ASRS Database Report Set

Pilot / Controller Communications

Report Set Description........................................A sampling of reports which highlight issues involving communications between pilots and controllers.

Update Number..................................................34.0

Date of Update...............................................November 29, 2018

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

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

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

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

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

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

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
<table>
<thead>
<tr>
<th>ACN: 1581620 (1 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>G-550 flight crew reported encountering wake turbulence in trail of an Airbus on approach to SFO and a subsequent failure to contact Tower.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>ACN: 1581439 (2 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737 flight crew reported a heading deviation due to the incorrect approach in FMC after several runway changes.</td>
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<tr>
<th>ACN: 1581222 (3 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air carrier flight crew reported an airborne conflict due to similar call signs and a communication breakdown with ATC.</td>
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<tr>
<th>ACN: 1580259 (4 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737-700 flight crew reported confusion resulted when ATC changed the clearance multiple times on arrival into SNA.</td>
</tr>
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<table>
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<tr>
<th>ACN: 1578781 (5 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air Carrier flight crew reported a communication breakdown with ATC.</td>
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</tbody>
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<tr>
<th>ACN: 1577830 (6 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air carrier flight crew reported possible altitude deviation on a new DTW airport SNDRS 1 &quot;climb via&quot; SID.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1576759 (7 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>CL604 flight crew reported that mistakes loading the approach appropriately in the FMS resulted in lining up on the right localizer even though their FMS was displaying the left.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1575652 (8 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Two Tower Controllers reported a P180 failed to change frequencies, which resulted in maintaining an altitude which triggered a low altitude alert.</td>
</tr>
</tbody>
</table>
ACN: 1571800  (9 of 50)

Synopsis
Air carrier flight crew reported a NMAC with opposite direction descending traffic while deviating for weather.

ACN: 1568853  (10 of 50)

Synopsis
Fractional turbojet aircraft flight crew reported LIEO Tower issued a non-standard clearance of line up and wait after landing traffic. Flight crew misunderstood and lined up on runway causing landing traffic to go-around.

ACN: 1567411  (11 of 50)

Synopsis
Flight Crew of a large cargo transport reported a conflict during taxi with a departing aircraft on the crossing runway.

ACN: 1565050  (12 of 50)

Synopsis
Air Carrier flight crew reported an airborne conflict on departure from DTW with an aircraft on missed approach.

ACN: 1564959  (13 of 50)

Synopsis
CRJ700 flight crew reported going around due to prior departure still on runway.

ACN: 1564703  (14 of 50)

Synopsis
CRJ-900 flight crew reported lining up for the wrong runway.

ACN: 1560511  (15 of 50)

Synopsis
B757-200 flight crew reported having to execute an aggressive resolution to a RA.

ACN: 1560414  (16 of 50)

Synopsis
GRR Air Traffic Controllers reported an aircraft departed without the transponder on and checked in late resulting in an airspace incursion.
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<tr>
<th>ACN: 1559968 (17 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>C172 flight instructor and pilot reported performing touch and go landing on one runway when clearance had been a full stop landing on a different runway.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>ACN: 1557727 (18 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Citation CE560XL crew reported Tower issuing an untimely hold short on landing roll out that the pilot could not comply with.</td>
</tr>
</tbody>
</table>

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<tr>
<th>ACN: 1555932 (19 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Fractional aircraft flight crew reported a NMAC while on landing roll out with another departing airplane.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1555234 (20 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>SJU Controllers reported WW4 pilot with language barrier failed to comply with clearances resulting in a traffic conflict.</td>
</tr>
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<tr>
<th>ACN: 1549485 (21 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air taxi flight crew reported making turn off jet route to avoid head on traffic at same flight level.</td>
</tr>
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<thead>
<tr>
<th>ACN: 1548857 (22 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>General aviation flight crew reported receiving low altitude alert from ATC with altitude reassignment.</td>
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</tbody>
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<tr>
<th>ACN: 1548155 (23 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737-700 flight crew reported receiving a low altitude alert from ATC on approach after they misunderstood an altitude clearance.</td>
</tr>
</tbody>
</table>

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<tr>
<th>ACN: 1546850 (24 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
</tbody>
</table>
B737 flight crew reported similar sounding fixes on the SERFR STAR caused confusion and navigation to the incorrect fix.

**ACN: 1546648 (25 of 50)**

**Synopsis**
A320 flight crew reported ground conflict during landing rollout due to late instructions from the Tower.

**ACN: 1546333 (26 of 50)**

**Synopsis**
B737 flight crew reported critical ground conflict while complying with taxi clearance which made no reference to any taxiing aircraft from ramp.

**ACN: 1545994 (27 of 50)**

**Synopsis**
B767-300 flight crew reported that ATC queried their clearance and told them that they were below the glideslope. The crew corrected their flightpath.

**ACN: 1545993 (28 of 50)**

**Synopsis**
Air carrier flight crew reported a problem extending spoilers, communicating with each other, and their combined effect on the descent profile.

**ACN: 1545592 (29 of 50)**

**Synopsis**
Air Carrier flight crew reported a ground conflict event in MIA airport due to confusion with ground and ramp control instructions.

**ACN: 1545439 (30 of 50)**

**Synopsis**
PVD Tower and PVD Departure Controller reported an aircraft was not handed off to departure resulting in the aircraft flying into a lower MVA.

**ACN: 1545011 (31 of 50)**

**Synopsis**
B737-800 Captain and additional B737 flight crew reported that after the flight was cleared to land another aircraft that was behind and above the Captain's aircraft was cleared to land on the same runway.
ACN: 1544139 (32 of 50)

Synopsis
Air carrier flight crew reported that, due to confusing communications with Tower while receiving an expedited takeoff clearance, they misunderstood the ATC-issued heading clearance to fly after takeoff.

ACN: 1542765 (33 of 50)

Synopsis
B737-800 flight crew reported speed and altitude deviations during a go-around.

ACN: 1541154 (34 of 50)

Synopsis
Air Carrier flight crew reported Tower assigned "Low Altitude" alert on final approach.

ACN: 1540672 (35 of 50)

Synopsis
Air carrier flight crew reported ATC canceled take off clearance in error due to similar call signs.

ACN: 1539992 (36 of 50)

Synopsis
Flight crew of a large passenger jet reported a NMAC while at cruise altitude requiring evasive action.

ACN: 1539831 (37 of 50)

Synopsis
Multiple ZMP Center controllers reported a small aircraft descended without communicating with ATC following an engine failure.

ACN: 1539765 (38 of 50)

Synopsis
CDW Tower Controllers reported traffic off of nearby N07 airport entered Class D without communications, which conflicted with ATC controlled pattern traffic.

ACN: 1538335 (39 of 50)

Synopsis
Large turbojet flight crew reported communication difficulties with ATC while attempting to land at an international airport. Flight diverted to another airport and landed normally.
<table>
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<tr>
<th>ACN: 1538007 (40 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Center Controllers and an air taxi flight crew reported the aircraft responded to an RA while being vectored and descended for opposite direction traffic at the same altitude.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>ACN: 1537431 (41 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air Carrier flight crew reported difficulty communicating with a foreign ATC. During their approach to landing phase a low fuel event developed. The crew had problems communicating their situation and requests.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>ACN: 1536814 (42 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B737-700 flight crew reported landing without clearance after being distracted by a wake turbulence encounter on arrival into LAX.</td>
</tr>
</tbody>
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<tr>
<th>ACN: 1536668 (43 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Phenom 300 flight crew reported a NMAC on departure while following ATC instructions.</td>
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<thead>
<tr>
<th>ACN: 1535930 (44 of 50)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B 747 Captain, First Officer and Relief Officer reported getting slow on the BEKOL3A SID from VHHH thus causing activation of the stick shaker.</td>
</tr>
</tbody>
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<thead>
<tr>
<th>ACN: 1535684 (45 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B767-300 flight crew reported speed and track deviations occurred following a wake turbulence encounter departing WSSS.</td>
</tr>
</tbody>
</table>

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<tr>
<th>ACN: 1534601 (46 of 50)</th>
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</thead>
<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>B787 flight crew reported concerns with the Flight Dynamics, Navigation, and Safety Systems.</td>
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<tr>
<th>ACN: 1534511 (47 of 50)</th>
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<tbody>
<tr>
<td><strong>Synopsis</strong></td>
</tr>
<tr>
<td>Air Carrier flight crew reported responding to an RA that was contrary to ATC instructions.</td>
</tr>
</tbody>
</table>
**ACN: 1534283** (48 of 50)

**Synopsis**
B737 flight crew reported responding to a RA on initial climb out.

**ACN: 1533696** (49 of 50)

**Synopsis**
Air Carrier flight crew reported that ATC cleared them for a visual approach from a base-leg vector to intercept the localizer at DFW, while maintenance was being performed on that ILS. No notification of the maintenance status was received via NOTAM, ATIS or radio transmission from ATC.

**ACN: 1533509** (50 of 50)

**Synopsis**
Air carrier flight crew reported experiencing a heading deviation while on the RNAV Z 28R approach to FLL due to procedure confusion and communication issues with ATC. The crew stated high traffic volume hindered the ability to clarify the situation with ATC.
Report Narratives
Time / Day
Date: 201809
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: SFO.Airport
State Reference: CA
Altitude.AGL.Single Value: 500

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

Aircraft: 1
Reference: X
ATC / Advisory.Tower: SFO
Aircraft Operator: Air Taxi
Make Model Name: Gulfstream V / G500 / G550
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 135
Flight Plan: IFR
Mission: Passenger
Flight Phase: Landing
Route In Use: Visual Approach
Airspace.Class B: SFO

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: SFO
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
Mission: Passenger
Flight Phase: Final Approach
Airspace.Class B: SFO

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
We encountered some wake turbulence behind an Airbus, that we reported and then requested and received a vector to vacate. In the process of approach (behind that aircraft) we were broken off the 28L visual and given the 28R ILS, which we accepted (greatly increasing our workload - specifically on the account of our discussing the wake turbulence aircraft immediately in front of us and our avoidance techniques thereof). We checked in with what we thought was the Tower, and at this very busy airport on this very busy day, and during the landing roll out did a radio check after re-entering the Tower.
frequency and were told to contact Ground, which we did, and taxied to the ramp normally. Upon landing neither crew member was able to positively recall acknowledging the landing clearance.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

G-550 flight crew reported encountering wake turbulence in trail of an Airbus on approach to SFO and a subsequent failure to contact Tower.
**Time / Day**
- Date: 201809
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference.Airport: ORD.Airport
- State Reference: IL
- Altitude.MSL.Single Value: 9000

**Environment**
- Flight Conditions: IMC

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: C90
- 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: Descent
- Route In Use.STAR: FYTTE4
- Airspace.Class B: ORD

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Total: 11608
- Experience.Flight Crew.Last 90 Days: 150
- Experience.Flight Crew.Type: 7740
- ASRS Report Number.Accession Number: 1581439
- Human Factors: Communication Breakdown
- Human Factors: Workload
- Communication Breakdown.Party1: ATC

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
Function: Flight Crew : First Officer
Function: Flight Crew : Pilot Flying
Qualification: Flight Crew : Multiengine
Qualification: Flight Crew : Instrument
Qualification: Flight Crew : Air Transport Pilot (ATP)
Experience: Flight Crew Total : 3299
ASRS Report Number. Accession Number: 1581456
Human Factors: Communication Breakdown
Human Factors: Workload
Communication Breakdown. Party1: Flight Crew
Communication Breakdown. Party2: Flight Crew

Events
Anomaly. Deviation - Track / Heading : All Types
Anomaly. Deviation - Procedural : Clearance
Detector. Person: Air Traffic Control
When Detected: In-flight
Result: Air Traffic Control: Issued New Clearance

Assessments
Contributing Factors / Situations: Airport
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Weather
Primary Problem: Ambiguous

Narrative: 1
On descent on Fytte 4 RNAV arrival, crew was late entering 3rd runway change in FMC resulting in a turn to KURKK instead of JORJO. ATC provided vectors for the approach.

Narrative: 2
Planning approach to 9L. During descent ORD changed to west flow. We were assigned 27L. Planned approach to 27L. Later in approach we were switched to 28C. I set up approach manually and Captain programmed the FMC. I failed to verify the correct runway was loaded. On the arrival 28C goes to the south of the field on a left downwind. The aircraft continued on the 27L arrival which goes to N of field for a right downwind. ORD arrival gave us vectors that basically followed the correct routing to 28C.

Synopsis
B737 flight crew reported a heading deviation due to the incorrect approach in FMC after several runway changes.
ACN: 1581222 (3 of 50)

Time / Day
Date: 201809
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZID.ARTCC
State Reference: IN
Altitude.MSL.Single Value: 26000

Environment
Weather Elements / Visibility: Icing
Weather Elements / Visibility: Turbulence
Weather Elements / Visibility: Thunderstorm
Light: Dusk

Aircraft: 1
Reference: X
ATC / Advisory.Center: ZID
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Descent
Route In Use: Vectors
Airspace.Class A: ZID

Aircraft: 2
Reference: Y
ATC / Advisory.Center: ZID
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Descent
Airspace.Class A: ZID

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1581222
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

**Person : 2**
Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1581894
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

**Events**
Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Automation : Air Traffic Control
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Air Traffic Control : Separated Traffic

**Assessments**
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Procedure
Primary Problem : Ambiguous

**Narrative: 1**
High and late for descent into DAY caused by ATC, on the verge of requesting lower, ATC issued an immediate descent, minimum of 2000 feet per minute from FL280 to FL240. Both the Pilot Monitoring (PM) and I heard Air Carrier X, the PM read back the clearance. Then ATC directed Air Carrier X to turn 10 deg left for traffic, almost immediately we received a Traffic alert. Then ATC asked what altitude Air Carrier X was at. The PM replied passing FL260 for FL240 at 2000 ft per min. The ATC controller sounding confused, directed continued left turn for traffic, and asked another aircraft what their descent clearance was? They replied FL280 for FL240 at 2000 ft per min. I believed everyone realized what happened, and ATC admitted that two [company] aircraft with similar sounding flight numbers, answered the same clearance, the read back from both aircraft was blocked, and ATC admitted heard neither, nor notified both aircraft that similar sounding flight numbers are on the same frequency. ATC then stated "no harm, no foul"!! Both aircraft were going to DAY, and we, landed well ahead of the other aircraft.
Similar sounding flight numbers, on the same frequency, in the same proximity, plagues [our company], again!!! ATC not notifying said aircraft of this hazard. PS. The next controller warned both aircraft of similar sounding flight numbers, the controller at the time of the event did not.

It's been said, [our company] was going to change policy to minimize similar sounding flight numbers being dispatched in close proximity in time, and space to minimize this hazard. It seems to be getting worse, I've had multiple situations of similar flight numbers in recent weeks.

**Narrative: 2**

While in descent into DAY there was another [company] flight with a similar call sign. They were given descend to FL240 with a minimum of 2000 fpm. Because of the similar call signs I read back the clearance the same time the other aircraft did. The radio transition was blocked but neither airplane heard the block and so we both began to descend. When we were about 1000 feet below altitude ATC asked us our altitude. We told him we were complying with descend to FL240 at 2000 fpm. He said that was for another aircraft so we climbed back to FL280.

[The cause was] similar sounding call signs and blocked transmissions. [Company] spacing similar call signs farther apart.

**Synopsis**

Air carrier flight crew reported an airborne conflict due to similar call signs and a communication breakdown with ATC.
**Time / Day**

Date : 201809  
Local Time Of Day : 0601-1200

**Place**

Locale Reference.Airport : SNA.Airport  
State Reference : CA  
Relative Position.Angle.Radial : 225  
Relative Position.Distance.Nautical Miles : 3  
Altitude.MSL.Single Value : 3000

**Environment**

Flight Conditions : Mixed  
Weather Elements / Visibility.Visibility : 10  
Light : Daylight  
Ceiling.Single Value : 1400

**Aircraft**

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  
Flight Phase : Initial Approach  
Airspace.Class C : SNA

**Person : 1**

Reference : 1  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Carrier  
Function.Flight Crew : First Officer  
Function.Flight Crew : Pilot Flying  
Qualification.Flight Crew : Instrument  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Qualification.Flight Crew : Multiengine  
ASRS Report Number.Accession Number : 1580259  
Human Factors : Time Pressure  
Human Factors : Situational Awareness  
Human Factors : Communication Breakdown  
Human Factors : Confusion  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

**Person : 2**
Reference: 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Experience.Flight Crew.Last 90 Days : 432
ASRS Report Number.Accession Number : 1580278
Human Factors : Time Pressure
Human Factors : Confusion
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events

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

Assessments

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

Narrative: 1

SNA ATIS - 1400 FT scattered using RNAV (GPS) Y 20R approach. 20R ILS NOTAM out of service. The RNAV (GPS) Y was loaded into the FMC and briefed. On handoff to SoCal Approach, the controller advised us to expect RNAV (RNP) Z 20R starting at KLEVR (IAF). The approach was loaded and briefed accordingly. Approximately 3 NM from KLEVR, SoCal canceled our approach clearance and assigned us a heading and new altitude of 3000 FT, with "expect vectors to EHVOX (IF) on the RNAV Z." After passing approximately abeam KLIPP waypoint on the RNAV Z, ATC gave us a right turn direct to the FAF waypoint ZETOV. Since we had just been vectored off the approach at KLEVR that required an RF leg (Ball note 6 on Approach Plate) and while still under IFR control, we questioned the controller about the assigned vector. ATC responded by giving us a right turn to a 270 degree heading. The controller then assigned us the RNAV (GPS) Y 20R Approach. The new approach was loaded and re-briefed. We were then assigned a north heading followed by a right turn to the southeast towards HUKEM. Due to the additive conditions of multiple approach changes from Y to Z back to Y and multiple vectors and altitude changes, our expectation bias was to have us join the RNAV Y Approach at SAGER (IF) based on the previous expect clearance on RNAV Z to EHVOX (IF). We tried to clarify our clearance with the controller at that point, but there was a complete breakdown in communication with
ATC since neither of us had a shared mental model of how the approach was going to be conducted, so we decided that the safest course of action was to initiate a Visual Approach by calling the airport "in sight" thus eliminating any further controller confusion. ATC then cleared us for the Visual Approach to Runway 20R. The remainder of the approach and landing were normal. The biggest issue in our case is with ATC changing their minds multiple times on a close-in approach assignment. It does not allow the crew time to fully brief the approach except for the big items. Also, when issued an expect clearance, and then given a clearance that differs from that, adds a layer of confusion since there is very little time to clarify what is expected unless it is obviously clear or explained in the clearance.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

B737-700 flight crew reported confusion resulted when ATC changed the clearance multiple times on arrival into SNA.
Time / Day
Date : 201809
Local Time Of Day : 0601-1200

Place
Locale Reference.Airport : ZZZ.Airport
State Reference : US
Altitude.MSL.Single Value : 4000

Environment
Flight Conditions : VMC

Aircraft
Reference : X
ATC / Advisory.Tower : ZZZ
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 : Climb
Airspace.Class B : ZZZ

Person : 1
Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1578781
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Person : 2
Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
ASRS Report Number.Accession Number : 1578506
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

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

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

Narrative: 1
On takeoff, plane in front of us asked for a right turn to a heading of 310 for weather 3 1/2 off the departure end. During initial climb, we asked for the same heading. Tower told us to turn. Then he realized that he had us confused with the airplane that had taken off in front of us and he wanted us on a heading of 210. It was impossible to turn to that heading by then because we would fly through the cell. The controller said that he had confused our flight with the other. He then asked us to stop the climb at 4,000 ft (instead of the usual 5,000 ft for the SID). He acknowledged that it was his mistake.

From what I remembered, he was calling for moderate rain about 3 1/2 from the departure end, but our radar then showed extreme precipitation (and that is the reason for asking for the turn after airborne).

Tower was handling 4 aircraft with similar callsigns. There was a little confusion on the ground with the tower as he was busy with the slow departure rate, spacing at different departure fixes and trying give taxi instructions for re-sequencing. Controller was busy dealing also with weather not only [on] departure end, but all around the departure corridor due to the remains of [a major storm] pushing through the area.

We should have asked for more time on the ground asking for the deviation. The tower controller still handling the previous departure weather deviation, then he cleared us for takeoff and immediately cleared another plane into position on the runway at the same time. I should have asked the controller for a timeout, but us being time pressure to roll since the plane that was holding short had being given a position and hold clearance.

I discussed with the FO (First Officer) later during the flight what had happened and I said to him that I should have not accepted the departure clearance since there was so much confusion on the radio and that I should have asked for a cancellation of the takeoff clearance until we could further discuss the weather at the end and what plan B was going
to be.

Since we were taxing opposite direction (parallel) to the takeoff runway, we had no clue that there was weather at the departure end until we received our line-up and wait and takeoff clearance.

**Narrative: 2**

We were number 1 for takeoff on RWY XXL and I was the PM (Pilot Monitoring). There was weather at the departure end of the runway and the previous aircraft requested and was approved for a heading of 300 to avoid the weather.

We were cleared for takeoff and given a heading of 230 degrees. It was a normal takeoff and ATC gave instructions to the next aircraft to line up and wait. After we rotated through 4000 feet, the CA (Captain) told me to request a 300 heading for weather.

I asked ATC, "Can Aircraft X get a heading of 300 for weather as well?"

ATC responded with "That's fine, just maintain 4000 ft."

I was surprised he didn't say our callsign but I confirmed and said "Ok, heading 300 and maintain 4000 feet for Aircraft X."

After we made the turn Tower came back and said "Aircraft X, it's a heading of 230."

I responded with "We asked for a 300 heading and you confirmed that we could fly that heading for weather."

Tower then responded and said "Oh I thought I was talking to Aircraft Y behind you. Ok maintain 4000 and stay on that heading."

I don't think there was any loss of separation between any aircraft but it definitely surprised ATC that we made a "wrong" turn. We got vectored back around the departure corridor and had an uneventful rest of the flight.

There was a lot of traffic congestion, similar call signs and weather in the area. This caused a high workload for the controllers. We waited to request the heading until airborne when we should have requested it on the ground. This would have provided a clear and smooth request to ATC when we were the focal airplane on their screen. Waiting until shortly after takeoff proved to be too late.

I also could have confirmed a second time that the "that's fine..." comment was in fact for us since it was odd that Tower didn't use our callsign.

Better planning on our part and anticipating a heading change after takeoff could have greatly reduced this issue. I should have been planning on weather avoidance right after takeoff and been listening into what other aircraft were doing on takeoff. This would have resulted in us requesting the heading prior to takeoff rather than after.

Also, anytime there's a question as to who the clearance is for, you should always confirm with ATC. I used our full call sign in both the request and the confirmation of the heading and altitude but that still wasn't enough for ATC to catch the fact that they had given the clearance to the wrong airplane. Controllers are only human and mistakes happen so if it sounds like something may be wrong, it probably is.
Synopsis

Air Carrier flight crew reported a communication breakdown with ATC.
**ACN: 1577830**

**Time / Day**
- Date: 201809
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: DTW.Airport
- State Reference: MI
- Altitude.MSL.Single Value: 9000

**Environment**
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: D21
- 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 91
- Flight Plan: IFR
- Mission: Ferry
- Flight Phase: Initial Climb
- Route In Use.SID: SNDRS1
- Airspace.Class B: DTW

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1577830
- Human Factors: Communication Breakdown
- Human Factors: Situational Awareness
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1578211
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
I was Pilot Flying on today's flight. We were given Runway 3L for takeoff with the New 'SNDRS 1' RNAV departure. Pushback was normal, we followed all of the standard procedures. We taxied out of the ramp and contacted ground. They advised us that they changed the departing runway from 3L to 4R/Y2. So I went back and did the runway change item looked at the new SID profile and completed the rest of the checklists. We continue taxing down Y until Y2 where we were cleared for takeoff via the SID. Captain gave me the controls and I performed the takeoff. Once we got airborne we switched to departure and they told us to "climb and maintain 17,000 feet" so the captain bugs 17,000 as I was hand flying the departure. We continued the departure until somewhere between "FERRM" & "AVERL" we got a traffic advisory aural, at this time I am still hand flying the airplane and we were climbing through 8,000 feet. At that point ATC advises us to stop our climb and maintain 9,000 feet. So I lowered the nose and turned off the flight director as I decreasing our climb rate and captured 9,000 feet. Once we were established ATC informed us that we need to call the tower once we land. Captain and I looked at each other as we were very confused, nonetheless he asked ATC what we did wrong and ATC said that we missed our altitude restrictions at FERRM at or below 6, and AVERL at or below 7 even though we were told to climb and maintain 17,000 feet.

I think there were several factors that caused this deviation. Some contributing factors includes the SID being brand new and neither I nor the Captain have flown this departure. Also I should have briefed the SID a little bit more in detail once they switched runways on us. Most importantly there was a breakdown in communication between us and ATC. We were told to maintain 7,000 feet on the ground but once we got airborne we were assigned to climb and maintain 17,000 feet. We should have asked ATC if the other altitude restrictions still applied or not. It's safe to say that both of us thought we were no longer required to comply with the altitude restrictions so we flew it like all the other departures out of DTW and bugged the newly assigned altitude of 17,000.

Narrative: 2
We were to depart out of DTW metro airport on a flight. ATC issued us clearance via the newly implemented SNDRS1 departure SID. We were assigned initially Runway 3L. As we pushed back from the gate we were one hour behind to start. After pushing back we taxied and contacted DTW ground. As ground gave us instruction to taxi they switched our departure runway to be now run 4R/Y2. At the runway 4R/Y2 tower instructed us for takeoff via the SID to maintain 7,000. FO (First Officer) was the PF (Pilot Flying) while I was performing the duties of PNF (Pilot Not Flying / Pilot Monitoring). As we got airborne DTW tower asked us to switch to departure. Upon contacting departure, departure then instructed us to climb and maintain 17,000. While we were climbing through 9,000 DTW departure then asked us to maintain 9,000. As we leveled off at 9,000 ATC then instructed us to climb 17,000. Before switching us to CLE CTR, DTW departure informed us of a possible pilot deviation and to contact them upon arrival.

Some causing factors of this possible deviation [include] the new departure procedures at DTW airport which had been implemented two days prior to this flight. Another factor is even though the FO was PF and had briefed the SID completely, but neither of us PF, nor PNF had flown the SID, SNDRS1 departure. I think what went wrong is the fact the we were issued clear for takeoff climb maintain 7,000 and then as we switched to departure we were than assigned climb and maintain 17,000. I as PNF should have been more assertive in inquiring whether they wanted us to maintain 17,000 and comply with all the other altitudes or not. We just assumed to climb to 17,000.

Synopsis

Air carrier flight crew reported possible altitude deviation on a new DTW airport SNDRS 1 "climb via" SID.
**ACN: 1576759** (7 of 50)

**Time / Day**
- Date: 201809
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference.Airport: ZZZ.Airport
- State Reference: US
- Altitude.MSL.Single Value: 3000

**Environment**
- Flight Conditions: IMC
- Light: Night

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: ZZZ
- Aircraft Operator: Air Taxi
- Make Model Name: Challenger CL604
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 135
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Initial Approach
- Airspace.Class B: ZZZ

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Taxi
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Commercial
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1576759
- Human Factors: Situational Awareness
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Taxi
- Function.Flight Crew: Pilot Not Flying
- Function.Flight Crew: First Officer
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Commercial
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
ASRS Report Number.Accession Number : 1576758
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Altitude : Overshoot
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Overcame Equipment Problem
Result.Flight Crew : FLC Overrode Automation
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Provided Assistance

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

Narrative: 1

We were on the RNAV arrival, and were initially told to expect the ILS XXR with a 15 mile final. We requested an arrival on [Runway] XYL due to proximity to parking and were told that it would be unable. I had manually pre-tuned both localizer frequencies for [Runway] XXR (in active) and [Runway] XYL (in standby) in preparation for either approach.

On the downwind leg, descending to an assigned 3,000 feet, Approach said they could offer us [Runway] XYL if we were able to "expedite down to 3,600 feet." My copilot, in an unfortunate non-standard fashion, stated that we would be able to accept an expedited descent. However, my copilot failed to read back that we were now to still descend to 3,000 ft and expedite down through 3,600 feet, as we had understood the clearance to mean. The last clearance limit we had received was descend to 3,000 feet, and the controllers request was that we "expedite to 3,600 feet" not "descend and maintain 3,600 feet."

We passed through 3,600 feet and at approximately 3,300 feet, the controller admonished us stating that we were supposed to maintain 3,600 feet, and to level off immediately. This took us by surprise, since our clearance limit had been 3,000 feet. We leveled off at 3,000 feet and were then given a traffic call for aircraft inbound on the ILS XXR. We started to receive vectors for [Runway] XYL, and it was becoming more clear that we were being vectored in very tight and high. I reminded my copilot to please update the approach and runway to [Runway] XYL in the FMS, as I was slowly beginning to lose situational awareness.
We then received a turn to intercept to localizer on [Runway] XYL. I looked down and the box was now incorrectly set for [Runway] XYR. I quickly noted to my copilot that the incorrect runway had been set again and to change it.

I had remembered that I had pre-tuned the localizer frequency into NAV1, so I switched my nav data from FMS to raw data, and picked up the localizer. We still had not yet been cleared for the approach and were high on the glideslope. I told my copilot we would need lower in order to accept the approach. Approach then immediately cleared us for the approach and told us to contact ZZZ Tower.

Upon checking in with ZZZ Tower, they queried if we were confirmed lined up for Runway XYL. Being IMC, I noted that I had a centered localizer and had just caught the glideslope, and my FMS was showing Runway XYL. However, I failed to notice that when the copilot accidentally selected [Runway] XYR in the FMS, the system had autotuned to that localizer frequency, dumping out the XYL one I had previously manually pre-tuned. Once the copilot had corrected the error in the box, I had already selected raw data and it would not auto-tune to the new XYL frequency in this mode. This resulted in us displaying XYL on our nav screens with XYR localizer frequency tuned.

We broke out of the clouds at 900 feet, and I immediately recognized we were lined up for [Runway] XYR and not [Runway] XYL. At this point, ZZZ Tower advised it also appeared we were lined up for the incorrect runway and issued us a go-around instruction. My copilot noted that we were in process of lining up for [Runway] XYL, and then confirmed that we were still cleared to land on [Runway] XYL.

The issue appears to have started snow balling with the query by ATC about our clearance to descend to 3,000 feet. The instructions to expedite were given in a non-standard fashion, and my copilot's response was also non-standard. This led to confusion in the cockpit. The tight turn just outside the FAF, last minute runway change, and mistakes loading the approach appropriately in the FMS resulted in us lining up on the XYR localizer even though our FMS was displaying XYL. There was a breakdown in communication with Approach, and [also] between both crew members.

Upon landing, ZZZ Tower requested that we call them on the landline and discuss. I spoke with personnel at ZZZ Tower; [we] reviewed the entire approach, including how we mistakenly lined up for [Runway] XYR. I told him I felt that we were given a series of quick changes and poor clearances on a very congested frequency. This led to us making a series of poor decisions and unfortunate mistakes. I could feel us slowly slipping behind the airplane, and I should have just broken off the approach entirely and requested new sequencing.

Going forward, Company SOPs, including using correct radio phraseology, and confirming changes in the FMS before executing them need to be reiterated and reinforced.

**Narrative: 2**

Descending into ZZZ, were given [Runway] XXR. [We] switched to a new controller [and was] given a descent to 3,000 feet; we requested [Runway] XYL. [We] were told it was unavailable, shortly after, [we] were advised there was a hole, but we'd need to expedite through 3,600 feet. Descending through 3,300 feet, we were admonished we had missed 3,600 feet and to arrest our descent. We were given traffic to follow, and maintain 3,000 feet. When we were turned onto final, we were still at 3,000 feet at the Final Approach Fix. When we asked for lower, we were cleared for the approach. We were high, not configured
or stable, and in fact had wrong LOC tuned.

Through not terribly rushed, we were given a series of changes and poor clearances on a very congested frequency. We felt we were caught up, [up] to the very end, when things sort of unraveled. I was every bit as involved in this as the Pilot Flying. What I can take away is to always be diligent of the "tone" of things on frequency and be [attentive of an overworked controller.

**Synopsis**

CL604 flight crew reported that mistakes loading the approach appropriately in the FMS resulted in lining up on the right localizer even though their FMS was displaying the left.
ACN: 1575652

Time / Day
Date: 201809
Local Time Of Day: 1201-1800

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

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Make Model Name: P180 Avanti
Crew Size.Number Of Crew: 1
Flight Plan: IFR
Flight Phase: Initial Climb
Airspace.Class D: ZZZ

Person: 1
Reference: 1
Location Of Person.Facility: ZZZ.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1575652
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 2
Reference: 2
Location Of Person.Facility: ZZZ.Tower
Reporter Organization: Government
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1576658
Human Factors: Communication Breakdown
Human Factors: Training / Qualification
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.Aircraft Equipment Problem: Less Severe
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: FLC complied w/ Automation / Advisory
Result. Air Traffic Control: Issued Advisory / Alert

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

Narrative: 1
I was working Local Control West (LCW), and Aircraft X called ready to go off Runway 1L. I cleared Aircraft X for takeoff at XA36, heading 300, which he read back. Approximately 2 miles north of the airport at XA38, Aircraft X tagged up on the radar, I told him to contact Departure and asked him to pass on flight conditions if able. He read back that he would like to return to Runway 1L. I issued him left closed traffic, cleared him to land on Runway 1L, and asked if he needed assistance, he said he did not and did not state the reason for return. At this time the Ground controller was coordinating with Approach, letting them know that Aircraft X was coming back to land. It appeared that Aircraft X had started a wide left turn into the downwind. About 4 miles northwest of the airport, at XA39, Aircraft X contacted me saying he had changed his mind and was requesting a frequency change. I was unsure of his intentions, since I was expecting him to join the downwind, and verified if he wanted to come back to land, to which he said no. At that point he was nearing the boundary of the Class D airspace, I switched him to departure for the second time, and he read it back. At this time the Ground controller was coordinating with Approach that Aircraft X was no longer returning to [the airport], and that he’s coming to them on a 300 heading. Approach acknowledged. Approximately 12 seconds later, at XA40, about 5 miles northwest of [the airport], a Low Altitude alert went off for Aircraft X. Not sure if Aircraft X was still on my frequency, I issued the Low Altitude alert to him just in case. He was still on my frequency at that time, and read back that he will check his altitude. A short while later, Aircraft X flew in close proximity to obstructions northwest of [the airport], The obstructions are 2300 MSL and Aircraft X was at 2600 MSL. Coordination with Approach for a different heading when it is first noticed that the heading will take an aircraft directly toward the obstruction. If unable to coordinate a different heading, instruct the aircraft to climb without delay and keep him on my frequency, advise approach.

Narrative: 2
Aircraft X, departed Runway 1L at XA36. Two miles north of [the airport], Aircraft X requested to return to Runway 1L. While the local controller was giving instructions for left traffic, I reminded them to ask if Aircraft X needed assistance. I coordinated with Approach that Aircraft X would be returning to [the airport]. Aircraft X did not require assistance. Aircraft X made a shallow left turn. While exiting the Class D airspace, Aircraft X decided to continue on their flight plan on a heading of 300. The local controller left Aircraft X on a 300 heading and switched the aircraft to Approach. (300 was assigned to Aircraft X initially as per our Letter of Agreement (LOA) with Approach). I coordinated with Approach.

Seconds later the local controller was issuing a low altitude alert to Aircraft X. Aircraft X was still on [the airport] tower frequency. Aircraft X did not climb as expected. I don't know when Aircraft X finally contacted Approach, but they were definitely not at the altitude necessary for obstructions to the Northwest of [the airport]. Aircraft X's altitude indicated 026. There are towers at 023. I don't like that Aircraft X didn't want to tell us why they needed to return. I don't like that the pilot did not turn back into the downwind when instructed. I wound up in charge with an aircraft that didn't really need anything but was requesting to return to the airport while continuing out of my airspace. Once the pilot
decided he wanted to continue, there were very few options left. The local controller was a recent check out. I discussed ways we could have provided better service in the moment. Such as holding onto the aircraft and coordinating a different heading. Or telling Aircraft X to expedite climb. (Although in reality the aircraft did not climb as expected).

**Synopsis**

Two Tower Controllers reported a P180 failed to change frequencies, which resulted in maintaining an altitude which triggered a low altitude alert.
**ACN: 1571800** (9 of 50)

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

**Place**
- Locale Reference
  - ATC Facility: ZSHA.ARTCC
- State Reference: FO
- Altitude MSL Single Value: 34100

**Environment**
- Flight Conditions: Mixed
- Weather Elements / Visibility: Thunderstorm

**Aircraft**
- Reference: X
- ATC / Advisory Center: ZSHA
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody Transport
- Crew Size Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Cruise

**Person: 1**
- Reference: 1
- Location Of Person Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function Flight Crew: Captain
- Function Flight Crew: Check Pilot
- Function Flight Crew: Pilot Not Flying
- Qualification Flight Crew: Multiengine
- Qualification Flight Crew: Air Transport Pilot (ATP)
- Qualification Flight Crew: Commercial
- Qualification Flight Crew: Instrument
- ASRS Report Number Accession Number: 1571800
- Human Factors: Situational Awareness
- Human Factors: Human-Machine Interface
- Human Factors: Communication Breakdown
- Communication Breakdown Party1: Flight Crew
- Communication Breakdown Party2: ATC

**Person: 2**
- Reference: 2
- Location Of Person Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function Flight Crew: First Officer
Function: Flight Crew: Pilot Flying
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Commercial
Qualification: Flight Crew: Instrument
Qualification: Flight Crew: Air Transport Pilot (ATP)
Experience: Flight Crew: Total: 7000
ASRS Report Number: Accession Number: 1571813
Human Factors: Human-Machine Interface
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: ATC

Events
Anomaly: ATC Issue: All Types
Anomaly: Conflict: NMAC
Anomaly: Deviation - Procedural: Published Material / Policy
Anomaly: Deviation - Procedural: Clearance
Anomaly: Inflight Event / Encounter: Weather / Turbulence
Detector: Automation: Aircraft RA
Detector: Person: Flight Crew
When Detected: In-flight
Result: Flight Crew: Took Evasive Action
Result: Flight Crew: Requested ATC Assistance / Clarification
Result: Air Traffic Control: Issued New Clearance

Assessments
Contributing Factors / Situations: Airspace Structure
Contributing Factors / Situations: ATC Equipment / Nav Facility / Buildings
Contributing Factors / Situations: Human Factors
Contributing Factors / Situations: Weather
Primary Problem: Human Factors

Narrative: 1
The departure was normal with a non-typical flight routing to the north due to weather off the coast. We began the flight in trail of other aircraft all using the same routing which resulted in a low initial cruise flight level followed by small incremental step climbs. We were flying an assigned right offset of 6 miles. Just prior to the event, we were given a climb from 10,100 meters to 10,400 meters. As we reached 34,100 feet, we were assigned a right 5 mile offset which the Pilot Flying entered into the FMC in a timely manner, but I am not certain if it had been executed prior to the beginning of the event. The event began when the ATC controller (in a somewhat stressed voice) told us to turn left to a heading of 270 (about a 90 degree left turn).

I immediately reached to the HDG SEL knob and twisted it left and pushed the button to begin the turn. While we began our turn, ATC gave the conflicting aircraft a left turn as well. We then received a "Traffic Traffic" alert on TCAS. As I looked down at the ND display we had an amber traffic superimposed on top of our airplane symbol with "0" indicating it was at our altitude. My Navigation Display scale was set at a larger scale so it was difficult to establish the separation distance accurately. At this time, the First Officer (Pilot Flying) turned his scale down to a low range and from the right side of the aircraft [and] was able to acquire the conflict visually. The Pilot Flying then disconnected the autopilot and
increased the bank angle from the HDG SEL 15 or so degrees bank to approximately 30 to 35 degrees in an effort to increase our turn rate and decrease our turn radius. The TCAS display soon showed the conflicting aircraft to be 100 feet below our altitude. At this point, I placed my hands on the yoke and decreased the bank angle to 20-25 degrees and increased backpressure to achieve a slight climb rate as we had descended slightly in the turn. No resolution advisory (RA) of TCAS was issued. Once clear, we then rolled wings level and reengaged the autopilot in HDG SEL and VNAV ALT at 34,100 feet. We then asked for and were given direct routing to the next point on our route and where a frequency change was then made.

The airspace had an abnormally high level of congestion due to a weather system off the coast. ATC communication transmissions were of very poor quality (over modulation and distortion) resulting in many missed and/or repeated transmissions. The ATC system was obviously saturated and overloaded. I believe that the controller had descended the conflicting aircraft through our altitude failing to provide adequate separation considering the closure rate of the two nose to nose aircraft. The poor quality of his transmitter required him to make additional transmissions which diverted his attention. He was obviously overloaded at the time and not able to keep track of all the aircraft he was responsible for.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Air carrier flight crew reported a NMAC with opposite direction descending traffic while deviating for weather.
Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: LIEO.Airport
State Reference: FO
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft: 1
Reference: X
ATC / Advisory.Tower: ZZZZ
Aircraft Operator: Fractional
Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 135
Flight Plan: IFR
Mission: Passenger
Flight Phase: Takeoff

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: ZZZZ
Make Model Name: Light Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew: 2
Flight Phase: Landing
Flight Phase: Final Approach

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Fractional
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1568853
Human Factors: Communication Breakdown
Human Factors: Confusion
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Fractional
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1569454
Human Factors: Confusion
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.ATC Issue: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Deviation - Procedural: Clearance
Anomaly.Ground Incursion: Runway
Detector.Person: Flight Crew
When Detected: Taxi
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Air Traffic Control: Separated Traffic

Assessments
Contributing Factors / Situations: Procedure
Primary Problem: Procedure

Narrative: 1
Misunderstood ATC direction for line up and wait. While waiting for takeoff behind [another aircraft], the Tower asked if we had some traffic in sight. It was our understanding that we were to report the takeoff traffic in sight. I thought that was strange, but we acknowledged that we "have the traffic ahead of us in sight." It was my impression that the Tower wanted to give us an immediate takeoff behind the [aircraft]. While the [aircraft] was rolling, the Tower called landing traffic as a corporate jet "five mile final." We were asked if we had it in sight. We responded that we did. It appeared to me to be sufficient spacing for an immediate takeoff and this is what I was expecting. The controller then said "Runway 23, line up and wait..." There was another word spoken after "wait" that sounded to me like "be ready." The Pilot Monitoring read back "Runway 23 line up and wait, Aircraft X [our tail number]." That's what we did. As I stopped in position, Tower said "Aircraft X hold your position." We read that back stating that we're in position and holding, we'd been told to line up and wait." Tower next directed the corporate jet to go around.

Well, apparently he said "Line up and wait...behind." The controller then told us he meant for us to wait for the corporate jet to land, then line up and wait. I've never heard any clearance like that and had not understood. We also did not get corrected on the read-back. After about 90 seconds, we were cleared for takeoff and no more was said about it.

First of all, Olbia Tower should not use this procedure. It's very confusing. In the US and seemingly everywhere else, the clearance would have been "Aircraft X, Runway 23, hold short for landing traffic." The read-back would have been, "Aircraft X, holding short of Runway 23." If they are going to continue to use this phraseology, pilots, particularly
pilots not familiar with this apparently "local" procedure, should be aware of the possibility of getting a clearance like this.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Fractional turbojet aircraft flight crew reported LIEO Tower issued a non-standard clearance of line up and wait after landing traffic. Flight crew misunderstood and lined up on runway causing landing traffic to go-around.
Time / Day
Date: 201808
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ONT.Airport
State Reference: CA
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC

Aircraft
Reference: X
ATC / Advisory.Ground: ONT
Aircraft Operator: Air Carrier
Make Model Name: Large Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight
Flight Phase: Taxi

Person : 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: Captain
ASRS Report Number.Accession Number: 1567411
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person : 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
ASRS Report Number.Accession Number: 1568109
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Events
Narrative: 1

Taxiing out to RWY 26R for departure at ONT. Ground clears us to cross RWY 26L and 26R on taxiway P and tells us there is traffic landing on 26L that is currently on an 8 mile final. There is traffic well ahead of us that is holding short of RWY 26R at the departure end waiting to depart, they are talking to Tower, we are still with Ground Control as instructed. We cross RWY 26L and as we approach RWY 26R, the First Officer (F/O) says that he thinks that the departing traffic that was previously holding short of RWY 26R is now taking off. We stopped short of RWY 26R on taxiway P, and held our position. The traffic on RWY 26R did depart. The F/O queried Ground to confirm that our clearance had indeed been to cross both RWY 26L and 26R on taxiway P, as it seemed odd to have been cleared to cross both runways if traffic was subsequently cleared for takeoff prior to us having cleared RWY 26R. Ground responded that yes, that was indeed our clearance, that we were correct and had been correctly executing that clearance, but that they had had traffic to depart. That seemed odd. Since we had held short of RWY 26R upon seeing the traffic depart in front of us, Ground then again cleared us to cross RWY 26R, turn right on November, and taxi to the departure end of taxiway N for departure. Based on the way the scenario unfolded, it appeared that we were given clearance to cross a RWY by Ground (RWY 26R) at the same time someone else was given clearance to depart on that same RWY (RWY 26R) by Tower. Regardless, by holding short of RWY 26R, no loss of separation occurred, but I am certainly questioning the validity of the given clearances by Ground and Tower to both us and the departing traffic. It appears that Ground gave us one clearance and Tower gave the other aircraft another clearance, both completely fine in and of themselves, but that they did not deconflict those two clearances with each other, and that those two clearances may have given us both access to RWY 26R at the same time, us to cross it, the other aircraft to depart on it. Had Ground switched us to Tower to cross RWY 26L and 26R and had Tower been controlling both aircraft, this conflict could have been avoided, that is probably the simplest way to have prevented this issue. Aside from that, had Ground and Tower simply communicated with each other more directly, this issue would also have been prevented. Above all of that though, in my mind, my F/O deserves accolades for speaking up as he saw what he correctly identified as a potential conflict so that we could avert that conflict by simply stopping, confirming our clearance, and not continuing until the conflict was resolved.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Flight Crew of a large cargo transport reported a conflict during taxi with a departing aircraft on the crossing runway.
ACN: 1565050 (12 of 50)

**Time / Day**
- Date: 201807
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference.Airport: DTW.Airport
- State Reference: MI

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

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

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1565050
- Human Factors: Distraction
- Human Factors: Situational Awareness
- Human Factors: Workload
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1565048
Human Factors: Workload
Human Factors: Situational Awareness
Human Factors: Confusion
Human Factors: Communication Breakdown
Human Factors: Distraction
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Events
Anomaly.ATC Issue: All Types
Anomaly.Conflict: Airborne Conflict
Anomaly.Deviation - Procedural: Clearance
Anomaly.Inflight Event / Encounter: Weather / Turbulence
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Returned To Clearance
Result.Air Traffic Control: Provided Assistance

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

Narrative: 1
We were issued a clearance to depart Runway 4R/Y2 and turn to heading 360. In our turn to heading 360 we were given an RA to Descend. We followed the guidance of the RA and were able to level off and begin a climb. We notified ATC and were told to climb to 2,000 MSL. I learned of the events that led to the RA after speaking with a supervisor from DTW Tower. An aircraft was performing a missed approach from Runway 4L. They announced the missed approach late (abeam taxiway V), but I was told that was not the cause of the event. The supervisor informed that in an event like this the controller is to focus on the departing aircraft and assign a heading for avoidance. This controller seemed to focus on the Go-Around and left us on a heading of 360 - turning/climbing into the oncoming traffic. I was told our separation at one point was 400 feet vertically and .14 nm laterally.

I believe the 4L RVR was 1,800 feet with gusting wind and rain, providing a high probability for a missed approach. Assigning a turn that intersects the parallel MAP under these conditions may need to be looked at. I say that not knowing the full flow of traffic that ATC is dealing with under these conditions in DTW.

Narrative: 2
On our taxi out the weather was starting to deteriorate. By the time we reached the end of the runway they were reporting +RA and RVRs were being reported as low as 1800 RVR in the touchdown zone. Our takeoff clearance was to turn left heading 360 Runway, 4R at Y2 cleared for takeoff. As we climbed off of 4R, I heard another aircraft on approach to 4L report to Tower that they were going missed. I then heard the tower assign them a heading for their missed approach. As we were climbing through 1000 ft we began our left turn, I heard these radio calls taking place I began to process that our left turn to 360 could become problematic with an aircraft going missed off of 4L. I then heard the
controller issue a further left turn to a heading 340 but was unsure which aircraft it was for as we were both [Company] aircraft and I had missed the flight number. That was the moment at which we received the RA. We were approximately 2000 ft MSL and were instructed to descend per the RA. The captain began pitching the aircraft of the nose down and reducing power in an attempt to meet the required descent rate. I made a radio call to ATC to inform them that we were descending. Once we were clear of the conflict we were told to maintain 2000 feet. I then asked them for a heading and we were assigned a heading of 360 again. It should be noted that it required a left turn to reach a heading of 360 showing that we never even made it to our original assigned heading in the climbing left turn prior to receiving the RA. Tower then switched us over to departure. Before we left the frequency, in order to clarify the reasoning for our descent, I told them that our descent was due to an RA. Tower responded with "Alright, thank you".

The cause of this event was improper/poor communication by ATC and was made worse by the weather conditions. By giving us a left turn to 360 on our initial climb, we were turning into the departure path of a runway that was being used for approaches down to minimums. As the aircraft on the other runway went missed the controller elected to begin focusing their attention on that aircraft, in an attempt to keep them clear of us, rather than our aircraft and telling us to fly runway heading. It would’ve been safer for our aircraft to be the one receiving instructions rather than the missed aircraft for a couple reasons. The missed aircraft is not only in a much busier phase of flight but they also have a published approach that they should be flying. If the tower had let them continue flying the published missed and rather told us to fly heading 040 the courses of the two aircraft never would have come close. However, by electing to try have us continue our turn and attempt to have the aircraft going around turn left as well the two aircraft found themselves within less than 1000 ft of each other. The low weather conditions obviously did not help the situation either. Because of the low visibility and low ceilings, the captain and I were unable to make any visual contact with the other aircraft at all and were forced to rely solely off of the instruments to remain clear of the aircraft.

To prevent this event from reoccurring the DTW airport should consider changing its procedures for departures in IMC. It would be beneficial to have departing aircraft fly runway heading on departure when the field is under IFR conditions. While giving a left turn to aircraft off of 4L may be best for efficiency purposes, it puts the departing aircraft in the departure path of a runway that on IFR day's aircraft may be executing missed approaches from. By placing departing aircraft on runway headings initially there should not be any issues with intersecting flight paths with departing aircraft and aircraft going missed.

**Synopsis**

Air Carrier flight crew reported an airborne conflict on departure from DTW with an aircraft on missed approach.
Time / Day
Date : 201807
Local Time Of Day : 1201-1800

Place
Locale Reference.Airport : CLT.Airport
State Reference : NC
Altitude.AGL.Single Value : 100

Environment
Flight Conditions : VMC
Light : Daylight

Aircraft : 1
Reference : X
ATC / Advisory.Tower : CLT
Aircraft Operator : Air Carrier
Make Model Name : Regional Jet 700 ER/LR (CRJ700)
Crew Size.Number Of Crew : 2
Operating Under FAR Part : Part 121
Flight Plan : IFR
Mission : Training
Nav In Use : FMS Or FMC
Flight Phase : Initial Approach
Route In Use : Visual Approach
Airspace.Class B : CLT

Aircraft : 2
Reference : Y
ATC / Advisory.Tower : CLT
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
Nav In Use : FMS Or FMC
Flight Phase : Takeoff

Person : 1
Reference : 1
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : First Officer
Function.Flight Crew : Pilot Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
ASRS Report Number.Accession Number : 1564959
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Check Pilot
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiflight
ASRS Report Number.Accession Number: 1564704
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Events
Anomaly.ATC Issue: All Types
Anomaly.Conflict: Ground Conflict, Critical
Detector.Person: Flight Crew
When Detected: In-flight
Result.Flight Crew: Executed Go Around / Missed Approach
Result.Flight Crew: Took Evasive Action

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

Narrative: 1
After being cleared for the visual, runway 36R approach into Charlotte, I continued to descend on final for the runway as normal. While continuing the approach, another aircraft was cleared for takeoff on runway 36R. Initially, it appeared as though we had ample spacing to continue our approach to land so we continued. However, the aircraft on the runway took longer than expected to lift off. After descending through 200 ft. AFE, my Captain and I vocalized our concerns about spacing. Before descending through 100 ft. AFE, we noticed the aircraft on the runway still had not lifted off so we executed a go-around. We came back around for another attempt and landed without incident.

Narrative: 2
Approaching 36R in visual conditions, I noticed an airplane was cleared for takeoff when we were on a relatively short final. I told my student I didn't know if (the spacing) would work, and prepare for a go-around. As we descended below 200 ft. AFE, the airplane on the runway didn't appear to be very far down the runway and the nose was still on the ground, so we executed a normal go-around. We came back and landed quickly without incident.

I don't recall if the takeoff clearance came at an unusual time, but I do remember thinking that the airplane on the runway was taxiing very slowly and was really slow initiating the
takeoff roll. I believe it was an Airbus. I think we should try to emphasize spending as little time on an active runway as possible when cleared for takeoff.

**Synopsis**

CRJ700 flight crew reported going around due to prior departure still on runway.
ACN: 1564703

Time / Day
Date: 201807
Local Time Of Day: 0601-1200

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

Environment
Flight Conditions: VMC
Light: Daylight
Ceiling. Single Value: 800

Aircraft
Reference: X
ATC / Advisory.TRACON: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: Regional Jet 900 (CRJ900)
Crew Size. Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Nav In Use: FMS Or FMC
Nav In Use. Localizer/Glideslope/ILS: Runway XXR
Flight Phase: Initial Approach
Airspace. Class B: ZZZ

Person: 1
Reference: 1
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: First Officer
Function. Flight Crew: Pilot Flying
Qualification. Flight Crew: Multiengine
Qualification. Flight Crew: Air Transport Pilot (ATP)
Qualification. Flight Crew: Instrument
ASRS Report Number. Accession Number: 1564703
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown. Party1: Flight Crew
Communication Breakdown. Party2: ATC

Person: 2
Reference: 2
Location Of Person. Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: Captain
Function: Flight Crew: Pilot Not Flying
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Instrument
ASRS Report Number: Accession Number: 1564706
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown. Party 1: Flight Crew
Communication Breakdown. Party 2: ATC

Events
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
Result. Flight Crew: Became Reoriented
Result. Air Traffic Control: Issued Advisory / Alert

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

Narrative: 1
We set the aircraft up for an approach to XXR. Once on with Approach we got changed to XXC. We got the numbers, rebriefed the approach, and set the new nav freq. We got cleared to join XXC approach and joined XXR by mistake. Once ATC asked if we joined the center we realized what had happened. I kicked the autopilot off while the captain fixed the problem and we moved over to the center outside of ZZZZZ. The flight continued with no further occurrences.

What happened was in the approach phase of flight we became task saturated with switching everything and the captain forgot to change the runway in the FMS and I forgot to make sure he did it. ATC did not issue a phone number. And no other aircraft had to deviate because of our mistake.

Narrative: 2
In a CRJ-900, FO (First Officer) leg, on ZZZZZ inbound, expecting, briefed and set up for XXR knowing we may, of course, get a different runway. Upon checking on with Approach, we were given XXC so we proceeded to get set up for that. I put the new frequencies in the standby but forgot to switch the approach in the FMS. When the time came, we were both expecting the Aircraft to swap from white to green needles on its own and it did—except that XXR was still in the FMS so when it did automatically swap we didn’t notice that it was not to the runway to which we were cleared.

No sooner had we joined the LOC when ATC queried us asking if we had lined up with XXR. Then, without waiting for an answer, he gave us a heading and asked if we could still cross ZZZZZ as his clearance (which I/we had accepted moments before) required. The FO disconnected the auto pilot and turned left, I set up his heading and he called for HDG mode. I quickly put XXC in the FMS, we confirmed and we got the AC in approach mode, joining at ZZZZZ without further incident. ATC called when he saw us join the R side.
Never replaced XXR with XXC in the FMS, the 900 automatically joined and swapped to green needles to the runway that was IN THE FMS. We had passed abeam the last fix on the arrival and, therefore, "cleaned it up and made it big" BEFORE we became aware of the runway 'change' so we missed that opportunity to catch the fact that we were looking at the wrong fixes. I honestly don't know if I consciously was aware of this at the time but, in the NG, the green to white needle auto swapping function on an ILS is dependent on what approach is loaded in the FMS. What frequency is currently in the standby, as far as it's concerned, is irrelevant. FO switched the autopilot off, hand flew the newly assigned intercept heading while I 'fixed' the FMS. We joined the correct localizer.

Even if we're past all the fixes on the arrival, maybe don't "clean it up and make it big" until we actually KNOW our runway. That will call attention to the FMS which may have prevented this.

**Synopsis**

CRJ-900 flight crew reported lining up for the wrong runway.
ACN: 1560511 (15 of 50)

Time / Day
Date: 201807
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: ZZZ.Airport
State Reference: US
Relative Position.Distance.Nautical Miles: 4
Altitude.MSL.Single Value: 2200

Environment
Flight Conditions: VMC
Weather Elements / Visibility.Visibility: 20
Light: Daylight
Ceiling.Single Value: 25000

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
Aircraft Operator: Air Carrier
Make Model Name: B757-200
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight
Nav In Use: FMS Or FMC
Flight Phase: Final Approach
Route In Use.Other
Airspace.Class D: ZZZ

Person : 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 15000
Experience.Flight Crew.Last 90 Days: 35
ASRS Report Number.Accession Number: 1560511
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person : 2
Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Automation : Aircraft RA
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 500
Miss Distance.Vertical : 500
When Detected : In-flight
Result.Flight Crew : Took Evasive Action
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Flight to ZZZ we received a TCAS RA (Resolution Advisory) on final approach. Captain was the pilot flying. This flight is extremely short. During day VFR there is large traffic density in the area. ATC communications is very busy. Additionally there are inbound flights to ZZZ1. Knowing how short and busy this flight would be we briefed the approach while still on the ground. We had additional distractors of an "Autopilot" Advisory message that we briefly addressed via the checklist. TRACON wanted our airspeed kept high along with our altitude. Which deviated from our plan to fly a slower arrival. We were cleared by Approach Control to descend to 3,400 feet, intercept the localizer and cleared for the ILS. We were then handed off to Tower Control who cleared us to land. Despite the distractors, all normal. The runway was in sight the entire time. We were fully configured, descending on the ILS. When we were around 2,400 feet MSL, Tower called traffic ahead at 2,400 feet. I verbalized he was at our altitude, but no range was given. Shortly after (estimating 2,200 feet MSL) we received "Traffic, Traffic, Climb, Climb." I immediately performed the TCAS RA maneuver, which was more aggressive then I have encountered in training. The green arc started at 1,000 feet VSI. We were in the maneuver for a good time before "clear of conflict." We never saw the other aircraft. The FO (First Officer) told the Tower
"Flight X TCAS RA" and clear [of] conflict, but Tower never acknowledged either transmission. Later he said he had numerous aircraft calling without callsigns. After clear of conflict, there was a bit of a question as to the recovery phase. We were on an instrument approach, but did not initiate a missed approach from the normal spot. The climb on runway heading is to 2,700 feet then right turn to 6,000 feet. Would that keep us clear of all this VFR traffic around us? We were talking to Tower in clear VMC conditions - would he just clear us to the visual pattern? Our last clearance was the ILS, so we initiated that missed approach procedure while Tower handed us off to Approach. We switched to Approach and asked for a heading and altitude clearance. She said "you're supposed to fly the missed approach." She may not have known we were VMC and could see the terrain. At any rate we were already initiating that turn and I believe we were very close to the actual procedure course. We were vectored around for an uneventful ILS to a landing at ZZZ. The amount of VFR traffic in the area is very high. Flying airliners inbound traffic is not normal operations. I believe these flights will increase as [carriers] have begun building operations at [the airport]. I recommend it would be more efficient and safe to create standard routing from takeoff to touchdown between the two airports that all parties - Approach, Tower ATC, and pilots are familiar.

Recommendation to the training syllabus to add TCAS RA training during final approach phase on instrument approach. My experience is it has been administered during climb or cruise flight. Throw in some close terrain, confusing communication and numerous traffic for even better training.

**Narrative: 2**

On a short flight to ZZZ, our flight experienced a TCAS RA (Resolution Advisory) after switching from Approach Control to Tower inside the Final Approach Fix cleared for the approach. Switching to Tower, Tower called out helicopter traffic at our same altitude and about the same time we got a TCAS Traffic Advisory followed by an immediate RA with and climb indication and told to climb. I called Go Around and advised Tower of TCAS RA climbing. Once our established Go/Around occurred I asked Tower for Approach frequency and advised that we were climbing to 3,500 feet and requesting a turn to the right due to terrain. This matched closely with the missed approach for the procedure minus the final altitude to climb. There was a lot of traffic opposite direction going into [a nearby] airport that we did not want to climb into early. Approach advised we were supposed to be on the published missed which we briefed that we did an unscheduled TCAS RA climb. Approach was very helpful and vectored us back again for an intercept to final back into ZZZ ILS approach to an uneventful landing.

**Synopsis**

B757-200 flight crew reported having to execute an aggressive resolution to a RA.
**ACN: 1560414 (16 of 50)**

**Time / Day**
Date: 201807

**Place**
Locale Reference.Airport: GRR.Airport
State Reference: MI
Altitude.MSL.Single Value: 4000

**Aircraft**
Reference: X
ATC / Advisory.Tower: GRR
ATC / Advisory.TRACON: GRR
Aircraft Operator: Military
Make Model Name: Stratotanker 135
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Initial Climb
Route In Use: Direct
Airspace.Class C: GRR
Airspace.Class E: GRR

**Person : 1**
Reference: 1
Location Of Person.Facility: GRR.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): 3
ASRS Report Number.Accession Number: 1560414
Human Factors: Training / Qualification
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: ATC

**Person : 2**
Reference: 2
Location Of Person.Facility: GRR.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): 19
ASRS Report Number.Accession Number: 1561026
Human Factors: Workload
Human Factors: Time Pressure
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew
Events
Anomaly.Airspace Violation : All Types
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
I was performing a skills check on Local Control. [One aircraft] was working the pattern and we had an occasional arrival and departure. One of the departures was Aircraft X. We cleared Aircraft X for takeoff, and shipped him to Departure at our normal time to do so. After reviewing the tapes, and watching the Falcon, Aircraft X acknowledged frequency change with us on Local. However he never checked in with Departure. He apparently forgot to turn on his transponder as well. We, the training team on Local, did not realize he did not tag up. We received no subsequent calls from Departure inquiring about Aircraft X. I did confirm they received the strip from the drop tube like normal, in fact we were not told of the scenario until about 40 minutes later. As far as recommendations go, I'm stumped as I realize we have a responsibility to make sure targets acquire and when we don't see them acquire you make a call, to make sure radar has them and to make sure they are talking to them. We failed to recognize that Aircraft X failed to acquire. Due to probably expectation bias, my scan failed to recognize that Aircraft X never tagged, and we unfortunately kept going on about our business as if everything was okay when he took frequency change.

Narrative: 2
I was working SAR and was fairly busy with traffic and was trying to split the sector off to the NAR Controller. I heard Aircraft X call for the first time and did not show him in my airspace. I at first thought that the Local Controller had thrown the strip down early and that Aircraft X had not departed yet. I asked Aircraft X to turn his transponder on and tell me his position. I also asked the NAR Controller who was trying to take the north airspace to look also and see if he saw Aircraft X, an aircraft at 4,000 ft, or any primary target out in the area. Neither one of us saw anything like that in the airspace. When Aircraft X finally got his transponder turned on he was 40 miles west of GRR at 4,000 feet. I immediately pointed him out to MKG Approach and handed him off to ZAU Center. We then notified the supervisor about the situation. Training was in progress on Local Control and trainee failed to notify radar about an aircraft not tagging up...as required by the SOP. The Aircraft X did not turn his transponder on and never took the frequency change. He then never contacted Departure until he was 40 miles away. He may have been having equipment issues with his radios and his transponder. The pilot maybe should be contacted to see if he had equipment issues. Also, maybe procedures should be reviewed for when a departure doesn't tag.
Synopsis

GRR Air Traffic Controllers reported an aircraft departed without the transponder on and checked in late resulting in an airspace incursion.
**Time / Day**
- Date: 201807
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference: Airport: MYF.Airport  
  State Reference: CA  
  Altitude:AGL.Single Value: 0

**Environment**
- Flight Conditions: VMC
- Weather Elements / Visibility: Visibility: 10
- Weather Elements / Visibility: Other  
  Light: Daylight

**Aircraft**
- Reference: X
- Make Model Name: Skyhawk 172/Cutlass 172
- Crew Size: Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Flight Plan: None
- Mission: Training
- Flight Phase: Landing

**Person: 1**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Personal
- Function: Flight Crew: Pilot Not Flying
- Qualification: Flight Crew: Instrument
- Qualification: Flight Crew: Flight Instructor
- Qualification: Flight Crew: Commercial
- Qualification: Flight Crew: Multiengine
- Experience: Flight Crew: Total: 691
- Experience: Flight Crew: Last 90 Days: 80
- Experience: Flight Crew: Type: 388
- ASRS Report Number: Accession Number: 1559968
- Human Factors: Confusion
- Human Factors: Situational Awareness
- Human Factors: Communication Breakdown
- Communication Breakdown: Party1: Flight Crew
- Communication Breakdown: Party2: ATC

**Person: 2**
- Reference: 2
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Personal
Function.Flight Crew : Pilot Flying
Function.Flight Crew : Trainee
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Private
Experience.Flight Crew.Total : 194
Experience.Flight Crew.Last 90 Days : 1
ASRS Report Number.Accession Number : 1559974
Human Factors : Situational Awareness
Human Factors : Confusion
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events
Anomaly.ATC Issue : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Clearance
Anomaly.Ground Incursion : Runway
Detector.Person : Air Traffic Control
Were Passengers Involved In Event : N
When Detected : In-flight
Result.Flight Crew : Returned To Clearance
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Became Reoriented
Result.Air Traffic Control : Issued Advisory / Alert
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1

I was acting as CFI on a flight Review Flight for a certified Private Pilot with an Instrument rating. [The pilot] was acting as PIC for the whole flight and operating radios. As CFI I was having him perform required tasks for a flight review and to get him current. Upon returning to ZZZ our point of departure PIC unintentionally performed touch and go on 28R when Tower had cleared him to land on 28L. Both PIC and CFI were shocked that somehow we had missed the correct clearance. Upon landing PIC called [the Tower] and gave his name and phone number.

I, as CFI, proceeded to research the situation further by pulling up the ATC recording to determine where miscommunication happened, that led to a possible pilot deviation under my supervision.

Initial Call by PIC - [pilot] requests landing with information. Initial Tower Response - make straight in 28R. I inform PIC to correct his call and asked him to request touch and goes. PIC requested touch and goes. No initial response from Tower due to traffic load. Minute later Tower asked, "who asked for touch and goes?" PIC responds [with abbreviated tail number].
No immediate response from the Tower. Eventually, Tower responds with a clearance for [a similar abbreviated call sign] #2 Cleared touch and Go 28R. PIC flying responds #2 Cleared touch and go 28R. An incorrect call by PIC responding to a clearance for a similar sounding tail number. As CFI I did not hear the initial call sign only the [letter]. There was no correction by the Tower that PIC read back wrong clearance for a similar sounding tail number. PIC proceeds to line up for touch and go on 28R.

On short final Tower gives clearance [with full call sign to] make short final cleared to Land 28L. PIC responds Cleared to land. As CFI I did not hear the Tower give 28L due to congested and blocked communication. The student gave incomplete clearance read back without runway assignment. Tower did not respond to correct and requesting full clearance read back.

PIC continued to perform touch and go on 28R upon turning right crosswind to downwind, Tower told PIC that next time he did a go-around he needed to communicate his intentions. It was apparent Tower was unaware of landing on the wrong runway or where we were until on right downwind for 28R.

Upon the confusion, CFI took the radio and asked Tower to clarify clearance. Tower confirmed clearance was to land on 28L. PIC received clearance to land on 28R, upon which was given a number for the Tower due to the possible pilot deviation.

What I believe caused this possible deviation? Multiple errors by PIC, CFI, and Tower. Due to heavy congested airspace, radio communications, and incomplete and wrong radio calls that went uncorrected by Tower.

Errors by Pilot: Reading Back incorrect and incomplete clearances. Not asking for clarification when airspace and radio were busy.

Errors by CFI: Failure to ask Tower for clarification for clearance amidst busy and congested pattern and radio communications. As CFI my attention was outside the aircraft scanning for traffic which took my attention away from clearly hearing the communications when my student made incorrect and wrong readbacks.

Errors by Tower: Initial clearance was given for straight in 28R. According to ATC recordings, next to actual clearance that was given when we were already lined up short final 28R. This clearance was given late and appeared Tower had lost [the aircraft] amidst busy pattern. Tower also failed to correct PIC’s wrong clearance for #2 Cleared to land 28R miles earlier, and failure to have PIC read back full clearance with runway number.

The problem was a miscommunication and misunderstanding of clearance between PIC, CFI, and Tower due to task saturation, busy airspace, and busy communications.

What will be done to correct the situation. As the CFI I will take more diligence to maintain a sterile cockpit when providing instruction to clarify clearances when there is any doubt or miscommunication. When airspace and communications are busy I will use extreme caution and take extra time to listen to clearances even when flying with certified pilots. I will provide my student further instruction concerning Radio Communications and Clearances, Airport Operations, Runway Incursions, Traffic Avoidance.

As to the Tower. Often ZZZ gets extremely busy with 2 parallel runways in use. Many of the flights in and out of ZZZ are due to flight instruction. As a result communication with Tower becomes extremely difficult, with calls often being missed, stepped on, and
miscommunicated. It has been a procedure by ZZZ Tower to split the two runways on different frequencies. In my opinion, the split of frequencies should have occurred when a single Tower operator started missing calls.

Upon our downwind leg for final landing on 28R the Tower then decided to split the runway frequencies. If this had been done earlier it would have been easier for PIC, CFI, and Tower to communicate and clarify the correct clearance.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

C172 flight instructor and pilot reported performing touch and go landing on one runway when clearance had been a full stop landing on a different runway.
**Time / Day**
- Date: 201807
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference.Airport: HPN.Airport
- State Reference: NY
- Altitude.AGL.Single Value: 0

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

**Aircraft**
- Reference: X
- ATC / Advisory.Tower: HPN
- Make Model Name: Citation Excel (C560XL)
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 91
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Landing

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Corporate
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1557727
- Human Factors: Communication Breakdown
- Human Factors: Time Pressure
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Corporate
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Multiengine
Narrative: 1

Given clearance for the visual approach to Runway 16 at HPN. Good VFR and no mention of any LAHSO operation. Upon landing rollout the controller told us to hold short of Runway 11/29 about 3 seconds prior to crossing the hold short line. At this point I estimate we were at 40+ knots and less than 100 yards from the intersection and already max reverse was in use. I broke as hard as I could and stopped about 10-20 feet past the hold short line onto Runway 11/29. The controller then cleared an airplane to takeoff OR land, can't remember which. I got on the radio and told [the controller] the clearance was wholly unacceptable at which time the supervisor came on frequency and stated that if it was unacceptable we should have declined it. We didn't have time to decline anything. If we would have known they expected LAHSO we would have declined the clearance on approach. I remember another aircraft lining up on Runway 16 and I was getting nervous. We sat on Runway 16 with half our aircraft sitting on Runway 11/29 with silence on the radio. I called and told him to get us off the runway. He said he'll get us off the runway when he can. I would have fired him that day for his incompetence. My passengers were shaken by this event and probably seriously question our ability to safely operate our aircraft. The controller and the supervisor working the Tower this day allowed an unsafe condition to develop and did not put a stop to it. The supervisor is ultimately responsible. [The supervisor] jeopardized the safety of my passengers, the safety of the aircraft, and safety of the crew. As is typical when I questioned him he got an attitude about it all. To top [the supervisor's] incompetence [the controller] allowed another aircraft takeoff/land while I was intruding on 11/29. The runway was not clear. [The controller] was overloaded with an incompetent supervisor. I don't fault [the controller] as [they] may have been in training. I recommend pulling the ATC tapes and reviewing this issue. The sooner the supervisor is fired and somebody competent fills the position the safer HPN will be.

Narrative: 2

After landing at HPN on Runway 16, and approximately 3 seconds or 150-200 feet from crossing the hold short lines for Runway 11, we were urgently asked to hold short of Runway 11 by the Tower Controller. I replied "roger hold short of 11" because I thought
there was an eminent incursion or conflict with another aircraft either landing or departing on Runway 11. We were still too fast and too close to the intersection to successfully hold short, and crossed the line by 5-10 feet. At which time the Controller cleared another aircraft to depart on Runway 11 and another to land while we were part way over the hold short line. Captain notified the controller of the situation and informed them that the situation was unacceptable and was told "you didn't have to accept the hold short." We were then finally cleared to taxi clear of the runway and to the ramp. I would not normally have accepted a hold short clearance, but give the urgency of the request, I thought it best to try to stop and avoid a possible accident.

Synopsis
Citation CE560XL crew reported Tower issuing an untimely hold short on landing roll out that the pilot could not comply with.
ACN: 1555932 (19 of 50)

Time / Day
Date: 201806
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: RKD.Airport
State Reference: ME

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
Aircraft Operator: Fractional
Make Model Name: Small Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 91
Flight Plan: IFR
Mission: Passenger
Flight Phase: Landing

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Fractional
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1555932
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Fractional
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
ASRS Report Number.Accession Number: 1555934
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC
Communication Breakdown.Party2: Flight Crew
**Events**

- Anomaly.Conflict : Ground Conflict, Critical
- Anomaly.Deviation - Procedural : Published Material / Policy
- Anomaly.Deviation - Procedural : Clearance
- Detector.Person : Flight Crew
- When Detected : In-flight
- When Detected : Taxi
- Result.General : None Reported / Taken

**Assessments**

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

**Narrative: 1**

After an uneventful Revenue flight to RKD, we were cleared for a visual approach by Portland Approach. The primary frequency was switched to Knox Co Regional UNICOM and all radio calls were made at the appropriate times with regards to our location from this non-tower controlled airport. The wind favored an approach to Runway 31, and we were approximately 5 minutes in [the] trail of a jet that had just landed; it was taxiing clear of Runway 31 as we made our turn to enter a left downwind. Several light civil aircraft were also in the traffic pattern conducting approaches to Runway 21. Just after the second in command (SIC) made an advisory call indicating we were on a 1-mile final, a [aircraft] reported taxiing from the ramp for Runway 21. A normal landing was conducted, and as we were about to cross Runway 21 on the landing rollout, I caught an airplane out of the corner of my eye. The aircraft passed directly overhead by no greater than 200 feet, and was close enough that the sound of its engine was audibly very loud. Immediately afterward, a radio transmission was made by an aircraft stating, "Boy, that was close," followed by a transmission from the aircraft that had flown over us, very casually stating, "That wasn't as close as it looked." Then, "My bad." I was somewhat rattled and did not think to ask for the aircraft's registration number, nor do I recall the aircraft calling that it was clear of the traffic pattern; it did not remain in the pattern, however. All I remember was that the aircraft was green and much too close. Neither I nor the SIC heard a radio transmission indicating that the aircraft was departing Runway 21 after its initial taxi call. This would have been our opportunity to make an additional radio transmission indicating that we were about to, or had already landed on the intersecting runway, and for that aircraft to delay their takeoff until we were clear of the runway. After taxiing to the ramp, shutting the aircraft down and disembarking our passenger, we discussed the event as a crew. We came to the conclusion that there wasn't anything we would have done differently, and were very grateful for the outcome.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Fractional aircraft flight crew reported a NMAC while on landing roll out with another departing airplane.
Time / Day
Date: 201806

Place
Locale Reference.Airport: SJU.Airport
State Reference: PR
Altitude.AGL.Single Value: 0

Aircraft: 1
Reference: X
ATC / Advisory.Tower: SJU
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
Nav In Use: FMS Or FMC
Flight Phase: Climb
Route In Use: Vectors
Route In Use.SID: ACONY4
Airspace.Class C: SJU

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: SJU
Make Model Name: Israel Aircraft Undifferentiated or Other Model
Crew Size.Number Of Crew: 2
Flight Plan: IFR
Flight Phase: Climb
Route In Use: None
Airspace.Class C: SJU

Person: 1
Reference: 1
Location Of Person.Facility: SJU.Tower
Reporter Organization: Government
Function.Air Traffic Control: Ground
Function.Air Traffic Control: Supervisor / CIC
Function.Air Traffic Control: Flight Data / Clearance Delivery
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1555234
Human Factors: Other / Unknown
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 2
Local Controller departed Aircraft X from Runway 08. My positions: FD/CD (Flight Data/Clearance Delivery) combined with Ground Control and CIC (Controller-in-Charge).

Seconds after, Aircraft Y called SJU Tower and transmitted "Aircraft Y is SQUAWK [code] runway heading". I attempted to Multifunction display squawk code, and did not find any FP (flight plan) in the ASR-8 system, and relayed to Local. It was obvious Aircraft Y had departed from Runway 09 at Isla Grande Airport -SIG, (adjacent airport about 6 miles west of SJU Tower), due to a visible primary target squawking [their code] in the departure end of SIG Runway 09 climbing out of 1,000. After XA:00L SIG Tower class D reverts to Class E, CTAF.

Local Controller responded "Aircraft Y do not fly runway heading, say intentions, I have a departure." Aircraft Y responded "we request radar vectors please." By this time Aircraft X has already started takeoff roll. Local Controller asked Aircraft Y if he had SJU Tower in sight, and he replied yes. LC (Local Controller) then instructed Aircraft Y to fly direct SJU Tower and continue eastbound between the runways on a heading of 095. LC then asked Aircraft Y to verify call sign. Aircraft Y responded with his squawk code. Aircraft Y did not comply with any instruction and continued to fly eastbound still climbing. LC directed Aircraft Y "proceed over head the control tower now." Aircraft Y continued flying eastbound climbing out of 3,500 feet.

Aircraft X was then instructed to maintain 3,000, and LC coordinated an altitude of VFR at or above 5,000 for Aircraft Y. Aircraft Y was given a brasher warning/possible pilot deviation and switched to San Juan Approach 119.4 frequency. Aircraft Y is clearly unfamiliar with SJU class C airspace, and additionally does not fully comprehend the English language to the extent necessary to responsibly fulfill his duties as a pilot in
command. Additionally, Aircraft Y departed VFR, but checked in with a squawk code which also caused confusion on whether or not he was an IFR or VFR aircraft.

My recommendation would be to validate the qualifications of Aircraft Y and assure the pilot is aware of airspace and regulations. In my opinion, any control instruction given to Aircraft Y would have been unsuccessful due to his lack of the English language and situational awareness. In this case LC reached out to Aircraft X to achieve separation and was effective.

**Narrative: 2**

At the time of the incident, I had cleared Aircraft X, an A320, for departure on the ACONY1 departure which turns him northwest bound with a clearance to climb to 5,000. When I scanned the radar and outside I noticed an unidentified aircraft and there he called and reported he was on a runway heading and squawking [their code]. I instructed him to not fly runway heading from SIG due to the fact that I had the departure. I asked say intentions, he requested vectors. I asked for call sign and asked if he had the San Juan Tower insight, trying to take him out of the Aircraft X route of flight. Aircraft Y was not complying with any instructions. When asked for his call sign he replied his squawk. When told to fly over head the Control Tower he kept flying eastbound. This pilot action convinced me he was understanding my instructions. I took action fast and stopped Aircraft X at the safe altitude of 3,000, Aircraft Y was at this point at 3,500. Aircraft Y was then observed descending so I coordinated with R5 and instructed him to maintain VFR at or above 5,000 to keep him away of Aircraft X. I climbed Aircraft X to 5,000 feet (his initial climb clearance) once the Aircraft Y was no factor with him. Separation wasn't lost at any point.

Validate qualifications of Aircraft Y to assure airspace awareness, language and communication skills.

**Synopsis**

SJU Controllers reported WW4 pilot with language barrier failed to comply with clearances resulting in a traffic conflict.
ACN: 1549485 (21 of 50)

**Time / Day**
- Date: 201806
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference: ATC Facility: ZOA.ARTCC
- State Reference: CA
- Altitude: MSL. Single Value: 45000

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

**Aircraft: 1**
- Reference: X
- ATC / Advisory.Center: ZOA
- Aircraft Operator: Air Taxi
- Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
- Crew Size. Number Of Crew: 2
- Operating Under FAR Part: Part 135
- Flight Plan: IFR
- Flight Phase: Cruise
- Route In Use: Airway: J92
- Airspace. Class A: ZOA

**Aircraft: 2**
- Reference: Y
- ATC / Advisory.Center: ZOA
- Make Model Name: Medium Transport
- Crew Size. Number Of Crew: 2
- Flight Phase: Cruise
- Airspace. Class A: ZOA

**Person: 1**
- Reference: 1
- Location Of Person: Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Corporate
- Function: Flight Crew: First Officer
- Function: Flight Crew: Pilot Not Flying
- Qualification: Flight Crew: Multiengine
- Qualification: Flight Crew: Air Transport Pilot (ATP)
- Qualification: Flight Crew: Instrument
- ASRS Report Number. Accession Number: 1549485
- Human Factors: Communication Breakdown
- Communication Breakdown. Party1: Flight Crew
- Communication Breakdown. Party2: ATC

**Person: 2**
Reference: 2
Location Of Person/Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Corporate
Function/Flight Crew: Captain
Function/Flight Crew: Pilot Flying
Qualification/Flight Crew: Air Transport Pilot (ATP)
Qualification/Flight Crew: Instrument
Qualification/Flight Crew: Multiengine
ASRS Report Number/Accession Number: 1549486
Human Factors: Communication Breakdown
Communication Breakdown/Party1: Flight Crew
Communication Breakdown/Party2: ATC

Events

Anomaly/ATC Issue: All Types
Anomaly/Conflict: Airborne Conflict
Anomaly/Deviation - Procedural: Published Material / Policy
Detector/Automation: Aircraft Other Automation
Detector/Automation: Aircraft TA
Detector/Person: Flight Crew
When Detected: In-flight
Result/Flight Crew: Took Evasive Action

Assessments

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

Narrative: 1

Routing northbound on J92 abeam MVA FL450 (Block altitude 430/450) Captain called attention to reciprocal traffic at FL450 and 12 miles at 11:30. Oakland center was queried. Response was that this was Aircraft Y at FL450.

Captain initiated a right turn which was immediately followed by a TA. Traffic passed within 5 nm. I suggested that but for the right turn, an RA would have occurred.

Narrative: 2

Routing northbound on J92 25 nm north of MVA FL450 (Block altitude 430/450). I noticed reciprocal traffic at FL450, 11:30 position and inside the 25 NM range scale, closing in fairly fast. I pointed out the traffic to PM (Pilot Monitoring). Oakland center was queried. ATC's response was nonchalant and that this was Aircraft Y at FL450. PM reminded ATC that we were in the block and at FL450. It became obvious quickly that this situation would result in a TA/RA situation. I disengaged the AP and began a turn to the right, just as we got a TA. PM let ATC know that we made a right turn off course for a moment to avoid the traffic. ATC was surprised we had done that but the PM explained that we did not want the situation to escalate to an RA which it surely would have been had we not taken evasive action. Traffic passed within 5 nm. Once it was clear that no conflict existed further, we got back on course and notified ATC that we were back on course.

Synopsis

Air taxi flight crew reported making turn off jet route to avoid head on traffic at same flight level.
ACN: 1548857  (22 of 50)

**Time / Day**

Date: 201806  
Local Time Of Day: 0601-1200

**Place**

Locale Reference.Airport: OXR.Airport  
State Reference: CA  
Altitude.MSL.Single Value: 4300

**Environment**

Flight Conditions: VMC  
Light: Daylight

**Aircraft**

Reference: X  
ATC / Advisory.TRACON: SCT  
Aircraft Operator: Fractional  
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: Descent  
Route In Use.STAR: GUERA 2  
Airspace.Class E: SCT

**Person: 1**

Reference: 1  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Fractional  
Function.Flight Crew: Captain  
Function.Flight Crew: Pilot Not Flying  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1548857  
Human Factors: Communication Breakdown  
Communication Breakdown.Party1: Flight Crew  
Communication Breakdown.Party2: ATC

**Person: 2**

Reference: 2  
Location In Aircraft: Flight Deck  
Reporter Organization: Fractional  
Function.Flight Crew: First Officer  
Function.Flight Crew: Pilot Flying  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1548858  
Human Factors: Communication Breakdown  
Communication Breakdown.Party1: Flight Crew  
Communication Breakdown.Party2: ATC
Events

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
Result. Air Traffic Control: Issued New Clearance

Assessments

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

Narrative: 1

After crossing JANNY intersection, on the arrival to OXR, Joshua Approach handed us off to SoCal Approach. I was the Pilot Monitoring and switched to appropriate frequency. After check-in, SoCal issued us a descent to 4,000 feet. I read back the new altitude assignment and Pilot Monitoring set the new altitude and initiated the descent. At approximately 4,500 feet SoCal issued a low altitude alert and said to maintain 5,000 feet. I stated to the controller that he issued us 4,000 feet and we read that back to him with no corrections from him. There was no further mention of the event from the controller. Pilot Flying initiated a climb back to 5,000 feet. At approximately 4,900 feet we were issued a traffic alert and told to descend to 4,000 feet.

Narrative: 2

On descent on the GUERA1 RNAV arrival into OXR between JANNY and ALYSN. Level at 6,000 feet, handed off from Joshua approach to SOCAL. Told to descend to 4,000, Pilot Monitoring (PM) read back descent and I entered 4,000 in alt alerter and began descent. I was looking outside at the hills but did not feel uncomfortable however around 5,000 feet I slowed the rate of descent to 800 FPM but never had an EGPWS alert. Around 4,500 feet the controller called us saying he had a low altitude warning and told us to maintain 5,000 assigned. PM replied that we had been cleared by him to 4,000 and the controller never really replied. Almost immediately after he told us about traffic ahead at 5,000 and then recleared us to 4,000 feet. No other mention from the controller before he handed us off to Mugu Approach. After we landed I tried to replay the radio communications but they don't hold the recording long enough and it was too busy for either of us to do it airborne. Only recommendation would be for a longer period of communications to be recorded.

Synopsis

General aviation flight crew reported receiving low altitude alert from ATC with altitude reassignment.
**Time / Day**

Date: 201806
Local Time Of Day: 0601-1200

**Place**

Locale Reference.Airport: ZZZ.Airport
State Reference: US
Altitude.MSL.Single Value: 3000

**Environment**

Flight Conditions: IMC
Weather Elements / Visibility.Visibility: 9
Light: Daylight
Ceiling.Single Value: 2000

**Aircraft**

Reference: X
Aircraft Operator: Air Carrier
Make Model Name: B737-700
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Flight Phase: Descent

**Person : 1**

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 387
ASRS Report Number.Accession Number: 1548155
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

**Person : 2**

Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Experience.Flight Crew.Last 90 Days: 428
ASRS Report Number.Accession Number: 1548167
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown. Party 1: Flight Crew
Communication Breakdown. Party 2: ATC

Events
Anomaly. ATC Issue: 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: Took Evasive Action
Result. Flight Crew: Returned To Clearance
Result. Flight Crew: Became Reoriented

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

Narrative: 1
On downwind/base cleared from 3,000 feet to 2,000 feet and read back 2,000 feet. Base/Final ATC says, "Turn right heading 280 to join localizer, maintain 2,400 feet until established, cleared for the ILS Approach." When given that clearance we were already descending out of 2,200 feet. As we corrected, ATC said, "Altitude Alert, MVA for that area is 2,400." We were already correcting and the G/S was captured within seconds. No terrain or aircraft conflicts. Both pilots heard clearance to 2,000 feet. Pilot Monitoring read back 2,000 feet.

Narrative: 2
We both heard 2,000 feet on the initial descent clearance and read it back that way. Regardless of whether it was an ATC error or ours, we could have been more diligent on verifying the altitude when it was below the FAF altitude.

Synopsis
B737-700 flight crew reported receiving a low altitude alert from ATC on approach after they misunderstood an altitude clearance.
ACN: 1546850 (24 of 50)

Time / Day
Date: 201805
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: SFO.Airport
State Reference: CA

Environment
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Center: ZOA
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
Flight Phase: Initial Approach
Flight Phase: Descent
Route In Use.STAR: SERFR
Airspace.Class A: ZOA

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Last 90 Days: 380
ASRS Report Number.Accession Number: 1546850
Human Factors: Situational Awareness
Human Factors: Confusion
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew : First Officer
Function: Flight Crew : Pilot Flying
Qualification: Flight Crew : Multiengine
Qualification: Flight Crew : Air Transport Pilot (ATP)
Qualification: Flight Crew : Instrument
Experience: Flight Crew: Last 90 Days : 525
ASRS Report Number: Accession Number : 1547848
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Confusion
Communication Breakdown: Party1 : Flight Crew
Communication Breakdown: Party2 : ATC

Events
Anomaly: ATC Issue : All Types
Anomaly: Deviation - Track / Heading : All Types
Anomaly: Deviation - Procedural : Published Material / Policy
Anomaly: Deviation - Procedural : Clearance
Detector: Person : Air Traffic Control
When Detected : In-flight
Result: Flight Crew : Returned To Clearance
Result: Flight Crew : Became Reoriented
Result: Air Traffic Control : Issued New Clearance
Result: Air Traffic Control : Issued Advisory / Alert

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

Narrative: 1
We were on the SERFR Arrival to SFO. We had briefed the approach so we were on LEGS page 2 when ATC gave us direct to "GNARLY". We saw "NARWL", brought it to the top of page 1 and executed it. A few minutes later ATC asked us if we were direct "NRRLI". I said no we are direct to NARWL. They said we were cleared direct to NRRLI and we complied.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
B737 flight crew reported similar sounding fixes on the SERFR STAR caused confusion and navigation to the incorrect fix.
ACN: 1546648 (25 of 50)

Time / Day
Date: 201805
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: EWR.Airport
State Reference: NJ
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC

Aircraft: 1
Reference: X
ATC / Advisory.Tower: EWR
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: Landing
Airspace.Class B: EWR

Aircraft: 2
Reference: Y
ATC / Advisory.Tower: EWR
Aircraft Operator: Air Carrier
Make Model Name: Commercial Fixed Wing
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Passenger
Flight Phase: Taxi
Airspace.Class B: EWR

Aircraft: 3
Reference: Z
ATC / Advisory.Tower: EWR
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: Landing
Airspace.Class B: EWR

Person: 1
EWR was using both rwys 11 and 22L for landing. The FO (First Officer) was flying, and I was PM (Pilot Monitoring.) We were assigned rwy 11. We briefed the approach and flew it as briefed. We checked landing distance and set autobrakes to LOW. Weather was FEW045 BKN250 10006KT 31/18. The ATIS made no mention of LAHSO in effect. Once switched
over to tower, they cleared us to land. At about 1,000 ft AGL, tower told us about a departing Aircraft Y that was holding short on 22R until we landed. We acknowledged and continued. We did hear tower talking to another Aircraft Z on final for 22L. The landing was normal. On rollout, we were coming up on 22R at about 70-80 knots, and slowing. The FO had switched to manual brakes before then, at about 90 knots. We were passing 22R at about 60 knots when the tower told us to exit at taxiway P. Since we were in the process of transferring controls, and taxiway P wasn't a high speed, we told him that we would rollout to the end and take EE. The tower yelled “negative.” I then looked and saw Aircraft Z at about 1/4 final. I stopped the aircraft immediately, prior to the hold short line for 22L. At about that time, tower sent the Aircraft Z around. We held at that location until the tower to us to make a 180 and exit at P. We taxied to park.

Narrative: 2

Landing in EWR on runway 11. On short final ATC notified us that an aircraft would be in position on runway 22R full length and will be holding short of our runway. We continued for a normal landing and around 60 kts (while we were transferring AC control from flying pilot (First Officer to Captain) tower told us to exit right onto P. I told tower unable, we would take EE at the end, they then told us to hold short of runway 22L. We got the aircraft stopped before runway 22L hold short lines. There was an aircraft on short final for runway 22L that tower ended up having go-around. We made a 180 on the runway back to P for a normal taxi to the gate. We were never told of land and hold short operations on our landing runway until rollout (during transfer of aircraft control). LAHSO operations were not advertised for landing runway.

Synopsis

A320 flight crew reported ground conflict during landing rollout due to late instructions from the Tower.
ACN: 1546333 (26 of 50)

Time / Day
Date: 201805
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: CYVR.Airport
State Reference: BC
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC

Aircraft: 1
Reference: X
ATC / Advisory.Ground: CYVR
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: Taxi

Aircraft: 2
Reference: Y
Aircraft Operator: Air Carrier
Make Model Name: Commercial Fixed Wing
Flight Phase: Taxi

Person: 1
Reference: 1
Location Of Person: Gate / Ramp / Line
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Type: 1024
ASRS Report Number.Accession Number: 1546333
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person: Gate / Ramp / Line
Location In Aircraft: Flight Deck
Events
Anomaly.ATC Issue : All Types
Anomaly.Flight Deck / Cabin / Aircraft Event : Illness
Anomaly.Conflict : Ground Conflict, Critical
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : Physical Injury / Incapacitation
Result.Flight Crew : Took Evasive Action
Assessments
Contributing Factors / Situations : Human Factors
Primary Problem : Human Factors
Narrative: 1
Normal push back and salute from guidance in Vancouver. First Officer (FO) called for taxi with ground control. We received taxi instructions to Runway 26L. Instructions were to use the ramp side taxi out for our initial directions. After clearing left and right I began spooling up for taxi. FO looked right again and stated "Wait A Minute!" Another airplane was coming from behind, at a fast taxi speed and using the Bypass Ramp Area. Ground did not tell us about [the] aircraft. The aircraft was overtaking our aircraft at an unsafe speed and distance. The gate push area and bypass/T taxiway is a tight intersection with our aircraft and not large enough for them to overtake us. I depressed the brakes abruptly, our aircraft taxi speed was 3-5 knots. I came to a rolling stop. This caused Flight Attendant X to brace herself against a first class seat with her side/back, and caused Flight Attendant Y to brace herself with her right arm on an economy seat. Both reported to be hurt and that they would file a report. All flight attendants reported able to continue their duties and did not request medical attention.

Narrative: 2
Taxi instructions after pushback and start from [the] gate were to taxi via the apron towards taxiway S. Upon initiation of taxi, I noticed an aircraft at our right 3 o'clock as it appeared to be making a turn to pass in front of us and I informed the Captain who then applied the brakes resulting in possible injuries to some flight attendants. The other aircraft was on the bypass taxiway and heading to exit the apron on taxiway T. The bypass taxiway curves to the left slightly before a right turn onto T and made the other aircraft appear as if it would be turning in front of us. Ground control did not inform us of the other aircraft.

Synopsis
B737 flight crew reported critical ground conflict while complying with taxi clearance which made no reference to any taxiing aircraft from ramp.
ACN: 1545994 (27 of 50)

Time / Day
Date: 201805
Local Time Of Day: 0001-0600

Place
Locale Reference.Airport: SFO.Airport
State Reference: CA

Environment
Flight Conditions: VMC
Light: Dawn

Aircraft
Reference: X
ATC / Advisory.TRACON: NCT
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Nav In Use: FMS Or FMC
Nav In Use.Localizer/Glideslope/ILS: Runway 28R
Flight Phase: Initial Approach
Route In Use: Direct
Route In Use.STAR: DYAMD3
Airspace.Class B: SFO

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number.Accession Number: 1545994
Human Factors: Situational Awareness
Human Factors: Communication Breakdown
Communication Breakdown.Party 1: Flight Crew
Communication Breakdown.Party 2: ATC
Analyst Callback: Completed

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function. Flight Crew: Captain
Function. Flight Crew: Pilot Flying
Qualification. Flight Crew: Air Transport Pilot (ATP)
Qualification. Flight Crew: Instrument
Qualification. Flight Crew: Multiengine
ASRS Report Number. Accession Number: 1545997
Human Factors: Communication Breakdown
Communication Breakdown. Party1: Flight Crew
Communication Breakdown. Party2: ATC

Events

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

Assessments

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

Narrative: 1

[We were] handed off to final approach over ARCHI [and] received clearance for the ILS 28R. The clearance did not include an altitude. Followed the ILS 28R transition lateral and vertical track with the intention of capturing the glide slope at 3,000 over CEPIN. At some point near GIRRR intersection, ATC questioned whether or not we were following the glide slope and that he showed us below. I replied that we were descending via the transition. No further communication was received.

We captured the glide slope and flew an uneventful ILS. No loss of separation to our knowledge. Possible miscommunication between crew and ATC in regard to the clearance.

Callback: 1

In reference to Controller's remark that "showed us below," reporter stated that reporter was not sure if Controller had been referring to Class B Airspace or to the glideslope. Reporter stated that Captain had discontinued the use of VNAV prior to glideslope intercept altitude and used "more of a dive and drive" technique somewhere after ARCHI.

Narrative: 2

While flying the DYAMD3 STAR ARCHI Transition to ILS 28R, ATC queried our clearance and informed us that we were going below the ILS Glideslope. I made the corrections to get back on the Glideslope and the remaining approach and landing was uneventful.

ATC cleared us to fly the DYAMD3 ARCHI Transition for 28R and to expect the Quiet Bridge Visual. We requested and was later cleared to fly the ILS Transition 28 at ARCHI. After passing ARCHI and prior to intercepting the 28R Localizer, NORCAL Approach questioned our clearance. Possible miscommunication between ATC and crew.
Synopsis

B767-300 flight crew reported that ATC queried their clearance and told them that they were below the glideslope. The crew corrected their flightpath.
**Time / Day**
- Date: 201805
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference.Airport: AUS.Airport
- State Reference: TX
- Altitude.MSL.Single Value: 23000

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

**Aircraft**
- Reference: X
- ATC / Advisory.Center: ZHU
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody Transport
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Cargo / Freight
- Flight Phase: Descent
- Route In Use.STAR: SEWZY4
- Airspace.Class A: ZHU

**Component**
- Aircraft Component: Speedbrake/Spoiler
- Aircraft Reference: X
- Problem: Malfunctioning

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1545993
- Human Factors: Distraction
- Human Factors: Time Pressure
- Human Factors: Troubleshooting
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person: 2**
Events

Anomaly.Aircraft Equipment Problem : Less Severe
Anomaly.Flight Deck / Cabin / Aircraft Event : Other / Unknown
Anomaly.Deviation - Altitude : Crossing Restriction Not Met
Anomaly.Deviation - Speed : All Types
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Flight Crew : Overcame Equipment Problem
Result.Air Traffic Control : Provided Assistance
Result.Aircraft : Equipment Problem Dissipated

Assessments

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

Narrative: 1

Initially vectored off routing to AUS while en-route to WINDU. Given descent while on westerly heading to FL330 from FL360. Descended initially on profile, then cleared direct SSOLO at FL330. Frequency change. Given further descent to an altitude I don't recall. Now high on profile, attempted to deploy spoilers several times but left wing spoilers were stuck closed/retracted. Told pilot monitoring the spoilers weren't coming out, but he didn't hear me. I suspect the inter cockpit communication was stepped on by Center, or a frequency change. Asked pilot monitoring to inform Center we weren't going to make restrictions at SSOLO about 15 miles prior to SSOLO. I believe he had to repeat that call to Center. Pilot monitoring informed Center, and after some confusion Center replied, "do the best you can." Spoilers were still unusable so we ended up making the below FL230 restriction at 310 knots rather than 280 knots. Soon thereafter, I was able to get full spoiler deployment and we made the rest of the speed and altitude restrictions on the SEWZY4 arrival. Pilot monitoring did a nice job of quick 3:1 math to help me get below FL230 at SSOLO. I wrote the spoilers up in the AML in AUS.

Had the spoilers deployed normally we would have made our restrictions at SSOLO. I
could have communicated more clearly to the pilot monitoring that the left wing spoilers were stuck retracted. I assumed he heard my initial description or saw the configuration display showing the condition during several repeated extension attempts, but some clear yelling from me over Center's chatter would have clarified the condition for the pilot monitoring. I'm going to put some human error on Houston Center's shoulders for the slow response to a couple calls from us about not making the restrictions at SSOLO, and the "do the best you can" response was, I felt, vague and something I thought ATC was trying to get away from in their terminology.

I fly [to] AUS quite a bit and a late descent from cruise is very common on the SEWZY4, spoilers are usually required to get on profile. Perhaps a better arrival design would be in order. I covered the CRM issues and Center's communication/responses. I don't think we violated anything at SSOLO with Center's "do the best you can" clearance but submitting this in case the FAA's eye in the sky thinks differently. That is all.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Air carrier flight crew reported a problem extending spoilers, communicating with each other, and their combined effect on the descent profile.
**ACN: 1545592 (29 of 50)**

**Time / Day**
- Date: 201805
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference.Airport: MIA.Airport
- State Reference: FL
- Altitude.AGL.Single Value: 0

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

**Aircraft: 1**
- Reference: X
- ATC / Advisory.Ground: MIA
- Aircraft Operator: Air Carrier
- Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
- Crew Size.Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Taxi

**Aircraft: 2**
- Reference: Y
- ATC / Advisory.Ground: MIA
- Aircraft Operator: Air Carrier
- Make Model Name: A330
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Nav In Use: FMS Or FMC
- Flight Phase: Taxi

**Component**
- Aircraft Reference: X

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Multiengine
After landing at MIA, we turned left off the runway and came to a complete stop on Taxiway Y completely clear of the runway. While stopped, I told my First Officer to contact ramp on COMM 2 while I contacted ground control on COMM 1. We were cleared to our open gate by ramp control and informed ground. They responded, "Taxi via P and HH hold short of N, your gate is occupied." We did not immediately respond because we were not sure if the communication was for us or if the ground controller was confused.

We contacted ramp control again real quick and they repeated that we were cleared to approach for an open gate. We again informed ground control that our gate was an open gate and we had instructions to enter spot XX. Again, the ground controller came back with the same exact instructions as last time, "Taxi via P and HH hold short of N, your gate
is occupied."

At this time, we began moving forward onto Taxiway P with our taxi light on. I could see our gate and that it was in fact not occupied, so we queried ground one more time with no response. At which time we began proceeding onto Taxiway P to comply with ground instructions. The nose section of our aircraft was on Taxiway P when the First Officer called out that there was an A330 taxiing on P in our direction. I simultaneously saw the other aircraft and came to a dead stop. The aircraft continued taxiing, so I immediately shouted over ground control frequency, "[A330] stop! [A330] stop!" as they appeared that they might hit us.

The aircraft then came to a stop with their left wing tip to the right and above our aircraft. After several moments of surveying the situation ground control came on and inquired if we could make a left turn back on to Taxiway Q via Y. It was very tight with the median but I was able to turn onto Q. After further assessment and the sight picture of an aircraft behind the aircraft it was determined that the wing tip would pass over the top of us, however this was too close for comfort for me and I made the decision to move completely out of the way before proceeding. We came to a complete stop on Taxiway Q and ground control instructed the A330 to continue on P.

Ground control then informed us that he concurred that our gate was opened and cleared us to taxi to the ramp via JJ, cut across the pad to Y1 to enter the ramp. We continued without any incident. In summary, this was a very close call but did not result in a collision.

Confusion between us, ground control, and the ramp control instructions was what initially caused this occurrence. It was further exacerbated by our distraction with trying to proceed to the ramp instead of to the holding pad.

Although we used proper technique of clearing both directions before taxiing, I should not have moved the aircraft at all before making sure our path was completely clear. It seems the aircraft however should have been instructed to give way to us as we had clearance onto Taxiway P. The other aircraft also could have been more vigilant as they appeared to have plenty of time and clear view to see us. We had entered Taxiway P well before they approached our position.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Air Carrier flight crew reported a ground conflict event in MIA airport due to confusion with ground and ramp control instructions.
**Time / Day**

Date: 201805
Local Time Of Day: 1801-2400

**Place**

Locale Reference.Airport: PVD.Airport
State Reference: RI
Altitude.AGL.Single Value: 0

**Environment**

Light: Daylight

**Aircraft: 1**

Reference: X
ATC / Advisory.Tower: PVD
Make Model Name: PC-12
Flight Plan: IFR
Mission: Personal
Flight Phase: Takeoff
Route In Use: None
Airspace.Class C: PVD

**Aircraft: 2**

Reference: Y
ATC / Advisory.Tower: PVD
Aircraft Operator: Government
Make Model Name: Helicopter
Operating Under FAR Part: Part 91
Flight Plan: IFR
Flight Phase: Initial Climb
Route In Use: Vectors
Airspace.Class C: PVD

**Person: 1**

Reference: 1
Location Of Person.Facility: PVD.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Developmental
ASRS Report Number.Accession Number: 1545439
Human Factors: Communication Breakdown
Human Factors: Distraction
Human Factors: Training / Qualification
Human Factors: Workload
Human Factors: Situational Awareness
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: ATC

**Person: 2**
Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Ground Conflict, Less Severe
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Anomaly.Ground Incursion : Runway
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 : Chart Or Publication
Contributing Factors / Situations : Company Policy
Contributing Factors / Situations : Human Factors
Contributing Factors / Situations : Procedure
Primary Problem : Human Factors

Narrative: 1

A vehicle was given permission to proceed onto the runway. I was also asked by departure control, to suspend departures due to an arrival at an adjacent airport. Aircraft X was instructed to hold short of the runway and was given the reason, for the adjacent aircraft arrival. Aircraft X did not read back the hold short and continued to move forward. I told him again to hold short but he had already passed the hold short lines. Aircraft X asked for a 180 to proceed back to hold short of the runway. I approved it as requested and then told him again to hold short, and he read back the instructions. At the same time I had Aircraft Y, whom I had just departed prior to this event, request to return for landing, due to a door still being open.

Departure control was at the same time calling to ask about Aircraft Y intentions, because I had not been able to coordinate the immediate request to return to land. In the same coordination from departure, I was instructed to resume my departures. I then cleared Aircraft X to depart on a 300 heading, in which he is required to maintain 2,000 feet. Aircraft Y asks to depart. I told him to hold his position, and gave a reason. Aircraft Y is insisting on a departure clearance for a priority. I cleared Aircraft Y to depart, but instructed him to maintain at or below 1,000 feet and to make a right 360. This was to give me time to coordinate with Departure for his request, and to give some spacing with Aircraft X that I had just launched on the same heading I would have needed for Aircraft
Y. A satellite airport arrival checked in with me on approach. I gave Aircraft Y the departure traffic, Aircraft X. Departure calls to ask about Aircraft Y, which is what I was just about to coordinate about. I gave Aircraft Y his instructions, then switched him to departure. I did not remember that I had not switch Aircraft X at this point. Then Departure calls me to tell Aircraft X to climb to 10,000 feet and switch the aircraft to Departure. I complete both instructions. I was still uncertain if I had switched Aircraft X or not previously. Because Aircraft X was not switched until later, the aircraft entered a Minimum Vectoring Altitude that was 2,100 feet, while he was at 2,000 thousand.

The only thing I think that may have helped would have been if the Tower Controller in Charge was not combined with Flight Data and Ground Control. Tower Controller in Charge was very busy during this time and it was hard to coordinate, therefore it was probably hard for Controller in Charge to be able to watch everything, from a tower team concept. I also know that the TRACON was very busy as well. I'm not sure how saturated their positions were, but it is possible that if some positions were de-combined, it could have helped.

**Narrative: 2**

Aircraft X departed on a 300 heading climbing to 2,000 feet. I thought I heard him check on and issued a climb to 10,000 feet. I noticed a few miles later he was not climbing and again issued a climb. I was busy and didn’t notice that he did not reply. When I saw him close to the 2,100 feet MVA (Minimum Vectoring Altitude) I climbed him again and finally realizing he was no on frequency called the tower to see if he was still with hem. He was on their frequency and I had them issue him a climb above the MVA. Upon review the aircraft was in the MVA for 2 sweeps before he climbed.

**Synopsis**

PVD Tower and PVD Departure Controller reported an aircraft was not handed off to departure resulting in the aircraft flying into a lower MVA.
**ACN: 1545011 (31 of 50)**

**Time / Day**
- Date: 201805
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference. Airport: LAS.Airport
- State Reference: NV

**Aircraft : 1**
- Reference: X
- ATC / Advisory. Tower: LAS
- ATC / Advisory. TRACON: L30
- Aircraft Operator: Air Carrier
- Make Model Name: B737-800
- Crew Size. Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Initial Approach
- Route In Use: Visual Approach
- Airspace. Class B: LAS

**Aircraft : 2**
- Reference: Y
- ATC / Advisory. Tower: LAS
- ATC / Advisory. TRACON: L30
- Aircraft Operator: Air Carrier
- Make Model Name: B737 Undifferentiated or Other Model
- Crew Size. Number Of Crew: 2
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Initial Approach
- Route In Use: Visual Approach
- Airspace. Class B: LAS

**Aircraft : 3**
- Reference: Z
- ATC / Advisory. Tower: LAS
- ATC / Advisory. TRACON: L30
- Aircraft Operator: Air Carrier
- Make Model Name: Commercial Fixed Wing
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Flight Phase: Initial Approach

**Person : 1**
Reference: 1
Location Of Person: Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: Captain
Function: Flight Crew: Pilot Flying
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Instrument
ASRS Report Number: Accession Number: 1545011
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: ATC

Person: 2
Reference: 2
Location Of Person: Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: First Officer
Function: Flight Crew: Pilot Not Flying
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Instrument
ASRS Report Number: Accession Number: 1545623
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: ATC

Person: 3
Reference: 3
Location Of Person: Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function: Flight Crew: Captain
Function: Flight Crew: Pilot Flying
Qualification: Flight Crew: Air Transport Pilot (ATP)
Qualification: Flight Crew: Multiengine
Qualification: Flight Crew: Instrument
ASRS Report Number: Accession Number: 1545018
Human Factors: Communication Breakdown
Human Factors: Situational Awareness
Communication Breakdown: Party1: Flight Crew
Communication Breakdown: Party2: ATC

Events
Anomaly: ATC Issue: All Types
Anomaly: Conflict: Airborne Conflict
Anomaly: Deviation - Procedural: Published Material / Policy
Detector: Automation: Aircraft RA
Assessments
Contributing Factors / Situations : Procedure
Contributing Factors / Situations : Human Factors
Primary Problem : Procedure

Narrative: 1
We were cleared to intercept the Localizer for [Runway] 01 Left. Once established, we were re-cleared to fly the visual to 01 Right. We selected the RNAV 01 Right in the FMC as a backup to our visual and were established on the VNAV path through out this event. [Aircraft X] came in behind and above us and we heard them being cleared for a visual to 01 Right, and then heard [their] pilots confirming the clearance. We immediately queried ATC to confirm the clearances for [Aircraft Y] and ourselves. ATC then corrected the clearance for [Aircraft Y] for Runway 01 Left. The [other] aircraft was now parallel to our course, above us, and in front....as [they] descended to get on glideslope, we received a TCAS RA (Resolution Advisory) to climb. We had a visual on [Aircraft Y] and I made the decision to not respond to the RA due to our proximity to them. I felt this was the safest course of action. We landed safely.

In my opinion, I believe Las Vegas Approach and Tower Controllers rely on the visual confirmations of participating aircraft before they can complete a hand off to the subsequent controller. When a visual of another/preceding aircraft cannot be confirmed, then stabilized approaches cannot be performed.

Narrative: 2
We were on approach to 1L. There was [Aircraft Z] ahead of us on approach to 1R. We were given clearance to intercept the localizer but not to shoot the approach or descend. We were flying through glide slope and the Captain, [pilot] flying, got on the radio and stated he had the field in sight in an attempt to get clearance to shoot the approach/land. [Aircraft Z] executes a go around. We then went around as the Captain felt too high to intercept the glide path. We turned left and were following [Aircraft Z] to get set up for another approach. There were other aircraft on approach to 1L and 1R. ATC turned us in on a vector to join the localizer to 1L.

[Aircraft Y] on final queried ATC if they were cleared to land. ATC "do you see the traffic ahead" [Aircraft Y] "no." ATC "then you are not cleared to land" [Aircraft Y] "OK we see him now" ATC " OK then cleared to land."

At this point we were turning beneath [Aircraft Y]. It is highly unlikely that they could see us. ATC then changed our runway to 1R. We were very close to [Aircraft Y] and received multiple TCAS TAs (Traffic Advisory) and RAs (Resolution Advisory). Once again the Captain got on the radio to clarify for both ATC and [Aircraft Y] they were landing on the left and we were landing on the right. Despite flying in close proximity to [Aircraft Y], we landed on 1R uneventfully.

ATC at LAS has propensity to put aircraft separation responsibilities on pilots by requiring
them to keep other traffic in sight. Speaking with other pilots our experience was not unusual when LAS is landing north.

Recommend getting the controllers some experience at a field that has frequent bad weather were they must retain separation responsibilities.

**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

B737-800 Captain and additional B737 flight crew reported that after the flight was cleared to land another aircraft that was behind and above the Captain's aircraft was cleared to land on the same runway.
Time / Day
Date: 201805
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: MDW.Airport
State Reference: IL
Altitude.AGL.Single Value: 400

Environment
Light: Daylight

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

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Last 90 Days: 94
Experience.Flight Crew.Type: 291
ASRS Report Number.Accession Number: 1544139
Human Factors: Confusion
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Narrative: 1

Taxiing for takeoff on Runway 4R, Tower asked if we were ready to take off [Runway] 4R. We said "yes". Tower said "after this aircraft lands, be ready to go." I said "roger". Tower said "line up and wait 4R." I said "line up and wait on 4R." Taxiing past the hold short line on Runway 4R, Tower said "come up on power." I thought Tower said "come up on Tower." I told Tower "we are up on Tower." Tower said again "come up on power." I again said "we are on Tower." After I said that a second time, my Captain said "Tower said come up on power." At that point we were almost lined up on [Runway] 4R. Another aircraft said "Tower is saying bring up the thrust." At that point, the aircraft that just landed turned off and Tower cleared us to take off on [Runway] 4R and turn left to 250. Not sure if I read back cleared for takeoff on [Runway] 4R and turn right to 150, or the correct clearance of left turn to 250. But I did put in 150 in the heading selector. We took off, and at 400 feet AGL we turned right to 150. Around 1000 feet, Tower came on and said it was a left turn to 250. Tower then again gave us a new heading and no further problems after that.

Narrative: 2

There were several aircraft on final while we were holding short to take off. The Tower was going to attempt to allow us to take off between two arriving aircraft. As an arriving aircraft crossed the threshold, Tower told us to "come up on the power, line up and wait, and be ready to go." The F/O (First Officer) did not understand the communication and thought he was being asked to "come up on Tower" which he was already on, thus creating confusion. Several communications ensued between the F/O and Tower in an attempt to clarify the clearance. I also spoke up, trying to explain what Tower had meant. An aircraft behind us also chimed in on Tower frequency, trying to explain what Tower had meant. Somewhere in this communication jumble, Tower cleared us for takeoff with a left turn to heading 250. The MCP (Mode Control Panel) had been preset to a heading of 130, as a turn to that heading off of [Runway] 4R was common, although less so for west departures lately. The F/O set a heading of 150 in the window, and I didn't hear the heading in the takeoff clearance clearly. Upon rotation, I looked at the 150 heading in the window and asked if that was the correct heading. The PM (Pilot Monitoring) said "yes", and I began to turn right to 150. After about 30 or 40 degrees of heading change, Tower
came on and said the clearance was a left turn to 250, but then he said just fly 090 and maintain 3000 feet. We received a couple more turns to the west and continued the flight uneventfully. At no time was there a separation issue with other aircraft. Expedited takeoff clearances have their place, but everyone in the flight deck needs to be on the same page when the power comes forward.

**Synopsis**

Air carrier flight crew reported that, due to confusing communications with Tower while receiving an expedited takeoff clearance, they misunderstood the ATC-issued heading clearance to fly after takeoff.
ACN: 1542765 (33 of 50)

Time / Day
Date: 201805
Local Time Of Day: 1801-2400

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

Environment
Flight Conditions: IMC
Weather Elements / Visibility: Thunderstorm
Weather Elements / Visibility: Windshear
Weather Elements / Visibility: Rain

Aircraft
Reference: X
ATC / Advisory.Tower: ZZZ
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: Initial Climb
Airspace.Class B: ZZZ

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
ASRS Report Number.Accession Number: 1542765
Human Factors: Communication Breakdown
Human Factors: Confusion
Human Factors: Situational Awareness
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Inbound on [the ILS]. FO (First Officer) flying. Thunderstorm encroaching airfield from the west. Just after the final approach fix, the aircraft ahead of us went missed approach for an aircraft windshear alert. Same time we lost sight of the runway as a line of rain covered it. We went around as well, bringing flaps to 15 and gear up. Was difficult to reach Tower as they were giving instructions to the aircraft ahead. Very bumpy climb and initially assigned runway heading despite having planned with Tower a right turn to avoid weather.

In the confusion, the autothrottles were disconnected instead of the TOGA button being pressed. This led to lack of directional and speed guidance for the pilot flying, and the flaps were left at 15 until 210 knots, an overspeed. We cleaned up the aircraft, recognized the error and reduced power. We had drifted above the 5,000 feet assigned, and as we started back down were assigned 6,000 feet. Complied with ATC instructions and entered holding.

In trying to avoid the worst of the storm and avoid the slower aircraft ahead (needed ATC guidance), along with unexpected aircraft response (I didn't realize initially we weren't in go around mode), we didn't prioritize the clean-up of the aircraft. Focus on that, then clean up, without automation led to us drifting above assigned altitude.
Synopsis
B737-800 flight crew reported speed and altitude deviations during a go-around.
Time / Day
Date: 201805
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: MSN.Airport
State Reference: WI
Altitude.MSL.Single Value: 3200

Environment
Flight Conditions: VMC

Aircraft
Reference: X
ATC / Advisory.Tower: MSN
Aircraft Operator: Air Carrier
Make Model Name: Medium Transport, Low Wing, 2 Turbojet Eng
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Flight Phase: Initial Approach
Airspace.Class C: MSN

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1541154
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: Flight Crew

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
ASRS Report Number.Accession Number: 1541749
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC
**Events**

- Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
- Anomaly.Deviation - Procedural : Published Material / Policy
- Anomaly.Deviation - Procedural : FAR
- 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.Flight Crew : Took Evasive Action

**Assessments**

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

**Narrative: 1**

During approach to landing at MSN, I was notified of a possible altitude deviation. After we landed, the tower controller requested that I call a phone number. We/I spoke to [the] manager on duty and he informed us that we descended below Minimum Vectoring Altitude (MVA) of 4000 feet prior to receiving a visual approach clearance. He said that safety was not compromised, and there were not any traffic conflicts.

The First Officer was the flying pilot, autopilot engaged and I was the PM (pilot monitoring). We briefed for an ILS approach to runway 36 at MSN because the wind was variable at 6kts. When we checked in with Madison Approach and requested runway 36 for landing we were advised to stand by to coordinate with the Tower and also given a descent to 11000 feet. A few minutes later the approach controller advised us unable runway 36 due to landing traffic runway 18 and we were told to plan on radar vectors for runway 18 and cleared to descend to 4000 feet. I read the clearance to ATC as 4000 feet. Based on the assigned heading and the expectation of a visual approach clearance, I began programming the FMS for ILS/Visual Approach for RWY 18 with presidio fix three mile right base at 3000 feet for lateral and vertical guidance. My head was down during FMS programing and I did not take note that flight control guidance was set to 3000 feet. When ATC advised us of a low altitude alert, I looked up and saw we were descending to the altitude set in pre-selector. At that moment with a high work load I did not recall the previous altitude assignment and informed ATC that we had been cleared to descend to 3000 feet. At the time I was surprised by a low altitude alert issued by ATC while we were in visual flight conditions and we immediately stopped the descent around 3200 feet. We were then instructed to climb to 3500 feet. After climbing back up we were cleared for a visual approach to runway 18. [Suggest] rigorous altitude awareness during high work load environment especially during originally briefed approach to the runway or reassigned runway.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

Air Carrier flight crew reported Tower assigned "Low Altitude" alert on final approach.
ACN: 1540672 (35 of 50)

Time / Day
Date: 201805
Local Time Of Day: 1201-1800

Place
Locale Reference.Airport: MEM.Airport
State Reference: TN
Altitude.AGL.Single Value: 0

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Tower: MEM
Aircraft Operator: Air Carrier
Make Model Name: Large Transport
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight
Flight Phase: Takeoff

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
ASRS Report Number. Accession Number: 1540672
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Narrative: 1

Start and taxi were uneventful. Memphis Tower cleared us for takeoff on Runway 18R. I acknowledged with "Flight X Runway 18R Cleared for Takeoff". The CAPT was pilot flying and began to advance the throttles and released the brakes. Tower then immediately responded with "Flight X cancel takeoff clearance." The CAPT reduced the throttles to idle and performed the rejected takeoff. We had only just begun to roll. As pilot monitoring, I responded with "Flight X copies cancel takeoff clearance." Tower then responded with something like "Flight X understand you need time on the runway?" We responded negative. Tower then made a call to Flight Y. Another voice came on the Tower frequency and apologized and informed us that there was a similar sounding call sign on the other Tower frequency for Runway 18L. The Tower Controller had confused the two and issued the "cancel takeoff clearance" call to us instead of Flight Y as the controller was broadcasting simultaneously on both Tower frequencies. We performed the RTO checklist, accomplished an after landing, and before takeoff checklist, taxied back to the approach end of Runway 18R and took off. The rest of the flight was uneventful.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

Air carrier flight crew reported ATC canceled takeoff clearance in error due to similar call signs.
**ACN: 1539992 (36 of 50)**

**Time / Day**
- Date: 201805
- Local Time Of Day: 0001-0600

**Place**
- Locale Reference.ATC Facility: LIMM.ARTCC
- State Reference: FO
- Altitude.MSL.Single Value: 16000

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

**Aircraft : 1**
- Reference: X
- ATC / Advisory.Center: LIMM
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody Transport
- Crew Size.Number Of Crew: 3
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Flight Phase: Cruise
- Flight Phase: Climb

**Aircraft : 2**
- Reference: Y
- Make Model Name: Medium Transport
- Crew Size.Number Of Crew: 2

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1539992
- Human Factors: Communication Breakdown
- Human Factors: Situational Awareness
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person : 2**
Narrative: 1

Let me start this report by saying that there were three pilots in the cockpit during this event, and each of us saw something a little different. It may very well be that some of the things we think we remember might not be exactly how it happened. For instance, I think that we were only cleared to FL160 and that we were level when the event began. At
least one of the other pilots thinks that we were climbing to FL240. I think that clearance came after the event. So, keep that in mind as I relate what I remember about how the event unfolded. The fact that we had to take evasive action, and the action we took to avoid the other aircraft; that, we all agree on.

We took off from LIMC and were proceeding normally. We were initially cleared to FL50, then sent to Departure Control and cleared to FL100, direct to DOGUB, I think it was. We changed frequencies again and were cleared to FL160, direct to TOR. Prior to TOR, we were cleared direct to RONOP, I believe was the fix. RONOP is the last fix before Marseille Control's airspace. We were level at FL160, I think, when our TCAS gave us a, "TRAFFIC, TRAFFIC" warning. I reached up and reduced the range so as to see the TCAS threat. I saw a threat at 12 o'clock, level with us and 6 miles, then 5 miles. The FO (First Officer) said, "We are going to have to do something about this." Out of my peripheral vision, I saw him put his hand on the yoke in preparation to disconnect the autopilot and comply with the RA that I felt would come at any second. About this time, I heard a garbled transmission from ATC. I did not understand the call sign, but I did hear, "turn south immediately." I reached for the microphone button when the relief pilot said, "That was for us." I was about to transmit to the controller when he repeated that we should turn south immediately. The FO, who was flying, disconnected the autopilot and rolled into a hard left turn toward a heading of 180. The traffic was at -100 feet and at 4 miles closing fast (800 knots closure).

We were all expecting to get an RA. However, we got a bank angle warning instead as we were rolled over at about 35-40 degrees in a left turn. I was looking for the traffic, we were in the clouds at the time, when the over bank warning came, I glanced down at the NAV Display. The traffic was still at our level, but now at about 3 miles out and slightly to our left. I thought at the time that the turn to the south from the controller was a mistake. The controller called and said, I think, "Flight X, traffic 12 o'clock 3 miles." I keyed the mic and replied, "Looking for the traffic, TRAFFIC IN SIGHT," at that exact moment, I caught sight of the traffic as we seemed to be in a void within the clouds. The traffic was in a right turn and at our altitude or slightly below us, it was some sort of regional jet [and] it appeared to be descending. I could see instantly that the controller's assigned turn to the south was going to make things much, much worse and that we needed to reverse the turn. The mic was still keyed and I told the First Officer to "TURN RIGHT, TURN RIGHT NOW". I know that at least the first "turn right" was said with the mic keyed and so went out over the radio. I think that I un-keyed the mic for the second "turn right, NOW".

The First Officer quickly reversed our turn and the intruder disappeared under the nose as we banked away. We might have also been climbing slightly at this point, or as the FO thinks, we might have already been cleared to a higher altitude. He also told me later that when I told him to "turn right, turn right NOW," he looked up and caught sight of the aircraft as well and steepened his turn away. I think that this was when the controller issued a climb to FL240 and re-cleared us direct to RONOP. Just before he switched us to Marseille Control he asked if we had gotten an RA. I do not know why we did not get one, as we certainly needed it, but I had the impression that he was asking because he would have some reporting to do, but that is just my supposition. I answered that we did not get an RA, but that his turn to the south had made things worse. I estimate that at closest approach we were less than a mile from the traffic and that he might have been 300 feet or so below us, but it might have been more by that time. I was not looking at the TCAS at the point of closest approach, but had my eyes on the intruder who was turning to the south and, I believe, diving, until he disappeared under the nose as we banked away. The reason I think that we were level and not climbing was because the intruder went from 6 to 5 to 4 miles while showing 0 feet relative to us. If we had been climbing, his altitude
relative to us would have changed.

I do not know why the controller did not issue traffic to us prior to our getting the traffic warning from TCAS, nor why he issued the turn to the south instead of turning us north and away. I do remember thinking that his heading was not the right way to go based on what I was seeing on the TCAS. However, we are trained to follow the lateral instructions from ATC and the vertical instructions from TCAS. I have no idea why the TCAS did not issue us a climb or maintain vertical speed RA. I do not know whether there was miscommunication between the Marseille Sector and Milan or what the reason for the other aircraft to be at our altitude and heading right for us.

The other odd thing about this event is that I do not recall there being any radio transmissions to or from the intruder aircraft. The only radio transmissions pertinent to the event were between ATC and us. No one in the back of the aircraft seemed to think that we were in anything other than some turbulence. There were no injuries on board our aircraft whatsoever.

**Narrative: 2**

[Report narrative contained no additional information.]

**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

Flight crew of a large passenger jet reported a NMAC while at cruise altitude requiring evasive action.
ACN: 1539831  (37 of 50)

Time / Day
Date: 201805
Local Time Of Day: 1801-2400

Place
Locale Reference.ATC Facility: ZMP.ARTCC
State Reference: MN
Altitude.MSL.Single Value: 25000

Environment
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Center: ZMP
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: Descent
Flight Phase: Cruise
Route In Use: Direct
Airspace.Class A: ZMP
Airspace.Class E: ZMP

Component
Aircraft Component: Engine
Aircraft Reference: X
Problem: Failed

Person: 1
Reference: 1
Location Of Person.Facility: ZMP.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): 1
ASRS Report Number.Accession Number: 1539831
Human Factors: Communication Breakdown
Human Factors: Confusion
Human Factors: Training / Qualification
Human Factors: Situational Awareness
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 2
Reference: 2
Location Of Person.Facility: ZMP.ARTCC
Reporter Organization: Government
Function.Air Traffic Control: Enroute
Qualification.Air Traffic Control: Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs): 1.5
ASRS Report Number.Accession Number: 1540466
Human Factors: Situational Awareness
Human Factors: Human-Machine Interface
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 3

Reference: 3
Location Of Person.Facility: ZMP.ARTCC
Reporter Organization: Government
Function.Air Traffic Control: Enroute
Qualification.Air Traffic Control: Fully Certified
Experience.Air Traffic Control.Time Certified In Pos 1 (yrs): 1
ASRS Report Number.Accession Number: 1540471
Human Factors: Distraction
Human Factors: Confusion
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events

Anomaly.Aircraft Equipment Problem: Critical
Anomaly.ATC Issue: All Types
Anomaly.Deviation - Altitude: Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Deviation - Procedural: Clearance
Detector.Person: Air Traffic Control
When Detected: In-flight
Result.Flight Crew: Requested ATC Assistance / Clarification
Result.Flight Crew: Landed in Emergency Condition
Result.Air Traffic Control: Provided Assistance

Assessments

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

Narrative: 1

I was about to begin OJTI with my trainee at D38. Sectors 27 and 38 were still combined and my trainee does not have a training plan for Sector 27 so we were waiting for the R-side to brief another controller who was opening/splitting off Sector 27. Aircraft X was [flying from] ZZZ1 direct to ZZZ2 and level at his requested final of FL250. Aircraft X
would only be in Sector 38 briefly as he was cutting the southwest corner of the sector. He was a “flash through” between ZMP Sector 39 and ZKC Sector 26 and should have still been on Sector 39’s frequency. During the sector-split briefing the R-Side noticed that Aircraft X had begun descending rapidly despite the data block reflecting an assigned altitude of FL250. R38 queried R39 about the descent. R39 attempted to contact Aircraft X multiple times unsuccessfully. R38 attempted to contact him as well on Sec 38 and 27’s frequencies as well as 121.5. Aircraft X was on the ZMP/ZKC boundary at this point and his descent was creating the need for multiple point-outs and coordination. I excused my trainee and sat down at D27/38 and began coordinating and making point-outs without a briefing because time was of the essence. I had a good overview of the sectors and situation already because I had been standing there for several minutes watching and waiting to begin OJTI. I pointed him out to ZKC sectors 26 and 44. I alerted both sectors to the unexpected descent and advised them that Aircraft X was not in contact with ATC. ZMP Sector 26 called and said that Aircraft X had contacted them and declared an [urgent situation]. The pilot must have gone to this frequency on his own after finding it on a chart, map, or other cockpit resource. ZMP Sector 26 is the Pawnee City Low sector and had no reason to know who this aircraft was. ZMP Sector 26 eventually figured out who it was and contacted me at Sector 38. I requested communications of Aircraft X but I suppose the pilot was too busy and/or did not want any frequency changes. Aircraft X stated he had lost an engine and intended to land at ZZZ3. The pilot would eventually correct himself and state that he was landing at ZZZ4. A military aircraft that was on frequency was able to go to the UNICOM frequency and confirm that Aircraft X landed safely. Additionally, supervisors from either ZMP or ZKC were able to contact the FBO at ZZZ4 as well as the local Sheriff's Dept. to go check on Aircraft X.

Obviously the engine failure was not preventable. I thought the situation was handled extremely well and everything possible was done to assist Aircraft X. All sectors nearby ZZZ4 have poor radio coverage. We eventually lost the ability to communicate with [the aircraft] when he descended through 7,000 MSL. Terrain is generally not an issue in this area so an infusion of funds into the radio infrastructure in the surrounding area would be helpful. Radio coverage is a huge issue throughout all/most ZMP low altitude sectors as well as some high sectors. Additionally, the pilot's decision to change frequencies on his own was not helpful. I'm sure he had a reason and panic played a role but it created confusion and impeded our ability to assist him.

**Narrative: 2**

[Report narrative contained no additional information.]

**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

Multiple ZMP Center controllers reported a small aircraft descended without communicating with ATC following an engine failure.
ACN: 1539765 (38 of 50)

Time / Day
Date: 201805
Local Time Of Day: 0601-1200

Place
Locale Reference. ATC Facility: CDW.Tower
State Reference: NJ
Altitude.MSL.Single Value: 1200

Environment
Light: Daylight

Aircraft: 1
Reference: X
ATC / Advisory.Tower: CDW
Make Model Name: Amateur/Home Built/Experimental
Flight Phase.Other
Airspace.Class D: CDW

Aircraft: 2
Reference: Y
Flight Phase: Climb
Airspace.Class D: CDW

Person: 1
Reference: 1
Location Of Person.Facility: CDW.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1539765
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Person: 2
Reference: 2
Location Of Person.Facility: CDW.Tower
Reporter Organization: Government
Function.Air Traffic Control: Local
Qualification.Air Traffic Control: Fully Certified
ASRS Report Number.Accession Number: 1539784
Human Factors: Communication Breakdown
Communication Breakdown.Party1: ATC
Communication Breakdown.Party2: Flight Crew

Events
Anomaly.Airspace Violation : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Procedural : FAR
Anomaly.Deviation - Procedural : Published Material / Policy
Detector.Person : Air Traffic Control
When Detected : In-flight
Result.Flight Crew : FLC complied w / Automation / Advisory
Result.Air Traffic Control : Separated Traffic
Result.Air Traffic Control : Issued Advisory / Alert

Assessments

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

Narrative: 1

Aircraft X was in right closed traffic at Caldwell Airport (CDW) when a VFR target came up just south of Lincoln Airport (N07) and was climbing. The unknown aircraft was almost 3 miles into my airspace. At this time Aircraft X was approaching right base when a traffic alert was given and Aircraft X started their turn to the base.

Arrivals and departures out of N07 almost always violate class Delta airspace with no two way communications. I recommend that all aircraft call CDW Tower when arriving or departing N07. This way traffic inbound and outbound of CDW and N07 can receive safe and timely traffic calls.

Narrative: 2

[Report narrative contained no additional information.]

Synopsis

CDW Tower Controllers reported traffic off of nearby N07 airport entered Class D without communications, which conflicted with ATC controlled pattern traffic.
ACN: 1538335

**Time / Day**
- Date: 201804
- Local Time Of Day: 1801-2400

**Place**
- Locale Reference: Airport: VOBL.Airport
- State Reference: FO

**Environment**
- Flight Conditions: VMC

**Aircraft**
- Reference: X
  - ATC / Advisory: Center: VOMF
  - Aircraft Operator: Air Carrier
  - Make Model Name: Widebody Transport
  - Crew Size, Number Of Crew: 2
  - Operating Under FAR Part: Part 121
  - Flight Plan: IFR
  - Mission: Cargo / Freight
  - Flight Phase: Cruise

**Person: 1**
- Reference: 1
  - Location Of Person: Aircraft: X
  - Location In Aircraft: Flight Deck
  - Reporter Organization: Air Carrier
  - Function: Flight Crew: Captain
  - Function: Flight Crew: Pilot Flying
  - Qualification: Flight Crew: Multiengine
  - Qualification: Flight Crew: Air Transport Pilot (ATP)
  - Qualification: Flight Crew: Instrument
  - ASRS Report Number: Accession Number: 1538335
  - Human Factors: Communication Breakdown
    - Communication Breakdown, Party 1: Flight Crew
    - Communication Breakdown, Party 2: ATC

**Person: 2**
- Reference: 2
  - Location Of Person: Aircraft: X
  - Location In Aircraft: Flight Deck
  - Reporter Organization: Air Carrier
  - Function: Flight Crew: First Officer
  - Function: Flight Crew: Pilot Not Flying
  - Qualification: Flight Crew: Air Transport Pilot (ATP)
  - Qualification: Flight Crew: Instrument
  - Qualification: Flight Crew: Multiengine
  - ASRS Report Number: Accession Number: 1538474
  - Human Factors: Communication Breakdown
Communication Breakdown. Party1 : Flight Crew
Communication Breakdown. Party2 : ATC

Events
Anomaly. ATC Issue : All Types
Anomaly. Inflight Event / Encounter : Fuel Issue
Detector. Person : Flight Crew
When Detected : In-flight
Result. Flight Crew : Requested ATC Assistance / Clarification
Result. Flight Crew : Diverted

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

Narrative: 1
This divert was due to VOBL’s total ATC saturation. (It was later reported to me by the VOBL mechanic that they actually closed the airport for 2 bird strikes. ATC did not relay that information.) The [urgent situation] declared was due to lack of response from the controllers. It got to the point where they stopped answering calls from not just us, but other aircraft as well. My fuel planning as programmed in the FMC was conservative to be sure, but for good reason. India is experiencing growing pains with rapid air traffic growth. The weather can be somewhat unpredictable with fog.

As we held in the second pattern, you could feel the tension rising with all inbound traffic. Multiple aircraft were expressing concern. My attention shifted to the possibility of lots of airplanes all wanting to head to Hyderabad. We continued to hold and tried to work ourselves in, but my confidence level was near zero. We were finally told that our expected touchdown time was XB39. It was XA56 with a hold limit of XA57. So, we requested clearance to Hyderabad several times and were either ignored or told to standby. Radio congestion was awful. It is unfortunate that in some corners of the world the only way to get the point across is to [advise ATC]. I felt this to be a prudent course of action given the circumstances.

Narrative: 2
[Report narrative contained no additional information.]

Synopsis
Large turbojet flight crew reported communication difficulties with ATC while attempting to land at an international airport. Flight diverted to another airport and landed normally.
ACN: 1538007 (40 of 50)

**Time / Day**

Date: 201804  
Local Time Of Day: 0601-1200

**Place**

Locale Reference, ATC Facility: ZMA.ARTCC  
State Reference: FL  
Altitude, MSL, Single Value: 37000

**Environment**

Light: Daylight

**Aircraft : 1**

Reference: X  
ATC / Advisory Center: ZMA  
Aircraft Operator: Air Taxi  
Make Model Name: Falcon 2000  
Crew Size, Number Of Crew: 2  
Operating Under FAR Part: Part 135  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Descent  
Airspace, Class A: ZMA

**Aircraft : 2**

Reference: Y  
ATC / Advisory Center: ZMA  
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: Cruise  
Airspace, Class A: ZMA

**Person : 1**

Reference: 1  
Location Of Person, Facility: ZMA.ARTCC  
Reporter Organization: Government  
Function, Air Traffic Control: Enroute  
Qualification, Air Traffic Control: Fully Certified  
ASRS Report Number, Accession Number: 1538007  
Human Factors: Communication Breakdown  
Human Factors: Training / Qualification  
Human Factors: Situational Awareness  
Communication Breakdown, Party 1: ATC  
Communication Breakdown, Party 2: Flight Crew
**Person : 2**

Reference : 2  
Location Of Person.Facility : ZMA.ARTCC  
Reporter Organization : Government  
Function.Air Traffic Control : Enroute  
Qualification.Air Traffic Control : Developmental  
ASRS Report Number.Accession Number : 1538012  
Human Factors : Training / Qualification  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : ATC  
Communication Breakdown.Party2 : Flight Crew

**Person : 3**

Reference : 3  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Taxi  
Function.Flight Crew : Pilot Not Flying  
Function.Flight Crew : First Officer  
Qualification.Flight Crew : Air Transport Pilot (ATP)  
Experience.Flight Crew.Total : 2400  
Experience.Flight Crew.Last 90 Days : 50  
Experience.Flight Crew.Type : 40  
ASRS Report Number.Accession Number : 1538602  
Human Factors : Confusion  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

**Person : 4**

Reference : 4  
Location Of Person.Aircraft : X  
Location In Aircraft : Flight Deck  
Reporter Organization : Air Taxi  
Function.Flight Crew : Captain  
Function.Flight Crew : Pilot Flying  
Experience.Flight Crew.Total : 10000  
Experience.Flight Crew.Last 90 Days : 70  
Experience.Flight Crew.Type : 120  
ASRS Report Number.Accession Number : 1538601  
Human Factors : Communication Breakdown  
Human Factors : Situational Awareness  
Communication Breakdown.Party1 : Flight Crew  
Communication Breakdown.Party2 : ATC

**Events**

Anomaly.ATC Issue : All Types  
Anomaly.Conflict : Airborne Conflict  
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude  
Anomaly.Deviation - Procedural : Clearance
Aircraft X was given a descent clearance out of 40000 feet to 38000 feet. Aircraft X read back the descent clearance to 38000 feet correctly. The radar team then noticed that was descending out of 37700 feet to an unknown altitude head on with Aircraft Y northbound level at 37000 feet. The Radar Controller issued Aircraft X an expedited turn to the right and Aircraft Y and expedited turn to the right as well. The Radar Controller then issued an expedited descent clearance to 34000 feet for Aircraft X. Aircraft Y then declared an RA and began to climb. Aircraft X also declared an RA and descended. Once both aircraft were clear from the problem the Radar Controller cleared both aircraft back on course.

Narrative: 2

[Report narrative contained no additional information.]

Narrative: 3

[Report narrative contained no additional information.]

Flying at 40000 feet we were instructed by Miami Center to descend and maintain 37000 feet. We descended and flew at 37000 feet for approximately 3-5 minutes. At that time the Center controller instructed us to immediately turn right 30 degrees. As I was making the turn with the heading bug on auto pilot to the instructed heading the controller instructed me to increase the rate of turn. At that time I disengaged the auto pilot and manually increased my bank to 30 degrees to a 225 heading. At that point we received a traffic alert followed by a resolution advisory to descend. I followed the RA which gave me about a 1200 FPM rate of descent. In a matter of 3-5 second the RA prompted "clear of conflict." I had descended approximately 600-700 feet. [At] that time I recovered to an altitude of 37000 feet still on the 225 heading and I re-engaged the auto pilot. The Controller immediately left the frequency and was replaced by another controller. We continued on the 225 heading for the next 3-5 minutes. I transferred the controls to the SIC (Second in Command) and left the cockpit for thirty seconds to 1 minute to secure the cabin. When I returned and took the controls again the SIC informed me that we were now cleared and proceeding direct to an intersection. We were then handed off to the next Center controller who instructed us to descend and maintain 34000 feet. The Controller also said we may have been involved in a traffic incursion and gave us a number to call the Center when we got on the ground.

Synopsis
Center Controllers and an air taxi flight crew reported the aircraft responded to an RA while being vectored and descended for opposite direction traffic at the same altitude.
**ACN: 1537431 (41 of 50)**

**Time / Day**
Date: 201804  
Local Time Of Day: 0001-0600

**Place**
Locale Reference: Airport: RJAA.Airport  
State Reference: FO  
Altitude.MSL.Single Value: 4000

**Environment**
Flight Conditions: IMC

**Aircraft**
Reference: X  
ATC / Advisory.Tower: RJAA  
Aircraft Operator: Air Carrier  
Make Model Name: Commercial Fixed Wing  
Crew Size.Number Of Crew: 3  
Operating Under FAR Part: Part 121  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Final Approach

**Person: 1**
Reference: 1  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function.Air Traffic Control: Approach  
Function.Flight Crew: First Officer  
Function.Flight Crew: Pilot Flying  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1537431  
Human Factors: Communication Breakdown  
Human Factors: Time Pressure  
Communication Breakdown.Party 1: Flight Crew  
Communication Breakdown.Party 2: ATC

**Person: 2**
Reference: 2  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Air Carrier  
Function.Air Traffic Control: Approach  
Function.Flight Crew: Pilot Not Flying  
Function.Flight Crew: Captain  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
ASRS Report Number.Accession Number: 1537440  
Human Factors: Time Pressure
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events
Anomaly.ATC Issue : All Types
Anomaly.Inflight Event / Encounter : Weather / Turbulence
Anomaly.Inflight Event / Encounter : Fuel Issue
Detector.Person : Flight Crew
When Detected : In-flight
Result.Flight Crew : Landed in Emergency Condition
Result.Flight Crew : Requested ATC Assistance / Clarification
Result.Air Traffic Control : Provided Assistance
Result.Air Traffic Control : Issued New Clearance

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

Narrative: 1
All phases of flight prior to the attempted divert were normal and all SOPs complied with. On the Candy C arrival we were broken off and given vectors and speeds to comply with. We were then given vectors for LILAC and eventually MAYAH for the ILS Z 24 L. Several speed and altitude changes were given inbound to LILAC and MAYAH. The approach was commenced and several speed changes were given inside and outside the IAF. Once inside the IAF we were given three rapid speed reductions and complied with all. Over or past [we] were given a clearance of Air Carrier X turn right to MAYAH and climb to 4,000 feet. This was misunderstood as shortly before this clearance another plane was given clearance to proceed to MAYAH. There was never any verbiage by ATC informing us we were breaking off the approach, so a nebulous clearance such as this inside the IAF was misinterpreted as being given to another crew. Once it was recognized that the clearance was for us, we commenced a missed approach climb to 4,000 feet. During the missed approach the crew recognized they were below bingo fuel due to extensive vectoring on the arrival and approach and a decision was made to proceed to the alternate. This is where the confusion began. The crew stated they wanted "vectors for Nagoya for a divert" Several times ATC inquired why we needed to go to Nagoya and the reason was stated "fuel". No action was taken by ATC except to vector us on a 240 heading directly away from the alternate and the landing field. Crew requested climb to 10,000 feet and was given the climb. Because ATC was not heading us in the right direction and was continuing to inquire as to why we needed to go to Nagoya. The terminology of needing to go to Romeo Juliet Gulf Gulf Centrair seemed to clear the confusion with ATC. Vectors were then given in the direction of the alternate. After seeing the direction of flight and proximity to [destination] crew coordinated to receive vectors back into [destination] and knocked off divert to RJAA. During the entire phase we were IMC in light to moderate rain. After receiving clearance to MAYAH for the ILS Z 24 R everything was normal and all SOP complied with. Block in fuel was 6.1 and the [Foreign] ATC representative that met us in the cockpit was told the [ATC was notified] with approximately 6.5k of fuel remaining.

Narrative: 2
[Report narrative contained no additional information.]
Synopsis

Air Carrier flight crew reported difficulty communicating with a foreign ATC. During their approach to landing phase a low fuel event developed. The crew had problems communicating their situation and requests.
**ACN: 1536814 (42 of 50)**

**Time / Day**
- Date: 201804
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference: Airport: LAX.Airport
- State Reference: CA
- Altitude.MSL.Single Value: 2200

**Environment**
- 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 129
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Landing
- Flight Phase: Final Approach
- Route In Use: Visual Approach
- Route In Use.STAR: IRNMN
- Airspace.Class B: LAX

**Aircraft : 2**
- Reference: Y
- ATC / Advisory.TRACON: SCT
- Aircraft Operator: Air Carrier
- Make Model Name: A380
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Flight Phase: Final Approach
- Airspace.Class B: LAX

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Instrument
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Multiengine
- Experience.Flight Crew.Last 90 Days: 298
Experience.Flight Crew.Type : 273
ASRS Report Number.Accession Number : 1536814
Human Factors : Communication Breakdown
Human Factors : Situational Awareness
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC
Analyst Callback : Attempted

Person : 2
Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Air Carrier
Function.Flight Crew : Captain
Function.Flight Crew : Pilot Not Flying
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Instrument
Experience.Flight Crew.Last 90 Days : 409
ASRS Report Number.Accession Number : 1536818
Human Factors : Situational Awareness
Human Factors : Communication Breakdown
Human Factors : Distraction
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

Events
Anomaly.Deviation - Procedural : Landing Without Clearance
Anomaly.Inflight Event / Encounter : Wake Vortex Encounter
Detector.Person : Flight Crew
When Detected : Taxi
Result.General : None Reported / Taken

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

Narrative: 1
Coming in on the IRNMN 1 RNAV Arrival into LAX, we had a couple of slight wake turbulence encounters. On downwind into LAX, we found we were following an A380. I said I was going to keep the glideslope one dot high, landing behind the A380; the Captain agreed with that assessment. When cleared for the visual and told to switch to Tower at JETSA with traffic and airport in sight. The Captain reminded me to keep it a dot high behind the Super.

I was concentrating on hand flying the approach a dot high, and the Captain was closely monitoring my flying. We both forgot to switch over to Tower at JETSA and landed still on Approach frequency. I didn't realize until we had taxied clear and were holding short of 24L that were not on Tower, and still on Approach. We quickly switched frequencies to
Tower and said we were clear of the runway (Runway 24R) and holding short 24L. Tower asked us "what happened?" We replied, "We got busy on the approach."

I think we both became too engrossed in the approach, and possibility of a wake upset, that we lost our situational awareness on which frequency we were. We should have realized by our lights switch position. We had not been cleared to land, and had not contacted Tower.

**Narrative: 2**

We had experienced two solid bumps which we attributed to wake turbulence while flying the IRNMN 1 Arrival to Runway 24R at LAX. Upon turning base and turning over to Final Controller, we were advised we were following an A380 and cautioned for wake turbulence. We called the A380 and the field in sight and were cleared for the visual approach. I advised the New Hire First Officer to stay at least a dot above the glideslope. He initially dipped a bit, then turned off the automation, leveled, and stayed a dot above. Final advised us to contact Tower at JETSA. I put Tower frequency into radio and waited to flip the switch at JETSA. We extended gear [and] flaps and ran the Before Landing Checklist. I got caught up in observing his progress and didn't flip the switch. We landed 24R. Tower said nothing, but I clearly didn't have clearance to land!

**Synopsis**

B737-700 flight crew reported landing without clearance after being distracted by a wake turbulence encounter on arrival into LAX.
**Time / Day**

Date: 201804  
Local Time Of Day: 1201-1800

**Place**

Locale Reference.Airport: PDK.Airport  
State Reference: GA  
Relative Position.Distance.Nautical Miles: 2  
Altitude.MSL.Single Value: 3000

**Environment**

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

**Aircraft : 1**

Reference: X  
ATC / Advisory.Tower: PDK  
Aircraft Operator: Corporate  
Make Model Name: EMB-505 / Phenom 300  
Crew Size.Number Of Crew: 2  
Operating Under FAR Part: Part 91  
Flight Plan: IFR  
Mission: Passenger  
Flight Phase: Initial Climb  
Route In Use: Vectors  
Airspace.Class D: PDK

**Aircraft : 2**

Reference: Y  
ATC / Advisory.Tower: PDK  
Make Model Name: Cirrus Aircraft Undifferentiated  
Operating Under FAR Part: Part 91  
Flight Phase: Climb  
Airspace.Class D: PDK

**Person : 1**

Reference: 1  
Location Of Person.Aircraft: X  
Location In Aircraft: Flight Deck  
Reporter Organization: Corporate  
Function.Flight Crew: Captain  
Function.Flight Crew: Pilot Not Flying  
Qualification.Flight Crew: Instrument  
Qualification.Flight Crew: Air Transport Pilot (ATP)  
Qualification.Flight Crew: Multiengine  
Experience.Flight Crew.Total: 11000
Experience.Flight Crew.Last 90 Days : 80
Experience.Flight Crew.Type : 1150
ASRS Report Number.Accession Number : 1536668
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

**Person : 2**

Reference : 2
Location Of Person.Aircraft : X
Location In Aircraft : Flight Deck
Reporter Organization : Corporate
Function.Flight Crew : Pilot Flying
Function.Flight Crew : First Officer
Qualification.Flight Crew : Flight Instructor
Qualification.Flight Crew : Instrument
Qualification.Flight Crew : Multiengine
Qualification.Flight Crew : Air Transport Pilot (ATP)
Qualification.Flight Crew : Flight Engineer
Experience.Flight Crew.Total : 24000
Experience.Flight Crew.Last 90 Days : 90
Experience.Flight Crew.Type : 1000
ASRS Report Number.Accession Number : 1536092
Human Factors : Communication Breakdown
Communication Breakdown.Party1 : Flight Crew
Communication Breakdown.Party2 : ATC

**Events**

Anomaly.ATC Issue : All Types
Anomaly.Conflict : NMAC
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Procedural : Published Material / Policy
Anomaly.Deviation - Procedural : Clearance
Detector.Automation : Aircraft RA
Detector.Person : Flight Crew
Detector.Person : Air Traffic Control
Miss Distance.Horizontal : 400
Miss Distance.Vertical : 200
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

**Assessments**

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

**Narrative: 1**

We were departing runway 21L at PDK. With our takeoff clearance we were given a heading of 270 and a traffic call. I read back all except I "rogered" the traffic instead of saying "looking."
After takeoff, cleaning up, after turning to 270 the tower asked again if we had the traffic, and I said no that we were looking. We did see the traffic on TCAS but never saw him due to maybe sun angle, not sure. Regardless the tower gave us a 10 degree heading change that turned out to be pretty important. Also about that time we received an RA Climb command as we approached level off at 3,000 feet.

Once we got the RA command I mentioned to the tower that we finally had the traffic in sight as we climbed to 3,800 feet or so with 3,000 feet assigned, and was switching to departure as I wanted to talk with the controllers of the airspace that we had just entered. We switched to departure and immediately reported the RA.

After landing at final destination we called the tower and debriefed the incident with them. Our point was that even had we seen the aircraft sooner we would have had to ask to deviate or still had an RA. From what we saw, the traffic (a Cirrus) was climbing and was very close to our altitude at 3,000 feet.

**Narrative:** 2

Departed runway 21L. A Cirrus departed 21R. We were given a traffic advisory after liftoff that there was an aircraft at twelve o'clock that had departed runway 21R. We advised tower that we did not see the traffic. Our clearance was to turn right after departure to a heading of 270 degrees and climb to 3,000 feet MSL. Out of about 2,000 feet, the tower said turn left 10 degrees to avoid traffic. We did not see the traffic until we passed him. A resolution advisor commanded a climb. We climbed to 4,000 feet. Original clearance was to maintain 3,000. After the RA was complete, we returned to 3,000 feet MSL.

**Synopsis**

Phenom 300 flight crew reported a NMAC on departure while following ATC instructions.
ACN: 1535930 (44 of 50)

Time / Day
Date: 201804
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: VHHH.Airport
State Reference: FO
Relative Position.Angle.Radial: 050
Relative Position.Distance.Nautical Miles: 20
Altitude.MSL.Single Value: 13000

Environment
Flight Conditions: VMC
Light: Night

Aircraft
Reference: X
ATC / Advisory.Center: VHHK
Aircraft Operator: Air Carrier
Make Model Name: B747-400
Crew Size.Number Of Crew: 4
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight
Nav In Use: FMS Or FMC
Flight Phase: Climb
Route In Use.SID: BEKOL3A

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Relief Pilot
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 13000
Experience.Flight Crew.Last 90 Days: 230
Experience.Flight Crew.Type: 4200
ASRS Report Number.Accession Number: 1535930
Human Factors: Human-Machine Interface
Human Factors: Time Pressure
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Type: 747
ASRS Report Number.Accession Number: 1537455
Human Factors: Time Pressure
Human Factors: Communication Breakdown
Human Factors: Human-Machine Interface
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 3
Reference: 3
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 5000
Experience.Flight Crew.Last 90 Days: 103
Experience.Flight Crew.Type: 1000
ASRS Report Number.Accession Number: 1537216
Human Factors: Time Pressure
Human Factors: Communication Breakdown
Human Factors: Human-Machine Interface
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Events
Anomaly.Flight Deck / Cabin / Aircraft Event: Other / Unknown
Anomaly.Deviation - Altitude: Crossing Restriction Not Met
Anomaly.Deviation - Speed: All Types
Anomaly.Deviation - Procedural: Published Material / Policy
Anomaly.Inflight Event / Encounter: Other / Unknown
Detector.Automation: Aircraft Other Automation
Detector.Person: Flight Crew
Were Passengers Involved In Event: N
When Detected: In-flight
Result.Flight Crew: Regained Aircraft Control
Result.Flight Crew: FLC complied w / Automation / Advisory
Result.Air Traffic Control: Issued New Clearance

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

Narrative: 1

Per the Captain's authorization, [a flight crew member] was in the cabin for takeoff and I was in the first observer seat. Weather was good with calm winds. Takeoff weight [was] 872,100 [pounds]. FO (First Officer) was flying pilot. On takeoff, we were cleared to fly the BEKOL 3A RNAV Departure. The FO flew the aircraft in VNAV and shortly after takeoff, turned the autopilot on. Per the SID, he engaged speed intervene at 220 KTS until passing PORPA and then asked for a high speed climb to accelerate past the flaps 5 speed to have the power reduction to climb power. At that point, I reminded the flying crew of the 15700 foot crossing restriction at BEKOL. FO acknowledged and said he would climb at Flaps Up Speed plus 20 KTS. Approximately 10 miles from Tung Lung, Hong Kong assigned us a heading of 060 then asked if we would be able to make the crossing restriction at BEKOL. Both Captain and FO agreed they could and responded "yes." FO continued the climb at flaps up +20 speed. Climbing out of about 11000 [feet], Hong Kong gave us a clearance to fly direct BEKOL and climb to 16000 [feet]. Given our heavy weight and low airspeed, the aircraft was flying at a deck angle close to the Pitch Limit Indication. At 6 miles from BEKOL, FO stated we will not make the restriction. I assumed Captain would inform Hong Kong Control of our limitation but instead he instructed FO to fly in VS (Vertical Speed) mode at 3000 [feet] per minute and climb at the Clean Maneuvering Speed. FO immediately complied by engaging VS at 3000 fpm. Already in a high deck angle, the aircraft further pitched up to achieve the 3000 feet per minute vertical speed and the airspeed abruptly bled off below clean maneuvering speed. I called out "Airspeed Low" and FO disengaged the autopilot to reduce the deck angle. The aircraft began a descent and I replied "don't descend." FO pitched up to stop the descent but did so too aggressively which cause the aircraft to fly into the Pitch Limit Indicator and activate the stick shaker. FO pitched down to correct the situation and descended to regain airspeed to flaps up plus 20 KTS. During the recovery, the aircraft lost several hundred feet of altitude and Hong Kong Control assigned us a heading of approximately 280. Once established back in the controlled climb and normal flight, Hong Kong cleared us back on course.

There was no further discussion with Air Traffic Control concerning the situation. This departure scenario is not uncommon. That flight is normally near Max Gross Takeoff Weight and we are normally assigned the BEKOL crossing restriction. Sometimes, we are able to make the restriction and sometimes not. I watched this scenario unfolding but wrongfully assumed that Captain would inform ATC that we were unable to make the restriction. The time lapse from when Captain instructed the use of VS mode to the point of abrupt airspeed loss was so fast, I didn't have time to provide any other input other than react with my "Airspeed Low" callout. The situation could have easily been avoided by staying in a normal climb and informing Hong Kong that we would not be able to comply with the 15700 [feet] above crossing restriction at BEKOL.

Narrative: 2
[Report narrative contained no additional information.]

Narrative: 3
[Report narrative contained no additional information.]

Synopsis
B 747 Captain, First Officer and Relief Officer reported getting slow on the BEKOL3A SID from VHHH thus causing activation of the stick shaker.
Time / Day

Date: 201804
Local Time Of Day: 1801-2400

Place

Locale Reference.Airport: WSSS.Airport
State Reference: FO
Relative Position.Angle.Radial: 023
Relative Position.Distance.Nautical Miles: 2
Altitude.AGL.Single Value: 1500

Environment

Flight Conditions: VMC
Light: Night

Aircraft: 1

Reference: X
ATC / Advisory.Tower: WSSS
Aircraft Operator: Air Carrier
Make Model Name: B767-300 and 300 ER
Crew Size.Number Of Crew: 2
Operating Under FAR Part: Part 121
Flight Plan: IFR
Mission: Cargo / Freight
Nav In Use: FMS Or FMC
Flight Phase: Initial Climb
Route In Use.SID: VMR 5A

Aircraft: 2

Reference: Y
Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer

Person: 1

Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Instrument
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Multiengine
Experience.Flight Crew.Total: 14900
Experience.Flight Crew.Last 90 Days: 40
Experience.Flight Crew.Type: 5900
ASRS Report Number.Accession Number: 1535684
Human Factors: Workload
Human Factors: Communication Breakdown
Human Factors: Fatigue
During initial climb through approximately 1,500 feet, we encountered wake turbulence from the preceding aircraft that caused the aircraft to bank approximately 10-15 degrees to the right. I was the Pilot Flying (PF) and first guarded the controls, but the roll seemed like it was going to continue and I decided to not let it go further, so I disengaged the Autopilot (A/P) to correct the flight path. We were very busy at this stage of flight with a clearance and radio call from our initially assigned 3,000 feet to a new clearance to climb 6,000 feet. We were also in the process of cleaning up the flaps to flaps 1 and had a 230 knot speed restriction until above 4000 feet on the WSSS VMR 5A SID. Believing we were clear of the wake turbulence, we tried to reengage the A/P but it disconnected, so I continued to fly. We proceeded to select flaps up on schedule as normal with our airspeed increasing toward clean maneuvering speed of 226 knots, we then encountered wake turbulence a 2nd time.

After it smoothed out, we again tried to reengage the A/P, but it disconnected or didn't
engage, I continued to fly the airplane. We then encountered wake turbulence a third time and a brief stick shaker occurred (1 sec) as we were approximately 10 knots under our clean maneuvering speed of 226 and attempting to accelerate to no greater than 230 knots per the SID. Of course there was also a lot going on with the A/P disconnect warnings sounding twice, but the aircraft was under control, and I did not observe that I was too close to the Pilot Limit Indicator (PLI) until the shaker sounded. In fact, it seemed to me that the PLI disappeared at or near this point in the climb, and came back on simultaneously with the brief shaker - at least that's what I thought I saw. I quickly recovered from the shaker and we waited a bit before reattempting to engage the A/P, which we did successfully.

Aside from the brief warning that occurred while in turbulence and a less than perfect lateral track on the SID, I felt that the aircraft was in control throughout the event. I feel the momentary stick shaker was likely the combination of being 10 knots slower than clean maneuvering speed at a heavier weight, and the wake turbulence causing a sudden change in angle of attack. In retrospect, maintaining flaps 1 until clear of the turbulence might have worked better, but there was a lot going on in the moment, and I thought we were clear of the turbulence after each encounter so I continued to fly the normal flap cleanup profile while mindful to not exceed 230 knots. The 230-knot restriction played a part in my reluctance to accelerate too quickly to 226 and thus may have also played a part in why I was a bit slow as we hit the last wake turbulence. I feel we did the best we could given the complexities of the situation. As a side note to my recollection, the Tower did not advise us we were behind a heavy, and I was not aware given that it was dark as we taxied. Fatigue is always an issue flying international with multiple circadian flips.

**Narrative: 2**

During initial climb out, we encountered wake turbulence from the preceding aircraft, so the Captain disconnected the autopilot to recover from the induced roll. While recovering the aircraft from the third separate wake turbulence encounter in the initial climb out, we experienced a very brief stick shaker (1 sec) caused by a sudden change of angle of attack (AOA) associated with the wake turbulence. During initial climb through approximately 1,500 feet, we encountered wake turbulence from the preceding aircraft that caused the aircraft to bank approximately 10-15 degrees to the right.

I was the Pilot Monitoring and monitored the Captain, but the roll seemed like it was going to continue and he decided to not let it go further, so he disengaged the autopilot to correct the flight path. We were very busy at this stage of flight with a clearance and radio call from our initially assigned 3,000 feet to a new clearance to climb 6,000 feet. We were also in the process of cleaning up the flaps to flaps 1 and had a 230 knot speed restriction until above 4000 feet on the WSSS VMR 5A SID. Believing we were clear of the wake turbulence, we tried to reengage the Autopilot (A/P) but it disconnected, so the Captain continued to fly.

We proceeded to select flaps up on schedule as normal with our airspeed increasing toward clean maneuvering speed of 226 knots, we then encountered wake turbulence a 2nd time. After it smoothed out, we again tried to reengage the A/P, but it disconnected or didn't engage, the Captain continued to fly the airplane. We then encountered wake turbulence a third time and a brief stick shaker occurred (1 sec) as we were approximately 10 knots under our clean maneuvering speed of 226 and attempting to accelerate to no greater than 230 knots per the SID. Of course there was also a lot going on with the A/P disconnect warnings sounding twice, but the aircraft was under control, and I did not observe that we were too close to the Pilot Limit Indicator (PLI) until the shaker sounded. In fact, it seemed to me that the PLI disappeared at or near this point in the climb, and
came back on simultaneously with the brief shaker - at least that's what I thought I saw.

The Captain quickly recovered from the shaker and we waited a bit before reattempting to engage the A/P, which we did successfully. Aside from the brief warning that occurred while in turbulence and a less than perfect lateral track on the SID, I felt that the aircraft was in control throughout the event. I feel the momentary stick shaker was likely the combination of being 10 knots slower than clean maneuvering speed at a heavier weight, and the wake turbulence causing a sudden change in AOA. In retrospect, maintaining flaps 1 until clear of the turbulence might have worked better, but there was a lot going on in the moment, and I thought we were clear of the turbulence after each encounter so we continued to fly the normal flap cleanup profile while mindful to not exceed 230 knots. The 230 knot restriction played a part in our reluctance to accelerate too quickly to 226 and thus may have also played a part in why we were a bit slow as we hit the last wake turbulence. I feel we did the best we could given the complexities of the situation. As a side note, to my recollection, the Tower did not advise us we were behind a heavy, and I was not aware given that it was dark.

Synopsis

B767-300 flight crew reported speed and track deviations occurred following a wake turbulence encounter departing WSSS.
**ACN: 1534601** (46 of 50)

**Time / Day**
- Date: 201804
- Local Time Of Day: 1201-1800

**Place**
- Locale Reference, ATC Facility: NFFF.ARTCC
- State Reference: FO
- Altitude, MSL, Single Value: 35000

**Environment**
- Flight Conditions: IMC
- Weather Elements / Visibility: Thunderstorm
- Light: Daylight

**Aircraft**
- Reference: X
- ATC / Advisory, Center: NFFF
- Aircraft Operator: Air Carrier
- Make Model Name: B787 Dreamliner Undifferentiated or Other Model
- Crew Size, Number Of Crew: 3
- Operating Under FAR Part: Part 121
- Flight Plan: IFR
- Mission: Passenger
- Nav In Use: FMS Or FMC
- Flight Phase: Cruise
- Route In Use: Oceanic

**Component**
- Aircraft Component: Weather Radar

**Person : 1**
- Reference: 1
- Location Of Person, Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function, Flight Crew: Pilot Flying
- Function, Flight Crew: Captain
- Qualification, Flight Crew: Instrument
- Qualification, Flight Crew: Multimotor
- Qualification, Flight Crew: Air Transport Pilot (ATP)
- Experience, Flight Crew, Total: 22000
- Experience, Flight Crew, Type: 1131
- ASRS Report Number, Accession Number: 1534601
- Human Factors: Human-Machine Interface
- Human Factors: Training / Qualification
- Human Factors: Workload
- Human Factors: Communication Breakdown
While transiting an area of weather, we were forced to utilize the Weather Deviation without a clearance procedure as outlined in the FOM and Quick Reference Guide. We were not the only ones that night, either. Air Carrier behind us, also required to utilize the procedure.

At XA15Z we received NFFF/NADI SIGMET Number 1 showing stationary weather across our route extending as far east as S13E166 and as far west as S12W175 with tops to FL480. This effectively bisected our route for hundreds of miles both left and right of our
course. As we approached the line of weather at FL350, it painted from behind and to the left (7:00-8:00 [o'clock]) across our route to our 1-2:00 position (both to the edges of effective radar coverage). At XB20Z, we received NFFF SIGMET Number 4 altering slightly the geographic points of SIGMET Number 1. Our radar display clearly favored a right deviation, so at XB24Z we initially asked for and received clearance for up to Right 70 NM. As we continued north eastbound, it quickly became necessary for larger deviations of 120 and finally 128 (XB32Z and XB45Z respectively), the maximum that NFFF could approve. Radar returns were growing and appearing further and further ahead of us as the storms reached the edge of our radar range (200 NM or so).

While this was taking place (and with a dynamic and rapidly changing weather situation/picture, seating our Flight Attendants, etc.) we realized that for deviations greater than 99 NM, we needed to go to heading select mode, since the FMC (and therefore LNAV) will not accept greater than 99 NM offsets. This greatly increased our workload. Worse yet, beyond this distance (99 NM) we were not able to precisely determine 128 NM, our cleared limit, as OFFSET DISTANCE IS NO LONGER DISPLAYED IN THE FMC. As we passed 99 NM, right off course, the Prog. 2 page showed no usable data. To get around this limitation, we tried deleting the (99 NM FMC) offset completely in an effort to show a distance from the original route rather than from the 99 NM (FMC) offset, to no avail. Once beyond 99 NM off original course, the FMC DOES NOT SHOW OFFSET DISTANCE (at least on the Prog. page 2)! We therefore had to utilize the map range marks on the ND (at low ranges) as an approximation (while selecting at times more appropriate radar ranges), creating significant task saturation. As we approached what I estimated to be 128 NM right, I complied with the weather deviation without a clearance procedure including climb of 300 feet, lights on, etc., as we still could not safely come back left. NFFF subsequently cleared us block 350-360, perhaps seeing that we had climbed 300 feet. NFFF was also asking if we had new routing in mind since he could not approve greater than 128 NM. We felt that with the radar display limited in distance and our task saturation, that we did not have time for a lengthy discussion with dispatch regarding routing options, nor did we have time then to figure it out on our own. Dispatch was sending messages at roughly the same time indicating where he saw lightning, but had indicated earlier that his radar picture of the area was not that great.

I finally found an area that, while not ideal, was at least our first and perhaps only hole. I believe this to have been somewhere near our clearance limit of R128 NM, but was unable to exactly determine the distance from course, for the already mentioned reasons. I took the left turn and we were able to transit the remaining affected area with a reasonable ride. Around this time we received NFFF SIGMET Number 5 (issued at XC28Z) changing the boundaries of the affected airspace to slightly further both east and west. However, by this time we were well in the battle and had begun our correction back to our course.

Obviously, the weather around us was changing rapidly. Perhaps this was why we had little warning of it prior to leaving [departure airport]. Several company aircraft transited the area in the hours before we did, with no PIREPs, so this further illustrates the dynamic nature of the weather that evening.

I have two concerns with this event: First, the FMC limitations that I illustrated dramatically increased our workload. When combined with the rapidly changing weather picture, we had limited bandwidth to coordinate with dispatch for a revised routing beyond the clearance limit of 128 NM right of course. Our job at that point was to keep us on a heading away from harm's way.

Secondly, the B787 Multi-Scan radar is completely different from what we have operated
in the past. I found this out during my first few months on the line with the 787, BUT DID NOT HAVE ANY SIGNIFICANT TRAINING ON IT. It tends to paint weather as more intensely in auto mode than previous radar models I have used (727, 737, 757/767, and 777). I knew this on our flight; however, being in the Equatorial Convergence Zone, my desire was to err on the side of caution, in case of dry-top storms. Using various manual mode settings to see something more comparable to my past experience definitely added to an already task saturated event. It was only through using manual mode in various configurations that we were able to find our "hole" to fly through. I ENCOURAGE COMPANY TO DEVELOP A COMPREHENSIVE TRAINING COURSE on the differences of this radar and how to most efficiently utilize its capabilities.

**Narrative: 2**

[Report narrative contained no additional information.]

**Synopsis**

B787 flight crew reported concerns with the Flight Dynamics, Navigation, and Safety Systems.
ACN: 1534511 (47 of 50)

**Time / Day**
- Date: 201804
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference
  - ATC Facility: SCT.TRACON
- State Reference: CA
- Altitude.MSL.Single Value: 8000

**Environment**
- Flight Conditions: VMC

**Aircraft : 1**
- Reference: X
- ATC / Advisory.TRACON: SCT
- 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
- Flight Phase: Descent
- Route In Use.STAR: EAGLZ2

**Aircraft : 2**
- Reference: Y
- Make Model Name: Any Unknown or Unlisted Aircraft Manufacturer
- Flight Phase: Climb
- Airspace.Class E: SCT

**Person : 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Multiengine
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- Qualification.Flight Crew: Instrument
- ASRS Report Number.Accession Number: 1534511
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person : 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
We were descending via the EAGLZ2 RNAV arrival. As we were approaching EAGLZ intersection, SOCAL approach advised us of traffic 10 or 11 o'clock, northwest bound at 8,500 ft and type of aircraft unknown. And, that he was not talking to that aircraft. As this aircraft was converging towards us, I was not able to see it visually. Near STOMN intersection, I acquired the aircraft on TCAS. He was at about 10 miles and rapidly converging on our position. I informed the Captain. Then SOCAL approach told us to descend to 8,000 ft. The captain did so without delay to get below the other aircraft's altitude.

At this point, the other aircraft was at about 7 miles from us and still converging rapidly. Then, within 5 miles, the other aircraft begins a descent and the "TRAFFIC TRAFFIC" Annunciations begin to alarm. Moments later, just as SOCAL approach was trying to give us a control instruction to descend, the TCAS RA alarmed. TCAS voice annunciations and pitch commands for "CLIMB, CLIMB" were sounding off and being displayed. I replied to SOCAL approach's instruction by stating "Unable, we are responding to a RA". Moments later, the TCAS annunciated to us "LEVEL OFF". We cleared the conflict, were vectored across the final for our descent and made a safe landing.

After a moment of reflection, I'm left wondering why SOCAL had us descend thru his altitude? Especially if they were not "talking to him"? I don't think that was a good call on his part. I don't think there was anything else we could have done. Had I realized his rate...
of closure sooner, I would not have accepted the clearance to descend to 8,000 ft. Perhaps a VFR corridor for General Aviation aircraft crossing over the mountains would be appropriate. Or, convert ONT area into a class B airspace and protect the IFR arrival corridors.

**Narrative: 2**

On Eaglz2 arrival at 9000 ft. Told by ATC to descend to 8000 ft for traffic at 1100 o'clock at 8500 ft. Upon are arrival at 8000 ft. Traffic appeared to descend from 8500 ft and head directly for us. We received an RA and was instructed to climb. We climbed to about 8600 ft until told clear of conflict. We then returned to our assigned altitude and were immediately given lower. We never saw traffic. ATC advised he was not talking to other aircraft. Flight conditions were continuous light turbulence with some moderate bumps. It was bumpy but VFR. We were also crossing a mountain range and that is probably why we were not given a descent command.

Someone needs to check if that other aircraft was in airspace they should not have been. Also controller should have had us climb so we were not pinched between a mountain and an aircraft descending on us.

**Synopsis**

Air Carrier flight crew reported responding to an RA that was contrary to ATC instructions.
ACN: 1534283 (48 of 50)

Time / Day
Date: 201804
Local Time Of Day: 0601-1200

Place
Locale Reference.Airport: MCO.Airport
State Reference: FL
Altitude.MSL.Single Value: 2000

Environment
Flight Conditions: VMC
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.Tower: MCO
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: Initial Climb
Airspace.Class B: MCO

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: First Officer
Function.Flight Crew: Pilot Flying
Qualification.Flight Crew: Multiengine
Qualification.Flight Crew: Air Transport Pilot (ATP)
Qualification.Flight Crew: Instrument
Experience.Flight Crew.Type: 3821
ASRS Report Number.Accession Number: 1534283
Human Factors: Communication Breakdown
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Not Flying
Function.Flight Crew: Captain
Qualification.Flight Crew: Air Transport Pilot (ATP)
Events

Anomaly.ATC Issue : All Types
Anomaly.Conflict : Airborne Conflict
Anomaly.Deviation - Altitude : Excursion From Assigned Altitude
Anomaly.Deviation - Track / Heading : All Types
Anomaly.Deviation - Procedural : Clearance
Detector.Automation : Aircraft TA
Detector.Automation : Aircraft RA
Detector.Person : Air Traffic Control
Detector.Person : Flight Crew
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

Assessments

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

Narrative: 1

Tower assigned heading 220 on departure 17R MCO. Climb to 5000 ft. At approx 500 ft
tower calls traffic 1 o clock and 2-3 miles. Says traffic has us in sight. We acquired traffic
visually. Traffic was at our altitude within 2-3 miles. At that time we begin increasing climb
to avoid traffic simultaneously TCAS RA came. We turned further right to avoid traffic and
complied with RA by climbing faster. Traffic was in sight the whole time. According to
TCAS we probably missed the traffic by about 300-500 ft. Told tower we were following
RA. Then returned to heading and altitude assigned when clear of conflict.

Narrative: 2

After takeoff 17R MCO, First Officer was Pilot Flying and turning to assigned heading of
220. During turn Tower controller transmitted "[Callsign] Please remain on my frequency."
Approximately same time, we received TCAS Traffic Alert. Climbing through 1000 ft
approximately, I acquired aircraft on my TCAS display. I looked outside and saw a small
single engine Cessna at or about our altitude and approximately 2 miles in front of us,
traveling Eastbound. I advised First Officer to tighten his right turn and continue to a
further Westerly heading. We then received TCAS RA Climb command, about same time as
Tower announced traffic. I notified Tower of TCAS RA Climb and Tower controller stated
Cessna pilot had us in sight. In my opinion had we not increased our rate of turn,
separation would have been significantly compromised. I did not query Tower or Departure
controller on why we were not issued traffic alert prior to takeoff or why our takeoff
clearance was not delayed.
Synopsis

B737 flight crew reported responding to a RA on initial climb out.
**ACN: 1533696 (49 of 50)**

**Time / Day**
- Date: 201804
- Local Time Of Day: 0601-1200

**Place**
- Locale Reference.Airport: DFW.Airport
- State Reference: TX
- Altitude.MSL.Single Value: 6000

**Environment**
- Flight Conditions: VMC

**Aircraft**
- Reference: X
- ATC / Advisory.TRACON: D10
- Aircraft Operator: Air Carrier
- Make Model Name: Widebody Transport
- Crew Size.Number Of Crew: 3
- Operating Under FAR Part: Part 121
- Mission: Passenger
- Flight Phase: Initial Approach
- Airspace.Class B: DFW

**Person: 1**
- Reference: 1
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: Captain
- Function.Flight Crew: Check Pilot
- Function.Flight Crew: Pilot Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1533696
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC

**Person: 2**
- Reference: 2
- Location Of Person.Aircraft: X
- Location In Aircraft: Flight Deck
- Reporter Organization: Air Carrier
- Function.Flight Crew: First Officer
- Function.Flight Crew: Pilot Not Flying
- Qualification.Flight Crew: Air Transport Pilot (ATP)
- ASRS Report Number.Accession Number: 1533718
- Human Factors: Communication Breakdown
- Communication Breakdown.Party1: Flight Crew
- Communication Breakdown.Party2: ATC
Narrative: 1

On downwind vectors for Runway 36L at DFW, the controller asked us to expedite our descent from 11,000 feet to 6,000 feet then to 3,000 feet. On downwind we noticed that the tuned approach - ILS Runway 36L was not identifying correctly. Passing 6,000 feet we were cleared for a turn to base leg. Tower asked if we had field in sight, we stated yes and then were cleared for the visual Runway 36L. Subsequently the approach controller issued an additional clearance to turn to a 030 heading and intercept the final for Runway 36L. The aircraft was showing the identifier for the opposite direction ILS 18R. We reconfirmed runway 36L in sight and again cleared to land and completed an uneventful approach and landing. After landing we queried the ground controller as to the status of the ILS Runway 36L and we were told that there was maintenance being conducted on the ILS Runway 18R. The current ATIS did not reflect the approach status nor did the tower advise the ILS Out of Service (OTS). The PFD indicated the identifier for the ILS Runway 18L - IVYN but displayed the inbound course of 356 degrees. It was relayed that there was maintenance being conducted on the opposite direction approach facility. Suggest crews confirm with approach and tower controller as to the status of operating facilities/equipment.

Narrative: 2

Arrival to Runway 36L at DFW, Captain Pilot Flying (PF), First Officer (FO) Pilot Monitoring. VFR with clear skies and good visibility. Planned visual approach to Runway 36L backed up with ILS. Selected 36L in FMC and extended the centerline. Verified proper frequency and inbound course but had not yet received IDENT. Cleared for visual approach and vectored to final on 030 heading to join Runway centerline at 3,000 feet. Initially noticed localizer pointer was on wrong side of PFD. Also there was no glide slope pointer. Approach was armed, localizer captured but we could see the CDI did not match our position on the final. Flight Director (FD) giving wrong commands. Glide Slope (GS) never captured so we continued descent with autopilot off. Since GS never captured we got an aural Altitude
Warning descending through 2,700 feet. PF called to set 2,300 feet to give GS more time to capture but we could see full scale deflection below GS even though we were now high on the PAPI. Turned FD off. Distractions caused us to rush to get final flaps out prior to 1,000 feet. Before landing checklist completed at 1,000 feet. Received GLIDE SLOPE warning below 1,000 feet that had to be inhibited. Upon normal landing we saw that the ID for localizer was incorrect for 36L. ID was showing for 18R. We asked ground control and they said ILS 36L was Out of Service (OTS) and they were working on it and 18R was currently active. NO NOTAM, NO notice on ATIS. NO warning from Approach. NO warning from Tower that ILS OTS. This entire event could have been prevented had we known ILS OTS. NO NOTAM, NO notice on ATIS. NO warning from Approach. NO warning from Tower that ILS OTS. ATC should warn crews whenever ILS to active Runway is INOP! Confirm IDENT on all approaches even if ILS being used only as a backup.

**Narrative: 3**

[Report narrative contained no additional information.]

**Synopsis**

Air Carrier flight crew reported that ATC cleared them for a visual approach from a base-leg vector to intercept the localizer at DFW, while maintenance was being performed on that ILS. No notification of the maintenance status was received via NOTAM, ATIS or radio transmission from ATC.
ACN: 1533509 (50 of 50)

Time / Day
Date: 201804
Local Time Of Day: 1801-2400

Place
Locale Reference.Airport: FLL.Airport
State Reference: FL
Altitude.MSL.Single Value: 4000

Environment
Light: Daylight

Aircraft
Reference: X
ATC / Advisory.TRACON: MIA
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.STAR: JINGL5

Person: 1
Reference: 1
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Captain
Function.Flight Crew: Pilot Not Flying
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 402
ASRS Report Number.Accession Number: 1533509
Human Factors: Communication Breakdown
Human Factors: Confusion
Communication Breakdown.Party1: Flight Crew
Communication Breakdown.Party2: ATC

Person: 2
Reference: 2
Location Of Person.Aircraft: X
Location In Aircraft: Flight Deck
Reporter Organization: Air Carrier
Function.Flight Crew: Pilot Flying
Function.Flight Crew: First Officer
Qualification.Flight Crew: Air Transport Pilot (ATP)
Experience.Flight Crew.Last 90 Days: 150
Experience.Flight Crew.Type: 800
Events

Anomaly.ATC Issue : All Types  
Anomaly.Deviation - Track / Heading : All Types  
Anomaly.Deviation - Procedural : Published Material / Policy  
Detector.Person : Flight Crew  
Detector.Person : Air Traffic Control  
When Detected : In-flight  
Result.Flight Crew : Returned To Clearance  
Result.Flight Crew : Requested ATC Assistance / Clarification  
Result.Air Traffic Control : Provided Assistance

Assessments

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

Narrative: 1

Descending on the JINGL 5 Arrival, we checked on with MIAMI Approach (133.77) and requested the RNAV RNP Z 28R at FLL. We were told to "expect" that approach. We linked the RNAV Z 28R with the JINGL 5 RNAV Arrival at BEPAC intersection. BEPAC is the last waypoint on the JINGLE 5 Arrival and is also the IF for the RNAV Z 28R.

We were then switched to approach on 133.72. Passing BEPAC, the aircraft joined the RNAV course and continued on the downwind leg. ATC was very busy at the time which may have added to the situation. Upon passing CUSRA intersection, the FMC and autopilot began arcing right to join the final approach course for 28R.

That's when the First Officer and I had a discussion about how this approach was going to work, as there was a long line of traffic already on the final approach path, extending well beyond the point we would be joining final.

Since ATC was so busy, we couldn't query our situation. We were not in conflict with other traffic even as we were turning to join final because we were level at 4,000 feet and the traffic on final was below 3,000 feet. Finally ATC gave us new instructions (which I don't recall the details of) and we used the opportunity to verify that we were on the RNAV Z Approach. ATC immediately told us, "No, turn to a heading of 070 degrees." We immediately turned back to a downwind and heading of 070 and the rest of the flight went without a hiccup, as we were vectored for a visual approach using the ILS as a backup. ATC apologized to us for the confusion.

We were maintaining 4,000 feet as assigned, and it is only our lateral clearance that is in question.

Narrative: 2

[Report narrative contained no additional information.]
Synopsis

Air carrier flight crew reported experiencing a heading deviation while on the RNAV Z 28R approach to FLL due to procedure confusion and communication issues with ATC. The crew stated high traffic volume hindered the ability to clarify the situation with ATC.