the aircraft back to JFK airspace.

ACN: 2032793 *(34 of 50)*

### Synopsis

U90 TRACON Controller reported a flight crew misinterpreted the minimum descent altitude of an approach segment to TUS which resulted in a low altitude alert and CFTT event. Controller stated the procedure seems to be causing some confusion among pilots.

ACN: 2032560 *(35 of 50)*

## Synopsis

A Tracon Controller reported a military aircraft deviated from their assigned route and flew below the Minimum Vectoring Altitude.

ACN: 2031401 *(36 of 50)*

## Synopsis

A TRACON Instructor reported their trainee issued an IFR clearance to an aircraft that was below the minimum vectoring altitude.

ACN: 2031394 *(37 of 50)*

## Synopsis

A Tower Controller reported a helicopter on an approach in marginal weather was disoriented and deviated from the approach course and below the published altitudes, causing Tower to receive a low altitude alert.

ACN: 2031385 *(38 of 50)*

## Synopsis

LAS Tower Local Controller reported an NMAC when a Runway 19L arrival unexpectedly initiated a go-around and flew over the top of an aircraft on short final to Runway 8R. The reporter states published procedures in place for this arrival configuration do not adequately protect for this occurrence.

ACN: 2031141 *(39 of 50)*

## Synopsis

A Center Controller reported an aircraft on an IFR flight reported they lost all instruments. The Controller vectored a nearby aircraft to guide it to a nearby airport.

ACN: 2030883 *(40 of 50)*

## Synopsis

A TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.

ACN: 2030880 *(41 of 50)*

### Synopsis

A tower Local Controller reported a taxiing air carrier had an engine fire. There was confusion between the Controller and Supervisor as to the proper procedure for handling the situation.

ACN: 2030879 *(42 of 50)*

### Synopsis

ZAB Center Controller reported transmitter sites routinely fail and the equipment issues are not being addressed appropriately creating unsafe situations. An additional site is needed to ensure ATC communications.

ACN: 2030172 *(43 of 50)*

### Synopsis

A Center Controller reported a departing air ambulance flight on initial climb turned back to the departure airport flying below the minimum IFR altitude and in conflict with an arriving air carrier.

ACN: 2029547 *(44 of 50)*

### Synopsis

A Tower Controller reported a departing Cessna reported a rough running engine and returned to land. The Controller allowed another aircraft to make an approach before they had permitted a runway inspection from Ground Personnel.

ACN: 2029537 *(45 of 50)*

### Synopsis

A Center Controller reported a small multiengine aircraft reported engine failure and landed at the nearest airport.

ACN: 2029533 *(46 of 50)*

### Synopsis

Tower CIC, the CIC in TRACON and the tower Local Controller reported an air carrier was cleared for takeoff with another aircraft on short final. The Local Controller was unsure how to resolve the conflict so the Tower CIC took over their position.

ACN: 2029209 *(47 of 50)*

### Synopsis

ZID Controller observed a conflict on hand-off between aircraft not in communication with ATC which resulted in a NMAC.

ACN: 2029201 *(48 of 50)*

### Synopsis

Center controllers reported an Air Taxi reported a lightning strike caused an electrical failure and a temporary loss of control. The controllers temporarily lost communications with the aircraft and reported it was due to their faulty radio transmitter sites.

ACN: 2028902 *(49 of 50)*

### Synopsis

A Center Controller reported an aircraft temporarily lost control after being struck by lightning. The Controller was unable to communicate with the aircraft due to their frequency transmitter site failing.

ACN: 1998360 *(50 of 50)*

### Synopsis

CZVR Controller reported the lack of radar display for BLI has resulted numerous safety challenges.

# Report Narratives

## Time / Day

Date : 202310

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ORF.TRACON

State Reference : VA

## Aircraft

Reference : X

ATC / Advisory.TRACON : ORF

Make Model Name : No Aircraft

Airspace.Class C : ORF

## Person

Location Of Person.Facility : ORF.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) : 4

ASRS Report Number.Accession Number : 2045337

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Workload

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Ground Event / Encounter : Ground Equipment Issue

Detector.Person : Air Traffic Control

When Detected : In-flight

When Detected : Routine Inspection

## Assessments

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Contributing Factors / Situations : Company Policy

Primary Problem : ATC Equipment / Nav Facility / Buildings

## Narrative: 1

Today we had multiple frequencies go down again. 127.9 118.9 125.2 126.05 134.875 119.45 Pilots reported a stuck microphone sound on these. This was during the day with bad weather moving in. Once we started to find out that they were bad we tried to contact ZDC, PCT, NHK. Some didn't pick up after multiple calls because they were probably busy with weather so they continued to switch people to frequencies that were down. This made a slow session into a pain and led to bad service to the pilots. Suggestion: I think we

should have someone come out and really troubleshoot these frequencies. This is probably my 5th or 6th time doing a report on them. Its causing stress that we shouldn't have to feel. Some have worked over 500 hours of overtime this year and we are doing it with equipment that isn't acceptable. I've had to give clearances to Medevac's over guard. We keep getting lucky and nothing major happens but ORF's airspace is congested with airports and military activity and it can get dangerous quick if equipment isn't working. It seems to happen around storms in the area. Its getting to the point where there's more broken equipment than functioning here. I think someone should really take the time and help us get the funding and manpower to get our stuff reliable again.

## Synopsis

ORF TRACON Controller reported numerous frequencies routinely fail at their facility and no action has been taken to address the frequent outages.



## Time / Day

Date : 202310  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 2200

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Taxi  
Make Model Name : Helicopter  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 135  
Flight Plan : IFR  
Mission : Ambulance  
Flight Phase : Initial Climb  
Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.Tower  
Reporter Organization : Government  
Function.Air Traffic Control : Ground  
Function.Air Traffic Control : Local  
Function.Air Traffic Control : Flight Data / Clearance Delivery  
Qualification.Air Traffic Control : Fully Certified  
ASRS Report Number.Accession Number : 2044287  
Human Factors : Confusion  
Human Factors : Situational Awareness  
Human Factors : Workload

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

I was working local/ground/clearance/flight data combined with a stand-alone CIC (Controller in Charge) in the tower cab. Helicopter landed at ZZZ hospital. After they completed whatever business they had there they called ZZZ clearance for their IFR clearance to ZZZ1. ZZZ is an uncontrolled helipad at one of the local hospitals. I was unsure what exactly this meant for me when they called up ready for departure. I got confirmation they would maintain their own terrain obstruction until 2200 MSL because that is our MVA. I told them departure would be at their own risk. On departure before they got to 2200 MSL I had to vector them from their direct, approximate heading 158, to a heading of 180 for incoming traffic to Runway XX. They were at approximately 1200 MSL when they were vectored. There was no loss of separation between the incoming aircraft and the helicopter. I was uncomfortable with a helicopter departing the hospital's helipad as IFR. That seems to be more of an approach control function more than a tower function. I have never seen this, and the CIC in the back said he has never seen this situation before either. Suggestion: I have no recommendations from this event. This is a rare scenario that I, nor the CIC had ever seen before. After talking to the CIC in the back there were other avenues I could have taken, such as departing the helicopter VFR and giving him the IFR clearance in the air.

## Synopsis

A Tower Controller reported they had to vector an IFR helicopter that departed from a nearby hospital below the minimum vectoring altitude to avoid conflicting traffic.

## Time / Day

Date : 202310  
Local Time Of Day : 0601-1200

## Place

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

## Aircraft

Reference : X  
ATC / Advisory.TRACON : N90  
Aircraft Operator : Air Carrier  
Make Model Name : Commercial Fixed Wing  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class B : LGA

## Person

Location Of Person.Facility : N90.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Approach  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1  
Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 6  
ASRS Report Number.Accession Number : 2043853  
Human Factors : Communication Breakdown  
Human Factors : Distraction  
Human Factors : Workload  
Human Factors : Confusion  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Airspace Violation : All Types  
Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Issued New Clearance

## Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

## Narrative: 1

I was working CAMRN/LENDY in the JFK area and we were on the 31s. I noticed a departure come off Runway 31L that was supposed to be on the JFK5 Departure Breezy Point Climb. The climb-out is supposed to have the departures go direct CRI VOR and then depart that VOR on a 223 heading. However, Aircraft X did not depart CRI on a 223 heading and appeared to be going direct RBV. Before I could say anything, the Departure Controller noticed the pilot's error and corrected him before he got too deep into LGA's airspace. Luckily, there wasn't any LGA arrivals in conflict with Aircraft X. The Departure Controller did not ask Aircraft X why he turned that way but it appeared they were going direct RBV. I don't believe Aircraft X was read the brasher warning. This keeps happening. I don't know what to write anymore. Please do something before the Departure Controller is too busy to notice these pilot errors and we have a NMAC.

## Synopsis

N90 TRACON Controller reported an aircraft on the JFK5 SID turned the wrong direction on initial climb and entered into LGA's airspace. The reporter stated that this problem keeps reoccurring.

## Time / Day

Date : 202310

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : JFK.Airport

State Reference : NY

Altitude.MSL.Single Value : 2500

## Aircraft

Reference : X

ATC / Advisory.TRACON : N90

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Nav In Use : FMS Or FMC

Flight Phase : Initial Climb

Route In Use.SID : JFK5

Airspace.Class B : N90

## Person

Location Of Person.Facility : N90.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

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

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 6

ASRS Report Number.Accession Number : 2043844

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Workload

Human Factors : Confusion

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Track / Heading : All Types

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Returned To Clearance

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

## Narrative: 1

I was returning from a break to the JFK area when the Departure Controller alerted me to another Runway 31L departure turning incorrectly. Since I have already filed 2 other reports today. Aircraft X, was departing Runway 31L on the JFK5 Departure, Canarsie Climb. The climb is supposed to have the departure go direct to CRI VOR, then depart CRI heading 176. Instead, Aircraft X turned right direct to his first fix of COATE. Turning right heads him right into LGA's airspace. I was told the Departure Controller quickly turned him back and it did not become an issue with LGA traffic. I do not know if the brasher warning was given. If pilots keep messing up the 31L SIDs, maybe we might have to create a temporary SID that only includes a heading so the departures can't mess it up. This is happening too frequently to ignore.

## Synopsis

N90 Controller reported an aircraft on the JFK5 SID turned the wrong way on initial climb. Reporter stated this is a recurring issue for departures from Runway 31L.

## Time / Day

Date : 202310  
Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : S56.TRACON  
State Reference : UT  
Altitude.MSL.Single Value : 11000

## Aircraft

Reference : X  
ATC / Advisory.TRACON : S56  
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 : Vectors  
Airspace.Class E : S56

## Person

Location Of Person.Facility : S56.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Approach  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Military : 6  
ASRS Report Number.Accession Number : 2042505  
Human Factors : Confusion  
Human Factors : Workload  
Human Factors : Distraction

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Issued Advisory / Alert  
Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication

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

### Narrative: 1

Aircraft X was on a heading of 110 to avoid weather over a mountain range. I issued a descent to 11000 ft. from 12000 ft. (11000 ft. is the MVA in that area) with a good readback from the Pilot. I observed the aircraft at 10700 ft. and restated to maintain 11000 ft. The Pilot responded that they were on their way back up and they thought the clearance was to 10000 ft. I then issued a low altitude alert to which they responded they were on their way back up. I observed them a get to 10500 ft. before climbing back up. Luckily when this happened, they were east of the ridgeline and headed for lower terrain. Suggestion: This was Pilot error that I think I caught just about as soon as I could. With him reading back the altitude correctly there is not much more I could have done differently in this situation to fix it. I did not issue a brasher warning at the time because they were entering a critical phase of flight to final, but I should have had tower issue a Brasher warning once they were on the ground to ensure the Pilot was aware of their mistake and at least prevent this from happening to this particular Pilot again.

### Synopsis

S46 TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.



## Time / Day

Date : 202310  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.TRACON  
State Reference : US  
Altitude.MSL.Single Value : 2000

## Environment

Flight Conditions : VMC

## Aircraft : 1

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Personal  
Make Model Name : PA-28 Cherokee/Archer/Dakota/Pillan/Warrior  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Personal  
Flight Phase : Final Approach  
Route In Use.Other  
Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y  
Make Model Name : Skylane 182/RG Turbo Skylane/RG  
Crew Size.Number Of Crew : 1  
Flight Plan : VFR  
Flight Phase : Climb  
Route In Use : None  
Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 8  
ASRS Report Number.Accession Number : 2042097  
Human Factors : Communication Breakdown  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Detector.Person : Air Traffic Control  
When Detected : In-flight

## Assessments

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

## Narrative: 1

Aircraft X on GPS XX Approach to ZZZ at 2,000 ft. and in communication with ZZZ Tower.  
Aircraft Y climbed VFR westbound off of ZZZ1 to 1,700 ft. and merged with Aircraft X at  
1,600 ft. Suggestion: Airspace redesign required.

## Synopsis

A TRACON Controller reported an aircraft on final approach to a satellite airport  
encountered a NMAC when a VFR aircraft climbed towards it.

## Time / Day

Date : 202310  
Local Time Of Day : 1801-2400

## Place

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

## Aircraft : 1

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : ATR Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Descent  
Route In Use : Vectors  
Airspace.Class B : ZZZ

## Aircraft : 2

Reference : Y  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : B757 Undifferentiated or Other Model  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Descent  
Route In Use : Vectors  
Airspace.Class B : ZZZ

## Component

Aircraft Component : Aeroplane Flight Control  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Location Of Person.Facility : ZZZ.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) : 3  
ASRS Report Number.Accession Number : 2040868  
Human Factors : Confusion  
Human Factors : Time Pressure

Human Factors : Workload  
Human Factors : Situational Awareness

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.ATC Issue : All Types  
Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Landed in Emergency Condition  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Separated Traffic  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

I was working the final sector for ZZZ. Traffic complexity and volume increased rapidly. I had all aircraft separated legally and was trying to get the final in line when Aircraft X who was on a base leg for [Runway] XXL [requested priority handling] stating that they had an issue with flight controls and a vibration. They initiated a turn towards the field and Aircraft Y who was already on a base leg. I had so much going on that I made a decision to try and run Aircraft Y across the XXL final to the XYR final to keep traffic moving. When I noticed that Aircraft Y was not descending quickly enough and that Aircraft X had increased speed I began to give rapid control instructions to Aircraft Y including a turn to the NW and an expedited descent to prevent a loss of separation all while calling the traffic to Aircraft X. Aircraft X did eventually get the traffic in sight but by that point the loss had already occurred. I do not know what the separation actually was as the radar display replay was down and I was unable to watch a replay of the event. Suggestion: The increase in traffic volume was known by people around me but as it was north operation and visual approaches nothing was done. A second final controller may or may not have changed the situation at all since it was an emergency. The sectors around me were unaware that the vast majority of my traffic was coming from the west and they chose to put Aircraft X on the western side of the final. I am not sure where Aircraft X entered the airspace but if that aircraft came in from Approach and had been fed on the eastern side to XYR I likely would not have had to write this.

## Synopsis

A TRACON Controller reported an aircraft on base leg reported malfunctioning flight controls and vibrations. The aircraft turned on its own towards the airport on a conflicting heading with another aircraft on final approach.

## Time / Day

Date : 202310  
Local Time Of Day : 1201-1800

## Place

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

## Environment

Flight Conditions : VMC

## Aircraft : 1

Reference : X  
ATC / Advisory.Tower : ZZZ  
Make Model Name : Skyhawk 172/Cutlass 172  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : VFR  
Flight Phase : Final Approach  
Airspace.Class C : ZZZ

## Aircraft : 2

Reference : Y  
ATC / Advisory.Tower : ZZZ  
Make Model Name : Skyhawk 172/Cutlass 172  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : VFR  
Flight Phase : Final Approach  
Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.Tower  
Reporter Organization : Government  
Function.Air Traffic Control : Supervisor / CIC  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7  
ASRS Report Number.Accession Number : 2040867  
Human Factors : Human-Machine Interface  
Human Factors : Workload  
Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action

Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

I was GC (Ground Controller) and CIC (Controller in Charge) reading a clearance when I heard the conflict alert going off. I looked up at the radar and saw 2 C172's targets on top of each other 100 ft. apart and one turning out to the west. After listening to tapes to figure out what happened the tower control asked the second C172 to report the first one in sight. They reported them in sight and were told to follow them cleared for the option. The second C172 followed tight and again the tower controller made sure they had their traffic in sight and they said yes. The number one C172 broke off of the approach to the west because of the closeness of number 2. Suggestion: If aircraft are too close give them a control instruction.

## Synopsis

A Tower Controller in Charge reported a NMAC between two Cessna 172's on short final.

## Time / Day

Date : 202310

Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Altitude.MSL.Single Value : 2600

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B777 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Climb

Route In Use : Vectors

Airspace.Class B : ZZZ

## Person

Location Of Person.Facility : ZZZ.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

ASRS Report Number.Accession Number : 2040853

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Undershoot

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Executed Go Around / Missed Approach

## Assessments

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

## Narrative: 1

I was working Local Control. We were in an unusual, complex configuration due to an airshow. It had been pre-coordinated that, for the special configuration, ZZZ TRACON MUST provide 20 miles in trail to RWY XXL with standard separation to RWY XXR. ZZZ TRACON was running 4-6MIT in trail to RWY XXL with no one landing RWY XXR. It was exceptionally difficult to manage the existing traffic and depart RWY XXL, which had an abnormally high number of departures due to the configuration. In addition, all of the destinations that typically have CFR programs were being sent to RWY XXL. We attempted to adjust a CFR flow time due to being unable to depart and the aircraft ended up with an additional 20 to 30 minute delay on top of what they already had received. With limited space and places to put aircraft, I crossed the aircraft to hold between the runways, which was the only available spot to hold an aircraft due to traffic waiting for both RWY XXR and RWY XXL. The following 3 to 5 aircraft also had flow times and with an already complex operation. In order to not run the risk of the other aircraft receiving delays and blocking and preventing any and all departures, given that the next 5 to 7 aircraft were tightly in trail to RWY XXL, I sent Aircraft X around on check in, approximately 5 mile final. I gave the pilots of Aircraft X, a standard go-around of "turn left to heading 260, maintain 031." I completed several other tasks and then, before shipping the aircraft to departure, observed the heading and altitude to be appropriate. Heading 260 and 2600 ft. at the moment of transfer of communications, given the instructions, and shipped them to departure. Later, when the aircraft came back around, the pilot asked for the tower phone number and called the tower. It was then that I learned that there was an issue with their altitude and a possible MVA violation. The pilot stated that they were given "H260, M026" and were upset about the proximity to terrain. When we listened to and watched the playback, it was hard to differentiate whether they read back M021 or M031, which, either way, was not what they complied with. And watching the playback, they were level at 2600 ft. for a little while before shipping the aircraft, but the aircraft never inquired about the altitude with the tower. Suggestion: Despite a culture of ZZZ TRACON not advising us when an aircraft is not on the advertised approach and also some controllers and management not wanting the published missed to be issued, I am going to go back to issuing that, since it is nearly identical to what we assign manually, but it leaves less room for ambiguity, poor/mistaken readbacks, and hearback issues. Furthermore, while it is not everyone in Area B at ZZZ, there is a culture of ignoring procedures, LOAs (Letter of Agreement), and prearranged coordination when it comes to arrivals and runway assignments, even when there is an extreme need for help and adherence to the rules and coordinations due to complexity or traffic needs. This is something that has been discussed at length and clearly there is a systemic lack of understanding, caring, and or ability on that side.

## Synopsis

Tower Controller reported a possible minimum vectoring altitude violation due to a miscommunication in regards to the assigned altitude of a go around instruction.



## Time / Day

Date : 202310  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.TRACON  
State Reference : US  
Altitude.MSL.Single Value : 4000

## Environment

Flight Conditions : IMC

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Personal  
Make Model Name : Cessna 210 Centurion / Turbo Centurion 210C, 210D  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Personal  
Flight Phase : Final Approach  
Flight Phase : Initial Approach  
Route In Use : Vectors  
Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Approach  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2  
ASRS Report Number.Accession Number : 2040849  
Human Factors : Workload  
Human Factors : Time Pressure

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Diverted  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Issued Advisory / Alert  
Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication  
Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : Weather  
Primary Problem : Human Factors

## Narrative: 1

I relieved another CPC and Developmental that had been training for approximately 90 minutes. They had just had an issue with this aircraft. The pilot turned and descended unexpectedly. The aircraft was trying to come to ZZZ and land. The weather conditions on the surface were IMC. The pilot was consistently unable to maintain altitude or assigned headings. There were multiple other aircraft on frequency in bound to ZZZ. I put Aircraft X on a vector to be last in my sequence. As the aircraft got closer to the airport I noticed him veer off the final. I issued reintercept vectors. Within 10 miles of the airport the pilot also went below safe altitudes. I issued multiple low altitude alerts and got the pilot to climb to a safe altitude and vacate the approach. I asked the pilot if he was having equipment issues or if there was something wrong with the aircraft. The pilot advised the issue was with the pilot himself. Knowing he was in an unsafe and scary situation, I tried to calm the pilot and reassure him by getting him to focus on maintaining the altitudes I assigned. I asked how much fuel too and he said 2 hours. I offered ZZZ1 as an alternate with better weather. The pilot asked for another approach at ZZZ so I gave him a heading to fly and periodically checked back in to make sure his altitude and heading were good. He asked if the weather was still IMC at ZZZ. I said yes and then he asked to try ZZZ1. I gave vectors and kept prompting the pilot to maintain a safe altitude. I issued more Low Altitude Alerts. The pilot did not report ZZZ1 in sight and asked to return to ZZZ2. I immediately had the pilot climb to safe altitudes and issued vectors away from high terrain. The pilot was able to climb safely and get on course. I advised the Center Sector of the issues before completing the handoff. Suggestion: Use vigilance for aircraft performance and when they are descending dangerously or not flying the correct path. The pilot did not seem capable of operating in IMC conditions.

## Synopsis

A TRACON Controller reported a small aircraft on approach in IMC repeatedly deviated from their course and descended below assigned and published altitudes flying below Minimum Vectoring Altitudes.

## Time / Day

Date : 202310

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZOA.ARTCC

State Reference : CA

## Environment

Light : Night

## Aircraft

Reference : X

ATC / Advisory.Center : ZOA

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 : Cruise

Airspace.Class A : ZOA

## Person : 1

Location Of Person.Facility : ZOA.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) : 5

ASRS Report Number.Accession Number : 2040570

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Human-Machine Interface

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Person : 2

Location Of Person.Aircraft : X

Location In Aircraft : Flight Deck

Reporter Organization : Air Carrier

Function.Flight Crew : Captain

Function.Flight Crew : Pilot Flying

Qualification.Flight Crew : Instrument

Qualification.Flight Crew : Multiengine

Qualification.Flight Crew : Air Transport Pilot (ATP)

Experience.Flight Crew.Last 90 Days : 200

Experience.Flight Crew.Type : 18000

ASRS Report Number.Accession Number : 2040585  
Human Factors : Workload  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Person : 3

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 : Multiengine  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Last 90 Days : 180  
Experience.Flight Crew.Type : 950  
ASRS Report Number.Accession Number : 2040580  
Human Factors : Workload  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

Aircraft X was uplinked a reroute that would change the fix after CABAB from FRA to SANGO. Their previously cleared route was ZZZ ZZZZZ.ZZZZZ1 ZZZZZ2 CABAB FRA FAT. I uplinked to the aircraft a new route that would read ZZZZZ1 ZZZZZ2 CABAB SANGO

FAT. The aircraft was uplinked the verbiage "AT CABAB CLEARED SANGO FAT." The pilot began to turn left immediately after downlinking a WILCO response. I recognized this, assigned the pilot a heading, and told them they were turning towards military airspace. The pilot responded, "we were just given a CPDLC (controller pilot datalink communications) clearance direct CABAB." I told the pilot the clearance I saw that was issued was "AT CABAB CLEARED SANGO FAT" in which the pilot seemed to agree and recognize their mistake. I was able to obtain a point out from JCF (Joshua Approach), so no airspace violation occurred. I then kept Aircraft X on a heading until clear of the airspace, and cleared them direct CABAB via voice. Suggestion: This issue has occurred on multiple other occasions. It appears pilots are misinterpreting the clearance, and instead of using the autoload functionality of their FMS, they manually load what they believe the correct clearance is into their FMS. While this issue was much more common when we first rolled CPDLC out, it still occurs enough to where some controllers are not comfortable using CPDLC in these instances where it should be providing a huge advantage (lengthy reroutes). I recommend better pilot training and a way to connect pilots and controllers to be able to better understand each side. I believe pilots should have an opportunity to visit ARTCCs with CPDLC enabled to see the interface and clearances we send. Additionally, reintroducing Flight Deck Training to the controller workforce is extremely essential to help bridge the gap and have a better understanding of what the pilot sees and experiences on their end. Without Flight Deck Training, there is an essential piece of communication between controllers and pilots missing.

#### Narrative: 2

While at cruise we received a CPDLC clearance to proceed as filed but upon reaching CARAB cleared to SANGO then FAT. We misunderstood it as cleared direct from present position to CARAB SANGO FAT. So, as we started turn ATC intervened with a corrected heading to avoid a MOA. We clarified our clearance with ATC they then cleared us direct CARAB. Then we received a CPDLC (controller pilot data link communications) for a frequency change. After multiple attempts and no response, we contacted ATC on guard to receive a usable frequency. We then proceeded as originally filed from CARAB to FRA. After passing CARAB ATC then ask us if we were going to SANGO per CPDLC. In the confusion of the misunderstood CPDLC and original clearance combined with an unusable frequency change we momentarily deviated from route centerline.

#### Narrative: 3

During cruise I requested direct to CABAB intersection for a shortcut and was denied direct CABAB due to military airspace. Roughly 10 minutes later we received a clearance to proceed direct to CABAB AFTER ZZZZ1. Both Crew Members misinterpreted the clearance and proceeded direct to CABAB selecting direct to CABAB on the LEGS page to keep abeam points. As soon as we commenced the turn we were queried by ATC and told to fly a radar vector away from military airspace. We queried ATC about the clearance and at that point realized we misread the clearance. After a few minutes of vectors, we were told to proceed direct to CABAB. Later on, we were given a frequency change via CPDLC, and we weren't able to reach ATC on that frequency nor our previous assigned frequency, so I used guard to establish radio contact once again. Once on the newly assigned frequency we were queried by ATC if we were direct to SANGO in which we responded we were not as our original flight plan was to proceed to FRA after CABAB. It is unclear whether ATC gave us direct SANGO during the loss of ATC communication however we later realized that the original CPDLC reroute that we inaccurately programmed included a reroute to SANGO after CABAB as well but was never programmed because the CPDLC message was accepted but not loaded because afterwards we were given verbal radar vectors and a verbal clearance back direct to CABAB. After we responded to ATC that we did not receive

the SANGO clearance, they recleared us direct SANGO and the flight continued without incident. We were never advised of a possible Pilot Deviation from ATC or asked to contact the controlling agency via telephone. Suggestion: Increased diligence when programming FMC after CPDLC clearance from Crew. We also could have verified what the proper ATC clearance was after we were given a verbal ATC clearance after our error that did not clarify if we were to fly our filed flight plan after the direct to clearance or to fly the new CPDLC clearance we inaccurately accepted.

## Synopsis

A Center Controller and flight crew reported the Controller issued a revised route via controller pilot data link communications. The flight crew did not load the route correctly into the FMC and deviated off course towards restricted special use airspace.

## Time / Day

Date : 202310

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

## Environment

Flight Conditions : Marginal

## Aircraft

Reference : X

Aircraft Operator : Personal

Make Model Name : RV-8

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Descent

## Person

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

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

ASRS Report Number.Accession Number : 2040203

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Issued Advisory / Alert

Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication  
Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : Weather  
Primary Problem : Human Factors

## Narrative: 1

Aircraft X, a flight of 2/RV8, was on an IFR flight plan to ZZZ at 9000 ft. through Sector ZZZ and ZZZ1 sector respectively. The aircraft requested lower and was descended to 5000 ft. then to 3500 ft. per the MIA (Minimum IFR Altitude) in that area. After passing the 3500 ft. MIA I witnessed the aircraft begin to descend on his own. Out of 3300 ft. I told Aircraft X to maintain 3000 ft. and that the minimum IFR altitude in that area was 2800 ft. I witnessed the aircraft continue to descend through 2800 ft. at which point I gave a Low Altitude Alert and told the aircraft to climb back to 2800 ft. The aircraft responded and began to climb. Once at the appropriate altitude the aircraft advised he would no longer like to conduct a visual approach and wanted vectors for the RNAV XX instead. For clarification, the aircraft did not have an approach clearance at any time. Person A pointed the aircraft out to ZZZ approach and got control, as well as pointing the aircraft out to sector ZZZ2 and got control. I then cleared the aircraft to the initial approach fix ZZZZZ. After about a minute I noticed the aircraft was about 15 degrees left of course from his route line that showed direct ZZZZZ. I advised the aircraft he was left of course and cleared the aircraft back to ZZZZZ, at which point the aircraft asked for vectors for the RNAV XX. I told the aircraft we cannot provide vectors for that approach as it is not depicted on our radar scope and clarified that if the aircraft wanted vectors to load the fix into the system that I could do that but not vectors for the approach. The aircraft then stated that he had "found a hole in the weather" and wanted to cancel IFR, which he did. I first reported this event to the Front Line Manager (FLM) when the aircraft descended below the MIA, then reported again when the aircraft was not direct ZZZZZ.

## Synopsis

A Center Controller reported a flight of two RV8's descended from their assigned altitude and flew below the Minimum IFR Altitude. Later in the flight the same aircraft deviated from their assigned route.



## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : TPA.TRACON

State Reference : FL

## Aircraft : 1

Reference : X

ATC / Advisory.TRACON : TPA

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Initial Climb

Airspace.Class B : TPA

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : TPA

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Cargo / Freight / Delivery

Flight Phase : Initial Climb

Route In Use : Vectors

Airspace.Class B : TPA

## Component

Aircraft Component : Cockpit/Cabin Communication

Aircraft Reference : X

Problem : Improperly Operated

## Person

Location Of Person.Facility : TPA.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) : 11

ASRS Report Number.Accession Number : 2038928

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Troubleshooting

Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Anomaly.Ground Event / Encounter : Ground Equipment Issue  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Separated Traffic  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

Working east departure, arrivals, satellite, and final sectors. Traffic was fairly light, but a slight bit of complexity due to weather in the final box to TPA. Aircraft X was a departure from ZZZ on vector and already transferred communications to ZJX. Aircraft X subsequently checked on with ZJX, but was transmitting on my frequency. I attempted to correct what I assumed to be the pilots mistake, but they continued to repeat the check-in. At this point, as I continued to work my other traffic, I could audibly hear the degradation of the frequency and faintly heard other pilots confirm the same. This is when I realized the frequency was dying as it has numerous times in the past, most notably a couple days earlier when another controller had to contend with a similarly harrowing situation. Please review that report for added context of the dangers of our facility equipment. I attempted standby frequencies to no avail. I used guard to try to switch everyone to another frequency, and I asked Aircraft Y flight to return to the broken frequency and blanket broadcast for everyone to switch to the new frequency. At this point, Aircraft X and Aircraft Z, a TPA departure, were on a collision course at the same altitude. I asked the other sector if they still had communications with Aircraft Z, they said no. I called ZJX to have them turn Aircraft Z, but they said the frequency they were on had a stuck mic and they were unable to communicate with the aircraft. I frantically attempted to reach Aircraft X to issue a turn. On my third attempt, Aircraft X responded and turned to avoid the collision/TCAS RA. Suggestion: If we could somehow acquire equipment that worked reliably, particularly frequencies, that would really assist in the success of separating aircraft.

## Synopsis

A TRACON Controller reported they lost communications in their sector and could not communicate with aircraft in time to prevent a NMAC.

## Time / Day

Date : 202309

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : SRQ.Airport

State Reference : FL

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : SRQ

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Takeoff / Launch

Route In Use : None

Airspace.Class C : SRQ

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : SRQ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Final Approach

Route In Use : Visual Approach

Airspace.Class C : SRQ

## Person

Location Of Person.Facility : SRQ.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) : 6

ASRS Report Number.Accession Number : 2038921

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Detector.Person : Air Traffic Control  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Became Reoriented  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Separated Traffic  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

Aircraft X was joining a 3-mile final for Runway 04 and was cleared to land. Aircraft Y called ready for departure on Runway 14, was cleared for takeoff, and given traffic on Aircraft X landing Runway 04. Shortly after Aircraft Y was cleared for takeoff, Aircraft Z called ready for departure and was cleared for takeoff with traffic being issued. Aircraft Y aborted takeoff and I immediately canceled Aircraft Z's takeoff clearance. I then gave Aircraft Y exiting instructions and asked if they needed assistance, which they did not. I then went back to Aircraft Z and asked if they were past the hold short lines, and they stated that they were. I instructed them to LUAW (Line up and wait) on Runway 14, WHICH THEY READ BACK, and then canceled the landing clearance for Aircraft A on a 3-mile final to the same Runway; I also issued traffic to Aircraft X on about a 1 mile final for Runway 04. During my scan of the Runways, I noticed Aircraft Z was departing Runway 14 and was airborne between A3 and A4 taxiways. I issued a go-around to Aircraft X and then went back and issued traffic to Aircraft Z on Aircraft X going around on Runway 04 to which he responded, "traffic in sight". Aircraft X was climbing and I issued Aircraft Z an immediate left turn for the traffic, however Aircraft Z chose to descend to go under Aircraft X. The Tower had both aircraft in sight the entire time. I have no recommendations for this because all appropriate phraseology was used and rules were followed. The pilot was told to LUAW and read back "line up and wait". I believe this is a mistake on the part of the pilot.

## Synopsis

A Tower Controller reported an aircraft which acknowledged a clearance to line up and wait, took off conflicting with an arrival to an intersecting runway.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737 Undifferentiated or Other Model

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class B : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 7

ASRS Report Number.Accession Number : 2038915

Human Factors : Workload

Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Automation : Aircraft RA

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.General : Flight Cancelled / Delayed

Result.Flight Crew : Executed Go Around / Missed Approach

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

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Air Traffic Control : Provided Assistance

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

Contributing Factors / Situations : Airport

Contributing Factors / Situations : Airspace Structure

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

## Narrative: 1

I was working Local Z, landing Runway XXL and Runway XXR. An aircraft checked in turning base on the RNAV-Z Runway XXR. There was traffic on the straight in final for XXL. I called the traffic and cleared the aircraft to land. Aircraft X was not on my frequency. Aircraft X's initial contact was indicating he was responding to a TCAS RA. I responded, "Roger, advise clear." Aircraft X descended, and at the final approach fix was at 5900 ft. and I received a low altitude alert. I issued the alert to Aircraft X. One mile later the aircraft indicated he was clear of conflict. I responded with, "say intentions." He requested a missed approach and I issued the instructions. The aircraft came back around and landed Runway XXR without incident. On exit, Aircraft X requested the Tower phone number. Not putting two aircraft side by side on the finals for the Runway XX's. I personally had 5 TCAS RA's on this single day.

## Synopsis

A Local Controller reported an aircraft descended in response to a TCAS/RA for traffic abeam landing on the parallel runway and flew below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 2300

## Environment

Flight Conditions : VMC

## Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Military

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

Crew Size.Number Of Crew : 3

Flight Plan : IFR

Mission : Tactical

Flight Phase : Descent

Route In Use : Vectors

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Instructor

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6

ASRS Report Number.Accession Number : 2038628

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Time Pressure

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Track / Heading : All Types

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

I was monitoring a Controller. Aircraft X was west of ZZZ1 and direct ZZZZZ expecting RNAV XXL at ZZZ. Controller assigned 2,300 ft. and heading 160 with precipitation in the area. Shortly after, Controller stated that Aircraft X was below the 2,900 ft. MVA surrounding ZZZ1. He assigned Aircraft X a climb to 2,900 ft. Controller seemed to believe that Aircraft X had deviated around weather after being assigned the 160 heading. I did not hear Controller approve such deviations, but it's possible he did so. Suggestion: The obvious solution is don't bust the MVA. However, I have noticed that some controllers immediately descend all aircraft to the lowest available altitude, usually 2,300 ft. Aircraft X had 40 or so miles to fly and would have been perfectly fine at 3,000 ft. or 4,000 ft. Perhaps encourage facility controllers to not be in such a rush to descend aircraft all the way. Explain to people that it's perfectly possible to conduct a stabilized approach without dumping to below 3,000 ft. 50 miles from the runway.

## Synopsis

A Center Controller reported an aircraft deviated for weather from their assigned heading and flew below the Minimum Vectoring Altitude.



## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : BTT.Airport

State Reference : AK

## Aircraft

Reference : X

ATC / Advisory.FSS : FAI

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

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Cruise

Airspace.Class E : ZAN

## Component

Aircraft Component : Engine

Aircraft Reference : X

Problem : Malfunctioning

## Person

Location Of Person.Aircraft : X

Location Of Person.Facility : FAI.FSS

Reporter Organization : Government

Function.Air Traffic Control : Other / Unknown

ASRS Report Number.Accession Number : 2038616

Human Factors : Physiological - Other

Human Factors : Workload

Human Factors : Time Pressure

## Events

Anomaly.Aircraft Equipment Problem : Critical

Anomaly.ATC Issue : All Types

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

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Overcame Equipment Problem

Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Aircraft

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Aircraft

## Narrative: 1

A pilot called over the radio to ask if we had heard anything from Aircraft X as he was having engine issues. A rough engine as he said. During the conversation with the pilot, the pilot of Aircraft X called over another frequency and I let the pilot know and ending my conversation with him. The pilot of Aircraft X told me he had a rough engine and was looking to let someone know as well as file a Flight Plan (FP) in case he was unable to make his destination. At the time of this radio transmission he was on his way to BTT airport. I asked him if he wanted to [request priority] he said no not yet and proceeded to file a VFR flight plan with me. At the time I was nervous as this was my first potential [situation] and I ended up missing some FP information, such as contact information and ETE. I began to try and keep communications with him and get the addition FP information when the Supervisor at the time told me to keep transmissions with this pilot to a minimum so he can focus on the flight. With my adrenalin still high I blindly followed what was said and ultimately forgot to get the remaining information for the FP from him. Around ten minutes later when my nerves were a bit more calm I proceeded to try and start communications with him again however he did not respond. Around another five minutes past when he finally reached out to us letting us know he was safe at BTT and to close out his FP. Suggestion: Additional training on dealing with [priority] situations. While not all situations can be prepared for learning to keep my nerves in check would have helped me keep a clear head and realized that blindly following what supervisor said ultimately ended up causing me to miss key information. Though nothing happened this time, had something happened that information would have been critical in helping locate him.

## Synopsis

A Flight Service Station specialist reported they failed to get all the required flight plan information from a VFR aircraft that called them to report a rough running engine.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : MU-2

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Initial Climb

Route In Use : None

Airspace.Class C : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : Beechjet 400

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Ambulance

Flight Phase : Initial Climb

Route In Use : None

Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.Tower

Reporter Organization : Government

Function.Air Traffic Control : Local

Qualification.Air Traffic Control : Developmental

ASRS Report Number.Accession Number : 2038613

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Deviation - Altitude : Undershoot

Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

On local, I departed Aircraft X runway heading 060. Their flight plan had them flying to ZZZZ intersection which is a heading of 050. Once I switch him to departure at the departure end of the runway Aircraft X appeared to be turning to the left. From my point of view I assumed departure turned the aircraft to the left. Per our SOP once an aircraft turns away from the centerline, the departure controller is not allowed to turn back towards the centerline without approval from local control. The departure controller did not call up and coordinate turning back towards the centerline, regardless if the pilot turned on his own. Once I noticed Aircraft X turning I cleared Aircraft Y for takeoff turning right to a 090 heading. This would provide more than the 15 degree minimum separation required. But as Aircraft Y was on his takeoff roll, Aircraft X started to turn back towards the center line. They ended up being only 2 miles apart without the divergence. I issued traffic to Aircraft Y and insured he turned right to 090. He immediately climbed above Aircraft X and had vertical separation within a few seconds. I believe Aircraft X was having issues because he was still at 1500 ft. 7 miles off the departure end, he also had a low altitude alert at the same time. Anticipating aircraft characteristics he should have climbed higher and faster and it shouldn't have been as close as it ended up being. There was no collision alert for the incident. Suggestion: In the future I will turn the first aircraft to ensure the separation is there and not assume departure had turned the aircraft. Also clear guidance on whether an aircraft turns on his own, if that still requires coordination with local. Since he was supposed to be runway heading is departure allowed to turn back to runway heading without coordination. That could be clearer.

## Synopsis

A Tower Local Control trainee reported they cleared a turbojet for takeoff behind a slower moving aircraft which had began its turn away from the runway. The first aircraft unexpectedly turned back into the path of the jet departure and stopped climbing resulting in a Low Altitude Alert.

## Time / Day

Date : 202309

Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Descent

Airspace.Class C : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Government

Make Model Name : Small Aircraft

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Cruise

Airspace.Class C : ZZZ

## Person : 1

Location Of Person.Facility : ZZZ.Tower

Reporter Organization : Government

Function.Air Traffic Control : Local

Function.Air Traffic Control : Trainee

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

ASRS Report Number.Accession Number : 2038373

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Training / Qualification

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

## Person : 2

Location Of Person.Facility : ZZZ.Tower  
Reporter Organization : Government  
Function.Air Traffic Control : Instructor  
Function.Air Traffic Control : Local  
ASRS Report Number.Accession Number : 2038027  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Workload  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Training / Qualification  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : ATC

## Events

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

## Assessments

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

## Narrative: 1

Aircraft X was 8 to 10 miles southwest of ZZZ coming in for an RNAV Runway XX approach. Aircraft X checked on at 3500 ft. With Aircraft Y orbiting 6 to 7 miles south of ZZZ on the final approach course for Runway XX. When Aircraft X [checked in] I asked them if ZZZ1 approach called the traffic for him before shipping him. I then called the traffic for him when he informed me that they had not called it. I called and updated him on the traffic multiple times. He got Aircraft Y in sight right before the CA went off. Aircraft X passed 300 to 400 feet under Aircraft Y. I tried calling ZZZ1 to inform them that Aircraft X had Aircraft Y in sight. Nobody answered on the line. Aircraft X landed with no further problems. I then called the ZZZ1 Sup line to ask what happened and they told me they were watching the East scope because they had a busy arrival sequence over there. Suggestion: Calling traffic and solving issues before shipping aircraft.

## Narrative: 2

Aircraft X was on a RNAV approach to Runway XX, 8 miles SW of the field when he was shipped to tower. Aircraft Y had been circling 5 miles south of the field for hours on patrol. Aircraft X was issued traffic by tower on the aircraft and they informed tower that approach had never issued traffic. LC issued traffic and Aircraft X reported traffic in sight right at the same time the CA went off. Local Control (LC) tried to call ZZZ1 approach to inform them that Aircraft X had traffic in sight, to which they never responded. LC called the ZZZ1 sup line and they informed LC that they had no idea what had occurred as they

were watching a different scope. Separation was not assured by approach. Suggestion:  
Provide separation.

## Synopsis

A Tower Local Controller and their trainee reported TRACON shipped an aircraft to their frequency without issuing conflicting orbiting traffic in TRACON airspace which resulted in a NMAC.

## Time / Day

Date : 202309

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2000

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Fractional

Make Model Name : Small Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use : Vectors

Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 2

ASRS Report Number.Accession Number : 2038028

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Situational Awareness

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Airspace Violation : All Types

Anomaly.ATC Issue : All Types

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

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Provided Assistance

Result.Air Traffic Control : Issued New Clearance

## Assessments



Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings  
Contributing Factors / Situations : Environment - Non Weather Related  
Contributing Factors / Situations : Human Factors  
Contributing Factors / Situations : Procedure  
Primary Problem : Procedure

## Narrative: 1

Aircraft X was a ZZZ [Airport] arrival that first came into our airspace through the XXXXX Sector Airspace. The aircraft was vectored for the ILS X at ZZZ [Airport], and while on vectors, was descended down to 2000 feet on a SW bound heading. Training for the entire airspace was in effect, where both the trainee and trainer did not switch Aircraft X on XXX.XX, the ZZZ [Airport] airspace frequency. The transmitter for YYY.YY is located at ZZZ [TRACON], and XXX.XX is located as WST (Westerly). With the low altitude of Aircraft X and distance from ZZZ [TRACON], Aircraft X could no longer hear us. The trainee and trainer realized this when the aircraft did not respond to the vector or turn to base. This left the aircraft on a SW Bound heading towards ZZZ's [TRACON] airspace, where the MVA rises to 3000 feet for our approach control facility. Aircraft X did fly a few miles into ZZZ's [TRACON] airspace, with the 3000 feet MVA. A NORDO notification and point-out was accomplished with ZZZ [TRACON]. Upon being told of the situation, I immediately called ZZZ Tower, and asked them to dial in YYY.YY to turn the aircraft to a 020 heading, and switch the aircraft to XXX.XX. They were able to communicate this to Aircraft X to accomplish this. After the event and communications were established with Aircraft X, we reached out to ZZZ [TRACON] and found that the MVA in that area was 1600 feet for them. Although our MVA is higher for us, I do believe the aircraft was in no danger of flying into obstructions after finding this out. Suggestion: Continue training important habits and reminders to trainees on when to switch aircraft between frequencies.

## Synopsis

A TRACON Controller reported a NORDO aircraft flew below the Minimum Vectoring Altitude and into an adjacent facility's airspace. A previous sector failed to issue a frequency change to the aircraft resulting in the loss of contact.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 5000

## Aircraft : 1

Reference : X

ATC / Advisory.Center : ZZZ

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 : Climb

Route In Use : None

Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.Center : ZZZ

Make Model Name : Helicopter

Flight Plan : IFR

Flight Phase : Cruise

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Trainee

Function.Air Traffic Control : Enroute

ASRS Report Number.Accession Number : 2036764

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Workload

## Events

Anomaly.ATC Issue : All Types

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

## Assessments

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

## Narrative: 1

AFSS called asking clearance for Aircraft X departing ZZZ. I had traffic, Aircraft Y at 060 MSL close to the ZZZ airport. I issued 050 MSL thru AFSS to Aircraft X because of the traffic. The ZZZ airport lies in an MIA (Minimum IFR Altitude) of 056 MSL. I couldn't issue higher because of traffic at 060 MSL. It was an improper clearance below the MIA. Suggestion: I should have waited to give clearance to Aircraft X or a clearance with an altitude higher than 056 MSL. I was not talking to Aircraft Y at 060 MSL because of radio coverage in the area. I also could have had Sector ZZZ climb Aircraft Y up to 070 or higher. They were still talking to Aircraft Y. Then a proper clearance above MIA could have been issued to Aircraft X.

## Synopsis

A Center Controller in training reported they issued a clearance off of a non towered airport to 5,000 ft. which is below the Minimum IFR Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ASE.TRACON

State Reference : CO

Altitude.MSL.Single Value : 12700

## Environment

Flight Conditions : Marginal

## Aircraft

Reference : X

ATC / Advisory.TRACON : ASE

Aircraft Operator : Fractional

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use.Other

Airspace.Class E : ASE

## Person

Location Of Person.Facility : ASE.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) : 4

ASRS Report Number.Accession Number : 2036756

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Excursion From Assigned Altitude

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

Aircraft X took himself off the IFR procedure they were cleared on. Three safety alerts were issued. Pilot reported field in sight. This is a reoccurring issue on marginal weather days. Suggestion: Deviate pilots and address safety culture around deviating pilots. Biggest push back I'm getting is that it creates too much paper work. Recently I was written up for professionalism because I asked the pilot what he was doing. No one is taking initiative to fix this problem. Controllers are handed the risk to make sure pilots comply with the procedure even though this has always been an ongoing issue. The FAA has taken no action to correct this issue.

## Synopsis

A TRACON Controller reported an aircraft on approach descended below the charted altitude and flew below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZAB.ARTCC

State Reference : NM

## Aircraft

Reference : X

ATC / Advisory.Center : ZAB

Aircraft Operator : Military

Make Model Name : Military

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Flight Phase : Cruise

Airspace.Class E : ZAB

## Person

Location Of Person.Facility : ZAB.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 : 2036468

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Distraction

## Events

Anomaly.ATC Issue : All Types

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

Anomaly.Inflight Event / Encounter : Weather / Turbulence

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Contributing Factors / Situations : Weather  
Primary Problem : Human Factors

### Narrative: 1

I was busy with military and arrivals. A low guy asked to deviate around weather. He was on an airway at a good altitude and I got busy with another aircraft. The frequencies were jammed up everyone was being stepped on. I looked to see what the MVA was and I missed the 10400 ft. so I told him to deviate left and advise on course. I started working on a clearance and the aircraft immediately started flashing with the MVA. So I turned and climbed the aircraft away. I issued a low altitude alert. He just clipped the corner.  
Suggestion: More staffing, or less traffic.

### Synopsis

A Center Controller reported he approved a weather deviation for an aircraft which resulted in it flying below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : SAT.TRACON

State Reference : TX

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.TRACON : SAT

Aircraft Operator : Military

Make Model Name : Military

Crew Size.Number Of Crew : 1

Flight Plan : IFR

Mission : Training

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class E : SAT

## Aircraft : 2

Reference : Y

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

Flight Plan : VFR

Flight Phase : Cruise

Route In Use : None

Airspace.Class E : SAT

## Person

Location Of Person.Facility : SAT.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) : 12

ASRS Report Number.Accession Number : 2036459

Human Factors : Communication Breakdown

Human Factors : Distraction

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events



Anomaly.ATC Issue : All Types  
Anomaly.Conflict : NMAC  
Detector.Person : Air Traffic Control  
Detector.Person : Flight Crew  
Miss Distance.Vertical : 200  
When Detected : In-flight  
Result.Flight Crew : Took Evasive Action  
Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Separated Traffic  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

Aircraft X descending via BRACKEN Arrival into RND. Two airports are just outside of SAT Class C airspace and are on the final approach to RND. This is an area of constant traffic alerts and TCAS events due to non participating aircraft climbing into ILS traffic landing RND. This unknown Aircraft Y was a primary only on RADAR, on the localizer path to Runway 15L at approximately 3,000 feet which is the same altitude for the ILS approach in that area. Traffic was issued 2 times approximately 7 miles apart and then again about 3 miles apart. Aircraft X reported the aircraft in sight and advised it appeared to be Aircraft Y approximately 200 feet below him. At this time Aircraft X was at 3100 ft. or 3200 ft. but should have been at 3000 ft. but due to traffic was not at assigned altitude. Suggestion: San Antonio needs a larger airspace to encompass the very closely spaced and congested airspace around San Antonio and RND which by flight operations is the busiest air force base in the US. Dodging unknown VFR traffic while trying to run simultaneous ILS approaches is not safe, especially in the case where they don't even have an operating transponder and are operating on the localizer at the altitude for the approach. Final approach courses should be protected from non participating aircraft.

## Synopsis

A TRACON Controller reported a NMAC between an aircraft on an approach and an unidentified VFR aircraft flying through the final approach course.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory. TRACON : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Initial Approach

## Aircraft : 2

Reference : Y

Aircraft Operator : Personal

Make Model Name : Light Sport Aircraft

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Flight Phase : Cruise

Route In Use : None

## Person

Location Of Person.Facility : ZZZ.TRACON

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

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

ASRS Report Number.Accession Number : 2036089

Human Factors : Distraction

Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : NMAC

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

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Took Evasive Action

## Assessments

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

## Narrative: 1

I was working sector X, working departures of ZZZ and feeding arrivals to the ZZZ final Controller. I also work satellite airports southwest of ZZZ. I had just relieved the previous Controller from the position, which during the relief briefing, told me that he had cleared Aircraft X, for the RNAV XX approach at ZZZ1. When Aircraft X turned final on the approach, I switched him to ZZZ1 Tower. I observed a VFR at 1,900 ft approximately 6 miles southeast of Aircraft X heading directly towards ZZZ1. This is a common occurrence, because ZZZ1 Tower is a busy VFR Tower. I switched Aircraft X early enough so that ZZZ1 would be able to set their sequence. Both the VFR and IFR, Aircraft X, entered the class D at the same time. The VFR from the southwest and the IFR from the west. Having worked at a VFR Tower, this didn't alarm me or cause concern. Later, the ZZZ1 Tower Controller asked if I ever talked to Aircraft Y, which I hadn't. On Day 0, I was notified that this incident was being logged as a significant event and that Aircraft X had to conduct [priority handling] left 360 to avoid the VFR. I was interviewed by my operations manager. The pilot of Aircraft X stated that in his opinion, the VFR was in the class D airspace. Upon listening to the tapes, you do not hear a collision alert go off in the background while I'm talking to other planes. When I saw the left 360, I assumed that ZZZ1 was sequencing the VFR and IFR aircraft for ZZZ1. Suggestion: I don't know why TRACON Controllers are being interviewed for a significant event that happened in another facilities airspace, involving an aircraft that violated class D airspace. ZZZ1 Tower doesn't have a radar display at all. They only have the windows to find traffic. It was brought up before at ZZZ [TRACON], how ZZZ1 not having a D-brite, or radar display, could lead up to a significant event. I think if a contract Tower can afford to open a Tower, they should afford to have a radar display. If not, it was safer having aircraft on UNICOM or with the radar.

## Synopsis

A TRACON Controller reported their Manager questioned them about a NMAC between an IFR aircraft they had handed off to the Tower and a VFR aircraft in the Tower's Class D airspace.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

## Aircraft : 1

Reference : X

ATC / Advisory.ATC Facility : ZZZ

Aircraft Operator : Military

Make Model Name : Military

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Training

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.ATC Facility : ZZZ

Aircraft Operator : Military

Make Model Name : Military

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Training

Flight Phase : Cruise

Route In Use : Direct

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Military : 3

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 0

ASRS Report Number.Accession Number : 2035723

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : ATC

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Air Traffic Control  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

Flight of 2 Aircraft, Aircraft X and Aircraft Y was coordinated to be in training route and exit at XA00z at ALT 090. Radar ZZZ received that information from ZZZ Center and told me about it as I was working the ZZZ sector. Sometime later, an IFR aircraft inbound to a satellite airport was coordinated from ZZZ1 sector to enter my airspace at ALT 083 for terrain. The flight path and altitude were in conflict with the exit point and altitude with training route, so I told the ZZZ1 Controller to assign heading 320 to deconflict. When the satellite arrival was in my airspace, I had descended the aircraft to 080 and had them on a heading to parallel the protected airspace of the training route. The MVA in the area is 078. ZZZZZ1 is the exit point of training route and where I was expecting Aircraft X and Y to exit. That point is also in ZZZ1 airspace. I noticed Aircraft X and Y targets spilling out of the lateral confines of the training route and tracking westbound toward ZZZ airport. The altitude indicated approximately 044 and they were within the 078 MVA. Aircraft X and Y then radioed my UHF frequency looking for Approach Control Service. I was never advised from ZZZ1 sector of a handoff or any status change to the training route. This happened around XB53Z. The point Aircraft X and Y terminated their training route was around ZZZZZ. I was expecting them to go all the way to ZZZZZ1. I instructed Aircraft X and Y to ident. I radar identified the flight, advised them of IFR traffic overhead at 080, and that they were currently in a 078 MVA. I issued traffic to the civil aircraft before Aircraft X and Y radioed me, when I observed the targets spilling out. The speed of Aircraft X and Y and their rate of climb was not a safety issue with the other aircraft, but it was unsafe for that flight to exit the training route early and expect IFR service at those low altitudes. After I established radar and radio communication with Aircraft X and Y, I advised ZZZ1 sector that the flight was with me and on their way to ZZZ airport. ZZZ1 flashed me the data block at that time. I received a position relief brief and advised the incoming Controller of the situation. At that time Aircraft X and Y was above the MVA and being sequenced to ZZZ. Suggestion: ZZZ Center needs to confirm the exit point of ZZZZZ1 to the pilots of the aircraft operating in the training route before they begin the route. If anything different is going to happen, then ZZZ needs to be made aware immediately so that we can ensure that proper separation is maintained from aircraft and terrain. If ZZZZZ had been coordinated earlier, then I could have had the satellite arrival at ALT 100, and also made sure that Aircraft X and Y didn't exit the confines of the protected airspace until at an appropriate altitude. This situation was very dangerous and not the way we should control our airspace.

## Synopsis

ATC Controller reported a flight of two military trainers exited their training route prior to the coordinated fix and were flying below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Climb

Route In Use : Vectors

Airspace.Class D : ZZZ

Airspace.Class E : ZZZ

## Person : 1

Location Of Person.Facility : ZZZ.Tower

Reporter Organization : Government

Function.Air Traffic Control : Local

Function.Air Traffic Control : Trainee

Qualification.Air Traffic Control : Developmental

ASRS Report Number.Accession Number : 2035032

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Human-Machine Interface

Human Factors : Time Pressure

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Situational Awareness

## Person : 2

Location Of Person.Facility : ZZZ.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Instructor

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 13

ASRS Report Number.Accession Number : 2035036

Human Factors : Workload  
Human Factors : Training / Qualification  
Human Factors : Time Pressure  
Human Factors : Distraction  
Human Factors : Confusion  
Human Factors : Situational Awareness

## Person : 3

Location Of Person.Facility : ZZZ.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Supervisor / CIC  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 15  
ASRS Report Number.Accession Number : 2035033  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Human Factors : Confusion  
Human Factors : Distraction

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : FLC complied w / Automation / Advisory  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

I was training VFR position when we had an Aircraft X come off of ZZZ heading west toward the MVA as is standard for our VFR departures. He had ZZZ1 in his tag but also had S for standard instrument climbout. I turned him northbound on a 350 heading as he was in the 10,900 feet. MVA and questioned if the aircraft was IFR or not. After he confirmed he was IFR I climbed the aircraft to 11,000 feet and issued a low altitude alert. I then issued a 020 heading to ensure the aircraft would exit the MVA quicker without conflicted with our IFR aircraft on final. Aircraft that are IFR inbound to ZZZ doing a practice approach should not have their next destination in the scratchpad to ensure that they do not get confused with VFR aircraft. Regardless of their next destination they are still getting the same climbouts.

## Narrative: 2



I was training on the (VFR) position. Aircraft X checked on departing on a 260 heading and I believe my trainee issued him a heading of 350 which is what we typically turn VFR aircraft to that are headed northbound. Multiple aircraft tags were overlapping at the airport so it was difficult to see Aircraft X's tag initially. We do not turn IFR aircraft westbound at ZZZ so I and my trainee had every reason to believe this aircraft was VFR. IFR aircraft are supposed to come off runway heading and should always contact Departure Radar (DR) initially, not our position of VFR. When my trainee and I saw the tag we noticed that his tag looked IFR because it had an "S" in the tag indicating he had been given IFR climb out instructions. I asked my trainee to ask the aircraft to verify whether they were IFR or VFR. I figured it was possible the aircraft had cancelled IFR with the tower wanting to go VFR on the go and they had forgotten to update the tag. However, the aircraft replied that they were indeed still IFR. Realizing the tower must have mistakenly turned the aircraft westbound and forgot he was IFR, I told my trainee to issue them a low altitude alert and we issued a climb to 11,000 feet. I thought the 350 heading he was originally given might be enough to stay clear of the 11,000 feet MVA but it was not and the aircraft did enter the higher MVA. I told my trainee to turn the aircraft a little further east to help them exit the higher MVA and we ended up giving him a 360 heading. This kept him east of the 11,000 feet MVA and we told him he could stop his climb at 10,000 feet which would have been his normal altitude going northbound. I thought about giving a harder turn to the east initially but was hesitant because the tower was busy and I did not know what else they had coming off and I did not know what was coming inbound on the finals at the time either. We made sure Departure Radar knew that this aircraft was IFR climbing to 10,000 feet just west of their finals. They ended up needing to break out an IFR arrival aircraft to the east as he was inbound at 10,000 feet and in conflict. If we had noticed he was IFR sooner we could have issued a 360 or 010 heading on initial contact and that might have kept him clear of the 11,000 feet MVA. I would not have felt comfortable issuing a heading any further east because I didn't know what was going on in the tower pattern. Firstly, the tower forgot this aircraft was IFR on the go so I think it would be helpful to ensure tower is using some kind of memory aid to help avoid this mistake. We just recently implemented using strips to help with memory aids such as this. However, there has not been clear instruction on how to use the strips effectively and most controllers are not using strips for arriving or practice approach aircraft at all. The DR/VFR procedures, as they are currently, did not help this situation. It has never made sense to allow even VFR aircraft that are transitioning northbound next to the finals to be talking to VFR. These aircraft are in very close proximity to DR traffic and when something goes wrong it can be difficult to fix quickly when it has to be relayed through VFR. It is common for aircraft to come off and VFR thinks DR is talking to them and DR thinks VFR is talking to them and in reality no one is talking to them. If Aircraft X had called DR they would have been more familiar with his status as they had just worked him IFR inbound on an approach. They also would probably have felt more comfortable turning him further eastbound as they were working all the other arriving aircraft inbound and had a better understanding of potential conflicts. There was busy training happening at the DR position and the VFR position. Practice approach aircraft should maybe be denied if the positions are getting overloaded. I don't know what was going on in the tower but they must have been busy because there was a cluster of data tags over the tower that were difficult to read. I think a better job needs to be done managing both Touch-and-go aircraft and practice approach aircraft. The amount we feel pressured into working at times is not safe and leads to mistakes like mistaking an IFR aircraft for VFR and turning them into higher MVAs.

### Narrative: 3

I was working the (CIC) in the tower. Aircraft X was inbound for a GPS approach, option to radar. The aircraft was IFR and was tagged appropriately. I did not notice that the local

controller altered the tag to add the aircraft's next requested destination to the secondary scratchpad. The secondary destination is not standard in IFR data blocks. We designate climb out using the special letter identifier in the data block an S indicates IFR climb out and a Z represents VFR climb out. After adding the secondary airport to the scratchpad Aircraft X's tag looked just like a VFR tag except for that single letter. After completing the approach the local controller turned Aircraft X to the west towards higher terrain which is standard for VFR climbout. The aircraft was handed off and switched to the VFR position. The MVA 4 miles west of the field is 10,900 feet and Aircraft X was on standard climbout and only climbing to 9,000 feet. Personally, I never noticed the tag change, so from my vantage point in the center of the cab, I thought the aircraft was being handled normally. The local controller simply misread the tag on the go and applied VFR climb out procedures to an IFR aircraft. The aircraft did enter the 10,900 feet MVA. We have been using the single letter to denote climb out for years and it has been a problem several times. We are currently making a change to how the scratchpad is used for intra-facility coordination. In our next SOP the special letter will always either display a V for VFR aircraft or nothing for IFR. I believe that change should take effect before the end of the year and will make this type of mistake less likely.

## Synopsis

A TRACON Controller, trainee and the Controller in Charge reported an IFR departure was assigned a VFR departure procedure and assigned a VFR data tag identifier which resulted in the aircraft flying below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309  
Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.TRACON  
State Reference : US  
Altitude.MSL.Single Value : 12200

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Corporate  
Make Model Name : Medium Transport, Low Wing, 2 Turbojet Eng  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Descent  
Route In Use.Other  
Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 4  
ASRS Report Number.Accession Number : 2035031  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Human-Machine Interface

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication  
Contributing Factors / Situations : Company Policy

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

## Narrative: 1

An accurate description is that I have reported this issue of IFR aircraft stepping below published step downs and taking themselves off of the IFR procedures. Nothing has been done. It is a systemic issue that has not been fixed and now management wants to give me a performance review for "unprofessionalism," because I asked the pilot what he was doing in plain language rather than using prescribed phraseology. It is not culture to deviate the pilots in this situation, so FSDO has not been able to properly document and investigate the systematic issue. Aircraft Y was cleared on the XX approach. Once the pilot got the field in sight, they proceeded east of final well below the 12,900 ft. step down. Safety alert was issued and plain language was used to understand the situation. Start issuing pilot deviations so pilots can report issues with the procedure or approach from their perspective.

## Synopsis

A TRACON Controller reported a Corporate jet deviated off course from the approach and flew below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 3100

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Flight Phase : Initial Approach

Route In Use : Vectors

Airspace.Class B : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 4

ASRS Report Number.Accession Number : 2034436

Human Factors : Confusion

Human Factors : Situational Awareness

Human Factors : Workload

Human Factors : Distraction

## Events

Anomaly.ATC Issue : All Types

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Flight Crew

When Detected : In-flight

Result.Air Traffic Control : Issued New Clearance

## Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

## Narrative: 1

Aircraft X was on a vector of 350 to the RNAV Y Rwy XL approach course at 3100 feet. 5 west of ZZZZZ fix. I was distracted by what aircraft were departing the airport ASDE-X and Aircraft X said they were going through the final approach course. I attempted to turn to a 110 heading to intercept when I realized that heading would take them directly to the FAF I pointed out the airport in an attempt for a visual approach however they responded that they need the RNAV approach. I eventually turned them to a 180 heading for a better approach but it may have been in the higher MVA area of 4000 feet. when I turned them, I wasn't quite sure. I should've paid closer attention to the aircraft on a base ready for the final turn instead of becoming easily distracted.

## Synopsis

A TRACON Controller reported they vectored an aircraft below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 3000

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Vectors

Airspace.Class C : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 6

ASRS Report Number.Accession Number : 2034433

Human Factors : Human-Machine Interface

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types

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

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Other Person

When Detected : In-flight

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Human Factors

## Narrative: 1

Aircraft X was on a vector for the visual approach Runway XXR he was about 18nm southwest of ZZZ at 5000 ft. He was in a 3,700 ft. MVA when I descended him to 3,000 ft. He was about 3 miles away from a 2800 ft. MVA. That is why he was given the descent to 3000 ft. In the area where I descended him there are no obstructions. The closest obstruction to him was about 8 miles north of his position. His course was diverging away from the obstruction that is 2,400 ft. and was never going to get close to the obstruction. When I descended the aircraft I thought it was going to be clean because there are no obstructions in that area. I was later informed about the MVA bust by the ATM. I have re watched the replay and still think that it was a clean and safe operation. I think there needs to be some clarification on the correct way to descend an aircraft below the MVA when clear of all obstructions. The ATM is under the assumption that no matter where they are at or where the obstruction is you can not descend them before the depicted MVA.

## Synopsis

A TRACON Controller reported they descended an aircraft below the Minimum Vectoring Altitude.



## Time / Day

Date : 202309

Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 800

## Environment

Flight Conditions : IMC

Light : Night

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : B737 Next Generation Undifferentiated

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class B : ZZZ

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Carrier

Make Model Name : A380

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Taxi

## Person

Location Of Person.Facility : ZZZ.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) : 23

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 8

ASRS Report Number.Accession Number : 2034127

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Human-Machine Interface

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Ground Event / Encounter : Ground Equipment Issue  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Air Traffic Control  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

This was a [runways] XXL/XXR Right Turns IFR weather, but not protecting the critical areas. I was seeing the aircraft around 1,000 ft with a reported ceiling of 800 ft broken as well as 1,000 ft broken. Visibility was 10 miles and it was night time. The wind was around 240 at 15 gusting 20. A super A380 was taxiing out for departure, and I observed a large enough staggered space between departing Runway XXL, crossing over the super and departing Runway XXR, while having enough spacing between the Left and Right arrivals. On Local Assist was a Local Assist certified, however still in training on Local controller. I asked them to call over to the finals controller to advise all aircraft on approach that an A380 would be traversing the glideslope critical area. They made the call. Aircraft X had not yet checked in inside of the final approach fix. I reached out to see if they were there. They were. I advised Aircraft X of the A380 going to pass through the glideslope critical area and suggested hand flying the approach for the signal disruption. They thanked me for the advisory. When the A380 was clearing the critical area, I received a low altitude MSAW warning. I keyed up and stated, "Low altitude alert, Aircraft X check your rate of descent, 2 1/2 miles from touchdown and 800 ft" and assigned the current altimeter setting. I received no reply, however the MSAW stopped. The flight landed and was advised to exit the Runway at taxiway 1 or taxiway 2 and contact Ground. They acknowledged and never said a thing about the altitude on approach. This should be taught NAS wide to cover the circumstances when an aircraft will not have the signal integrity protection they expect. I was glad for the opportunity to show a newer controller how to coordinate this type of critical area penetration coordination, when not protecting, hoping that they will do so in the future.

## Synopsis

A Tower Controller reported they received a Minimum Safe Altitude Warning for an aircraft on short final and advised the aircraft.

## Time / Day

Date : 202309  
Local Time Of Day : 1801-2400

## Place

Locale Reference.ATC Facility : ZZZ.Tower  
State Reference : US  
Altitude.MSL.Single Value : 2600

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Taxi  
Make Model Name : Challenger CL600  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 135  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class B : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 33  
Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 5  
ASRS Report Number.Accession Number : 2033079  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication

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

## Narrative: 1

I had a sequence of departing Runway XXR at [Taxiway] 1 with a ZZZZZ1 (right turn), loading Runway XXR at [Taxiway] 1 with a ZZZZZ2 (straight out) and interspersed a ZZZZZ3 Runway XYL that would go behind my ZZZZZ1. I also had a transition coming in from the northwest that would pass well behind the two XXR departures. The ZZZZZ1 was cleared for takeoff. The ZZZZZ2 was cleared to line up and wait as well as advised the aircraft ahead would be a right crosswind departure as initial separation. I then exited a Runway XXL arrival, crossed Runway XXL at [Taxiway] 2, cleared the ZZZZZ3 for takeoff Runway XYL, then cleared the ZZZZZ2 off of Runway XXR at [Taxiway] 1. I shipped the ZZZZZ1 to Departure, and once the ZZZZZ3 was airborne passing behind (diverging from) the ZZZZZ1 shipped them to Departure. Last, I shipped the ZZZZZ2 to Departure. As I migrated through the rest of my work, I noticed the ZZZZZ2 was turning northbound, and exclaimed something along the lines of "Where are they going" while reaching out to them. They were still with me. I quickly, while they were climbing to meet the MVA explained that they were to have gone straight out via ZZZ radial and said turn left immediately heading 310, traffic 11 o'clock and 2 miles opposite direction VFR traffic at 500 feet below (now 1,000 ft. above the VFR), and said continue left turn heading 260, maintain 3,000 ft. I then advised possible pilot deviation and to call the Tower, Approach Control would provide the phone number. I did not mention the ZZZZZ3 traffic, as the VFR was closer and I was providing Tower visual separation between the ZZZZZ3 and the ZZZZZ2. I also did not state low altitude alert as the aircraft, once acknowledged on frequency was climbing through it. Once they were turned to 260 I told them once again to contact Departure. I am not sure why the aircraft turned when the SID depicts straight out to ZZZZZ4. I guess an RNAV SID where I could say "RNAV ZZZZZ4" would solve this one.

## Synopsis

A Tower Controller reported a departing aircraft deviated from the SID and flew below the minimum vectoring altitude.

## Time / Day

Date : 202309  
Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : JFK.Airport  
State Reference : NY  
Altitude.MSL.Single Value : 2000

## Aircraft

Reference : X  
ATC / Advisory.Tower : JFK  
ATC / Advisory.TRACON : N90  
Aircraft Operator : Air Carrier  
Make Model Name : Medium Large Transport, Low Wing, 2 Turbojet Eng  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Initial Climb  
Route In Use.SID : JFK5  
Airspace.Class B : JFK

## Person

Location Of Person.Facility : N90.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Departure  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5  
ASRS Report Number.Accession Number : 2033075  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Situational Awareness  
Human Factors : Human-Machine Interface  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

Contributing Factors / Situations : Procedure  
Primary Problem : Human Factors

## Narrative: 1

Once again aircraft was assigned [the] Kennedy 5 Departure Breezy Point Climb then radar vectors RBV [VOR]. Aircraft went to CRI [VOR] (on SID) and then direct RBV instead of flying CRI-223 awaiting vectors. This is an on going issue with the RNAV SID being temporarily unavailable to fix data issues. Queried the pilot who said in ACARS receipt it didn't mention which climb to follow and that Tower only told them to fly Canarsie Climb once airborne. Called Tower who said it was definitely sent properly in ACARS stating which climb to fly. This deviation causes the path to go into the face of LGA Arrivals. No separation loss occurred. Vector was given immediately to bring back into airspace. Suggestion: Have clearance delivery verbalize climb with receipt of ACARS data.

## Synopsis

N90 TRACON Controller reported an aircraft failed to follow the Kennedy 5 Departure, resulting in a course deviation that put the aircraft into potential conflict with LGA arrivals. Controller vectored the aircraft back to JFK airspace.

## Time / Day

Date : 202309  
Local Time Of Day : 0001-0600

## Place

Locale Reference.Airport : TUS.Airport  
State Reference : AZ  
Relative Position.Angle.Radial : 120  
Relative Position.Distance.Nautical Miles : 26  
Altitude.MSL.Single Value : 7400

## Aircraft

Reference : X  
ATC / Advisory.TRACON : U90  
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 : Initial Approach  
Airspace.Class C : TUS

## Person

Location Of Person.Facility : U90.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Approach  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Radar : 14  
ASRS Report Number.Accession Number : 2032793  
Human Factors : Situational Awareness

## Events

Anomaly.Deviation - Altitude : Crossing Restriction Not Met  
Anomaly.Deviation - Altitude : Overshoot  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Automation : Air Traffic Control  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

I had relieved the previous Controller who had cleared Aircraft X for the RNAV/GPS-Z to runway 29R. Aircraft X was descending on the approach from JOKIM to the next waypoint VEDTU. The published altitude for the approach between JOKIM and VEDTU is 7800 ft. I observed Aircraft X at 7500 ft. and they appeared to not be at VEDTU yet. I pulled up the map for the RNAV/GPS-Z for 29R and Aircraft X was approximately 3 miles from VEDTU now at 7400 ft. I issued a low altitude alert to Aircraft X advising of the MDA (Minimum Descent Altitude) being 7800 ft. for the segment of the approach. Aircraft X began to level at approximately 7000 ft., and I asked Aircraft X if they had the terrain in sight. They replied in the affirmative. At this point they were over VEDTU and on the next segment of the approach that allows descent to 5300 ft. I asked Aircraft X if they wanted to be broken off the approach and climbed or if they wanted to continue. They stated they wanted to continue the approach. I advised Aircraft X that the MDA for the segment from VEDTU to ATOGE was 5300 ft. They had stated they "see that now". I did not issue a climb to Aircraft X because the terrain in the area is well below the published altitudes and they were in a 7200 ft. MVA (Minimum Vectoring Altitude) when they were at 7400 ft. This approach plate seems to be confusing to pilots. This descent to a lower altitude than published on that segment of the approach happens fairly often as of late. If there is a way to make the altitude more clear to pilots for each segment that would be beneficial. As of right now there is a small "7800" just over the leg between VEDTU and JOKIM. The profile view only references ATOGE at 5300 ft. Some way to draw attention to the step down fixes on the approach I believe would help pilots.

## Synopsis

U90 TRACON Controller reported a flight crew misinterpreted the minimum descent altitude of an approach segment to TUS which resulted in a low altitude alert and CFTT event. Controller stated the procedure seems to be causing some confusion among pilots.



## Time / Day

Date : 202309  
Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.TRACON  
State Reference : US  
Altitude.MSL.Single Value : 5000

## Aircraft

Reference : X  
ATC / Advisory.TRACON : ZZZ  
Aircraft Operator : Military  
Make Model Name : Military Transport  
Crew Size.Number Of Crew : 2  
Flight Plan : IFR  
Mission : Training  
Flight Phase : Climb  
Route In Use : Vectors  
Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 2  
ASRS Report Number.Accession Number : 2032560  
Human Factors : Time Pressure  
Human Factors : Workload  
Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Airspace Structure  
Contributing Factors / Situations : Chart Or Publication  
Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure  
Primary Problem : Procedure

## Narrative: 1

Aircraft X was conducting a special procedure. I instructed Aircraft X to depart ZZZZZ heading 030 [at] 6,000 [ft]. Aircraft X read the instruction back to me. However after the procedure, the aircraft did not go to point ZZZZZ as published, they flew a 340 heading. When they called on departure, they informed me they were heading 340 for an own navigation visual approach. This is not what they were instructed to do. This heading takes them directly towards the 5,600 MVA. I informed them to remain on the heading due to the slow climb of the aircraft. However they proceeded to reach the 5,100 MVA sooner than expected and I needed to turn them to avoid the 5,600 MVA. They were instructed that they were entering a 5,600 MVA and no delay to 6,000, turn left heading 270. They were at 5,300 in the 5,600 MVA and turning to a 270 heading. I would recommend not leaving them on the heading they took upon themselves to fly on departure and give them a low altitude alert for the MVA they were about to enter.

## Synopsis

A Tracon Controller reported a military aircraft deviated from their assigned route and flew below the Minimum Vectoring Altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.TRACON

State Reference : US

Altitude.MSL.Single Value : 1500

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Personal

Make Model Name : SR22

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Climb

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Departure

Function.Air Traffic Control : Instructor

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 17

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 6

ASRS Report Number.Accession Number : 2031401

Human Factors : Training / Qualification

Human Factors : Workload

Human Factors : Time Pressure

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Air Traffic Control : Issued New Clearance

## Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : Chart Or Publication

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

## Narrative: 1

I was OJTI (On The Job Training Instructor) in the approach position training a CPC-IT that was previously certified at ZZZ. Aircraft X called up VFR departure from ZZZ1 requesting to pick up their IFR clearance to ZZZ2. The developmental radar identified the aircraft in one transmission and then immediately cleared the aircraft IFR below the MVA on the next transmission. Aircraft X was at 1500 ft. and the MVA is 1700 ft.

## Synopsis

A TRACON Instructor reported their trainee issued an IFR clearance to an aircraft that was below the minimum vectoring altitude.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.Tower

State Reference : US

Altitude.MSL.Single Value : 600

## Environment

Flight Conditions : Marginal

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : Helicopter

Crew Size.Number Of Crew : 3

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Ambulance

Flight Phase : Final Approach

Airspace.Class D : ZZZ

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.TWR

Reporter Organization : Government

Function.Air Traffic Control : Local

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6

ASRS Report Number.Accession Number : 2031394

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Confusion

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Overshoot

Anomaly.Deviation - Track / Heading : All Types

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

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Automation : Air Traffic Control

Detector.Person : Flight Crew

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Issued Advisory / Alert  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

Aircraft X was inbound to ZZZ on the approach due to bad weather. They never checked on and when they were around 4 miles, I attempted to reach out to the helicopter because they had a low altitude alert. 600 ft. at 4 miles from the airport. Without knowing if they were on my frequency, I issued the altimeter and attempted to reach them again. No response from the helicopter so I reached out the East sector at ZZZ and they replied that they were going to switch him. The pilot was visibly disoriented and never was even close to being on the approach or at a safe altitude. When the pilot finally arrived to my frequency, they were about 2.5 miles from the field, still very disoriented, had them climb, and issued additional altimeter settings. ZZZ needs to pay attention. Very unsafe and nonchalant attitude when advised about an aircraft that was low and not even on the approach.

## Synopsis

A Tower Controller reported a helicopter on an approach in marginal weather was disoriented and deviated from the approach course and below the published altitudes, causing Tower to receive a low altitude alert.

## Time / Day

Date : 202309

Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : LAS.Airport

State Reference : NV

Altitude.MSL.Single Value : 3000

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : LAS

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Final Approach

Route In Use.Other

Airspace.Class B : LAS

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : LAS

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Crew Size.Number Of Crew : 1

Flight Plan : IFR

Flight Phase : Final Approach

Airspace.Class B : LAS

## Person

Location Of Person.Facility : L30.TRACON

Reporter Organization : Government

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

ASRS Report Number.Accession Number : 2031385

Human Factors : Workload

Human Factors : Time Pressure

## Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : NMAC

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

Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Executed Go Around / Missed Approach  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

Configuration 4 at LAS has been an ongoing issue. There have been many near misses and the NTSB has come out to review them several times. This is a known issue that needs more attention or a mid air collision is inevitable. Recently, our management and NATCA team came out with a revised procedure to try and mitigate these near misses. What they did is commendable but today I found out it doesn't work. L30 [Approach] apparently makes no attempt to try and sequence these aircraft to the intersection, they come over tied all the time. What our leadership team came up with is 1 mile is required in front of [Runway] 8R arrival or we have to send the [Runway] 19L arrival around at a 2 mile final. The other requirement is that you need to be established behind the 8R with your 19L arrival. No mileage is required, you just need to be behind them. Today while following that procedure I was behind the 8R arrival and Aircraft X went around on his own just prior to the runway threshold. He passed over the top of the 8R arrival by approximately 400 feet. I expedited his climb as soon as he said he was going around. Had he gone around 5-10 seconds later, I believe these aircraft would have collided. They will say I was maintaining visual separation and that it wasn't a loss. I had no control over that situation, no out, no altitude separation and nowhere to turn the aircraft to avoid a collision. I just called a traffic alert and prayed it would work. This is not air traffic control. The arrival rate needs to be reduced to allow L30 to sequence aircraft to the intersection. With that, L30 needs to create its own procedures to ensure mileage can be maintained between the intersection arrivals. Mileage needs to be established behind the aircraft. It's 1 mile in front and 0 miles behind. It doesn't matter which one is in front, we are trying to avoid a collision. I would highly suggest increasing the spacing in front and behind to more than 1 mile. When an aircraft is going around, their speeds can be unpredictable and 1 mile can be lost quickly.

## Synopsis

LAS Tower Local Controller reported an NMAC when a Runway 19L arrival unexpectedly initiated a go-around and flew over the top of an aircraft on short final to Runway 8R. The reporter states published procedures in place for this arrival configuration do not adequately protect for this occurrence.



## Time / Day

Date : 202309

Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 10000

## Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : IFR

Mission : Personal

Flight Phase : Cruise

Airspace.Class E : ZZZ

## Component

Aircraft Component : Instrument and Control Panels

Aircraft Reference : X

Problem : Failed

## Person

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Radar : 4

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 20

ASRS Report Number.Accession Number : 2031141

Human Factors : Workload

Human Factors : Time Pressure

## Events

Anomaly.Aircraft Equipment Problem : Critical

Detector.Person : Flight Crew

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Diverted

Result.Flight Crew : Overcame Equipment Problem

Result.Air Traffic Control : Issued New Clearance

Result.Air Traffic Control : Provided Assistance

## Assessments

Contributing Factors / Situations : Aircraft  
Primary Problem : Aircraft

### Narrative: 1

Aircraft X was IFR from ZZZ to ZZZ1. He called me and said he lost his STEAM instruments and said he needed to maintain VFR. I told him to maintain VFR but he never cancelled his IFR clearance. I then [requested priority] for him. Aircraft Y was north of him and offered to turn back to help. I vectored Aircraft Y towards Aircraft X to help guide him to ZZZ2. Once they got each other in sight, Aircraft Y was able to guide him to ZZZ2.

### Synopsis

A Center Controller reported an aircraft on an IFR flight reported they lost all instruments. The Controller vectored a nearby aircraft to guide it to a nearby airport.

## Time / Day

Date : 202308

Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 2600

## Aircraft

Reference : X

ATC / Advisory.TRACON : ZZZ

Aircraft Operator : Fractional

Make Model Name : Challenger 350

Crew Size.Number Of Crew : 2

Flight Plan : IFR

Mission : Passenger

Flight Phase : Cruise

Route In Use : Vectors

Airspace.Class B : ZZZ

## Person

Location Of Person.Facility : ZZZ.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) : 12

ASRS Report Number.Accession Number : 2030883

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Distraction

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Deviation - Altitude : Overshoot

Anomaly.Deviation / Discrepancy - Procedural : Clearance

Anomaly.Inflight Event / Encounter : CFTT / CFIT

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.Flight Crew : Requested ATC Assistance / Clarification

Result.Flight Crew : Became Reoriented

Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

Aircraft X was assigned altitude 3,000 feet, and pilot read back 3,000 feet. Pilot was instructed to proceed to [a fix] and intercept the localizer for Runway X. I observed the pilot at 2,600 feet over the ZZZ antennas which the MVA is 3,000 feet. I asked the pilot to say altitude and informed him of the MVA altitude restrictions, with the current altimeter setting. He informed me he was climbing back to 3,000 feet. At this point he was past the obstruction, and I informed him it was not necessary to climb and asked him if he had the airport in sight. The pilot reported the airport in sight. I issued the visual approach clearance along with a Brasher Warning. Because of the complexity of traffic, similar sounding call signs and no audio or visual alarms of the Low Altitude event I did not issue the Safety Alert, "Low Altitude". When busy and you observe an aircraft below the MVA regardless of an alarm, issue "Low Altitude Alert" to said aircraft.

## Synopsis

A TRACON Controller reported an aircraft descended below their assigned altitude and flew below the minimum vectoring altitude.

## Time / Day

Date : 202308  
Local Time Of Day : 1201-1800

## Place

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

## Aircraft

Reference : X  
ATC / Advisory.Tower : ZZZ  
Aircraft Operator : Air Carrier  
Make Model Name : Commercial Fixed Wing  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 121  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Taxi  
Route In Use : None

## Component

Aircraft Component : Turbine Engine  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Location Of Person.Facility : ZZZ.TWR  
Reporter Organization : Government  
Function.Air Traffic Control : Local  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6  
ASRS Report Number.Accession Number : 2030880  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Training / Qualification  
Human Factors : Workload  
Human Factors : Distraction  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : ATC

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.ATC Issue : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Ground Event / Encounter : Other / Unknown  
Detector.Person : Air Traffic Control  
When Detected : Taxi

Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Issued Advisory / Alert

## Assessments

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

## Narrative: 1

I was working Local Control, which involved departing Runway XX. I heard Ground Control shout MAYDAY 3 times and report an aircraft that was taxiing had an engine fire. According to our LOA with the Fire Department, if there is a crash or a fire, they call out a "Crash/Fire Alert" on the emergency phone which then requires all aircraft on the airport to stop moving, and all airborne traffic must go around so that emergency vehicles can cross runways to get to the fire as quickly as possible. I announced my intentions to tell Aircraft Y to go heading 320 and 5000 ft with all of their arrivals since I owned the airspace they would be in, but the supervisors told me "NO" because it wasn't a "Crash/Fire Alert," and instead called it an "Emergency Alert" even though there was a potential fire. There needs to be clarification on what is considered "Crash/Fire" and what is considered "Emergency" alerts. Two days ago, another aircraft had an engine fire and it was called a "Crash/Fire" alert and all airborne aircraft had to go around. There needs to be consistency and then education across all parties.

## Synopsis

A tower Local Controller reported a taxiing air carrier had an engine fire. There was confusion between the Controller and Supervisor as to the proper procedure for handling the situation.

## Time / Day

Date : 202308

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZAB.ARTCC

State Reference : NM

Altitude.MSL.Single Value : 23000

## Aircraft

Reference : X

ATC / Advisory.Center : ZAB

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Plan : None

Airspace.Class A : ZAB

## Person

Location Of Person.Facility : ZAB.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 12

ASRS Report Number.Accession Number : 2030879

Human Factors : Communication Breakdown

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Troubleshooting

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Ground Event / Encounter : Ground Equipment Issue

Detector.Person : Air Traffic Control

When Detected : In-flight

Result.General : None Reported / Taken

## Assessments

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Contributing Factors / Situations : Company Policy

Contributing Factors / Situations : Procedure

Primary Problem : ATC Equipment / Nav Facility / Buildings

## Narrative: 1

We had our FST transmitter site stop working. Facility management only would declare ATC limited, refused to declare ATC zero, and expected us to constantly relay through other aircraft constantly for everything. They constantly hide the severity of the situation, how unsafe it is, and Controllers are intimidated from saying ATC-0. This is a massive

sector, there are mountains, this is totally unsafe and its going to get someone killed, because they actively refuse to declare ATC-0. Management wants to hide this and look good, they don't take it seriously, it's been happening for months. When you only have two transmitter sites in a sector that's 250 miles across and you lose one, its unsafe. Relaying and lost communication instructions are temporary and only meant for a limited amount of time. They want this to become standard practice. This is called drift. The facility management is actively encouraging drifting away from safe practices. We need to have 3 or 4 transmitter sites in 63/20. We need to assume that losing transmitter sites is going to continue in the future and have 3 to 4 sites so it stops impacting the operation and endangering lives. We do not have redundancies built into the system. We have multiple frequencies but they're only located at two sites, that's not redundant. We need both frequencies at ELP, MRF, FST, CNM.

## Synopsis

ZAB Center Controller reported transmitter sites routinely fail and the equipment issues are not being addressed appropriately creating unsafe situations. An additional site is needed to ensure ATC communications.



## Time / Day

Date : 202308

Local Time Of Day : 0001-0600

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 8000

## Environment

Flight Conditions : VMC

## Aircraft : 1

Reference : X

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Descent

Route In Use : Visual Approach

## Aircraft : 2

Reference : Y

Aircraft Operator : Air Taxi

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Ambulance

Flight Phase : Climb

Route In Use : None

Airspace.Class E : ZZZ

## Person

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 13

ASRS Report Number.Accession Number : 2030172

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Distraction

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Situational Awareness

Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Overcame Equipment Problem  
Result.Air Traffic Control : Provided Assistance  
Result.Air Traffic Control : Issued New Clearance

## Assessments

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

## Narrative: 1

I was working [Sector] X and Y combined ground up due to low staffing. Aircraft X was inbound to ZZZ on a visual approach. There was a VFR aircraft climbing south of the airport. I called the traffic. The traffic called up as Aircraft Y requesting IFR. I issued a squawk and told him to maintain VFR as I had an aircraft on a visual. Aircraft Y was southeast of the airport when I thought I heard him say he would stay clear of the arrival path. I was distracted by ZZZ1 arrivals in sector X. I cleared Aircraft Y to his destination, I believe I gave him the clearance leaving [Flight Level] 100. He did not read it back and I asked if he received it. He then stated that he was returning to ZZZ due to an issue. I did not understand what he said the issue was. I canceled Aircraft X's clearance and told them to maintain 080. I think I then issued a heading. By this time Aircraft Y was below the MIA but because I had already issued a clearance I felt like I had to give him an IFR clearance to ZZZ. I cleared him direct and asked if he had the field in sight. When he affirmed I cleared him to a visual. In the confusion I forgot to verify weather or notams. Aircraft Y canceled IFR and I gave Aircraft X the visual but by then they had to maneuver to descend. Suggestion: Verify the request of an aircraft before issuing IFR clearance. Increase staffing so that sectors aren't combined during an arrival rush

## Synopsis

A Center Controller reported a departing air ambulance flight on initial climb turned back to the departure airport flying below the minimum IFR altitude and in conflict with an arriving air carrier.

## Time / Day

Date : 202308

Local Time Of Day : 1801-2400

## Place

Locale Reference.Airport : ZZZ.Airport

State Reference : US

Altitude.MSL.Single Value : 1100

## Environment

Light : Night

## Aircraft

Reference : X

ATC / Advisory.Tower : ZZZ

Aircraft Operator : Personal

Make Model Name : Skyhawk 172/Cutlass 172

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Initial Climb

Route In Use : None

Airspace.Class D : ZZZ

## Component

Aircraft Component : Engine

Aircraft Reference : X

Problem : Malfunctioning

## Person

Location Of Person.Facility : ZZZ.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) : 9

ASRS Report Number.Accession Number : 2029547

Human Factors : Time Pressure

Human Factors : Workload

Human Factors : Confusion

## Events

Anomaly.Aircraft Equipment Problem : Critical

Anomaly.ATC Issue : All Types

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

Anomaly.Ground Event / Encounter : Other / Unknown

Detector.Person : Flight Crew

When Detected : In-flight

Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Returned To Departure Airport  
Result.Flight Crew : Landed in Emergency Condition  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

Shortly after Aircraft X departed Runway XXL, I received a transmission without a callsign [requested priority handling] on XXX.XX. Aircraft X was my only aircraft on that frequency at the time, so I responded to them asking their intentions. When they said that they were trying to return with a rough running engine, I cleared them to land on their choice of Runway YYR or XXL and the Ground Controller called an ARFF Alert. There was no other traffic inbound to either runway. Aircraft X was able to gain altitude, enter a left downwind, and land Runway XXL. The [request for priority handling] occurred at about XA58Z, ZZZ Tower closes at XB00Z. I withheld making the closing announcement until Aircraft X landed at about XB05Z, as I wanted them to focus on landing the aircraft instead of worrying what services were being provided. As Aircraft X was in the downwind, I noticed Aircraft Y being vectored by ZZZ TRACON inbound to ZZZ [Airport]. I notified the Approach Controller about the situation and they broke the Aircraft Y off the approach. After Aircraft X landed, I started to call ZZZ TRACON to update them, but then heard an airport operations vehicle going out for a runway inspection. There was some confusion between myself, the Approach Controller, and the airport operations vehicle as we tried to sort out the situation, but it ended with Aircraft Y going around on about a 4 mile final and returning after the inspection was complete. I had forgotten that the [priority handling] services LOA requires a runway inspection for all Alert calls and hadn't expected it to be necessary for a rough running engine.

## Synopsis

A Tower Controller reported a departing Cessna reported a rough running engine and returned to land. The Controller allowed another aircraft to make an approach before they had permitted a runway inspection from Ground Personnel.

## Time / Day

Date : 202308  
Local Time Of Day : 0601-1200

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC  
State Reference : US  
Altitude.MSL.Single Value : 19000

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Personal  
Make Model Name : Baron 58/58TC  
Crew Size.Number Of Crew : 1  
Operating Under FAR Part : Part 91  
Flight Plan : IFR  
Mission : Personal  
Flight Phase : Cruise  
Airspace.Class E : ZZZ

## Component

Aircraft Component : Engine  
Aircraft Reference : X  
Problem : Failed

## Person

Location Of Person.Facility : ZZZ.ARTCC  
Reporter Organization : Government  
Function.Air Traffic Control : Enroute  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6  
ASRS Report Number.Accession Number : 2029537  
Human Factors : Communication Breakdown  
Human Factors : Workload  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.ATC Issue : All Types  
Anomaly.Inflight Event / Encounter : CFTT / CFIT  
Detector.Person : Flight Crew  
When Detected : In-flight  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Diverted  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Overcame Equipment Problem

## Assessments

Contributing Factors / Situations : Aircraft

Primary Problem : Aircraft

## Narrative: 1

I took the handoff from TRACON on Aircraft X with no indication of an issue. Aircraft X checked on my frequency asking for lower immediately and closest airport. I descended him to 13000 ft. then called [Sector] X requesting control. I also let them know he sounded in distress and they gave me control. ZZZ was the closest airport so I gave him a vector and descended him further to 11000 ft. On his descent I asked his nature of emergency and he said he lost an engine. Also sounded pretty stressed. ZZZ is tricky from that angle because to the SE of the field is an MIA of 13500 ft. The pilot told me he wanted to overfly the field at 11000 ft. but after concurring with my supervisor I only cleared him to 13500 ft. He reiterated to me he was an emergency to which I responded he can do whatever he needs to safely get the aircraft on the ground. I read the weather and NOTAMs and called the airport to him. He called it in sight and I cleared him for the visual. I had an overflying aircraft listen for any transmissions I could not hear. I tried to give him our phone number but he was not in a position to copy. In the moment I was afraid no one could reach him on the ground but I shouldn't have bothered him with that. The air carrier flight and another aircraft heard he landed but that he had popped a tire and was disabled on the runway. Five to ten minutes later flight service called to say he landed and I gave them a phone number to call in. No procedure changes I can think of. This was my first engine out emergency and I tried to provide all information I could. As stated above I think I did worry him with too much information. Next time I might let them focus on landing and worry about communications later.

## Synopsis

A Center Controller reported a small multiengine aircraft reported engine failure and landed at the nearest airport.

## Time / Day

Date : 202308

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : FAY.Tower

State Reference : NC

Altitude.AGL.Single Value : 100

## Environment

Flight Conditions : VMC

## Aircraft : 1

Reference : X

ATC / Advisory.Tower : FAY

Aircraft Operator : Personal

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

Crew Size.Number Of Crew : 1

Operating Under FAR Part : Part 91

Flight Plan : VFR

Mission : Personal

Flight Phase : Initial Climb

Route In Use : None

Airspace.Class C : FAY

## Aircraft : 2

Reference : Y

ATC / Advisory.Tower : FAY

Aircraft Operator : Air Carrier

Make Model Name : Commercial Fixed Wing

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 121

Flight Plan : IFR

Mission : Passenger

Flight Phase : Takeoff / Launch

Airspace.Class C : FAY

## Aircraft : 3

Reference : Z

ATC / Advisory.Tower : FAY

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

Airspace.Class C : FAY

## Person : 1

Location Of Person.Facility : FAY.Tower  
Reporter Organization : Government  
Function.Air Traffic Control : Supervisor / CIC  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 2  
ASRS Report Number.Accession Number : 2029533  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Distraction  
Human Factors : Time Pressure  
Human Factors : Training / Qualification  
Human Factors : Workload  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : ATC

## Person : 2

Location Of Person.Facility : FAY.TRACON  
Reporter Organization : Government  
Function.Air Traffic Control : Supervisor / CIC  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 27  
ASRS Report Number.Accession Number : 2029539  
Human Factors : Troubleshooting  
Human Factors : Situational Awareness  
Human Factors : Confusion  
Human Factors : Distraction

## Person : 3

Location Of Person.Facility : FAY.Tower  
Reporter Organization : Government  
Function.Air Traffic Control : Local  
Qualification.Air Traffic Control : Developmental  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 1  
ASRS Report Number.Accession Number : 2030170  
Human Factors : Workload  
Human Factors : Training / Qualification  
Human Factors : Distraction  
Human Factors : Confusion  
Human Factors : Situational Awareness

## Events

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : Ground Conflict, Critical  
Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation / Discrepancy - Procedural : Published Material / Policy  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Issued New Clearance



## Assessments

Contributing Factors / Situations : Environment - Non Weather Related

Contributing Factors / Situations : Human Factors

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

## Narrative: 1

Aircraft Y was holding short of RWY 22 with a XB:01Z departure time. Aircraft X was in the VFR traffic pattern and Aircraft Z was IFR, short final for RWY 22. At or around XA:58Z, Aircraft X completed their first touch and go and was in the upwind. Once Aircraft X was wheels up, the local controller began to clear Aircraft Y for an immediate take off with Aircraft Z on a 1-2 mile final but didn't tell Aircraft Y about the traffic on short final. After the local controller cleared Aircraft Y, Aircraft X was told to start their crosswind when they were about 100 ft in the air and only about 4000 ft down the runway. I was CIC (Controller in charge) at the time and told the local controller to tell Aircraft Z about Aircraft Y departing in front of them. The local controller THEN told Aircraft Z about the traffic departing and to maintain visual separation from the traffic to which Aircraft Z said they had the departing traffic in sight and would maintain visual separation. At that point, Aircraft Z was on about a 1 mile final. By the time Aircraft Y was departure roll, Aircraft Z was 1/2 mile final. The local controller then told Aircraft Z to make a right 360 on final due to not having runway or wake turbulence separation. Myself and a CPC in the tower told the local controller they couldn't do that since by then Aircraft Z was already over the threshold. Aircraft Z was about 2000 ft down the runway when he asked the local controller if the controller wanted them to make the right 360 at that time. The local controller asked me and the CPC if they could do that and we both said no again. At first the local controller keyed up and told them yes, to make the 360 but then corrected and told them no. At that time, I took the position from the local controller, Aircraft X advised that they were going to be a full stop, Aircraft Y had been switched to departure during the relief brief, and after I had to position I switch Aircraft Y to departure. As the CIC, I should have stopped the local controller from clearing Aircraft Y in front of Aircraft Z and reminded the local controller that they were short final and there wouldn't be runway or wake turbulence separation. Aircraft Y still had a 4 minute window to depart. If the local controller would have waited just 2 minutes, none of this would have happened.

## Narrative: 2

I was the WCIC (Watch controller in charge) when the incident occurred. Just prior to the incident was also working Radar F combined with the WCIC position. Another controller relieved me on Radar F and I moved to the Radar F associate position for the overlap (still on as WCIC). During the overlap I did some landline coordination for the oncoming Radar F controller with ZDC about a jump zone west of the airport and the GSO controller about an arrival into SOP. I moved the oncoming controller to Radar F on ART and completed the overlap. During that time I did not witness the event via radar though it appears to have happened during the overlap. Immediately after the overlap I was relieved by an oncoming WCIC and completed the briefing with them. I was still unaware an incident had occurred. During the incident there was GC (Ground Controller) training in progress. LC (Local Control) and TCIC (Tower Controller in Charge) were also staffed. 15 minutes or so later, while on break, the previous LC arrived in the breakroom and told me to call the tower. During the call the GC advised me that the previous LC had cleared Aircraft Y for immediate take off with Aircraft Z somewhere between 1 and 1/2 mile final. When the GC and TCIC realized the problem they advised the LC to break out the aircraft on final (the tower controllers should be filing reports that reference this incident with a more complete description. I believe the aircraft on final acknowledged but from my understanding

crossed the threshold prior to initiating the maneuver. Somewhere less than 4000 ft. runway separation was indicated. I'm not sure what recommendation to make here. The actions by the LC indicate they had either forgotten about the aircraft on final or were too fixated on a ZIX release time. Maybe both. The TCIC has no override capability, nor should they need it, and after receiving a clearance for immediate take off Aircraft Y could have easily crossed the hold short line before the process could be stopped. The LC was newly certified and I'm sure inexperience played a factor.

### Narrative: 3

Aircraft Z was cleared for the option and was on 4 1/2 mile final. The aircraft in front of him, Aircraft X, had just completed a touch and go and was in the upwind. I then instructed Aircraft Z to turn cross. I gave him left closed traffic instructions when he was inbound. He then turned left crosswind as instructed. I then cleared Aircraft Y for an immediate take off. Aircraft Y read back his takeoff clearance then started moving. It normally takes about a minute and a half after takeoff [clearance] to start their takeoff rolls. It took almost a minute. I then tell Aircraft Z that traffic departing prior to his arrival and to report it in sight. Aircraft Z reported the traffic in sight. I instructed him to maintain visual separation and caution wake turbulence. Aircraft Z said he would maintain visual separation from that traffic. By this time Aircraft Z was on about a 2 to 1 1/2 mile final and Aircraft Y had start his takeoff roll. By the time Aircraft Z was crossing the landing threshold Aircraft Y was airborne but only around the 5,000 ft marker on the runway. I then told Aircraft Z to make a right 360. He came back and asked if I still wanted him to do that. I said affirmative so I wouldn't hand radar off something that close. Then the CIC (Controller in charge) relieved me. I should have just allowed Aircraft Y's release time to expire and gotten him a new one from center instead of trying to get him out. Or if I was going to get him out I should have boxed Aircraft Z back around.

### Synopsis

Tower CIC, the CIC in TRACON and the tower Local Controller reported an air carrier was cleared for takeoff with another aircraft on short final. The Local Controller was unsure how to resolve the conflict so the Tower CIC took over their position.

## Time / Day

Date : 202308

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZID.ARTCC

State Reference : IN

Altitude.MSL.Single Value : 4500

## Aircraft : 1

Reference : X

Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer

Flight Plan : VFR

Flight Phase : Cruise

## Aircraft : 2

Reference : Y

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

Crew Size.Number Of Crew : 1

Flight Plan : VFR

Flight Phase : Cruise

## Person

Location Of Person.Facility : ZID.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Radar : 6

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 15

ASRS Report Number.Accession Number : 2029209

Human Factors : Communication Breakdown

Human Factors : Workload

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : NMAC

Detector.Person : Air Traffic Control

Miss Distance.Horizontal : 0

Miss Distance.Vertical : 200

When Detected : In-flight

Result.Flight Crew : Took Evasive Action

## Assessments

Contributing Factors / Situations : Procedure

Primary Problem : Procedure

## Narrative: 1

HTS approach initiated a handoff to me on the VFR a/c. There was merging traffic at the same altitude, not radar identified. I called HTS to make sure they saw and called the traffic. They did not answer the first time I called. The second time I called, the controller answered and said he was not in communication with either aircraft. I noticed the radar identified target merge and climb two hundred feet. I took the handoff when they were clear. A couple minutes later, the aircraft checked on and reported a near miss with Aircraft X, and that he called CRW approach. I reported this to my supervisor. The aircraft canceled flight following shortly after. The HTS called me back again and I told him about the near miss. He said the aircraft may have checked on but he was very busy and didn't respond to him. It sounds like the aircraft went back to CRW approach because he thought he was on the wrong frequency after not getting an answer from HTS. Possibly initiated a call with HTS about the traffic when they were farther apart.

## Synopsis

ZID Controller observed a conflict on hand-off between aircraft not in communication with ATC which resulted in a NMAC.

## Time / Day

Date : 202308

Local Time Of Day : 1201-1800

## Place

Locale Reference.ATC Facility : ZZZ.ARTCC

State Reference : US

Altitude.MSL.Single Value : 21000

## Environment

Flight Conditions : Marginal

Weather Elements / Visibility : Thunderstorm

## Aircraft

Reference : X

ATC / Advisory.Center : ZZZ

Aircraft Operator : Air Taxi

Make Model Name : Small Transport

Crew Size.Number Of Crew : 2

Operating Under FAR Part : Part 135

Flight Plan : IFR

Mission : Passenger

Flight Phase : Climb

Airspace.Class A : ZZZ

## Component

Aircraft Component : Electrical Power

Aircraft Reference : X

Problem : Failed

## Person : 1

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Developmental

ASRS Report Number.Accession Number : 2029201

Human Factors : Communication Breakdown

Human Factors : Confusion

Human Factors : Workload

Human Factors : Time Pressure

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Flight Crew

## Person : 2

Location Of Person.Facility : ZZZ.ARTCC

Reporter Organization : Government

Function.Air Traffic Control : Enroute

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 8  
ASRS Report Number.Accession Number : 2029210  
Human Factors : Workload  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation / Discrepancy - Procedural : Clearance  
Anomaly.Ground Event / Encounter : Ground Equipment Issue  
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Regained Aircraft Control  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Diverted  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

Aircraft X departed ZZZ [Airport] to the NE. Sector XX/XY was currently working the aircraft and had climbed him to his requested final altitude of 21000 feet. Sector XX/XY proceeded to hand off the aircraft to me on sectors YY/YZ. Before Accepting the hand off of Aircraft X, who was approximately 15 miles SW of the ZZZ VORTAC, I noticed that he began to make a sharp right turn to the south back towards ZZZ and descend approximately 1000 feet. I shouted across the room to sector XX/XY to ask what the aircraft was doing. The Controller on Sector XX/XY attempted to talk to the Aircraft X with no avail. A few seconds later I heard Aircraft X communicating on guard frequency. I attempted to communicate with him on our guard transmitter but received no response. Sector XX/XY also attempted to communicate through their guard frequency but also received no response. A few seconds later my trainer tried our guard frequency again and Aircraft X was able to hear that transmission. We asked him what was going on and he responded "We just got hit by lightning and have lost all our electronics". We asked Aircraft X if he could reach ZZZ Center on XXX.XX (frequency used for XX). and he said he

was getting no response. We then told him to contact ZZZ Center on XYY.XX (sector XXs frequency). Sector XX/XY finally got into communications with the Aircraft X on XYY.XX. Aircraft X wanted to return to ZZZ but due to the large area of Moderate to Heavy Precipitation, the controller on XY/XX suggested that Aircraft X divert to ZZZ1 Airport. The Aircraft X agreed and proceeded directly to ZZZ1 Airport. although ZZZ1 Airport is in sector YY/YZ's airspace, sector XX/XY maintained communication with Aircraft X to avoid another loss of communication before finally handing off the aircraft to ZZZ Approach. We (sector YY/YZ) never spoke to Aircraft X on our frequency except for when we transmitted on guard. We assumed this incident was an emergency and treated it as so. We offered to coordinate with ZZZ Approach on the emergency information to assist sector XX/XY, but they said that Aircraft X had not declared an emergency, therefore leaving only change of destination being the only thing coordinated with ZZZ Approach as well as the Supervisor. Our frequencies are always failing at ZZZ Center. Losing an aircraft on XXX.XX at FL200 is unheard of, but it happened. This is not the first nor last time that an incident has happened and we lose communications with an aircraft during one. We need better and more reliable communications with pilots so something worse does not happen in the future like someone getting hurt or worse. Fixing transmitter sites on the fly is not going to cut it when it comes to safety in the NAS. Not declaring an emergency in this situation is insane. An aircraft got struck by lightning and lost his electronics on said aircraft. He also lost approximately 1000 feet of altitude. Pilots need to declare an emergency in situations like this and/or the controller needs to. The Supervisor should also be more involved in the decision to declare an emergency and not just leave it up to the pilot.

## Narrative: 2

Aircraft X was talking to sector XX/XY. They departed ZZZ and were climbing towards our airspace YY/YZ about 15 miles south of ZZZ VORTAC through moderate to heavy precipitation. We had taken the hand off from sector XX when we noticed that he had reversed course and was now descending. He was out of 20000 feet climbing to 21000 feet and spun around descending to 19000 feet. We yelled over to sector XX who was giving a briefing and asked what the aircraft was doing. XX got no response and had lost communications with Aircraft X. We then heard Aircraft X on guard trying to reach Center. Controller on XX responded to him twice with no success in reaching him. Even though he was well within sector XXs frequency coverage on XXX.XX, he was unable to communicate with them there or on guard. About the third time Aircraft X reached out on guard I saw that we were picking him up on the ZZZ1 transmitter site, so I responded on guard and asked if everything was alright. Aircraft X responded, "We just got hit by lightning and lost all electronics". He also mentioned he lost contact with center on XXX.XX and wanted to return to ZZZ. So I told him to contact center on XYY.XX (XY's frequency). XX/XY then established communications with Aircraft X. Not exactly sure what all the pilot said after that, but he ultimately diverted to ZZZ1 Airport and landed safe. Our only interaction was on guard. The Supervisor at the time heard everything I mentioned above. I later asked them about the emergency, assuming we were treating Aircraft X as one, and they said "what emergency?". I replied "the aircraft that just got hit by lightning and spiraled out of the sky 1000 feet." They then replied that no one told him that he dropped out of the sky and reversed course and that getting hit by lightning usually isn't a big deal. All that was turned in was a change of destination. Our frequencies are so unreliable and inconsistent that a significant aircraft incident is inevitable at this point. SOMEONE IS GOING TO DIE. We are unable to work an emergency aircraft that is spiraling out of moderate to heavy precipitation after getting hit by lightning, and have to relay from an adjacent sector just to get a hold of him. THIS IS NOT A ISOLATED INCIDENT. Our frequencies have been bad and are only getting worse. I am constantly at battle getting a hold of aircraft well within my frequency coverage for seemingly unknown reasons, throughout the Southeast specialty. Everyday we are switching back and forth between transmitter sites, mains,

backups, etc, to no end. When are we going to actually fix the problem? I have to imagine more than a destination change needs to be done for a lightning strike on Aircraft X, which causes it to lose electronics and spiral out of the sky.

## Synopsis

Center controllers reported an Air Taxi reported a lightning strike caused an electrical failure and a temporary loss of control. The controllers temporarily lost communications with the aircraft and reported it was due to their faulty radio transmitter sites.



## Time / Day

Date : 202308  
Local Time Of Day : 1201-1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 21000

## Aircraft

Reference : X  
ATC / Advisory.Center : ZZZ  
Aircraft Operator : Air Taxi  
Make Model Name : Small Transport, Low Wing, 2 Turboprop Eng  
Crew Size.Number Of Crew : 2  
Operating Under FAR Part : Part 135  
Flight Plan : IFR  
Mission : Passenger  
Flight Phase : Climb  
Airspace.Class A : ZZZ

## Component

Aircraft Component : Instrument and Control Panels  
Aircraft Reference : X  
Problem : Malfunctioning

## Person

Location Of Person.Facility : ZZZ.ARTCC  
Reporter Organization : Government  
Function.Air Traffic Control : Enroute  
Qualification.Air Traffic Control : Fully Certified  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 7  
ASRS Report Number.Accession Number : 2028902  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Human Factors : Workload  
Human Factors : Time Pressure  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

## Events

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.ATC Issue : All Types  
Anomaly.Ground Event / Encounter : Ground Equipment Issue  
Anomaly.Inflight Event / Encounter : Weather / Turbulence  
Anomaly.Inflight Event / Encounter : Loss Of Aircraft Control  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight

Result.General : Flight Cancelled / Delayed  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Flight Crew : Regained Aircraft Control  
Result.Flight Crew : Overcame Equipment Problem  
Result.Flight Crew : Diverted  
Result.Flight Crew : Became Reoriented  
Result.Air Traffic Control : Issued New Clearance  
Result.Air Traffic Control : Provided Assistance

## Assessments

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

## Narrative: 1

This aircraft was climbing "up the hill" out of ZZZ approach through moderate weather. The weather was called to the pilot and he was told that if he needed to deviate he could, but it would need to be a right deviation to avoid the military airspace. He didn't indicate that a deviation would be needed and proceeded to climb. Many other aircraft had also transitioned through this weather, which was predominately moderate precipitation with some small areas of heavy precipitation about 25 miles wide in total. On the far eastern edge of the weather, roughly 20 miles south of the ZZZ VOR I observed the aircraft make an incredibly sharp turn from a heading of roughly 040 to 120. I also saw that his altitude had begun to drop very fast, even though he was still supposed to be climbing to 23000 ft. I made multiple transmissions to try and reach the pilot without any response. Then we heard the pilot radio over the guard frequency. I transmitted on guard and still got no response. Over the course of the next few minutes I made at least a dozen transmissions to the aircraft without any acknowledgement. Then controllers, who were training on Sector XX, transmitted on guard and the pilot heard them. It turns out that the aircraft had been struck by lightning and briefly lost control of the aircraft along with all instrumentation. A minute later and he was back in communications with me on my sector's alternate frequency XXX.XX. He leveled off and regained instrumentation and advised that he wanted to return to ZZZ to land. After a short conversation I encourage him to go to ZZZ1 instead, which avoided needing to turn around and fly back through the weather. For months upon months we have had trouble with the transmitter site located at ZZZ. This aircraft was high enough that communications should not have been an issue on XXX.XY, but I couldn't reach the pilot at all on that frequency or through XXX.XZ. We have dead zones where for no explainable reason we just won't be able to reach aircraft in places that never used to be an issue. I've worked as a controller on these sectors for more than five years and the reliability of our radios on this sector are at an all time low. Whenever we report issues about these sites we are told they will be reset, or a storm is causing the outages, or to log our issues over the course of the shift and they will look into it. But it all feels like it goes nowhere. This has been ongoing for months with no resolution and today a pilot could have died because we couldn't communicate with him effectively during an [urgent incident]. Reliable communication is one of the most important tools for us to do our jobs effectively and I don't know anyone in the area who would use the word reliable to describe the state of our radio sites on this sector. We need our transmitter sites to work more reliably at ZZZ. Maybe this requires new hardware and needs to go above and beyond remotely resetting the site or messing with Diversity Algorithms, backups and standbys hoping that some magic combination will yield passable results for a

few hours. We should be able to count on our main transmitter to work the vast majority of the time.

## Synopsis

A Center Controller reported an aircraft temporarily lost control after being struck by lightning. The Controller was unable to communicate with the aircraft due to their frequency transmitter site failing.

## Time / Day

Date : 202305

Local Time Of Day : 0601-1200

## Place

Locale Reference.Airport : BLI.Airport

State Reference : WA

Altitude.AGL.Single Value : 0

## Environment

Flight Conditions : VMC

Light : Daylight

## Aircraft

Reference : X

Make Model Name : No Aircraft

Airspace.Class D : BLI

## Person

Location Of Person.Facility : CZVR.ACC

Reporter Organization : Government

Function.Air Traffic Control : Departure

Function.Air Traffic Control : Approach

Qualification.Air Traffic Control : Fully Certified

Experience.Air Traffic Control.Radar : 32

Experience.Air Traffic Control.Non Radar : 2

Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 5

Experience.Air Traffic Control.Time Certified In Pos 1 (mon) : 6

ASRS Report Number.Accession Number : 1998360

Human Factors : Troubleshooting

Human Factors : Communication Breakdown

Communication Breakdown.Party1 : ATC

Communication Breakdown.Party2 : Other

## Events

Anomaly.ATC Issue : All Types

Anomaly.Conflict : Airborne Conflict

Anomaly.Ground Event / Encounter : Ground Equipment Issue

Anomaly.No Specific Anomaly Occurred : Unwanted Situation

Detector.Person : Air Traffic Control

When Detected : In-flight

## Assessments

Contributing Factors / Situations : Airspace Structure

Contributing Factors / Situations : ATC Equipment / Nav Facility / Buildings

Contributing Factors / Situations : Procedure

Primary Problem : ATC Equipment / Nav Facility / Buildings

Narrative: 1

I am a Canadian ATC who works BLI terminal. This is a US airport in US airspace that has been delegated to Canada. I want to report an ongoing unsafe situation at BLI. I am concerned about the lack of a radar display for BLI. I have witnessed many unsafe situations with slow moving VFR aircraft conflicting with fast-moving IFR commercial jet traffic. My employer NavCanada has attempted to get a PC based radar display installed but a Canadian agency trying to install equipment in an American Control Tower staffed by non-FAA controllers has been impossible to arrange. A radar display in BLI would be a massive safety improvement for a relatively low cost. I have made many requests for help from the Canadian side with no success.

## Synopsis

CZVR Controller reported the lack of radar display for BLI has resulted numerous safety challenges.