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

Update Number..............................................31.0

Date of Update.............................................October 30, 2018

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

Number of New Records in Report Set .............48

Type of Records in Report Set..........................For each update, new records received at ASRS will
displace a like number of the oldest records in the
Report Set, with the objective of providing the fifty
most recent relevant ASRS Database records. Records
within this Report Set have been screened to assure
their relevance to the topic.
TH: 262-7

MEMORANDUM FOR: Recipients of Aviation Safety Reporting System Data

SUBJECT: Data Derived from ASRS Reports

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

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

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

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

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

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: 1573792 (1 of 50)

Synopsis
SAT TRACON Controller reported an airborne conflict between an IFR and VFR aircraft along with a possible related airspace problem.

ACN: 1573782 (2 of 50)

Synopsis
ZFW Controller reported a NMAC between an aircraft under ZFW Control and a VFR aircraft not under ATC Control.

ACN: 1573773 (3 of 50)

Synopsis
SAT TRACON Controller reported numerous airborne conflicts with various IFR and VFR aircraft the Controller attributes to a needed Airspace Class Change.

ACN: 1573208 (4 of 50)

Synopsis
Salt Lake Center Controller reported an aircraft was allowed to operate below the Minimum En-route Altitude.

ACN: 1573200 (5 of 50)

Synopsis
Miami Center Controllers reported an aircraft that did not meet climb restrictions and entered an active military airspace.

ACN: 1573193 (6 of 50)

Synopsis
Chicago Center Controller reported an unsafe situation relating to weather, traffic volume, and airspace.

ACN: 1572935 (7 of 50)

Synopsis
Local Controller reported an aircraft ground loop led to an airport closure.

ACN: 1572605 (8 of 50)

Synopsis
TRACON Controller reported a small aircraft at 8,000 feet entered a higher Minimum Vectoring Altitude.
ACN: 1572597 (9 of 50)

Synopsis
MIA TRACON Controller reported an airborne conflict with an IFR arrival to FLL and a VFR aircraft.

ACN: 1572548 (10 of 50)

Synopsis
CE-525 First Officer reported the pitch trim wheel was frozen at the top of descent.

ACN: 1572524 (11 of 50)

Synopsis
CE-525 Captain reported the elevator trim control froze at 39,000 feet then descending to warmer air to thaw it.

ACN: 1571965 (12 of 50)

Synopsis
Salt Lake ARTCC Controller reported an aircraft descending below a transition altitude by 2,000 feet.

ACN: 1571950 (13 of 50)

Synopsis
HNL Controller reported not ensuring aircraft had the ATIS, resulting in a runway excursion upon landing.

ACN: 1571094 (14 of 50)

Synopsis
Cessna 310 pilot reported a NMAC after ATC cleared the pilot to land and then directed a missed approach after clearing another aircraft for takeoff.

ACN: 1570682 (15 of 50)

Synopsis
Tower Controller reported a NMAC between opposite direction traffic.

ACN: 1569958 (16 of 50)

Synopsis
ZOB Center Controller reported insufficient staffing resulted in controllers working long periods of time without a break.
ACN: 1569955 (17 of 50)

Synopsis
MKC Tower Controller reported the Approach Controller advised them of a Low Altitude Alert for an aircraft on a Visual Approach.

ACN: 1569950 (18 of 50)

Synopsis
MKC Tower Controller reported receiving an aircraft on a Visual Approach descending into a conflict with VFR traffic.

ACN: 1569918 (19 of 50)

Synopsis
DPA Local Controller stated a C560XL reported encountering wake turbulence on approach in trail of a Falcon 7X.

ACN: 1569057 (20 of 50)

Synopsis
ZBW Center Controller in charge reported an adjacent sector was not complying with flow control instructions to regulate traffic flow due to weather deviations.

ACN: 1569056 (21 of 50)

Synopsis
BGM Controller reported assigning a lower altitude resulting in an aircraft descending below the MVA.

ACN: 1569040 (22 of 50)

Synopsis
A90 Controller reported issuing an incorrect altitude which resulted in a NMAC situation.

ACN: 1569037 (23 of 50)

Synopsis
SCT TRACON Controller observed an arriving air carrier on an ILS approach respond to an RA due to a conflict with an unidentified VFR aircraft.

ACN: 1569035 (24 of 50)

Synopsis
ILM TRACON Controller reported descending an aircraft too early and having it enter a lower Minimum Vectoring Altitude area.
<table>
<thead>
<tr>
<th>ACN: 1568710  (25 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>ZOB Controller reported an aircraft had an autopilot failure resulting in a conflict with another aircraft.</td>
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<table>
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<tr>
<th>ACN: 1568704  (26 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>ZOB Supervisor observed an aircraft deviate from their course to a heading that was towards another aircraft and advised the Radar Controller.</td>
</tr>
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<tr>
<th>ACN: 1568320  (27 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>GCN Tower Controller reported a NMAC between a helicopter flying through their airspace without coordination and into conflict with another helicopter.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1567588  (28 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>TRACON Controller working combined sectors with weather deviations observed an aircraft entering their airspace without a handoff conflicting their arrivals.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>ACN: 1567583  (29 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Boise TRACON Controller reported vectoring an aircraft into a higher Minimum Vectoring Altitude [MVA] area.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1567578  (30 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>SCT Controller reported relieving Controller had numerous procedural and operational failures.</td>
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<tr>
<th>ACN: 1567572  (31 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Tower Controller sent an aircraft on short final around when they observed another aircraft taxi onto the runway without a clearance.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>ACN: 1567560  (32 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
</tbody>
</table>
Controller reported being told he misapplied a rule for climbing aircraft below the Minimum Vectoring Altitude.

**ACN: 1567545 (33 of 50)**

**Synopsis**
Controller reported not listening correctly to a read back which had the pilot descend below the Minimum Vectoring Altitude.

**ACN: 1567281 (34 of 50)**

**Synopsis**
IAD Tower Controller reported the procedure of allowing air ambulance helicopters to depart nearby hospitals non radar with inability to communicate in Class B creates a collision hazard.

**ACN: 1567272 (35 of 50)**

**Synopsis**
ZNY Center Controller reported a loss of separation between tow aircraft in oceanic airspace.

**ACN: 1566968 (36 of 50)**

**Synopsis**
ZKC controller reported continual conflicts with ZAU, and one specific controller, over coordination of holding enroute aircraft.

**ACN: 1566647 (37 of 50)**

**Synopsis**
Tower Controller reported a NMAC between a departing IFR aircraft and an arrival aircraft which was too close.

**ACN: 1566311 (38 of 50)**

**Synopsis**
SFO Controller reported a B737-800 on a visual approach descended out of Class B and activated a Low Altitude Alert.

**ACN: 1566305 (39 of 50)**

**Synopsis**
ZNY Controller reported recurring unsafe events within an oceanic sector.

**ACN: 1565552 (40 of 50)**
| ACN: 1565536 (41 of 50) |  
|---|---
| **Synopsis**  
ZBW Center Controller reported a TRACON Controller would not take their handoffs. |  

| ACN: 1565532 (42 of 50) |  
|---|---
| **Synopsis**  
RSW TRACON Controller reported Tower released a departure below the MVA and on a conflicting heading with other traffic. |  

| ACN: 1565530 (43 of 50) |  
|---|---
| **Synopsis**  
AVP TRACON Controller reported an IFR aircraft with avionics trouble descending below the Minimum Vectoring Altitude. |  

| ACN: 1565527 (44 of 50) |  
|---|---
| **Synopsis**  
NCT TRACON Controller reported a go-around was vectored below the Minimum Vectoring Altitude. |  

| ACN: 1565516 (45 of 50) |  
|---|---
| **Synopsis**  
TRI TRACON Controller reported a small transport tracked off assigned route, entering higher MVA. |  

| ACN: 1565171 (46 of 50) |  
|---|---
| **Synopsis**  
ZLC Controller reported an aircraft flew off course due to GPS jamming and went below the minimum terrain clearance altitudes. |  

| ACN: 1565164 (47 of 50) |  
|---|---
| **Synopsis**  
ZJX Center Controller reported not having enough time to point an aircraft out to another sector due to workload and weather deviations in their sector. |  

| ACN: 1564897 (48 of 50) |  
|---|---
| **Synopsis**  
Denver TRACON Controllers and air carrier First Officer reported multiple losses of separation and airspace violations. |  

Synopsis
ZBW Controller reported Traffic Management Unit refused to assist their sector while they were in high volume and complex situations.

ACN: 1521080 (49 of 50)

Synopsis
ORD Tower Controller reported receiving a report from a departing B757 flight crew that they encountered wake turbulence after takeoff five miles in trail of an A330.

ACN: 1519181 (50 of 50)

Synopsis
BJC Controller in Charge (CIC) was also working Local Control did not notice that an arriving aircraft was aligned to land on the wrong runway.
Report Narratives
Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference. ATC Facility: SAT.TRACON
State Reference: TX
Altitude. MSL. Single Value: 3500

Aircraft: 1
Reference: X
ATC / Advisory. TRACON: SAT
Make Model Name: B737 Next Generation Undifferentiated
Crew Size. Number Of Crew: 2
Flight Plan: IFR
Flight Phase: Descent
Route In Use: Vectors
Airspace. Class C: SAT

Aircraft: 2
Reference: Y
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
Crew Size. Number Of Crew: 1
Flight Phase: Climb
Route In Use: None

Person
Reference: 1
Location Of Person. Facility: SAT.TRACON
Reporter Organization: Government
Function. Air Traffic Control: Approach
Qualification. Air Traffic Control: Fully Certified
ASRS Report Number. Accession Number: 1573792
Human Factors: Time Pressure
Human Factors: Distraction
Human Factors: Situational Awareness

Events
Anomaly. ATC Issue: All Types
Anomaly. Conflict: Airborne Conflict
Anomaly. Deviation - Track / Heading: All Types
Anomaly. Deviation - Procedural: Clearance
Detector. Person: Flight Crew
Detector. Person: Air Traffic Control
When Detected: In-flight
Assessments

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

Narrative: 1

Aircraft X was being vectored for the ILS Runway 13R approach at SAT airport. Aircraft X was 10 NW of SAT on a modified downwind given a pilot's discretion to 3,000 feet. At this point I saw a target depart 5C1 airport climbing low-level southbound initially away from Aircraft X. The unknown target aircraft then made a turn to the northeast heading about 050 degrees climbing out of 2,800 feet converging with Aircraft X who was approximately descending out of 4,000 feet heading 260 degrees. As soon as I noticed something had to be done to avoid the conflict someone else called and delayed my transmission. I then based Aircraft X a little early heading 220 to parallel the target to pass off Aircraft X right. Maybe 3 seconds later Aircraft X said he was turning to a 200 heading to further avoid the target so I told him to turn even further left heading 180 to ensure separation. The last control instruction resolved the conflict.

This is a systemic problem with aircraft departing 5C1. This airport is located directly on the approach course to SAT to our most used runway. This airport is also on the base turn which makes it even worse. SAT controllers have gone to 5C1 to educate the pilots about climbing off 5C1 into the downwind/base turn without talking to Approach Control but nothing has changed. This situation happens every day. SAT has had countless RA'S (Resolution Alerts) due to this. This airport is often used by gliders that are most of the time not talking to us nor have a working transponder. It's a matter of time before a crash happens.

To fix this problem the Class C at SAT needs to extend further out to cover 5C1.

Synopsis

SAT TRACON Controller reported an airborne conflict between an IFR and VFR aircraft along with a possible related airspace problem.
ACN: 1573782 (2 of 50)

Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference.ATC Facility: ZFW.ARTCC
State Reference: TX
Altitude.MSL.Single Value: 2500

Aircraft: 1
Reference: X
ATC / Advisory.Center: ZFW
Make Model Name: SR22
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Descent

Aircraft: 2
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: VFR

Person
Reference: 1
Location Of Person.Facility: ZFW.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): 7
ASRS Report Number.Accession Number: 1573782
Human Factors: Situational Awareness
Human Factors: Human-Machine Interface

Events
Anomaly.ATC Issue: All Types
Anomaly.Conflict: NMAC
Detector.Person: Flight Crew
When Detected: In-flight

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

Narrative: 1
I was training an R-side and Aircraft X going to Rockwall (F47) was at 040 and requested lower. Trainee issued 025 and we called to apreq (approval request) with D10. They told us the lowest they could go is 030. I climbed Aircraft X up to 030 and he then reported and aircraft directly underneath him. I scoped in and only saw two aircraft, but neither with traffic for him yet he still said there was an aircraft right under him. I called Approach and asked them if they saw anything and they said they just now were able to see someone. As they said that I finally was able to see the primary target begin to diverge from underneath the target of Aircraft X. After switching the aircraft to D10, I had the CIC (Controller-in-Charge) call the Airport Manager to get the pilot to call us. After speaking with the pilot, he said had I [not] climbed him to 030, he thinks he would have hit the other aircraft and that he may have come to within 125 feet of him.

**Synopsis**

ZFW Controller reported a NMAC between an aircraft under ZFW Control and a VFR aircraft not under ATC Control.
Time / Day
Date: 201808
Local Time Of Day: 0001-0600

Place
Locale Reference. ATC Facility: SAT.TRACON
State Reference: TX
Altitude. MSL. Single Value: 4000

Environment
Light: Daylight

Aircraft: 1
Reference: X
ATC / Advisory. TRACON: SAT
Make Model Name: Light Transport, Low Wing, 2 Turboprop Eng
Crew Size. Number Of Crew: 2
Flight Plan: IFR
Flight Phase: Descent
Route In Use: Vectors
Airspace. Class E: SAT

Aircraft: 2
Reference: Y
ATC / Advisory. TRACON: SAT
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Flight Plan: IFR
Flight Phase: Cruise
Airspace. Class E: SAT

Aircraft: 3
Reference: Z
ATC / Advisory. TRACON: SAT
Make Model Name: Widebody, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Flight Phase: Final Approach
Airspace. Class E: SAT

Aircraft: 4
Reference: A
ATC / Advisory. TRACON: SAT
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Flight Phase: Cruise
Airspace. Class E: SAT

Person
Reference: 1
Location Of Person.Facility: SAT.TRACON
Reporter Organization: Government
Function.Air Traffic Control: Approach
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1573773
Human Factors: Troubleshooting
Human Factors: Situational Awareness

Events
Anomaly.Conflict: Airborne Conflict
Detector.Person: Air Traffic Control
When Detected: In-flight
Result.Air Traffic Control: Provided Assistance

Assessments
Contributing Factors / Situations: Aircraft
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: Procedure
Primary Problem: Airspace Structure

Narrative: 1
I had 4 TCAS/Traffic Alerts in a 20 minute period from aircraft departing off of 5C1 and one VFR that flew through my final.

Number 1 Aircraft X, VFR 1200 code was at 036 descending from north to south across SAT final headed to 8T8, Aircraft X was a on base turn to SAT descending out of 040 to 030. Traffic issued, closest proximity 1 mile 1/2 and 300 feet.

Number 2 Aircraft Y was on a base turn to SAT at 040, VFR 1200 code off of 5C1 climbed right into Aircraft Y on base, closest proximity, merged and 600 feet, traffic issued.

Number 3 Aircraft Z was on a turn to final descending to 030. VFR 1200 code departing 5C1 climbed right into final with Aircraft Z, Aircraft Z was stopped at 035, traffic alert issued, closest proximity, merged and 400 feet.

Number 4 Aircraft A was level flight at 060 on the downwind for SAT. VFR 1200 code departed 5C1 and climbed through SAT final and north downwind towards Aircraft A. Traffic Issued, closest proximity 1/2 mile and 800 feet.

All of these 1200 code aircraft never called Approach to receive service, they stayed 1200 in a very critical part of SAT airspace.

The amount of gliders and VFR 1200 codes that routinely fly through our final, base, and downwind is alarming. SAT needs an airspace change to either extend the Class C, or go to Class B airspace to protect our final on all flows. Our final is not protected, I am a member the local safety council at SAT, we have talked to 5C1, and many of the VFR pilots in the area numerous times. The talks are not enough, the VFR 1200 code aircraft continue to compromise safety and something needs to be done before there is a major accident. These examples above happened within 20 minutes of single session I worked today, this is unacceptable. Something tragic will happen if we do not step up and do
something about this safety issue, sending us to talk to these pilots and schools is not fixing the problem.

**Synopsis**

SAT TRACON Controller reported numerous airborne conflicts with various IFR and VFR aircraft the Controller attributes to a needed Airspace Class Change.
ACN: 1573208 (4 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: ATC Facility: ZLC.ARTCC
- State Reference: UT
- Altitude.MSL.Single Value: 10000

**Aircraft**
- Reference: X
- ATC / Advisory.Center: ZLC
- Aircraft Operator: Personal
- Make Model Name: DA40 Diamond Star
- Crew Size.Number Of Crew: 1
- Operating Under FAR Part: Part 91
- Flight Plan: IFR
- Flight Phase: Cruise
- Route In Use.Airway: V4
- Airspace.Class E: ZLC

**Person**
- Reference: 1
- Location Of Person.Facility: ZLC.ARTCC
- Reporter Organization: Government
- Function.Air Traffic Control: Enroute
- Qualification.Air Traffic Control: Fully Certified
- ASRS Report Number.Accession Number: 1573208
- Human Factors: Communication Breakdown
- Human Factors: Situational Awareness
- Human Factors: Confusion
- Communication Breakdown.Party1: ATC
- Communication Breakdown.Party2: ATC

**Events**
- Anomaly.ATC Issue: All Types
- Anomaly.Deviation - Procedural: Clearance
- Anomaly.Inflight Event / Encounter: CFTT / CFIT
- Detector.Person: Air Traffic Control
- Result.Air Traffic Control: Provided Assistance

**Assessments**
- Contributing Factors / Situations: Procedure
- Contributing Factors / Situations: Human Factors
- Primary Problem: Procedure

**Narrative:** 1
Aircraft X was cleared via V4 BYI direct TWF. We descended aircraft to 100 and shipped as per LOA. TWF called and asked if the aircraft was over DRYAD or MALTT or something for the ILS. We said no, that they were on V4 to BYI. They said okay and asked for control. We gave them control. Later, we saw the aircraft was westbound into high MEA. We called and asked what they were doing and thought the controller said they were going to DRYAD and we informed them they were entering high MEA. They asked what altitude they needed and we said 120 (the MEA was 113). They gave us some explanation of what their strip showed (direct MEDEA or something). We again said they were on V4 and our strip showed that. The controller climbed to 120 and gave direct DRYAD. The plane did enter the 113 MEA when they were at 100.

It seemed like the TWF Controller didn't have the complete flight plan on their strip. I don't know why that is and what the controller gave the aircraft or was thinking. They should have had the routing.

Synopsis
Salt Lake Center Controller reported an aircraft was allowed to operate below the Minimum En-route Altitude.
**ACN: 1573200** (5 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: ATC Facility: ZMA.ARTCC
- State Reference: FL
- Altitude.MSL.Single Value: 24000

**Aircraft : 1**
- Reference: X
- ATC / Advisory.Center: ZMA
- 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: Climb
- Route In Use: Vectors
- Airspace.Class A: ZMA

**Aircraft : 2**
- Reference: Y
- Aircraft Operator: Government
- Make Model Name: Military
- Operating Under FAR Part: Part 91
- Mission: Tactical
- Flight Phase: Cruise

**Person : 1**
- Reference: 1
- Location Of Person.Facility: ZMA.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: 1573200
- Human Factors: Communication Breakdown
- Human Factors: Distraction
- Human Factors: Workload
- Human Factors: Situational Awareness
- Communication Breakdown.Party1: ATC
- Communication Breakdown.Party2: ATC

**Person : 2**
- Reference: 2
- Location Of Person.Facility: ZMA.ARTCC
Narrative: 1

Sector 23 called requesting higher FL250 for Aircraft X to climb above Active Military Airspace. I approved FL250. I did not have the handoff on the aircraft. About two minutes later, I accepted the radar handoff of Aircraft X because I knew Sector 23 was climbing the aircraft into my airspace to top the [Active Military Airspace]. Almost immediately after accepting the handoff, Sector 23 switched Aircraft X to my frequency, but he was only leaving 160. I assigned Aircraft X a clearance to reach FL250 in 4 minutes or less for Active Military Airspace. Aircraft X said unable. I called Sector 23 to get control for turns. I then turned Aircraft X heading 180. Aircraft X said unable due to weather. I then assigned a heading of 090 and pilot said unable. I then assigned heading 080. I then asked again for Aircraft X to turn heading 180 when able. I then climbed Aircraft X FL290 and said leave FL250 in two minutes and Aircraft X said unable. Aircraft X entered Active Military Airspace still climbing. I could not do a point out to the military because there was no way to contact the ship or unit who was using the airspace. I advised Aircraft X that he was entering an area with possible live fire. I could not turn Aircraft X north because of the active [Military Airspace] and because of weather to the south the pilot refused to turn.

Sector 23 should have Aircraft X head south of the weather instead of letting the aircraft get north of the weather. All other departures off MCO were vectored south of weather. Aircraft X was the only aircraft allowed to stay north of weather. When Sector 23 called and requested higher, they should have ensured that the pilot would be able to maintain a climb rate to clear the Military Airspace. Sector 23 should have never let Aircraft X continue eastbound once the aircraft advised he would be unable to climb fast enough. Sector 23 could have turned Aircraft X north clear of weather and before the [Active Military] airspace started. By the time they switched the aircraft to me, there was no options for vectors to miss the airspace. [There was] no way to contact the military to advise them of Aircraft X. We use to have pilots [advise ATC] and squawk 7700, but the 7110.65 changed and we were briefed to not have the pilot squawk emergency. My recommendations would be to allow aircraft to squawk emergency for these kinds of situations.

Narrative: 2
Aircraft X departed MCO and checked in climbing to FL140. I asked the pilot to say max climb rate and they said 1800 feet/minute. I instructed them to maintain their max climb rate and fly heading 070. Because of [Military Airspace] (FL240), I requested FL250 with R02, and R02 approved and took the handoff. I quickly shipped Aircraft X to R02 and R02 immediately called to request control of Aircraft X. I approved the request.

Weather to the south of the aircraft impacted the situation. The aircraft may have lost minimum separation with [the Military Airspace].

**Synopsis**

Miami Center Controllers reported an aircraft that did not meet climb restrictions and entered an active military airspace.
For at least the third time this year, I sat down at [this sector] with weather and an array of hot military airspace and saw immediately that I was going to be going down the tubes! I mentioned to the CIC [Controller in Charge] (we have very few Supes [Front Line
Managers]) that the situation called for TMU [Traffic Management Unit] to restrict ORD northbound traffic. He said he would watch it. What followed was an air traffic free for all, with aircraft flashing HO [Hand Off] to me that are level at FL230 at BAE VOR, which must be climbed to miss the airspace. Every single aircraft deviating, asking about rides, routes, reports, [and] making PIREPS. There was, as far as I know, no attempt by TMU to actually manage traffic. My sector may not have been red, but anyone who actually knows this job could have seen how dangerous this sector was, and yet aircraft were poured out of ORD without restriction. Eventually, the CIC restricted the military airspace which helped. I ended up violating [another sector] at ZMP perhaps half dozen times, and they violated me. We handed off aircraft with incorrect data blocks simply because volume made it impossible to properly amend a DB [Data Block] before two other guys started talking about deviating. In their defense, when the airspace is hot, SAW works many MSP departures north of the airspace and it was into this stream that I drove my traffic, virtually all deviating, all stopped at interim altitudes, and sometimes with incorrect data. It was incredibly dangerous and as I said previously, this is at least the third or fourth time this year it has happened to me.

It is my opinion that when military airspace is hot in the north area, there be a standard restriction on ORD north departure of at least 20 miles. When there is weather in addition, it should be 30 miles.

**Synopsis**

Chicago Center Controller reported an unsafe situation relating to weather, traffic volume, and airspace.
Aircraft X ground looped as he attempted to depart Runway XX. I saw Aircraft X taxi onto Runway XX, but I did not see Aircraft X ground loop as I was continuing to scan down the runway along the departure path. After Ground Control advised Aircraft X was off of Runway XX on the south side, I advised all aircraft to go around. I then started sequencing all aircraft in the pattern to make a full stop landing on Runway XY or to depart the pattern.

As I continued to clear aircraft to land, the CIC (Supervisor) advised me the field was now
closed. Therefore, I had to advise aircraft that had previously called me inbound that they had to exit the airspace as the field was now closed. I wasn't expecting the field closure, and I am not sure if I was expected to have all of the aircraft exit ZZZ airspace. There has not been time today to confirm what the expectation was as far as aircraft in the pattern and/or inbound.

Ground loops can be accidents if perhaps an aircraft has a prop strike or ends up with significant damage. However, please clarify if the expectation is to close the field even for ground loops that may not necessarily result in significant damage.

**Synopsis**

Local Controller reported an aircraft ground loop led to an airport closure.
Time / Day
Date : 201808
Local Time Of Day : 1201-1800

Place
Locale Reference.ATC Facility : ZZZ.TRACON
State Reference : US
Altitude.MSL.Single Value : 9000

Environment
Flight Conditions : IMC

Aircraft
Reference : X
ATC / Advisory.TRACON : ZZZ
Make Model Name : Small Aircraft
Crew Size.Number Of Crew : 1
Operating Under FAR Part : Part 91
Flight Plan : IFR
Mission : Training
Flight Phase : Climb
Route In Use : Vectors
Airspace.Class C : ZZZ

Person
Reference : 1
Location Of Person.Facility : ZZZ.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Developmental
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 6
ASRS Report Number.Accession Number : 1572605
Human Factors : Training / Qualification
Human Factors : Communication Breakdown
Human Factors : Workload
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
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: Procedure
Contributing Factors / Situations: Weather
Primary Problem: Procedure

**Narrative: 1**

I was working the DR position and there were multiple IFR practice approaches all day due to the weather being just below VFR minimums most of the day. As far as I can recall, Aircraft X came off IFR asking to be vectored for an instrument approach. I don't recall what approach he was on. I have not been given time to listen to the tapes so I am unsure what altitude aircraft was originally issued in climb out, what he reported climbing to in initial climb, or if I restated climb and maintain 090 and whether or not he read that back. As far as I know at this time, I issued vectors northbound to the downwind for an approach to either runway 17L or 17R with the belief that he was in a climb to 090. I think the aircraft was northbound on close to a 350 heading when the low altitude alert went off and got my attention.

I noticed his altitude was below the MVA (Minimum Vectoring Altitude) but I was immediately alarmed as I figured he was just climbing slow. I asked him to verify still climbing to 090. He surprisingly responded in the negative and said he was given 080. I immediately reissued the climb to 090 and made a point of verifying if there were in obstacles that could be a danger. I did not see any and in my immediate judgement he was not in danger as long as he really was in the climb to 090. I immediately informed the supervisor that was sitting behind the desk that I had an IFR aircraft that ended up being below the MVA. I thought he was in a climb to 090, but when questioned he said he was given 080, and I did not notice there was a possible problem until the low altitude alert went off. The supervisor did not come over and look at the scope and tell me to issue any kind of safety alert and I already explained why I did not on my own. I was still focused working traffic at the time and asked the supervisor to listen to the tapes and advise me if any action needed to be taken (pilot deviation and brasher or maybe I messed up somewhere and didn't hear something I should have). After the supervisor said he listened to the tapes I distinctly remember him telling me, "He was given 090 and read it back."

I was still working the same DR session at this point and I am pretty sure that Aircraft X was still flying. I was not asked to give a brasher warning to the pilot. After my session was over I did not feel the need to file an [ASRS Report] or listen to the tapes because I immediately told the Supervisor on the CIC (Controller-in-Charge) position, he said he listened to the tapes, and I was not told that any action needed to be taken. I was thankful the low altitude alert did its job and alerted me in a timely enough fashion to fix a problem before anything bad happened. I already explained that I have not listened to the tapes and I am unsure where the fault in miscommunication happened. I was busy working the radar position all day with an unusual amount of IFR and IFR practice approach aircraft that were necessitated because of the weather. I noticed that something odd happened, fixed it to the best of my ability at the time, and immediately informed the supervisor who did not tell me to take any kind of action.

I am sure better recommendations on how to avoid this situation in the future can be found after examining the tapes and determining where the break in communication occurred. All IFR aircraft doing practice approaches are issued 090 as their standard climb out. It's possible he said something else and I missed it. My attention could have been split or not fully on him at the time and maybe I only heard what I expected to hear. In the future I will certainly make it a point to go back and listen to the tapes myself.
Synopsis

TRACON Controller reported a small aircraft at 8,000 feet entered a higher Minimum Vectoring Altitude.
**ACN: 1572597 (9 of 50)**

**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference. ATC Facility: MIA/TRACON
- State Reference: FL
- Altitude. MSL. Single Value: 5000

**Aircraft : 1**
- Reference: X
- ATC / Advisory. TRACON: MIA
- Aircraft Operator: Air Carrier
- Make Model Name: A320
- Crew Size. Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Descent
- Airspace. Class C: FLL

**Aircraft : 2**
- Reference: Y
- Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
- Flight Plan: VFR
- Flight Phase: Climb

**Person**
- Reference: 1
- Location Of Person. Facility: MIA/TRACON
- Reporter Organization: Government
- Function. Air Traffic Control: Approach
- Qualification. Air Traffic Control: Fully Certified
- ASRS Report Number. Accession Number: 1572597
- Human Factors: Situational Awareness
- Human Factors: Distraction

**Events**
- Anomaly. Conflict: Airborne Conflict
- Anomaly. Deviation - Procedural: Published Material / Policy
- Anomaly. Inflight Event / Encounter: Unstabilized Approach
- Detector. Person: Air Traffic Control
- When Detected: In-flight
- Result. Air Traffic Control: Provided Assistance

**Assessments**
- Contributing Factors / Situations: Aircraft
- Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Aircraft

**Narrative: 1**

Working the FLL Final, Aircraft X was at 5,000 feet tracking inbound the ILS for [Runway] 10R. A VFR target was observed coming off of the OPF/HWO area VFR climbing to the northwest, through both FLL finals. Aircraft X was issued the traffic and could not descend on the approach because the VFR was climbing unrestricted and uncontrolled. Aircraft X was then very high and unstable on the approach, creating an unsafe situation.

FLL airport is the 19th busiest airport in the USA, and one of the top 3 fastest growing, averaging 8% growth each of the last 5 years. FLL has a basic Class C airspace surrounding it that is beyond out of date and unable to aid in the safety of its aircraft on the finals. Planes inbound to each of their parallel runways are not offered any sort of protection until within 5 miles of the field. [This] allows several dozen VFRs each day to climb, descend, and transition across each final, without ATC advisories creating a very dangerous, unsafe, and hazardous situation in the skies above. The FLL Class C is inadequate, and out of date, and needs a major airspace change around it, whether a bigger Charlie, or a full blown Class B before it's too late.

**Synopsis**

MIA TRACON Controller reported an airborne conflict with an IFR arrival to FLL and a VFR aircraft.
**ACN: 1572548** (10 of 50)

**Time / Day**
Date: 201808
Local Time Of Day: 1801-2400

**Place**
Locale Reference.ATC Facility: ZZZ.ARTCC
State Reference: US
Altitude.MSL.Single Value: 32000

**Environment**
Flight Conditions: Mixed
Weather Elements / Visibility. Visibility: 10
Light: Daylight

**Aircraft**
Reference: X
ATC / Advisory.Center: ZZZ
Aircraft Operator: Air Taxi
Make Model Name: Citationjet (C525/C526) - CJ I / II / III / IV
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Ferry
Flight Phase: Descent
Route In Use: Direct
Airspace.Class A: ZZZ

**Component**
Aircraft Component: Elevator Trim System
Aircraft Reference: X
Problem: Malfunctioning

**Person**
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Taxi
Function.Air Traffic Control: Enroute
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Total: 3468
Experience.Flight Crew.Last 90 Days: 62
Experience.Flight Crew.Type: 312
ASRS Report Number.Accession Number: 1572548
Human Factors: Troubleshooting
Human Factors: Workload
**Events**

Anomaly.Aircraft Equipment Problem : Critical
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Aircraft : Equipment Problem Dissipated

**Assessments**

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

**Narrative: 1**

Upon starting descent from FL390 the amber boxed autopilot out of trim box appeared on both PFD’s. After reviewing the abnormal checklist, the captain disconnected the autopilot and the aircraft made an uncommanded pitch up, which was arrested with manual control wheel pressure.

Next, in the course of running the abnormal checklist the Captain discovered the pitch trim wheel was frozen and unable to be moved up or down with manual or electric trim. The Captain was able to maintain positive control of the aircraft using heavy forward pressure on the control wheel except for the brief moment when the autopilot was disconnected and we did not deviate from ATC instructions. Therefore, an emergency was not declared at the time.

Upon reaching warmer air, around 11,000 MSL, the pitch trim freed up. A normal descent and landing at our destination airport followed.

**Synopsis**

CE-525 First Officer reported the pitch trim wheel was frozen at the top of descent.
ACN: 1572524 (11 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZTL.ARTCC
State Reference: GA
Altitude.MSL.Single Value: 32000

Environment
Flight Conditions: Mixed
Weather Elements / Visibility.Visibility: 10
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Center: ZTL
Aircraft Operator: Air Carrier
Make Model Name: Citationjet (C525/C526) - CJ I / II / III / IV
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 135
Flight Plan: IFR
Mission: Ferry
Flight Phase: Descent
Route In Use: Direct
Airspace.Class A: ZTL

Component
Aircraft Component: Elevator ControlSystem
Aircraft Reference: X
Problem: Malfunctioning

Person
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Air Traffic Control: Enroute
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Total: 3070
Experience.Flight Crew.Last 90 Days: 86
Experience.Flight Crew.Type: 626
ASRS Report Number.Accession Number: 1572524
Human Factors: Troubleshooting
Human Factors : Workload
Analyst Callback : Completed

Events
Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Automation : Aircraft Other Automation
Detector.Person : Flight Crew
Result.Flight Crew : Regained Aircraft Control
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Flight Crew : FLC Overrode Automation
Result.Aircraft : Equipment Problem Dissipated

Assessments
Contributing Factors / Situations : Aircraft
Primary Problem : Aircraft

Narrative: 1

Upon starting descent from 39,000 MSL the amber boxed auto pilot out of trim box appeared on both PFDs. After reviewing the abnormal checklist, I disconnected the auto pilot and the aircraft made an uncommanded pitch up.

Next, I discovered the pitch trim wheel was frozen and unable to be moved up or down with manual or electric trim. Both with the electric trim breaker pulled or without.

I was able to maintain positive control of the aircraft using heavy forward pressure on the control yoke except for the brief moment when the auto pilot disconnected and did not deviate from ATC instructions. Therefore, I felt no need to declare an emergency at the time of the event.

Upon reaching warmer air, around 11,000 MSL the pitch trim freed up. A normal descent and landing at our destination airport followed.

Callback: 1

Reporter stated aircraft actuator was lubed and flown at low altitude with no issues. At high altitude, same control issue was present. The reporter heard water was found in the actuator from a second hand source.

Synopsis
CE-525 Captain reported the elevator trim control froze at 39,000 feet then descending to warmer air to thaw it.
Aircraft X was cleared for an ILS approach via the SABAT transition. The transition altitude all the way to the localizer is 11,500 feet. The pilot descended to 9,500 feet. I checked the approach plate to see if there was a descending altitude on the transition that I missed,
but I couldn't see one, so I queried the pilot about the procedure. He said I was correct, that the transition altitude remained at 11,500 feet. I gave the pilot a low altitude alert, then climbed him to the MIA [Minimum IFR Altitude] of 10,000 [feet] and vectored the aircraft onto the localizer.

**Synopsis**

Salt Lake ARTCC Controller reported an aircraft descending below a transition altitude by 2,000 feet.
Aircraft X checked on at BAMBO. He was difficult to understand (foreign pilot) and it was the first time we had seen this call sign at HCF. I was coordinating with another controller offline about the company call sign. Also there was [weather] approaching HNL and I was getting pilot reports from aircraft on final about 40 knot tailwinds on downwind. This high tailwind into a high headwind increased the complexity of determining spacing and turns onto final. HNL runway 8L was shortened to 9,100 feet.
When Aircraft X checked in at BAMBO I missed that he did not report in with the proper ATIS code. I later found this out through tape reviews. Aircraft X was assigned Runway 8 from BAMBO vectored for and turned onto final [about] 10 miles outside of the final approach fix. Aircraft X rolled through the 8 feet barrier that was shortening Runway 8.

Just make sure all the i's are dotted and t's are crossed because even when excellent service is provided it is our job to ensure each pilot has the appropriate ATIS code.

**Synopsis**

HNL Controller reported not ensuring aircraft had the ATIS, resulting in a runway excursion upon landing.
**ACN: 1571094 (14 of 50)**

**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Relative Position.Distance.Nautical Miles: 1
- Altitude.AGL.Single Value: 500

**Environment**
- Flight Conditions: VMC
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory.Tower: ZZZ
- Aircraft Operator: Personal
- Make Model Name: Cessna 310/T310C
- Crew Size.Number Of Crew: 1
- Operating Under FAR Part: Part 91
- Flight Plan: None
- Mission: Personal
- Flight Phase: Landing
- Airspace.Class D: ZZZ

**Person**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Personal
- Function.Air Traffic Control: Local
- Function.Flight Crew: Captain
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Private
- Experience.Flight Crew.Total: 7800
- Experience.Flight Crew.Last 90 Days: 15
- Experience.Flight Crew.Type: 4800
- ASRS Report Number.Accession Number: 1571094
- Human Factors: Situational Awareness
- Human Factors: Time Pressure
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC
- Analyst Callback: Completed

**Events**
Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Speed : All Types
Detector.Automation : Air Traffic Control
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Vertical : 300
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

This was a frightening misjudgment by controller.

[I] arrived at ZZZ [in a] C310. My recollection of communications with Tower may be incorrect.

[Runway] XX was the active. One (or maybe two) aircraft were ahead of me and requested [Runway] XY. As I am based at [an FBO], I too requested [Runway] XY. I entered downwind and was cleared to land. On final, I observed an airliner taking off from [Runway] XX. Initially [I] thought to go around, but [I] was well above the jet as it took off. It was evident I could safely land on [Runway] XY. Then, Tower ordered me to go around, which I did.

I was cleared to land and did so without any problem. I asked Tower why the conflict and was told I was too fast. In any case, regardless of airspeed, the controller must have been fully informed. [The controller] told me I was doing 150 [knots]. I doubt that as I do short final at 100 [knots]. While I name [the controller], I mean no criticism. She was very professional and helpful.

Bottom line, fast or not, I find it incomprehensible the controller could clear me to land [Runway] XY and the airliner to takeoff [Runway] XX. As the airliner was on the ground, there could not have been urgency. Takeoff clearance could have been delayed 3 minutes with no significant effect.

My suspicion is that the Tower Controller was new and inexperienced.

Callback: 1

Reporter was unable to obtain any further information from the Tower personnel.

Synopsis

Cessna 310 pilot reported a NMAC after ATC cleared the pilot to land and then directed a missed approach after clearing another aircraft for takeoff.
ACN: 1570682 (15 of 50)

Time / Day
Date: 201808
Local Time Of Day: 0001-0600

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

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: VFR
Flight Phase: Initial Climb
Route In Use: None

Aircraft: 2
Reference: Y
Make Model Name: Small Aircraft
Crew Size: Number Of Crew: 1
Flight Plan: VFR
Flight Phase: Descent

Person
Reference: 1
Location Of Person: Facility: ZZZ. Tower
Reporter Organization: Government
Function: Air Traffic Control: Supervisor / CIC
Function: Air Traffic Control: Local
Qualification: Air Traffic Control: Fully Certified
Experience: Air Traffic Control: Time Certified In Pos 1 (yrs): 2
ASRS Report Number: Accession Number: 1570682
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Human Factors: Distraction
Communication Breakdown: Party1: ATC
Communication Breakdown: Party2: Flight Crew

Events
Anomaly: ATC Issue: All Types
Anomaly: Conflict: Airborne Conflict
Anomaly: Deviation - Procedural: Clearance
Detector: Person: Flight Crew
When Detected: In-flight
Result: Air Traffic Control: Provided Assistance
Assessments
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Procedure

Narrative: 1
I was working LC [Local] combined with TCIC [Tower Controller in Charge]. Aircraft X called me with "the ATIS" requesting to depart FPXX (float pond) opposite direction. I had opposite direction traffic arriving, but I advised him that if he would be ready in about three minutes (I had a gap) I could accommodate that since I had another aircraft waiting to go opposite direction off of Runway XY Right as well. He advised that he would be ready in three minutes and I instructed him to advise when ready for departure at FPXX. He called ready and I advised him to remain outside the channel, traffic was landing opposite direction. He replied "Roger, Aircraft X." We don't typically tell aircraft to "hold short" of the float pond since there is no designated hold lines or markings, so instead it's common to use "remain outside of the channel". Aircraft Y was on short final for FPX, he advised that there was traffic departing opposite direction. I looked down the float pond to find Aircraft X airborne midfield off of FPXX just above the trees. I instructed him to "turn left on course now." I had intended to give him the wind and altimeter when clearing him for takeoff, but since I didn't get the chance, I never verified that he had the current ATIS. When I told him on frequency that he had been instructed to remain outside the channel, he was confused because I told him to be ready in three minutes and when he called ready he thought I had issued him a takeoff clearance. I did not notice his departure sooner because there is a known blind spot at the N end of the FP (the threshold for FPXX). I did not push for a read-back of my instruction for him to remain outside the channel either and no such read-back was obtained. The N end of the float pond is also known for intermittently poor radio coverage, so that may have been a factor in him hearing that he had been cleared for takeoff even though no transmissions that sounded like a landing/departure clearance were made during that time. The estimated lateral distance between Aircraft Y & Aircraft X when Aircraft X turned to avoid was approximately 3,000 feet, Aircraft Y was just coming up on Taxiway B, Aircraft X was just past mid-pond. Aircraft Y continued inbound for landing FP2, going around could have worsened the situation.

You have my permission to share with concerned parties.

The blind spot at FPXX should be addressed. I should have obtained a read-back for the pilot to remain outside the channel/hold short of FPXX (it would be helpful if there were markers for this).

Synopsis
Tower Controller reported a NMAC between opposite direction traffic.
Narrative: 1

Like almost every other [day] this summer our staffing numbers were short due to sick leave and no one answering for forced overtime outside of the building. As a previously documented problem transition staffing between shifts was very short and instead of being remedied by forced holdover overtime nothing was done. The supervisors were made aware of increased traffic and weather. So they allowed an [8 hour shift] to have an hour of leave on the front of their shift and let another controller go home early. This made the
situation worse. My sector went red with traffic, I sat on the Radar Assist side and worked very hard to help my radar controller who was being overworked and put into a very dangerous situation. My sector and another sector were on position for over 2 hours without being offered a break. The Radar Controller commented to me that his brain had gone to "mush" and thank you for telling him what to do towards the end. We stayed busy the rest of the night and lost another person on sick leave, forcing a person to get held over and 3 of us to stay on position until our go home time, which I don't have a problem with because it's safe and necessary. Supervisors should force holdover overtime. Make sure bodies are available.

**Synopsis**

ZOB Center Controller reported insufficient staffing resulted in controllers working long periods of time without a break.
**ACN: 1569955** (17 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference
  - ATC Facility: MKC.Tower
- State Reference: MO

**Environment**
- Flight Conditions: VMC
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory
  - Tower: MKC
- Aircraft Operator: Corporate
- Make Model Name: Light Transport, Low Wing, 2 Turbojet Eng
- Operating Under FAR Part: Part 91
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Initial Approach
- Route In Use: Visual Approach
- Airspace: Class D: MKC

**Person**
- Reference: 1
- Location Of Person
  - Facility: MKC.Tower
- Reporter Organization: Government
- Function
  - Air Traffic Control: Local
- Qualification
  - Air Traffic Control: Fully Certified
- ASRS Report Number
  - Accession Number: 1569955
- Human Factors: Situational Awareness

**Events**
- Anomaly
  - ATC Issue: All Types
  - Deviation - Procedural: Other / Unknown
  - Inflight Event / Encounter: CFTT / CFIT
- Detector
  - Automation: Air Traffic Control
  - Person: Air Traffic Control
- When Detected: In-flight
- Result
  - Flight Crew: Requested ATC Assistance / Clarification
  - Air Traffic Control: Issued New Clearance
  - Issued Advisory / Alert

**Assessments**
- Contributing Factors / Situations: Airport
- 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 was inbound from the southeast and tracking direct to the airport. Aircraft X checked on with Tower on a Visual Approach southeast of the downtown buildings and twin antennas. I cleared Aircraft X to land and asked the pilot if he intended to base north or south of the twin antennas. I didn't have any other traffic at the time so this served mostly to remind or alert the pilot about the antennas as he descended and flew towards them. The pilot first stated his intention to turn base south of the antennas. The Low Altitude Alert triggered and as the Approach Controller keyed up the shout line to notify me of the Low Altitude Alert the pilot of Aircraft X called up again and changed his plan to base north of the twin antennas. I observed Aircraft X out the windows and watched as he maintained safe spacing from the obstructions before turning Final.

Stop bringing aircraft from the southeast direct to the airport and stop actively creating watch situations. The downtown buildings and twin antenna are significant obstructions and frequently interfere with pilots getting and keeping the airport in sight. A 7 to 10 mile straight in for aircraft arriving for the northeast prevents this.

**Synopsis**

MKC Tower Controller reported the Approach Controller advised them of a Low Altitude Alert for an aircraft on a Visual Approach.
ACN: 1569950 (18 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: MKC.Tower
State Reference: MO
Altitude.MSL.Single Value: 2700

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft: 1
Reference: X
ATC / Advisory.Tower: MKC
Aircraft Operator: Government
Make Model Name: Helicopter
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Cruise
Route In Use: Visual Approach
Airspace.Class D: MKC

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: MKC
Make Model Name: Small Aircraft
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: VFR
Flight Phase: Taxi
Route In Use: VFR Route
Airspace.Class D: MKC

Aircraft: 3
Reference: Z
ATC / Advisory.Tower: MKC
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: Initial Approach
Route In Use: VFR Route
Airspace.Class D: MKC
**Person**

Reference: 1  
Location Of Person.Facility: MKC.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): 7.5  
ASRS Report Number.Accession Number: 1569950  
Human Factors: Situational Awareness

**Events**

Anomaly.ATC Issue: All Types  
Anomaly.Conflict: Airborne Conflict  
Anomaly.Deviation - Procedural: Published Material / Policy  
Detector.Person: Flight Crew  
Detector.Person: Air Traffic Control  
When Detected: In-flight  
Result.Air Traffic Control: Issued Advisory / Alert  
Result.Air Traffic Control: Issued New Clearance  
Result.Air Traffic Control: Separated Traffic

**Assessments**

Contributing Factors / Situations: Airspace Structure  
Contributing Factors / Situations: ATC Equipment / Nav Facility / Buildings  
Contributing Factors / Situations: Chart Or Publication  
Contributing Factors / Situations: Human Factors  
Contributing Factors / Situations: Procedure  
Primary Problem: ATC Equipment / Nav Facility / Buildings

**Narrative: 1**

Aircraft X was operating about 5 miles south of the airport. Aircraft Y, called ready for departure. The pilot of Aircraft Y requested southbound to the Plaza and then east for sightseeing. I cleared Aircraft Y for takeoff and on course. I issued traffic to the Aircraft Y about the helicopter and the helicopter about the Aircraft Y. Helicopter volunteered to descend a bit.

As the Aircraft Y approached the Plaza I saw Aircraft Z approaching from the southeast and direct to the field. The twin antennas, helicopter, Aircraft Y, and the downtown buildings were all directly between the field and Aircraft Z. I passed traffic to both the Aircraft Y and helicopter about Aircraft Z, which was about five or six miles southeast of them and level at 3,000 feet. Aircraft Z was about 1 1/2 to 2 miles south of the helicopter and Aircraft Y when the Aircraft Z checked onto the Local Control frequency on a Visual Approach and descending. I immediately instructed the Aircraft Z to turn and maintain altitude to avoid collision with the VFR aircraft. Once Aircraft Z was clear of conflict, I cleared the pilot to land. My relief arrived as Aircraft Z was rolling out, so I gave the brief to a trainee and his instructor. I went to the break room for lunch as the Aircraft Z taxied to park.

The scenario remained troubling with unresolved questions, so I drove over and met with the Aircraft Z pilot. During our conversation, the pilot relayed that he had an iPad app on which he received an ADS-B hit. He asked the Approach Controller about it and was told there was no traffic in the area. When the ADS-B target turned yellow, he asked again,
receiving the same response. The pilot also stated he would file a report about the event. Both VFR targets were displayed continuously on the Tower radar display. Our feed is derived the same radar antenna.

One of my initial questions was answered by the Aircraft Z pilot. Why did he start descending into VFR traffic? He was told there wasn't any by the approach controller. Why would the Approach Controller say that? Either the filter limits were set in such a way to exclude the VFR traffic, or the controller, for whatever reason, didn't see either target. Or perhaps, and most disturbingly, the "we don't separate VFRs" thing continues.

We've had issues with Kansas City Approach switching aircraft on Visual Approaches with pertinent and unresolved VFR conflicts. The first time, the pilot on a Visual Approach is even aware of the VFRs existence is, all too often, after they've checked on with Tower. When they give us sufficient time to fix it, it isn't a problem. So, either resolve the conflict, or ship the inbound sooner.

Aircraft approaching direct from the southeast on Visual Approaches have presented their own problems over the years. If an inbound is at or near the MVA (Minimum Vectoring Altitude) they often have difficulty getting the field in sight because of the downtown buildings, regularly resulting in additional vectors and a late frequency change inside of the Transfer Control Point. The two tall and obstructing radio antennas are an additional hazard. If the inbound is high enough to see the field they sometimes require additional maneuvering to lose the excess altitude, and again have to deal with the twin antennas. A straight in of, say, 7 to 10 miles fixes it. Inbound aircraft won't have to contend with finding the field through the downtown buildings or the twin antennas. The VFR reporting point attracts VFR aircraft, occasionally in large numbers. A straight in from 7 or more miles keeps inbound aircraft geographically separated from that traffic.

**Synopsis**

MKC Tower Controller reported receiving an aircraft on a Visual Approach descending into a conflict with VFR traffic.
ACN: **1569918** (19 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference: ATC Facility: DPA.Tower
- State Reference: IL
- Altitude.AGL.Single Value: 0

**Aircraft : 1**
- Reference: X
- Make Model Name: Citation Excel (C560XL)
- Crew Size.Number Of Crew: 2
- Flight Plan: IFR
- Flight Phase: Landing
- Route In Use: Visual Approach
- Airspace.Class D: DPA

**Aircraft : 2**
- Reference: Y
- Make Model Name: Falcon 7X
- Crew Size.Number Of Crew: 2
- Flight Plan: IFR
- Flight Phase: Landing
- Airspace.Class D: DPA

**Person**
- Reference: 1
- Location Of Person.Facility: DPA.TOWER
- Reporter Organization: Government
- Function.Air Traffic Control: Local
- Qualification.Air Traffic Control: Fully Certified
- ASRS Report Number.Accession Number: 1569918
- Human Factors: Other / Unknown

**Events**
- Anomaly.ATC Issue: All Types
- Anomaly.Deviation - Procedural: Published Material / Policy
- Anomaly.Inflight Event / Encounter: Wake Vortex Encounter
- Detector.Person: Flight Crew
- When Detected: In-flight
- Result.Flight Crew: Executed Go Around / Missed Approach
- 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

A C560XL was conducting a visual approach to Runway 2L. A Falcon 7X aircraft was also conducting a visual approach to Runway 2L in front of the C560XL. The data block for the C560XL indicated "VS", which meant that the aircraft had the Falcon it was following in sight and was maintaining visual separation. When the C560XL called the Tower on 120.9, I verified that the pilot had the Falcon in sight, which the pilot confirmed, then cleared him to land on Runway 2L #2. Upon crossing the numbers for Runway 2L, the pilot of the C560XL said that they were going around. I instructed the aircraft to enter left traffic for 2L and cleared him to land. The aircraft landed on 2L safely. After landing, when I asked the pilot the reason for the go-around, the pilot stated that it was wake turbulence behind the Falcon.

It is my understanding that when an IFR aircraft accepts a visual approach and visual separation from another IFR aircraft, and that aircraft requires a wake turbulence advisory, that the advisory is given by the Approach Controller, according to FAA Order 7110.65, 2-1-20 a2. Therefore I felt it was redundant to issue the wake turbulence advisory to the C560XL again.

In the future I will give wake turbulence advisories to aircraft that require them, regardless of whether or not the advisory may have been given by a previous controller. I should not have assumed that the advisory had already been given, and it would not have caused any harm other than frequency congestion to reissue the advisory to the Citation.

Synopsis

DPA Local Controller stated a C560XL reported encountering wake turbulence on approach in trail of a Falcon 7X.
**Time / Day**

Date: 201808
Local Time Of Day: 1801-2400

**Place**

Locale Reference.ATC Facility: ZBW.ARTCC
State Reference: NH

**Environment**

Flight Conditions: Marginal
Weather Elements / Visibility: Thunderstorm
Weather Elements / Visibility: Rain

**Aircraft: 1**

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

**Aircraft: 2**

ATC / Advisory.Center: ZBW
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: Cruise
Airspace.Class A: ZBW

**Person**

Reference: 1
Location Of Person.Facility: ZBW.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): 12.0
ASRS Report Number.Accession Number: 1569057
Human Factors: Situational Awareness
Human Factors: Training / Qualification
Human Factors: Workload
Human Factors: Confusion
Events
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Inflight Event / Encounter : Weather / Turbulence
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 : Staffing
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Weather
Primary Problem : Company Policy

Narrative: 1
I was assigned Controller in Charge so that the Supervisor could conduct a checkride on a controller who had just reached their minimum training hours a few minutes prior. During the briefing, the Supervisor advised me that there were multiple re-routes westbound into Sector [xx] and that the sector was going red "but only up to 19." The MAP (Monitor Alert Parameter) value for red for this sector is 16. I asked if anything was being done or traffic slowed to keep aircraft out of the sector and he replied "no, but it's your desk..." implying that he wasn't doing anything, but I could try. He did keep reiterating that there was heavy volume and complexity at that sector [and] implying he had been aware of this for some time but chose not to take any action. As the briefing was wrapping up, the controller at Sector [xx] yelled over the arrival routing "isn't working anymore...they won't fly through it because the weather." The Supervisor shrugged his shoulders and said the Controller in Charge "is in charge now." I got on the phone with TMU (Traffic Management Unit) and asked for the rerouting. The Supervisor TMC (Traffic Management Coordinator) advised me that he had never heard of the reroute, even though this is an official playbook move that we were briefed on Traffic Management just a week ago. Frustrated, I explained that it keeps traffic out of Sector [xx] and I was really just looking for help from him to reduce the volume at the sector since it was going well above its MAP value. He said he'd look at it and "oh, by the way, there won't be any more aircraft coming over the arrival routing, they've all been rerouted to keep them clear of that weather you won't see any more". I said "ok that's great."

I then was advised by the [xx] controller that another sector was still attempting to hand-off aircraft on the arrival route and deviating. I told the [xx] controller they are not to be routed over that fix and that TMU had advised me those routes would be fixed, not to take the handoff and I would call the other sector's Area Supervisor. I called the Area Supervisor and I asked him if they would fix the routes on Aircraft X and Aircraft Y because TMU had advised no more aircraft over [fix]. The Supervisor shouted at me and said that their sector was "very busy, the sector is red and I have a tracker in there right now so I cannot get them to fix the route". I advised him that [xx] was red too, and that we needed the route fixed. The Supervisor continued to berate me on the line saying his sector was "so busy and red, with a Tracker and D-side" and that he couldn't do it. I then quick-looked their sector and counted 7 data blocks in the sector at the time. A view at the position log and a walk past their area showed that there was no Tracker at that sector.
either. There also wasn't a D-side. I became very disappointed that not only was a delivering Area unwilling to help out the request of the receiving controller, but that the Supervisor lied to me on a recorded line about how he was staffing his area.

Traffic Management Unit should be more proactive to ensure sectors don't go red with excessive volume and aircraft impacted by weather, and supervisors should be more willing to accept/listen to the requests of the receiving controllers vs. berating them and coming up with excuses for why you can't do it. I believe it was unnecessary for the Supervisor to rush to conduct the check ride on the controller who had just gotten their minimum hours a few minutes prior; thus, placing me right into the fire by taking over the desk.

**Synopsis**

ZBW Center Controller in charge reported an adjacent sector was not complying with flow control instructions to regulate traffic flow due to weather deviations.
Aircraft X was inbound from the southeast. He came over at 080 feet. The MVA he was in was 050 feet; however, it was dropping to 045 feet after 5 miles from his position at the
time of descent, and 6 miles from that it would drop to 030 feet. I gave Aircraft X a
descent to 040 feet in anticipation of him being past the 045 feet MVA by the time he was
at 045 feet. He descended faster than anticipated and when he reached 053 feet, I
amended his altitude to 045 feet to satisfy the MVA. He read back the altitude correctly
and stated that he may go a few hundred feet below while correcting. While the MVA was
045 feet, the aircraft descended to 042 feet, then climbed back to 045 feet. The aircraft
was shortly after cleared for a visual approach and landed without problem.

Synopsis

BGM Controller reported assigning a lower altitude resulting in an aircraft descending
below the MVA.
**ACN: 1569040 (22 of 50)**

**Time / Day**

- Date: 201808
- Local Time Of Day: 1201-1800

**Place**

- Locale Reference.ATC Facility: A90.TRACON
- State Reference: NH
- Altitude.MSL.Single Value: 4700

**Environment**

- Flight Conditions: Mixed
- Weather Elements / Visibility. Visibility: 6

**Aircraft : 1**

- Reference: X
- Aircraft Operator: Air Carrier
- Make Model Name: Large Transport
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- Route In Use: Vectors
- Airspace-Class B: BOS

**Aircraft : 2**

- Reference: Y
- Aircraft Operator: Air Carrier
- Make Model Name: Large Transport
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Initial Approach
- Route In Use: Vectors
- Airspace-Class B: BOS

**Aircraft : 3**

- Reference: Z
- Aircraft Operator: Air Carrier
- Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
- Flight Plan: IFR
- Flight Phase: Initial Approach
- Airspace-Class B: A90

**Person**
Reference : 1
Location Of Person.Facility : A90.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Developmental
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs) : 3
ASRS Report Number.Accession Number : 1569040
Human Factors : Workload
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
Miss Distance.Vertical : 700
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
Weather: 8 SM, ceilings bkn around 3,000. [I] was briefed aircraft were not seeing the runway at 8sm, but they could at 6 SM. While assuming the position I had to immediately have a small report visual behind a large, as the spacing did not look to be adequate to ensure wake turbulence. At the same time Aircraft Z had been cleared onto the localizer, with traffic behind. The traffic behind was through the localizer for the spacing, and I had two large aircraft on a right downwind, with Aircraft Y from the south aimed north. I decided to take Aircraft Y across the localizer for the right downwind, as he was going to fly out of my airspace if he joined the left downwind. I got the Aircraft Z cleared, as well as the large following behind. I was concerned about the spacing with the large behind the Aircraft Z, when I told Aircraft Y to fly heading 330, vector across the localizer. I also stated maintain 3,000 feet, while in my head I was thinking maintain 5,000. I had Aircraft X south at 4,000 and Aircraft A on a right downwind at 4,000. My plan was to fly close behind Aircraft X and then turn Aircraft Y onto the right downwind to follow the Aircraft A. Aircraft A read back heading 330 and maintain 3,000. I missed his read back, as I diverted my attention back to the Aircraft A and the spacing behind him with the large. I observed Aircraft Y at 4,800, and I immediately issued the altimeter and issued "maintain 5,000 feet" Aircraft Y stated I had issued him a descent and he would climb and maintain 5,000. I observed him at 4,700, and called the Aircraft X flight at his ten o'clock and 4,000. Aircraft Y stated he had traffic in sight, and I instructed Aircraft Y to maintain visual. Aircraft Y said he would maintain visual and was level at 5,000. I then re-sequenced the aircraft and he proceeded inbound to BOS.

As for recommendations, I made a mistake with issuing a bad altitude as well as missing the read back. In my head I was thinking 5,000 feet, but I think with issuing the heading
of three-three-zero" the "3" for three-thousand just came out of my mouth. I know I need to slow down and REALLY listen to the read back, and yet my brain did not do that. I will take this experience and adjust how I handle the situation, should it occur again.

**Synopsis**

A90 Controller reported issuing an incorrect altitude which resulted in a NMAC situation.
ACN: 1569037 (23 of 50)

Time / Day
Date : 201808
Local Time Of Day : 1801-2400

Place
Locale Reference.Airport : SCT.TRACON
State Reference : CA
Altitude.MSL.Single Value : 3000

Environment
Flight Conditions : VMC
Light : Daylight

Aircraft : 1
Reference : X
ATC / Advisory.TRACON : SCT
Aircraft Operator : Air Carrier
Make Model Name : B737-700
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Nav In Use : FMS Or FMC
Nav In Use.Localizer/Glideslope/ILS : Runway 26R
Flight Phase : Final Approach
Airspace.Class C : ONT

Aircraft : 2
Reference : Y
ATC / Advisory.TRACON : SCT
Make Model Name : Any Unknown or Unlisted Aircraft Manufacturer
Flight Plan : VFR
Flight Phase : Cruise
Route In Use : None

Person
Reference : 1
Location Of Person.Facility : SCT.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) : 10.0
ASRS Report Number.Accession Number : 1569037
Human Factors : Communication Breakdown
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.Conflict : Airborne Conflict
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 : Took Evasive Action
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued New Clearance

Assessments

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

Narrative: 1

Aircraft X was cleared for the ILS 26R into ONT by the Norton Controller. He was established on descent and shipped to Tower. I was on a different sector and noticed a VFR aircraft north of the final at 2500 feet turn south on track to fly over/west of SCRIM. I advised the Norton Controller of traffic and he called the Tower to issue a traffic advisory to Aircraft X. If Aircraft X had remained on the glide path, he would have crossed directly over the traffic with less than 200 feet separation. Instead, Aircraft X responded to an RA and went around at which time he was my control.

The Class C airspace design for ONT continues to pose an unnecessary hazard to IFR arriving aircraft. At present, transitioning aircraft can fly over the Final Approach fix of the ILS approach up to, but not including, 2700 feet. With new approach profiles, this affords zero protection for IFR aircraft at a critical phase of flight. The Class C surface area must be extended at least 4 miles east of the final approach fix in order to ensure clearance from arriving aircraft as well as affording the Finals controller two way communications with transitioning VFR aircraft to ensure separation and safety.

Synopsis

SCT TRACON Controller observed an arriving air carrier on an ILS approach respond to an RA due to a conflict with an unidentified VFR aircraft.
ACN: 1569035 (24 of 50)

**Time / Day**
Date: 201808
Local Time Of Day: 1201-1800

**Place**
Locale Reference.ATC Facility: ILM.TRACON
State Reference: NC
Altitude.MSL.Single Value: 2000

**Aircraft : 1**
Reference: X
ATC / Advisory.TRACON: ILM
Make Model Name: Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew: 1
Flight Plan: IFR
Flight Phase: Cruise

**Aircraft : 2**
Reference: Y
ATC / Advisory.TRACON: ILM
Make Model Name: Small Aircraft, High Wing, 1 Eng, Fixed Gear
Crew Size.Number Of Crew: 1
Flight Plan: IFR
Flight Phase: Cruise

**Person**
Reference: 1
Location Of Person.Facility: ILM.TRACON
Reporter Organization: Government
Function.Air Traffic Control: Approach
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1569035
Human Factors: Situational Awareness
Human Factors: Human-Machine Interface

**Events**
Anomaly.ATC Issue: All Types
Anomaly.Inflight Event / Encounter: CFTT / CFIT
Detector.Person: Air Traffic Control
When Detected: In-flight

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

**Narrative: 1**
Aircraft reported clouds around 020 MSL and needed to get lower to see SUT. Second aircraft was also landing [at] SUT. I got ahead of myself in descending the second [aircraft] too soon. [I should have] referenced the 030 MVA along the route of flight. STARS system will be in place soon and the usage of [land] lines and much clearer maps on the [radar scope] will assist in avoiding MVA situations.

Synopsis

ILM TRACON Controller reported descending an aircraft too early and having it enter a lower Minimum Vectoring Altitude area.
ACN: 1568710 (25 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: ZOB.ARTCC
State Reference: OH
Altitude.MSL.Single Value: 11000

Aircraft: 1
Reference: X
ATC / Advisory.Center: ZOB
Aircraft Operator: Personal
Make Model Name: Small Transport, Low Wing, 2 Turboprop Eng
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Cruise
Airspace.Class E: ZOB

Aircraft: 2
Reference: Y
ATC / Advisory.Center: ZOB
Aircraft Operator: Government
Make Model Name: Commercial Fixed Wing
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Airspace.Class E: ZOB

Person
Reference: 1
Location Of Person.Facility: ZOB.ARTCC
Reporter Organization: Government
Function.Air Traffic Control: Enroute
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1568710
Human Factors: Situational Awareness

Events
Anomaly.Conflict: Airborne Conflict
Anomaly.Deviation - Track / Heading: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Deviation - Procedural: Clearance
Detector.Person: Air Traffic Control
When Detected: In-flight
Result.Flight Crew: Returned To Clearance
Assessments
Contributing Factors / Situations: Aircraft
Contributing Factors / Situations: Human Factors
Primary Problem: Aircraft

Narrative: 1
Aircraft X was at 110 direct GVQ which was about a 050 heading. He suddenly turned to a northwest heading estimated to be about a 340 which [had] him directly in the way of Aircraft Y who was direct VWV at 110. I turned Aircraft X to a 090 heading in order to keep separation. He said his autopilot shut off, to the controller working the next sector after I switched him. [Also], my D-Side had Toledo Approach descend Aircraft Y.

Synopsis
ZOB Controller reported an aircraft had an autopilot failure resulting in a conflict with another aircraft.
**Time / Day**

Date: 201808  
Local Time Of Day: 0001-0600

**Place**

Locale Reference.ATC Facility: ZOB.ARTCC  
State Reference: OH  
Altitude.MSL.Single Value: 11000

**Aircraft : 1**

Reference: X  
ATC / Advisory.Center: ZOB  
Aircraft Operator: Government  
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: Cruise  
Route In Use: Direct  
Airspace.Class E: ZOB

**Aircraft : 2**

Reference: Y  
ATC / Advisory.Center: ZOB  
Aircraft Operator: Personal  
Make Model Name: Small Transport, Low Wing, 2 Turboprop Eng  
Crew Size.Number Of Crew: 1  
Operating Under FAR Part: Part 91  
Flight Plan: IFR  
Mission: Personal  
Flight Phase: Cruise  
Route In Use: Vectors  
Airspace.Class E: ZOB

**Person**

Reference: 1  
Location Of Person.Facility: ZOB.ARTCC  
Reporter Organization: Government  
Function.Air Traffic Control: Supervisor / CIC  
Function.Air Traffic Control: Enroute  
Qualification.Air Traffic Control: Fully Certified  
Experience.Air Traffic Control.Supervisory: 5  
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs): 5  
ASRS Report Number.Accession Number: 1568704  
Human Factors: Situational Awareness

**Events**
Assessments

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

Narrative: 1

As the on duty Operations Supervisor, I was monitoring the position due to Aircraft X traversing the airspace. Aircraft X was direct and approximately level at 11,000 feet. Aircraft Y was level at 11,000 feet heading northeast. Aircraft X was switched to Approach on course when I observed Aircraft Y making a north turn. I advised the Radar Controller who was discussing something with the Radar Associate. The Radar Controller then saw the situation and Aircraft Y to turn to a 090 heading. After advising the Radar Controller, I then advised the Radar Associate to call Approach and have Aircraft X descend or turn him west. The Radar Associate did talk to Approach and they descended Aircraft X. Aircraft Y made the turn to 090 degrees. At no time was separation lost between the two aircraft. I advised the next sector to issue a brasher warning to Aircraft Y.

Synopsis

ZOB Supervisor observed an aircraft deviate from their course to a heading that was towards another aircraft and advised the Radar Controller.
**ACN: 1568320 (27 of 50)**

**Time / Day**

Date: 201808
Local Time Of Day: 0601-1200

**Place**

Locale Reference.Airport: GCN.Airport
State Reference: AZ
Altitude.AGL.Single Value: 0

**Environment**

Flight Conditions: VMC
Light: Daylight

**Aircraft : 1**

Reference: X
ATC / Advisory.Tower: GCN
Aircraft Operator: FBO
Make Model Name: Helicopter
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 135
Flight Plan: VFR
Mission: Passenger
Flight Phase: Final Approach
Route In Use: None
Airspace.Class D: GCN

**Aircraft : 2**

Reference: Y
ATC / Advisory.Tower: GCN
Aircraft Operator: FBO
Make Model Name: Helicopter
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: VFR
Mission: Passenger
Flight Phase: Final Approach
Route In Use: VFR Route
Airspace.Class D: GCN

**Person**

Reference: 1
Location Of Person.Facility: GCN.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Function.Air Traffic Control: Ground
Qualification.Air Traffic Control: Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs): 0
ASRS Report Number.Accession Number: 1568320
Human Factors: Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : Flight Crew

Events
Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued Advisory / Alert

Assessments
Contributing Factors / Situations : Aircraft
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
Local Controller 2 and Ground Control is responsible for 300 feet and below airspace in the Class Delta for helicopter traffic to helipads located around the airport. The Local Controller 1 is responsible for all inbounds/outbound to the runway. I was not working Local Control 1. The Local Control 1 controller had a GA helicopter inbound in which the pilot conducted an un-anticipated short approach. No known restriction was given to helicopter (usually instructed to stay at or above 500 feet AGL until final to remain above Local Control 2 traffic.)

Aircraft X descended left base through final for Local Control 2’s traffic to helipads in front of Aircraft Y. Aircraft Y was issued traffic, although I was not in communication with Aircraft X and did not coordinate for descent in Local 2’s airspace. Aircraft Y did not respond nor were any visual evasive maneuvers observed. Aircraft X was then given a clearance to land on the northern helipads located on the airport. (Used for General Aviation helicopters only). Aircraft X was visually observed descending towards the helipad from final. One minute passed and I scanned the north ramp and did not see Aircraft X at the correct helipad. The Controller in Charge who was also working Local Control 1 received a phone call from a nearby Operator that Aircraft X has landed on their helipads. Aircraft X [had] landed in their helipads. Situation was resolved, Aircraft X flew direct to the correct helipad. I did not receive any communication from any of the traffic I had on frequency nor observed any abnormal maneuvers.

I believe that the Local 1 Controller did not use the prescribed technique of restricting Aircraft X at or above 500 feet until final, as this is a standard technique used by our facility. I also believe that the pilot of Aircraft X did a short approach without notifying the Local 1 controller. These two communication errors would have prevented this. However, once the situation presented itself, climbing Aircraft X out of Local 2’s airspace would have been the best solution.

Synopsis
GCN Tower Controller reported a NMAC between a helicopter flying through their airspace without coordination and into conflict with another helicopter.
**ACN: 1567588 (28 of 50)**

**Time / Day**

Date: 201808
Local Time Of Day: 1801-2400

**Place**

Locale Reference. ATC Facility: S46.TRACON
State Reference: WA
Altitude. MSL. Single Value: 5000

**Environment**

Flight Conditions: Marginal
Weather Elements / Visibility: Thunderstorm
Weather Elements / Visibility: Rain

**Aircraft : 1**

Reference: X
ATC / Advisory. TRACON: S46
Aircraft Operator: Air Carrier
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Airspace. Class B: SEA

**Aircraft : 2**

Reference: Y
ATC / Advisory. TRACON: S46
Aircraft Operator: Air Carrier
Make Model Name: Medium Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Route In Use. Other
Airspace. Class B: SEA

**Aircraft : 3**

Reference: Z
ATC / Advisory. TRACON: S46
Aircraft Operator: Air Carrier
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Airspace. Class B: SEA

Person

Reference: 1
Location Of Person. Facility: S46. 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): 10.0
ASRS Report Number. Accession Number: 1567588
Human Factors: Communication Breakdown
Human Factors: Time Pressure
Human Factors: Workload
Human Factors: Situational Awareness
Communication Breakdown. Party 1: ATC
Communication Breakdown. Party 2: Flight Crew

Events

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

Assessments

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

Narrative: 1

Before this situation occurred it was noted that there were too many airplanes in the airspace with the amount of deviations occurring and NO TMC (Traffic Manager Coordinator) staffed to help with the traffic volume. The whole situation started with Aircraft Z from the west that was on an unusual vector to avoid weather. Aircraft Z was the first aircraft I had that would eventually encounter the weather to the north. The final was full and Aircraft Z needed to be turned to a downwind heading. The pilot refused the instruction, fly heading 340, because of weather and was consequently taken across the final behind another airplane using divergence for resequencing. This had a cascading effect on the sequence as multiple aircraft were subject to this pilot's inaction. I had to repeat the instructions three times. Fly heading 130, fly heading 160, he finally started turning and I had him roll out on a 070 heading to pass behind. I just needed the aircraft to turn.

Resequencing that aircraft caused other aircraft to extend on the east downwind. All of the
aircraft were contained in final's airspace. There were multiple aircraft left at higher altitudes such as 5000 ft because of how far out I was turning to final and I didn't want to impact other sectors with aircraft at lower altitudes and potentially going outside the Class B airspace. I was busy communicating with my airplanes in the airspace due to the prior situation and I was continuing to formulate my plan to work around the weather deviations and reel the final back in. I then noticed another aircraft, Aircraft Y, from another sector out of place and in my airspace. Aircraft Y was southwest bound level at 5000 ft, heading right for Aircraft X and I immediately issued a traffic alert. The Aircraft X pilot said they had the aircraft on TCAS but not in sight. I wasn't sure what the other controller was going to do so I instructed the pilot to turn left immediately heading 230 to avoid a potential collision. This was a clear airspace violation and a potentially dangerous situation due to the split focus between low sectors in bad weather and the inaction of the other controller once the CA (Collision Avoidance) alarms went off and they realized the grave state of affairs. Aircraft X and the other aircraft were sequenced appropriately following this event and all landed safely without further incident. We had at one time at least 16 Seattle Arrivals deviating for weather with a 46 arrival rate which is not the ILS rate into this airport. All the sectors were combined up. This has been a continuing trend at this facility and these kinds of events have been noted in the past. I'm just glad I had a backup plan.

Due to the weather deviations and the lack of traffic oversight the arrival rate should have been set appropriately. The lack of awareness in the room as to what the weather was doing, how it was moving and interacting with final and other sectors is unacceptable, especially after the CIC (Controller in Charge) was made aware by another controller before I sat down and I gave them a heads up too. Having positions combined up during significant weather events is a bad idea and inherently dangerous given the current event stated above. The thought process of every controller in the building should be at minimum these two things: Scanning for potential conflicts (They may not be in your airspace "yet") and say something if it looks wrong or out of place. The second thing is too stay out of the final controller's way and out of final's airspace, period.

**Synopsis**

TRACON Controller working combined sectors with weather deviations observed an aircraft entering their airspace without a handoff conflicting their arrivals.
Aircraft X was an overflight via LVM and WYS. The flight progress strip in front of me, left by the previous controller had a giant "V" on it, which I interpreted to mean he was VFR. WYS is not displayed on our radar maps (though it should be) and I looked at the VFR sectional to determine where it was in relation to ENNIS, which is in my airspace. I projected that the flight path from LVM to WYS would be through my 11,000 and 12,000 MVA's. At a point where the 11, 12, and 13,000 MVA's meet, I realized that Aircraft X was
just dragging through the corner so I turned him on a 250 heading into the 11,000 MVA, climbed him to 13,000, for the higher MVA's ahead and coordinated it with ZLC sector 6.

We get enough people going to and by WYS and enough TFR's and NOTAMs for it that we should at least display that on our radar map.

This happened because I was complacent and thought: 1.) The plane was VFR, even though level at FL120. So many pilots fly VFR at other than right for flight VFR altitudes, I was tricked by the giant "V" on the strip. The data block did not indicate VFR or have a (*) splat indicating MSAW (Minimum Safe Altitude Warning) not processed. 2.) The direct line from LVM to WYS was clear of the 13,000 MVA area.

**Synopsis**

Boise TRACON Controller reported vectoring an aircraft into a higher Minimum Vectoring Altitude [MVA] area.
ACN: 1567578 (30 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference. ATC Facility: SCT.TRACON
State Reference: CA
Altitude. MSL. Single Value: 3000

AirCraft: 1
Reference: X
ATC / Advisory. TRACON: SCT
Make Model Name: Small Aircraft, Low Wing, 1 Eng, Fixed Gear
Crew Size. Number Of Crew: 1
Flight Plan: IFR
Flight Phase: Cruise
Route In Use: Vectors
Airspace. Class C: SNA

AirCraft: 2
Reference: Y
ATC / Advisory. Tower: SNA
Aircraft Operator: Air Carrier
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Climb
Route In Use: Vectors
Airspace. Class C: SNA

AirCraft: 3
Reference: Z
ATC / Advisory. TRACON: SCT
Aircraft Operator: Air Carrier
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Approach
Airspace. Class C: SCT

AirCraft: 4
Reference: A
ATC / Advisory. TRACON: SCT
Aircraft Operator: Air Carrier
Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
Crew Size: Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Climb
Airspace: Class C: SCT

Aircraft: 5
Reference: B
ATC / Advisory: TRACON: SCT
Aircraft Operator: Corporate
Make Model Name: Small Transport, Low Wing, 2 Turbojet Eng
Crew Size: Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Initial Approach
Airspace: Class C: SCT

Person
Reference: 1
Location Of Person: Facility: SCT.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: 1567578
Human Factors: Communication Breakdown
Human Factors: Training / Qualification
Human Factors: Time Pressure
Communication Breakdown: Party 1: ATC
Communication Breakdown: Party 2: ATC

Events
Anomaly: ATC Issue: All Types
Anomaly: Conflict: Airborne Conflict
Anomaly: Deviation - Procedural: Published Material / Policy
Anomaly: Inflight Event / Encounter: CFTT / CFIT
Detector: Person: Observer
Detector: Person: Air Traffic Control
When Detected: In-flight
Result: Air Traffic Control: Issued Advisory / Alert
Result: Air Traffic Control: Issued New Clearance

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

Narrative: 1
This event happened during my two minute overlap of another sector. When I gave up the position, I had slowed down Aircraft Z and had Aircraft X on delay vectors in order to
provide enough room for an opposite direction Aircraft Y to depart SNA. I asked the controller relieving me if he wanted me to work out this sequence and he replied that he "was used to working whatever". At this point, I had set up my plan for the ODO (Opposite Direction Operation), but I had not actually released the ODO. As soon as the relieving controller (Controller A) took the position, SNA tower called asking for an update on the release, and the controller said "released for departure, your discretion opposite direction". Which is not the correct opposite direction phraseology. While doing my overlap I realized how time sensitive the departure was so I called SNA tower and asked them to expedite the departure because we are trying to hit a gap in the arrival sequence. SNA tower said he was taking the runway now. When I looked at the ASD-X for SNA I saw that Aircraft Y had not even began to take the runway. The SNA tower controller was giving false information.

Shortly after, but before the ODO tagged up, Controller A turned Aircraft X left onto a downwind heading. This brought the airplane closer to the final and created a potential conflict with the ODO departure.

As soon as the ODO tagged up, Controller A based Aircraft Z inside of Aircraft A and descended him. This was before he was even talking to the ODO. In my opinion there was inadequate spacing between Aircraft Z and Aircraft A to make that sequence work.

Then the ODO Aircraft Y went NORDO (No Radio) and separation was lost between multiple aircraft. Another controller came over to take over the hand off position and help Controller A. I told the incoming hand off to hold Aircraft B so that Controller A could recover the sector and climb Aircraft Y out of his airspace and get him on course. The new hand off made the coordination and then Controller A said that he is fine and he can bring him in. He doesn't need to hold anyone. Why would he hold an aircraft?

After watching the replay I saw that he had a MVA violation with Aircraft Y because he could not climb him because Aircraft B was in the way. And if he would have been held by the previous sector then that would not have been a problem.

When I gave up the position I had left myself several outs. In case someone would go NORDO. This is a systemic problem with Controller A. He is an extremely aggressive controller who takes unnecessary risks. He does not protect himself in case something goes wrong. He is creating an unsafe environment in the coast airspace.

He should have never turned Aircraft X towards the airport and towards the downwind. I had him pointed out with the adjacent sector so that he could be held to the west, away from the ODO departing SNA.

There was a LGB arrival at 4000 ft that was above Aircraft X. Our handoff is to the next sector at 3000 ft. He should have never descended the LGB arrival to 3000 ft. Because now he has to have lateral separation between that aircraft and Aircraft X. So he can't turn Aircraft X out of the way if he needed to.

Aircraft Z should never have been put on a base heading and descended before the ODO even tagged up off of the departure end. He was "betting on the come"; that the ODO would tag up and come on frequency quickly enough that he could be turned and climbed. He was trying to force Aircraft Z in front of Aircraft A on a straight in. So that he would not have to hold anyone. Controller A does this a lot. He creates an unsafe unworkable situation and then forces the pilots to make it work. By basing Aircraft Z he is forcing Aircraft A to follow with too little separation. Then take dramatic measures to maintain
what little spacing the controller gave him.

My last critique is that when I suggested and the hand off initiated a hold for Aircraft B, he should have taken it. Rather than trying to recover and give himself some space and breathing room, he wanted to be Mr. Super Controller and make it work. It caused him a MVA deal.

Also upon review I noticed that Aircraft Y descended from 026 to 023 when he got very close to Aircraft X. Which was most likely a TCAS.

Lastly the staffing in the area was poor that morning. Another controller was allowed to go work in the back on a detail when he was needed on the floor. Staffing is also poor in the evening after a sick out, and as of now no overtime has been called in.

**Synopsis**

SCT Controller reported relieving Controller had numerous procedural and operational failures.
ACN: 1567572 (31 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference: Airport: LEX.Airport
- State Reference: KY
- Altitude.AGL.Single Value: 100

**Environment**
- Flight Conditions: VMC

**Aircraft : 1**
- Reference: X
- ATC / Advisory: Tower: LEX
- 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
- Flight Phase: Final Approach
- Route In Use: Visual Approach
- Airspace.Class C: LEX

**Aircraft : 2**
- Reference: Y
- ATC / Advisory: Tower: LEX
- 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: Taxi
- Route In Use: None
- Airspace.Class C: LEX

**Person**
- Reference: 1
- Location Of Person.Facility: LEX.Tower
- Reporter Organization: Government
- Function.Air Traffic Control: Local
- Qualification.Air Traffic Control: Fully Certified
- ASRS Report Number.Accession Number: 1567572
- Human Factors: Situational Awareness

**Events**
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Critical
Anomaly.Deviation - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Air Traffic Control
When Detected : Taxi
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result.Flight Crew : Executed Go Around / Missed Approach
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
I was the Local Controller for the following event. Aircraft X had been cleared to land. As he approached the runway, Aircraft Y called up ready for takeoff. I responded by saying "Aircraft Y, Lexington tower, roger." After a minute or so later as I was scanning the runway I noticed that Aircraft Y had begun taxiing on to the runway in front of Aircraft X who was now very short final. I immediately issued go around instructions to Aircraft X to avoid a collision. At the point of go around Aircraft X was less than 100 ft AGL and within 1/8 of a mile of the landing threshold.

Synopsis
Tower Controller sent an aircraft on short final around when they observed another aircraft taxi onto the runway without a clearance.
ACN: 1567560 (32 of 50)

Time / Day
Date : 201808
Local Time Of Day : 1801-2400

Place
Locale Reference.ATC Facility : SCT.TRACON
State Reference : CA
Altitude.MSL.Single Value : 2800

Environment
Flight Conditions : VMC
Light : Daylight

Aircraft
Reference : X
ATC / Advisory.TRACON : SCT
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 : Climb
Flight Phase : Initial Climb
Route In Use : Vectors
Airspace.Class E : SCT

Person
Reference : 1
Location Of Person.Facility : SCT.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) : 5
ASRS Report Number.Accession Number : 1567560
Human Factors : Situational Awareness

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

Assessments
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: Manuals
Contributing Factors / Situations: Procedure
Primary Problem: Procedure

Narrative: 1

Aircraft X requested to maintain his own terrain and obstruction clearance and a turn in higher terrain. I cleared him as requested and he turned into higher terrain below the Minimum Vectoring Altitude (MVA). I was advised by management that my phraseology was incorrect and I needed to verify the pilot wanted a VFR climb before approving the turn. I recommend briefings on requirements for this type of scenario.

Synopsis

Controller reported being told he misapplied a rule for climbing aircraft below the Minimum Vectoring Altitude.
**ACN: 1567545** (33 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: Airport: CHA.Airport
- State Reference: TN
- Altitude.MSL.Single Value: 3200

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: CHA
- Make Model Name: Small Aircraft, Low Wing, 1 Eng, Retractable Gear
- Crew Size.Number Of Crew: 1
- Flight Plan: IFR
- Flight Phase: Descent
- Route In Use: None
- Airspace.Class C: CHA

**Person**
- Reference: 1
- Location Of Person.Facility: CHA.TRACON
- Reporter Organization: Government
- Function.Air Traffic Control: Approach
- Qualification.Air Traffic Control: Fully Certified
- ASRS Report Number.Accession Number: 1567545
- Human Factors: Communication Breakdown
- Human Factors: Situational Awareness
- Communication Breakdown.Party1: ATC

**Events**
- Anomaly.Deviation - Altitude: Excursion From Assigned Altitude
- Anomaly.Deviation - Procedural: Published Material / Policy
- Anomaly.Deviation - Procedural: Clearance
- Anomaly.Inflight Event / Encounter: CFTT / CFIT
- Detector.Person: Air Traffic Control
- When Detected: In-flight
- Result.Flight Crew: Returned To Clearance
- Result.Air Traffic Control: Issued New Clearance

**Assessments**
- Contributing Factors / Situations: Human Factors
- Contributing Factors / Situations: Procedure
- Primary Problem: Human Factors

**Narrative: 1**
Aircraft leveled off at 3600 and then told me he was continuing his descent. I believe I misheard him and thought he said he was continuing inbound. The 3600 MVA [Minimum Vectoring Altitude] was busted and I had him climb back to 3600.

Listen actively.

**Synopsis**

Controller reported not listening correctly to a read back which had the pilot descend below the Minimum Vectoring Altitude.
ACN: 1567281 (34 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: IAD.Tower
State Reference: DC
Altitude.AGL.Single Value: 200

Aircraft: 1
Reference: X
ATC / Advisory.Tower: IAD
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 B: IAD

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: IAD
Aircraft Operator: Air Carrier
Make Model Name: Large Transport
Crew Size.Number Of Crew: 1
Flight Plan: VFR
Mission: Passenger
Flight Phase: Initial Climb
Airspace.Class B: IAD

Person
Reference: 1
Location Of Person.Facility: IAD.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1567281
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.Aircraft Equipment Problem: Less Severe
Anomaly.Airspace Violation: All Types
Anomaly.Conflict: Airborne Conflict
Anomaly.Deviation - Procedural: Clearance
Anomaly.Deviation - Procedural: Published Material / Policy
Helicopter called me airborne off of [a nearby hospital] inside the Class B. At that time a Large Transport aircraft was rotating off Runway 30 departing. The data tags were overlapped. By the time I identified Helicopter's position I realized that the Large Transport was in close proximity. I called the traffic to Helicopter, he said he had the Large Transport in sight. By that time I could see both aircraft out of the window. I asked Helicopter if they tried calling on the ground and they said yes but they could not reach the Tower. So they said they got airborne and then called. This procedure that allows helicopters to get airborne inside the Class B before calling the Tower needs to be stopped. There is another hospital that is 2 mile final 19R. Helicopters depart these hospitals then call the Tower. Departures and arrivals are often conflicting with them with little to no time to separate them. If the departure had been a heavy or the super, the wake turbulence could have caused a crash.

Synopsis

IAD Tower Controller reported the procedure of allowing air ambulance helicopters to depart nearby hospitals non radar with inability to communicate in Class B creates a collision hazard.
ACN: 1567272

**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference
- ATC Facility: ZNY.ARTCC
- State Reference: NY
- Altitude MSL Single Value: 42000

**Aircraft : 1**
- Reference: X
- ATC / Advisory Center: ZNY
- Aircraft Operator: Military
- Make Model Name: Fighter
- Crew Size Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Mission: Tactical
- Flight Phase: Descent
- Route In Use: None
- Airspace Class A: ZNY

**Aircraft : 2**
- Reference: Y
- ATC / Advisory Center: ZNY
- Aircraft Operator: Air Carrier
- Make Model Name: Airbus Industrie Undifferentiated or Other Model
- Crew Size Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Flight Phase: Cruise
- Airspace Class A: ZNY

**Person**
- Reference: 1
- Location Of Person Facility: ZNY.ARTCC
- Reporter Organization: Government
- Function Air Traffic Control: Oceanic
- Qualification Air Traffic Control: Fully Certified
- Experience Air Traffic Control Time Certified In Pos 1 (yrs): 15
- ASRS Report Number Accession Number: 1567272
- Human Factors: Communication Breakdown
- Human Factors: Situational Awareness
- Human Factors: Confusion
- Communication Breakdown Party 1: ATC
- Communication Breakdown Party 2: ATC

**Events**
- Anomaly Airspace Violation: All Types
- Anomaly Conflict: Airborne Conflict
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : None Reported / Taken

Assessments

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

Narrative: 1

It was brought to my attention as CIC (Controller in Charge) by a ZNY sector controller that Aircraft X was going to enter ZNY Oceanic airspace and operate as a Due Regard flight at altitudes F300-F500.

Aircraft X was supposed to operate in a 30 mile radius at [a lat/long] point for approximately 30 minutes and would execute rapid climbs and descents.

Earlier in the same day an email was received from a FACSFAC representative stating that [a] military Station was requesting the above mentioned airspace to be reserved in ZNY Oceanic airspace. The FACSFAC representative denied the request stating "They were asking for too much airspace on short notice," end quote. [Military Station]'s response was that the flight would operate Due Regard then.

The lat/long position that the flight was going to operate was in between to very active airways, with aircraft operating in the altitude ranges F360-F430.

This information was brought to the OMIC (Operations Manager in Charge) on duty and while the manager took action his attitude was that Aircraft X was Due Regard and it is the responsibility of Aircraft X to remain clear of flights.

[Minutes later], Aircraft X engaged in a loss of separation with an air carrier (Aircraft Y) at F410. Aircraft X was observed in a rapid descent from high altitude perpendicular to and converging on the air carrier's route of flight and leveled off at F420. There was 7 miles and a 1000ft between the two flights. Minimum separation in the ZNY Oceanic environment in this situation would be 50 miles laterally or 2000 feet above, 1000ft below F410. Aircraft Y was southwest bound. There was no TCAS maneuver by Aircraft Y. Most flights operate with their TCAS off while in an oceanic environment.

Aircraft X operated with a complete disregard for safety and even after that event with Aircraft Y, continued to operate and was observed multiple times engaging in other close proximity events.

An attempt was made to gain communications with the flight but the adjacent sector was never contacted by the flight.

The same Aircraft X returned on [a later date] operating under the same rules.

While I understand the principals of operating Due Regard, our primary duty is to prevent a collision between two flights operating in our airspace and I do not take that
responsibility lightly! Aircraft X engaged in a gross dereliction of duty and responsibility and I feel that the ZNY manager had a casual attitude towards the event.

If a military flight wants to operate at altitudes where active passenger air carriers are operating this must be scheduled so that a reservation of protected airspace can be entered into the Ocean 21 operation platform and we can reroute the flights around these military activities. Any other action would be a gross dereliction of duty and would compromise safety at all levels.

**Synopsis**

ZNY Center Controller reported a loss of separation between tow aircraft in oceanic airspace.
ACN: 1566968 (36 of 50)

Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference. ATC Facility: ZKC.ARTCC
State Reference: KS
Altitude. MSL. Single Value: 25000

Aircraft
Reference: X
Aircraft Operator: Air Carrier
Make Model Name: Commercial Fixed Wing
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Cruise
Route In Use: Vectors
Airspace. Class A: ZKC

Person
Reference: 1
Location Of Person. Facility: ZKC.ARTCC
Reporter Organization: Government
Function. Air Traffic Control: Handoff / Assist
Function. Air Traffic Control: Enroute
Qualification. Air Traffic Control: Fully Certified
ASRS Report Number. Accession Number: 1566968
Human Factors: Communication Breakdown
Human Factors: Time Pressure
Communication Breakdown. Party 1: ATC
Communication Breakdown. Party 2: ATC

Events
Anomaly. ATC Issue: All Types
Anomaly. Deviation - Procedural: Published Material / Policy
Anomaly. Inflight Event / Encounter: Weather / Turbulence
Detector. Person: Air Traffic Control

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

Narrative: 1
I came back from break and the Operational Supervisor (OS) asked me to D-side at sector 84 as we were with no warning placed into the hold for ORD. After the 3rd Aircraft was issued and entered the holding stack, I called to G52 (Bradford Sector) and asked if they
could advance a couple of our guys as we were holding 7 Aircraft between 84 and 94 (High/Super High). The BDF controller said he couldn't take any as weather was encroaching the holding pattern in his airspace. The weather he was talking about was in our airspace, but extended well into ours at the next sector west of ours (Sector 32/92). The BDF controller asked us to hold Aircraft on the backside of the front. A large majority of East-West traffic was deviating into our sectors to get around the weather. Plus the sector to the west is a completely different RNAV arrival into ORD. We could clearly see that the G52 controller was holding 2 Aircraft both at BDF VORTAC one at FL240 and the other at FL250. He ended the shoutline request with I'll ask my OS and see what he can do. Within 2 mins we were allowed to advance Aircraft with a 250kts assigned 20 Miles-in-Trail (MIT) single stream.

Not two hours after this event the G52 controller again with no warning or reason called the shoutline and said you're shut off for O'Hare again he was holding none. I'm sure there is tension from C90 and ZAU, but the pushback to us is ridiculous. The controller has for some time been in many shouting matches with ZKC controllers of small arguments. I am personally tired of his antics as with his actions he is introducing more risk than needed into the NAS. We have tried back channel communications with ZAU and this gentleman continues his non-professional, non-conforming attitude to the shoutline between facilities.

Lastly after a new arrival route/playbook was put into play there was one Aircraft that informed us that he would not have enough fuel to accept the reroute with any additional delays. I called back up to the G52 controller to see if they could sneak that plane in as all Aircraft that were coming from the SW corner post were now going to the Southeast post. To which a NO came across the line.

I get it ZKC is like a red headed stepchild. We have no major hubs we only feed centers that do. We have a ton of MIT and sequencing that goes on and the men and women at this facility show the greatest amount of professionalism when having to deal with those requirements. However controllers are controllers. I understand that major facilities are set up for canned procedures, i.e. arrival areas and departure areas. That is fine when operations are normal day to day ops, but when things go non-standard then it is as though those individuals are unable to say the opposite of what it is they normally do.

The controllers of ZAU and specifically at G52 need a reality check and need to understand the impact on Safety when they pose on us when they unable to assist.

**Synopsis**

ZKC controller reported continual conflicts with ZAU, and one specific controller, over coordination of holding enroute aircraft.
ACN: 1566647 (37 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference: Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 2500

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
Route In Use: Vectors
Airspace.Class D: ZZZ

Aircraft: 2
Reference: Y
ATC / Advisory: Tower: ZZZ
Aircraft Operator: Corporate
Make Model Name: Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: VFR
Mission: Passenger
Flight Phase: Initial Climb
Route In Use: Vectors
Airspace.Class D: ZZZ

Person
Reference: 1
Location Of Person.Facility: ZZZ.TOWER
Reporter Organization: Government
Function.Air Traffic Control: Supervisor / CIC
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number: Accession Number: 1566647
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.ATC Issue: All Types
Anomaly.Conflict: NMAC
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
Training on local. South flow VFR conditions. Aircraft X checked on 20 south to land; I told him to enter a left downwind for Runway XX. He never entered the downwind. He flew straight for the airport. Aircraft Y called ready to depart and I cleared him for takeoff Runway XX heading 230. I thought it would take him far enough west to not be a factor. As he got airborne, I called traffic then turned Aircraft X eastbound. Aircraft Y had to turn to a 250 to avoid the conflict. They passed and Aircraft Y got switched to departure. [1] should have turned Aircraft Y to a 270 or held him on the ground.

Synopsis
Tower Controller reported a NMAC between a departing IFR aircraft and an arrival aircraft which was too close.
ACN: 1566311 (38 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference, ATC Facility: SFO.Tower
- State Reference: CA
- Altitude, MSL, Single Value: 1200

**Environment**
- Flight Conditions: VMC

**Aircraft**
- Reference: X
- ATC / Advisory, Tower: SFO
- Aircraft Operator: Air Carrier
- Make Model Name: B737-800
- Crew Size, Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Final Approach
- Route In Use: Visual Approach
- Airspace, Class B: SFO
- Airspace, Class E: SQL

**Person**
- Reference: 1
- Location Of Person, Facility: SFO.Tower
- Reporter Organization: Government
- Function, Air Traffic Control: Handoff / Assist
- Qualification, Air Traffic Control: Fully Certified
- ASRS Report Number, Accession Number: 1566311

**Events**
- Anomaly, Airspace Violation: All Types
- Anomaly, Deviation - Procedural: Published Material / Policy
- Anomaly, Deviation - 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: FLC complied w / Automation / Advisory
- Result, Air Traffic Control: Issued Advisory / Alert

**Assessments**
- Contributing Factors / Situations: Human Factors
- Primary Problem: Human Factors
Narrative: 1

Aircraft X was on a visual approach just checking in around the SFO 127/9 DME for the visual approach to Runway 28 Left. The Local Controller cleared them to land, and shortly thereafter the MSAW/LA warning went off. The Local Controller gave them the "Low Altitude Alert, Aircraft X check your altitude immediately." Their altitude dropped them to 1200 feet, which placed them outside of the Bravo airspace into San Carlos (SQL) airport traffic area, while SQL Tower was closed. I suggested to the Local Controller that an aircraft on a visual approach should be given distance from touchdown and altitude so that the pilot can quickly relate their descent rate and adjust as necessary for the glide path. Additionally, we need to tell them when they have left Bravo airspace. There were no outages of the PAPI or glide slope, so it makes me wonder what the pilots were navigating off of. Maintain enough altitude to cross the San Mateo Bridge at 1800 feet as recommended on the charted visual approaches.

Synopsis

SFO Controller reported a B737-800 on a visual approach descended out of Class B and activated a Low Altitude Alert.
Time / Day
Date: 201807
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: ZNY.ARTCC
State Reference: NY
Altitude.MSL.Single Value: 36000

Aircraft
Reference: X
ATC / Advisory.Center: ZNY
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: Cruise
Airspace.Class A: ZNY

Person
Reference: 1
Location Of Person.Facility: ZNY.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): 32
ASRS Report Number.Accession Number: 1566305
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: ATC

Events
Anomaly.Airspace Violation: All Types
Anomaly.ATC Issue: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Deviation - Procedural: Clearance
Detector.Person: Air Traffic Control
When Detected: In-flight
Result.Air Traffic Control: Issued New Clearance
Result.Air Traffic Control: Separated Traffic

Assessments
Contributing Factors / Situations: Procedure
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Weather
Primary Problem: Procedure
Narrative: 1

Working D87 nonradar oceanic sector. Noticed a limited data radar target approximately 30 NM inside my airspace. No Ocean 21 data block...NO PROTECTED PROFILE...NO COORDINATION. Called R86 ATLANTIC Sector to inquire, if they knew who it was. Responded Aircraft X deviating south of course. The aircraft was routed via SLATN inbound to R86/R65. UNSAFE situation, aircraft in nonradar airspace not probed for separation and no flight information in the system...Big Blue Sky Theory...How many more times is this going to happen before something serious happens? Yes it's happened before. ZNY management was notified of the incident and as far as I know the Mandatory Occurrence Report was filed, but you never know. Separation was not lost because I was able to apply radar separation between all aircraft at FL360. Its a simple fix NO WESTBOUND traffic routed via SLATN....USE JOBOC to the north or MARIG to the south. Deviations can not exceed 60NM left of track into JOBOC, otherwise reroute to MARIG. No restriction on deviation into MARIG....SIMPLE.

Synopsis

ZNY Controller reported recurring unsafe events within an oceanic sector.
ACN: 1565552 (40 of 50)

**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: ATC Facility: ZBW.ARTCC
- State Reference: NH
- Altitude MSL: Single Value: 11000

**Aircraft : 1**
- Reference: X
- ATC / Advisory.Center: ZBW
- Aircraft Operator: Corporate
- Make Model Name: Light Transport, Low Wing, 2 Turbojet Eng
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Descent
- Flight Phase: Cruise
- Route In Use: Vectors
- Airspace.Class E: ZBW

**Aircraft : 2**
- Reference: Y
- ATC / Advisory.Center: ZBW
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody, Low Wing, 2 Turbojet Eng
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Descent
- Airspace.Class E: ZBW

**Person**
- Reference: 1
- Location Of Person: Facility: ZBW.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): 3.0
- ASRS Report Number: Accession Number: 1565552
- Human Factors: Communication Breakdown
- Human Factors: Distraction
- Human Factors: Situational Awareness
- Human Factors: Workload
- Human Factors: Human-Machine Interface
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

Events
Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.General : Flight Cancelled / Delayed
Result General : Work Refused
Result.Air Traffic Control : Issued New Clearance

Assessments
Contributing Factors / Situations : Airspace Structure
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Company Policy

Narrative: 1
I attempted to call N90 TRACON to approve a FRG arrival (Aircraft X) at 11,000 feet under the JFK arrivals at 12,000 feet. This is a common request. I received no answer on the line. I descended the FRG arrival to 11,000 feet and made the required point out to the adjacent TRACON sector, which was approved and began handing off. At this point I intended to try the TRACON again and slow the FRG arrival to 250 knots but fell behind because I was busy. I noticed TRACON descending the JFK arrival, Aircraft Y, from 12,000 feet. Immediately I turned Aircraft X and issued a wake turbulence advisory. The pilot said he had the traffic in sight and would rather turn in the opposite direction, which I approved and then told them to contact the TRACON controller, who didn't have the handoff yet, but I mistakenly thought did due to the conflict alert flashing. The TRACON Controller then called me and said they didn't see Aircraft X and that now it was "radar contact." I realize I didn't do everything right here but I also feel the TRACON controller must have seen Aircraft X at 11,000 feet since it was in handoff status. Immediately following this the TRACON Controller refused to accept the handoff on 2 JFK arrivals which I needed to vector out and delay for about 10 minutes without any heads- up.

I should have gotten approval for the JFK, FRG stack, slowed the FRG arrival to 250 knots, and not changed Aircraft X's frequency until they had the handoff. If there was a "glitch" in the system and the TRACON controller really didn't see the guy in handoff status then that needs to be fixed. Otherwise it would be disappointing to think a controller would descend a perfectly separated airplane through another and then refuse to accept handoffs on multiple international arrivals just to prove a point.

Synopsis
ZBW Center Controller reported a TRACON Controller would not take their handoffs.
**Time / Day**
Date: 201808
Local Time Of Day: 1201-1800

**Place**
Locale Reference.ATC Facility: RSW.TRACON
State Reference: FL
Altitude.MSL.Single Value: 2000

**Environment**
Flight Conditions: VMC
Light: Daylight

**Aircraft : 1**
Reference: X
ATC / Advisory.TRACON: RSW
Aircraft Operator: Corporate
Make Model Name: Small Transport
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Approach
Route In Use: Visual Approach
Airspace.Class D: APF
Airspace.Class E: RSW

**Aircraft : 2**
Reference: Y
ATC / Advisory.TRACON: RSW
Aircraft Operator: Personal
Make Model Name: Small Aircraft, Low Wing, 2 Eng, Retractable Gear
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Personal
Flight Phase: Climb
Route In Use: Vectors

**Person**
Reference: 1
Location Of Person.Facility: RSW.TRACON
Reporter Organization: Government
Function.Air Traffic Control: Approach
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1565536
Human Factors: Situational Awareness

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

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

Narrative: 1
While working radar received approval for Aircraft X direct to APF from the east/southeast for a Visual Approach to the advertised runway on right traffic. APF Tower approved it so I cleared and switched the aircraft. Shortly thereafter, APF Tower launched IFR Aircraft Y off Runway 14 via automatic release with no regard to Aircraft X whom they had approved on the departure end of Runway 14 and were talking to. Loss of IFR separation and a possible NMAC was about to occur without action. APF Tower coordinated on the shout line that they were stopping Aircraft Y at 1,000 feet since Aircraft X was still at 2,000 feet, and that they would switch communications of Aircraft Y to me with no mention of visual separation being provided. I asked them to put Aircraft Y on a 060 heading to avoid and climb them to 2,000 feet since their assignment of 1,000 feet was below the MVA of 1,500 feet. I received communications with Aircraft Y and it appeared Aircraft X was no factor, but was immediately faced with a traffic alert with VFR traffic inbound to APF, 1 mile from the Class Delta airspace. No resolution was provided by APF Tower before switching Aircraft Y who had to take evasive action to avoid the VFR traffic which was described to me as "head on, same altitude, less than 1 mile." I do not believe a loss of IFR separation occurred, maybe because APF momentarily assigned Aircraft Y 1,000 feet, an altitude below the MVA before I had to advise otherwise. A NMAC was possible with the conflicting VFR traffic resulting from the turn, which was not resolved by APF prior to transfer of communications. APF Tower needs to be educated on not approving IFR inbounds direct if they will have departing traffic which will conflict. They also need to be educated on not assigning departing IFR aircraft an altitude below the MVA (this is not the first time this has happened). Additional education on selecting headings to avoid VFR traffic in their airspace, and not switching prior to conflict resolution.

Synopsis
RSW TRACON Controller reported Tower released a departure below the MVA and on a conflicting heading with other traffic.
ACN: 1565532 (42 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference. ATC Facility: AVP.TRACON
State Reference: PA
Altitude. MSL. Single Value: 8000

Aircraft
Reference: X
ATC / Advisory. TRACON: AVP
Make Model Name: Commander 114/A/B/TC
Crew Size. Number Of Crew: 1
Flight Plan: IFR
Flight Phase: Cruise
Airspace. Class E: AVP

Person
Reference: 1
Location Of Person. Facility: AVP.TRACON
Reporter Organization: Government
Function. Air Traffic Control: Approach
Qualification. Air Traffic Control: Fully Certified
ASRS Report Number. Accession Number: 1565532
Human Factors: Time Pressure
Human Factors: Communication Breakdown

Events
Anomaly. Aircraft Equipment Problem: Less Severe
Anomaly. Deviation - Altitude: Excursion From Assigned Altitude
Anomaly. Deviation - Procedural: Clearance
Anomaly. Inflight Event / Encounter: CFTT / CFIT
Detector. Person: Air Traffic Control
Result. Flight Crew: Returned To Clearance
Result. Air Traffic Control: Provided Assistance

Assessments
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Procedure
Contributing Factors / Situations: Aircraft
Contributing Factors / Situations: Equipment / Tooling
Primary Problem: Equipment / Tooling

Narrative: 1
Aircraft X was IFR at 8,000 5NM W of TALLI intersection. Aircraft X advised that his ACARD went out and came back then went out again. Aircraft X said that he did not need to declare an emergency he just needed to descend to VFR conditions to see what the
problem with his equipment was. I descended Aircraft X to 7,000 and then gave him a turn to 320 and continued his descent to 6,000. Aircraft X had some VFR conditions in the area and wanted to continue descent to avoid the clouds. I gave Aircraft X descent to 4,000 and advise me if he needed any other assistance to remain in the VMC conditions during his descent. He then asked to descend to 3,500 and the MVA in the area that was 3,700, I told him about the MVA and descended him to 3,700. I verified that the MVA was at 3,700 and gave Aircraft X the altimeter due to his altitude showing him descending below 3,700 on the scope. Aircraft X responded that he was climbing back up to 3,700 and wanted vectors towards [a nearby] airport. I gave Aircraft X a heading of 150 and maintain 3,700. Position Relieve briefing was started at this time and I gave the next controller all the information about Aircraft X and his intentions to remain in VMC conditions. Before the end of the position relief briefing I gave Aircraft X a heading of 180 and maintain 3,700, vectoring him towards an area with an MVA of 3,400 if he needed to descend anymore. I stayed in the TRACON to see if the next controller needed any assistance with the position.

No recommendations to prevent the re-occurrence of this event due to it being an equipment malfunction.

Synopsis

AVP TRACON Controller reported an IFR aircraft with avionics trouble descending below the Minimum Vectoring Altitude.
**Time / Day**
- Date: 201808
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference
  - ATC Facility: NCT.TRACON
- State Reference: CA
- Altitude MSL Single Value: 3000

**Environment**
- Flight Conditions: Marginal
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory
  - TRACON: NCT
- Aircraft Operator: Air Carrier
- Make Model Name: Large Transport, Low Wing, 2 Turbojet Eng
- Crew Size Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Cruise
- Route In Use: Visual Approach
- Route In Use: Vectors
- Airspace Class B: SFO

**Person**
- Reference: 1
- Location Of Person
  - Facility: NCT.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): 9.0
- ASRS Report Number Accession Number: 1565530
- Human Factors: Communication Breakdown
- Human Factors: Distraction
- Human Factors: Time Pressure
- Human Factors: Workload
- Human Factors: Situational Awareness
- Communication Breakdown Party1: ATC
- Communication Breakdown Party2: ATC

**Events**
- Anomaly
  - ATC Issue: All Types
- Anomaly Deviation - Procedural: Published Material / Policy
- Anomaly Deviation - Procedural: Clearance
- Anomaly Inflight Event / Encounter: CFTT / CFIT
- Detector Person: Air Traffic Control
When Detected : In-flight  
Result.Flight Crew : Executed Go Around / Missed Approach  
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 : Airspace Structure

Narrative: 1

Aircraft X was on a visual approach to runway 28R. There was a haze layer starting to move in on the final, Aircraft on the left runway were on the ILS and aircraft on the right runway were getting visual approaches and following. Aircraft X lost sight of preceding traffic and was instructed by the controller to go around. The tag was handed off to Departure Control. They decided to hand off Aircraft X to me and vector him south to come right back around for another approach. I think I recall seeing Aircraft X climbing out of 3,300 feet at some point, maybe not, but I for some reason assumed he was climbing to 4,000 feet and heading 180. Final sector was more complex than usual as I was trying to descend my ILS arrivals to 2,500 feet and join the localizer and not clear them until the other controller's aircraft had my aircraft in sight. They were having a hard time getting the sightings and we were talking about switching to a different procedure and working out the sequence when Aircraft X checked on. I issued the new ATIS and what approach to expect and eventually even turned Aircraft X to a 090 heading. I was too focused on what was happening on final and I didn't realize Aircraft X was at 3,000 feet. A low altitude alert sounded and I told Aircraft X to expedite climb to 4,000 feet. I then realized they were in a 3,600 feet Minimum Vectoring Altitude (MVA).

As the final controller I should have done a better job coordinating what I needed from other sectors. I should not have assumed that Aircraft X was climbing to 4,000 feet. I also should not have been too focused in on what was happening on final that I didn't notice the altitude of Aircraft X.

Synopsis

NCT TRACON Controller reported a go-around was vectored below the Minimum Vectoring Altitude.
Time / Day
Date: 201808
Local Time Of Day: 1801-2400

Place
Locale Reference. ATC Facility: TRI.TRACON
State Reference: TN
Altitude. MSL. Single Value: 5300

Aircraft
Reference: X
ATC / Advisory. TRACON: TRI
Make Model Name: Small Transport, Low Wing, 2 Recip Eng
Crew Size. Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Cruise
Route In Use: Vectors
Airspace. Class E: TRI

Person
Reference: 1
Location Of Person. Facility: TRI.TRACON
Reporter Organization: Government
Function. Air Traffic Control: Approach
Qualification. Air Traffic Control: Fully Certified
ASRS Report Number. Accession Number: 1565527
Human Factors: Communication Breakdown
Human Factors: Distraction
Communication Breakdown. Party1: ATC
Communication Breakdown. Party2: Flight Crew

Events
Anomaly. Deviation - Track / Heading: All Types
Anomaly. Deviation - Procedural: Published Material / Policy
Anomaly. Inflight Event / Encounter: CFTT / CFIT
Detector. Person: Air Traffic Control
When Detected: In-flight
Result. Flight Crew: Returned To Clearance
Result. Air Traffic Control: Issued New Clearance
Result. Air Traffic Control: Issued Advisory / Alert

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

Narrative: 1
Aircraft X had been issued direct to CABYA for the RNAV 6 approach into 0A9. The aircraft had been tracking direct to the fix for approximately 30 miles before I cleared the aircraft to cross CABYA at 5,300 and advised he was cleared for the approach. The aircraft was well clear of terrain at his altitude and direct to CABYA. I go on and do a couple of other position related tasks and notice Aircraft X well south of course about to enter 6,700 MVA. I issued the aircraft a turn to 360 to clear the aircraft of the MVA. The aircraft may have entered the 6,700 MVA, but was quickly clear of the MVA as I had caught it just as he was about to enter the higher MVA. Once I got the aircraft clear of the terrain I asked why he had gone off course. The aircraft told me he was just setting himself up to be straight in outside of CABYA. I advised the aircraft that if he has been cleared direct a fix that he has to navigate direct the fix and if he wants other routing he needs to let me know in advance and I can set them up to be above the MVA. The pilot acknowledged. I should have noticed the southern turn of the aircraft before I did. I had assumed the aircraft who had been tracking for 30 miles direct the fix would still be direct the fix.

Synopsis

TRI TRACON Controller reported a small transport tracked off assigned route, entering higher MVA.
ACN: 1565516 (45 of 50)

Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference.ATC Facility: ZLC.ARTCC
State Reference: UT
Altitude.MSL.Single Value: 11000

Aircraft
Reference: X
ATC / Advisory.Center: ZLC
ATC / Advisory.Tower: SUN
Aircraft Operator: Corporate
Make Model Name: Citation Excel (C560XL)
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Initial Approach
Route In Use.Other
Airspace.Class E: ZLC

Person
Reference: 1
Location Of Person.Facility: ZLC.ARTCC
Reporter Organization: Government
Function.Air Traffic Control: Enroute
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1565516
Human Factors: Situational Awareness
Human Factors: Human-Machine Interface

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

Assessments
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations: Company Policy
Primary Problem: Company Policy
Narrative: 1

During this time there was widespread GPS jamming going on. Almost every aircraft was reporting with GPS outages. Two other SUN arrivals had advised GPS malfunctions, but reported their GPS back online prior to the initial approach fix. They flew the RNAV approach from PRESN without incident. We contacted SUN Tower after the first approach to make sure they were unaffected and the tower said the pilot didn't report any issues. When [Aircraft X] was approximately 4 miles south of the PRESN intersection the pilot reported his GPS capabilities had returned. The R-Side cleared the aircraft to cross PRESN at or above 9,000, cleared RNAV approach.

After transferring communication to SUN Tower, [R-Side] noticed the aircraft had taken a more easterly turn than we normally see on the approach. With the abundance of smoke in the area, and the TFR very near the RNAV track, we wondered if the tower had broken off the approach, or if something different was happening. I called the tower and told them [Aircraft X] was off course, and if they knew what was going on. They said he had just reported over PRESN at 11,000. The RADAR showed that [Aircraft X] was about 12nm North West of the PRESN intersection, nearing (about 3 miles from) a 10,900 TAV mode C indicating 10,700. [R-Side] told me to issue a turn to the south. I issued, to the tower, a 155 heading and 10,000 altitude. We had traffic south of [Aircraft X] at 11,000. The lowest altitude we saw [Aircraft X] was 9,600 in either a 9,000 or an 8,000 TAV, the turn seemed to be timely enough to keep him out of the 10,900. Had [R-Side] not noticed, that flight crew and the passengers would be dead. I have no doubt.

The military must practice - I understand. GPS jamming (or "Testing" as they call it) is part of that. What I hear, third party, is that the military doesn't believe it affects civilian aircraft to a noticeable extent. They need to understand that it does. That the workload is exponentially increased with this type of exercise. We're willing to help as much as we can - but there's a limit, where loss of life can happen because ATC and a flight crew believe their equipment are working as intended, but are in fact leading them into the side of the mountain with numerous aircraft active. That's a pretty reasonable limit, and I think we could actually pull that line back a bit.

Synopsis

ZLC Controller reported an aircraft flew off course due to GPS jamming and went below the minimum terrain clearance altitudes.
ACN: 1565171  (46 of 50)

Time / Day
Date: 201808
Local Time Of Day: 1201-1800

Place
Locale Reference.ATC Facility: ZJX.ARTCC
State Reference: FL
Altitude.MSL.Single Value: 7000

Environment
Flight Conditions: Marginal
Weather Elements / Visibility: Thunderstorm

Aircraft
Reference: X
ATC / Advisory.Center: ZJX
Aircraft Operator: Corporate
Make Model Name: Small Transport
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Climb
Route In Use: Vectors
Airspace.Class E: ZJX

Person
Reference: 1
Location Of Person.Facility: ZJX.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: 1565171
Human Factors: Workload
Human Factors: Situational Awareness

Events
Anomaly.Airspace Violation: All Types
Anomaly.ATC Issue: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Inflight Event / Encounter: Weather / Turbulence
Detector.Person: Air Traffic Control
When Detected: In-flight

Assessments
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Staffing
Contributing Factors / Situations : Weather  
Primary Problem : Airspace Structure  

**Narrative: 1**

I was working the radar and the sector got busier and busier. I asked for an Assist position. Someone was paged back from a break. Aircraft X called for clearance. I had numerous weather deviations with many MOA's active. Jacksonville arrivals were going in and out of ZJX airspace through weather and TMU (Traffic Management Unit) hadn't shut that off. Even a pilot asked why he was turned into weather from another sector. There wasn't enough room for all of the planes to get through all of the weather. I gave Aircraft X a clearance and tried climbing above Approach airspace but the airspace is too close and nearly every plane needs a point out that climbs from SSI northbound. The Assist sat down and I saw Aircraft X was in Approach airspace by about a mile. I called Approach and they approved a point out.

If the Savannah or JAX Approach extended their boundary it could encompass SSI, BQK, JES and 09J airports. This geographical area is more suited for what approach does. Give them 10,000 ft or 15,000 ft and down. The staffing in the North area is always low. The other areas always seem to have more staffing than the North. If the areas were balanced there would be more people with Assists probably already in the area. This may not have happened if an Assist Position was already close by. TMU never shut off the inbounds and outbounds at Jacksonville. There seems to be more of a priority to call the precipitation rather than to route planes away from the weather. I had to stop inbounds and outbounds to JAX. There was little to no weather on the west side of JAX and little to no traffic. Things never should have gotten to that point. To prevent a reoccurrence [there needs] to be a rethinking of what TMU does. The volume of traffic in that degree of weather could have been avoided. TMU did not cause Aircraft X to go into Approach airspace but the complexity of what was going on contributed to me not catching it in time.

**Synopsis**

ZJX Center Controller reported not having enough time to point an aircraft out to another sector due to workload and weather deviations in their sector.
**Time / Day**

Date: 201808  
Local Time Of Day: 1201-1800

**Place**

Locale Reference. ATC Facility: D01.TRACON  
State Reference: CO  
Altitude. MSL. Single Value: 11000

**Environment**

Flight Conditions: VMC  
Light: Daylight

**Aircraft: 1**

Reference: X  
ATC / Advisory. TRACON: D01  
Aircraft Operator: Air Carrier  
Make Model Name: A320  
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: STAKR 3  
Airspace. Class B: DEN

**Aircraft: 2**

Reference: Y  
ATC / Advisory. TRACON: D01  
Aircraft Operator: Air Taxi  
Make Model Name: Citationjet (C525/C526) - CJ I / II / III / IV  
Operating Under FAR Part: Part 135  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Initial Climb  
Route In Use: Vectors  
Airspace. Class B: DEN

**Aircraft: 3**

Reference: Z  
ATC / Advisory. TRACON: D01  
Aircraft Operator: Air Carrier  
Make Model Name: Regional Jet 200 ER/LR (CRJ200)  
Crew Size. Number Of Crew: 2  
Operating Under FAR Part: Part 121  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Climb  
Airspace. Class B: DEN
**Aircraft : 4**
Reference : A
ATC / Advisory.TRACON : D01
Aircraft Operator : Air Carrier
Make Model Name : EMB ERJ 170/175 ER/LR
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Passenger
Airspace.Class B : DEN

**Aircraft : 5**
Reference : B
ATC / Advisory.TRACON : D01
Aircraft Operator : Air Taxi
Make Model Name : Falcon 900
Operating Under FAR Part : Part 135
Flight Plan : IFR
Flight Phase : Initial Climb
Airspace.Class B : DEN

**Aircraft : 6**
Reference : C
ATC / Advisory.TRACON : D01
Make Model Name : Citationjet (C525/C526) - CJ I / II / III / IV
Operating Under FAR Part : Part 91
Airspace.Class B : DEN

**Person : 1**
Reference : 1
Location Of Person.Facility : D01.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) : 7
ASRS Report Number.Accession Number : 1565164
Human Factors : Communication Breakdown
Human Factors : Confusion
Human Factors : Human-Machine Interface
Human Factors : Situational Awareness
Human Factors : Workload
Human Factors : Distraction
Communication Breakdown.Party1 : ATC
Communication Breakdown.Party2 : ATC

**Person : 2**
Reference : 2
Location Of Person.Facility : D01.TRACON
Reporter Organization : Government
Function.Air Traffic Control : Approach
Qualification.Air Traffic Control : Fully Certified
I was working DR4, a departure gate to the south. Land north at DEN IFR. Land south at APA. I had a flight of F16s arrive from the southeast requesting the Sandbox. There were only a few arrivals to 34R, which could not come in on the approach with the Sandbox hot, so I called final to see if they were willing to accommodate it. Final said they would only
have to slightly delay the arrivals for the Sandbox so it was approved. I said point out approved for the first downwind to vector around the Sandbox to the west in my airspace. Coordination was complete and I cleared the fighters to the Sandbox. TM (Traffic Manager) began to question the operation and said I could not do the Sandbox with aircraft on 34R, this got my immediate attention and I began to scan the airspace to see if I'd missed something, double checked that I was ok with final and explained to the TM what we had coordinated.

In that moment I hear the SR4 Controller saying I'm sorry and Aircraft Y turns yellow on my scope, head on with Aircraft X climbing out of 100. My Aircraft Y was also climbing out of 100, I told him to stop his climb and turn to a 260 heading and issued traffic. He was slow to respond. I tried asking SR4 what he was doing several times, the only response I got was "turning eastbound". I stopped my Aircraft Y from climbing because I knew that SR4 had to get his aircraft above or he'd run into several other aircraft on the departure and arrival. Turning eastbound would mean he was entering the Sandbox, a protected area for the fighters. It was unclear what action he was taking. Turned out, SR4 also stopped the climb on Aircraft X who leveled at 108 and had separation errors with two other aircraft.

Aircraft Y reported an RA and while I was straightening all that out I realized final had another aircraft on the downwind they were vectoring wide around the sandbox, this aircraft was not yellow on my scope and no coordination was done for a point out. I realize that the aircraft had to go that way to miss the Sandbox but with everything else I had going on, I did not stop my Aircraft Z from climb via in time. When I saw the two aircraft in close proximity, they were on parallel headings, mine was already climbing above with the arrival descending so I did not take any further action.

Additional assistance by the Supervisor could've aided some of these situations. I would expect my Supervisor to be able to coordinate or offer an extra set of eyes but he did not come over. I have seen that particular Supervisor throw his hands up and imply there was nothing he could do to assist a Departure Controller in trouble. He is I believe uncomfortable and unfamiliar with the policies and procedures of the departure wall. Training on both familiarization and how to assist would be helpful.

I noticed what seemed to be radar lag when I turned Aircraft Y, there seemed to be a significant jump on his track after what felt like a long time after I'd turned him. A calibration check on the radar if that's possible. I would like to see a best practices study on how to accomplish what we call the up and over with efficient coordination. Our SOP does not detail how SR4 can efficiently climb an aircraft to go through DR4’s airspace and heading out the north and east gates. It is currently being done by a point out but there is so much other coordination to be done that steps can get missed. Because the up and over is frowned upon by some controllers, there is peer pressure to either not do it or avoid coordination all together. In this situation, I was very busy and SR4 was trying to do me a favor by working the aircraft, as he became more busy the coordination was not completed. Working the aircraft below the final would have added complexity and additional traffic conflict situations, that often lead to RA climbs, not to mention a delay to the aircraft. There are times where the up and over is so much safer and more greatly efficient that it is a great tool and worth further evaluation. There are also times where poor judgment is made and errors occur, usually with a lack of policy and proficiency.

Coordinating the Sandbox could have been a contributing factor but I stand by my decision to do so. Because SR4 was busy with aircraft under the final airspace, and because there were arrivals coming in the SE, workload would have been higher and more complex if I'd
decided to go under the final. It also would've caused several more traffic conflict situations. I'd like to see refresher training how to recover from an error. I was extremely frustrated that the SR4 controller was unable to tell me what he was doing with the aircraft. Logic would have told me that he had to continue climbing in order to miss the other aircraft but he didn’t. Reinforcing right turns for head on conflicts along with vocalizing altitude would have been a help and a comfort.

The Final Controller told me that the Feeder Controller was still working the downwind Aircraft Z that was on a vector to miss the Sandbox. Final was yelling for the aircraft as he saw the conflict with my departure. Final said that feeder would not switch the aircraft or respond. Final said he wanted to put the aircraft on a better heading to achieve divergence with my departure. Feeder controllers are much less familiar with departure traffic and are not accustomed to missing or even seeing departure aircraft. Refresher training for arrival controllers on departure procedures and traffic could benefit awareness.

**Narrative: 2**

Working SR4 with multiple VFR flight following, multiple APA departures/arrivals on frequency. A number of VFR callups were trying to check in. There was also a Class B violator that was being tracked and discussed which ended up being one of the VFR callups that I told to standby. Having been on position for over an hour with only moderate traffic, I don't think I was mentally prepared for the wave of traffic and requests that hit me. During the session I had climbed a number of east gate departures off of Runway 17L at APA via a right turn and over DEN pointing them out to DR4 due to there being less traffic in the way than a left turn off the deck and restricted to 080. When Aircraft Y departed in the right turn, I had to get divergence with Aircraft B, an APA inbound, before I could climb him. At that point I was dealing with a lot of traffic and attempted to hand Aircraft Y off to DR1. The tag was in handoff status for a minute or more and at that point I realized the DR1 controller was probably too busy to take the handoff so I climbed the aircraft but didn't realize that I had not done the coordination with DR4. DR4 was busy as well with coordinating the SANDBOX with all affected controllers and also had multiple DEN departures at the time. South gate departures were departing west of DEN probably due to the high volume of east gate departures which took me by surprised when I saw the conflict because with the closure of Runway 7/25, south gate departures have primarily departed off the east side. Aircraft X was climbing via the SID leaving 105 or so when I saw it, while Aircraft Y was climbing out of about 100. I immediately told Aircraft Y to stop the climb thinking that would be the best way to keep separation. I was trying to coordinate with DR4 but she was too busy, meanwhile the CIC was trying to tell me that a Cessna that I was vectoring was entering the SANDBOX. With all this I didn't realize that DR4 had stopped Aircraft X's climb as well. I did issue a turn to Aircraft Y but the closest separation was approx. 1.66 NM and 300ft vertical. Due to the turn issued Aircraft Y and because the SANDBOX was active, forcing arrivals to turn the downwinds to the west, Aircraft Y was closing in on Aircraft A who was level at 110. As soon as I saw this, I climbed Aircraft Y but separation decreased to approximately 1.68 and 900 feet. While this was going on I put Aircraft B on a northbound heading and descended to 080. I also to a handoff on Aircraft C at 090 inbound to APA from DR1. At the time of the handoff, Aircraft C was at 090 and I believed that even though Aircraft C and Aircraft B were converging, I would have separation. DR1, however, descended Aircraft C to 080, which was what they were supposed to do in that configuration, but I didn't realize it at the time due to everything else going on. Aircraft B and Aircraft C passed 2.75 NM apart at the same altitude.

Procedures have been established to take APA departures eastbound at 080 from APA underneath DEN arrival airspace. That procedure certainly has benefits, and would have
been better in this case, but on certain days that airspace can be packed with VFR traffic in the practice area as well as typically being used for APA prop arrivals from the east. There are a number of good ways to depart APA with east gate jets, however none of the options seem to be a good idea all the time. I think the APA departures should be looked at and explore other option or procedures. As it is, either way there are multiple frequency changes or coordination involved. There was also no one helping to watch the sectors or to help coordinate even though DR1, DR4, SR4 were all very busy.

Narrative: 3

TCAS RA while on STAKR3 RNAV departure. Crossed BRKEM level at 10000 ft as per "climb via" instructions (BRKEM at or below 10000), then continued climb after BRKEM towards next fix, NMBSS (approximate heading southwest). Climbing through approximately 11,300, Denver Departure controller said "Aircraft X stop climb" followed shortly after with a turn instruction to a heading westbound. At this time, the aural alert of "monitor vertical speed" presented itself, very quickly followed by "adjust vertical speed". The TCAS RA commanded a descent of approximately 2200-2300fpm. I complied with the TCAS RA appropriately (autopilot was off already as I had not turned it on yet). Once we were "clear of conflict" at/around 10000 feet MSL, we were given instructions for a further climb and heading change near on-course from the Denver departure controller. The conflict aircraft was never heard on the radio, or addressed by the controller, however the Captain made visual contact at one point during the RA.

Synopsis

Denver TRACON Controllers and air carrier First Officer reported multiple losses of separation and airspace violations.
ZBW TMU (Traffic Management Unit) put in place a CAN-NOSIK re-route routing JFK departures up through R09. This increases the volume and complexity of this sector immensely. When I took the desk I noticed R09 was getting very busy, primarily with high-level traffic. I called our TMU to ask for ZOB to keep BOS and BED arrivals out of R09 airspace and down in R10 to reduce the complexity at R09. They were reluctant to do it but they asked, the STMC (Supervisory Traffic Management Coordinator) even asked "well
can you split R08 out?” I said it wouldn't help. It was very disconcerting to me that I was getting resistance from my own in-house TMU on a play that is regularly used to alleviate volume. It wasn't to re-route these BOS/BED aircraft, rather, to *NOT* shortcut them. Keep them on the routes they had when they departed.

Subsequently we started receiving a high volume of eastbound traffic from CZYZ destined to BOS and BED. We inquired with our TMU and found that ZOB was unwilling to change the routes on those aircraft to keep them in Sector R10, instead they routed them all up into CZYZ (DTW, CYYZ, BUF, CLE, IAG, MSP departures, etc.) and significantly increased the workload and volume for R09 for the rest of the night. Our TMU advised that Command Center approved it at ZOB's request. This was baffling that our TMU was unwilling to do anything to help our Area, and instead worsened the condition. It has become very evident that there is no one in this building, management or TMU, that is concerned about either safety or the NAS, only concerned about keeping the planes running.

TMU should accept the suggestions/recommendations from the Areas when they ask, and keep aircraft out of a sector instead of routing additional traffic into it.

**Synopsis**

ZBW Controller reported Traffic Management Unit refused to assist their sector while they were in high volume and complex situations.
**ACN: 1521080 (49 of 50)**

**Time / Day**
- Date: 201802
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference.Airport: ORD.Airport
- State Reference: IL
- Altitude.MSL.Single Value: 1300

**Environment**
- Light: Night

**Aircraft: 1**
- Reference: X
- ATC / Advisory.Tower: ORD
- Aircraft Operator: Air Carrier
- Make Model Name: A330
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 129
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Climb
- Airspace.Class B: ORD

**Aircraft: 2**
- Reference: Y
- ATC / Advisory.Tower: ORD
- 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: Initial Climb
- Airspace.Class B: ORD

**Person**
- Reference: 1
- Location Of Person.Facility: ORD.Tower
- Reporter Organization: Government
- Function.Air Traffic Control: Local
- Qualification.Air Traffic Control: Fully Certified
- ASRS Report Number.Accession Number: 1521080

**Events**
- Anomaly.Inflight Event / Encounter: Wake Vortex Encounter
- Detector.Person: Flight Crew
When Detected: In-flight
Result-General: None Reported / Taken

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

Narrative: 1
[B757] reported a wake turbulence event off the departure end with no issues. [A330] was
more than 5 miles for proper wake turbulence separation. Event was reported to on duty
supervisor with no further incident.

Synopsis
ORD Tower Controller reported receiving a report from a departing B757 flight crew that
they encountered wake turbulence after takeoff five miles in trail of an A330.
Time / Day
Date: 201802
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: BJC.Tower
State Reference: CO
Altitude.AGL.Single Value: 0

Aircraft
Reference: X
ATC / Advisory.Tower: BJC
Aircraft Operator: Personal
Make Model Name: Small Aircraft
Crew Size.Number Of Crew: 1
Operating Under FAR Part: Part 91
Flight Plan: VFR
Mission: Training
Flight Phase: Landing
Flight Phase: Final Approach
Route In Use: VFR Route
Airspace.Class D: BJC

Person
Reference: 1
Location Of Person.Facility: BJC.Tower
Reporter Organization: Government
Function.Air Traffic Control: Supervisor / CIC
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1519181
Human Factors: Confusion
Human Factors: Situational Awareness
Human Factors: Training / Qualification
Human Factors: Workload
Human Factors: Distraction
Analyst Callback: Attempted

Events
Anomaly.ATC Issue: All Types
Anomaly.Deviation - Track / Heading: All Types
Anomaly.Deviation - Procedural: Clearance
Anomaly.Ground Incursion: Runway
Detector.Person: Air Traffic Control
When Detected: In-flight
Result.Air Traffic Control: Issued Advisory / Alert

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

**Narrative: 1**

I reached out to Aircraft X who was switched to my new tower frequency. The student pilot acknowledged he was on frequency and I gave him instructions to make a right turn after landing, and to "change to Runway 30L cleared to land." The reason for the right turn was to protect for helicopter traffic operating on the taxiway to the left of Runway 30L. I believe the pilot read back my instructions correctly.

I turned my scan to check the position of the helicopter and the other fixed wing aircraft in my pattern and began to sequence the fixed wing aircraft to follow Aircraft X. As I issued the position of Aircraft X as being "1/2 mile final," I realized something was wrong because Aircraft X did not appear in the right position. I suddenly realized he was touching down on Runway 30R and alerted the other controller.

The Local 1 controller immediately sent around jet traffic on final for Runway 30R and the pilot made the go around prior to the runway threshold. The instructor in Aircraft X began asking if he was cleared for a touch-and-go, to which I responded that it appeared he landed on Runway 30R, to cancel his takeoff, and to exit at Taxiway B and advise Ground Control of his intentions. The instructor acknowledged.

Aircraft X called once again to request taxi clearance, and I coordinated with Ground Control to taxi him, issuing him the Brasher warning. The instructor acknowledged, said he'd switch to Ground Control. I continued to scramble on Local 2 to receive additional aircraft that were shipped to me for arrival to Runway 30L, along with doing my best to provide watch supervision as the CIC (Controller in Charge). The controller in training at Ground control helped me with some of the watch supervision tasks, such as handling internal and outside calls to the tower cab. Later on, the pilot called the facility promptly and was transferred to personnel downstairs to discuss the event. He was reportedly very apologetic and seemed well aware of the wrong runway landing. The other controller that took his call advised they had a positive and productive conversation.

This event took place during a busy rush with high volume and complexity and was a "squeeze play" to get Aircraft X across the Local 1 final. Controller expectation bias played a role here, as I watched the aircraft appear to cross the Runway 30R final before I turned my attention to the other aircraft in my pattern. In my scan, I did not see in time that the aircraft instead lined up for the wrong runway. Local 1's awareness and swift action was commendable in response to the event. I believe the lesson here is continue to stay vigilant and keep scanning and watching for things that may be out of place.

Pilot expectation bias may have also occurred here, as the aircraft was originally sequenced to Runway 30R and then changed over to Runway 30L. Being issued a new tower frequency on the base leg can definitely increase the pilot's workload at a critical time and it might be more desirable to have the aircraft remain on downwind while making that frequency change in the future, if feasible. In fact, there is a work group reviewing these kinds of issues right now. The work group is expected to develop some best practices for the use of Local 2 and more standardized procedures to issue frequency changes and split the two Local positions. I have provided some input to date and eagerly await their findings. In the long run, their work will help provide a more standardized and less chaotic approach to splitting our Locals, which should ultimately enhance safety of the
operation.

Additional staffing that afternoon, even one more controller, would have allowed the CIC/Supervisor position to be worked stand alone in the cab, split from Local 2. During good weather our traffic numbers should reflect that on this day, afternoon rush is fairly common. Having an additional set of eyes in the cab might have spotted Aircraft X line up for the wrong runway sooner, allowing faster corrective action to be taken. Traffic is up significantly in recent months, yet we are continuing to work many shifts with limited staffing or where the Supervisor and/or controllers in training are used for coverage. Better staffing and/or watch supervision in the future would help ensure improved oversight of the operation during peak traffic periods and should also help ensure we have the resources to effectively train our newer controllers.

**Synopsis**

BJC Controller in Charge (CIC) was also working Local Control did not notice that an arriving aircraft was aligned to land on the wrong runway.