



Part 121 Taxi/Parked Ground Conflict Related Incidents

InfoShare – Flight Ops

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**AVIATION SAFETY
REPORTING SYSTEM**



Part 121 Taxi/Parked Ground Conflict Related Incidents

Search Criteria

- Time Frame = Events occurring since Jan 2015
 - Most recent record occurred in Oct 2017
- Anomaly = Ground Conflict, Critical OR Ground Conflict, Less Severe OR Ground Event / Encounter – Aircraft
- Aircraft X and Aircraft Y Part Number = Part 121
- Aircraft X and Aircraft Y Flight Phase = Taxi OR Parked
- Aircraft X and Aircraft Y Weight Class > 40,000 lbs
- Query yielded a total of 68 records



Part 121 Taxi/Parked Ground Conflict Related Incidents

Anomaly Definitions

■ Ground Conflict, Critical

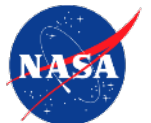
- Two or more aircraft (one may be airborne) in conflict, or an aircraft in conflict with a vehicle/person/object in which the reporter or other involved party took evasive action to avoid a collision, or a collision that almost occurred in cases where evasive action was not taken or possible. The evasive action can include an emergency go-around, veering on a taxiway/runway, rejected takeoff/abort, emergency braking, or an aircraft overflying another aircraft 50 feet or less.

■ Ground Conflict, Less Severe

- Two or more aircraft (one may be airborne) in conflict, or an aircraft in conflict with a vehicle/person/object in which the reporter or other involved party may, or may not have taken precautionary avoidance action, and in which a collision hazard was not imminent.

■ Ground Event / Encounter – Aircraft

- Actual physical contact with another aircraft when aircraft is on the ground.



Part 121 Taxi/Parked Ground Conflict Related Incidents

Reporter Function

REPORTER FUNCTION



Data references ASRS reports that have received full-form analysis and include the reporters' narrative.

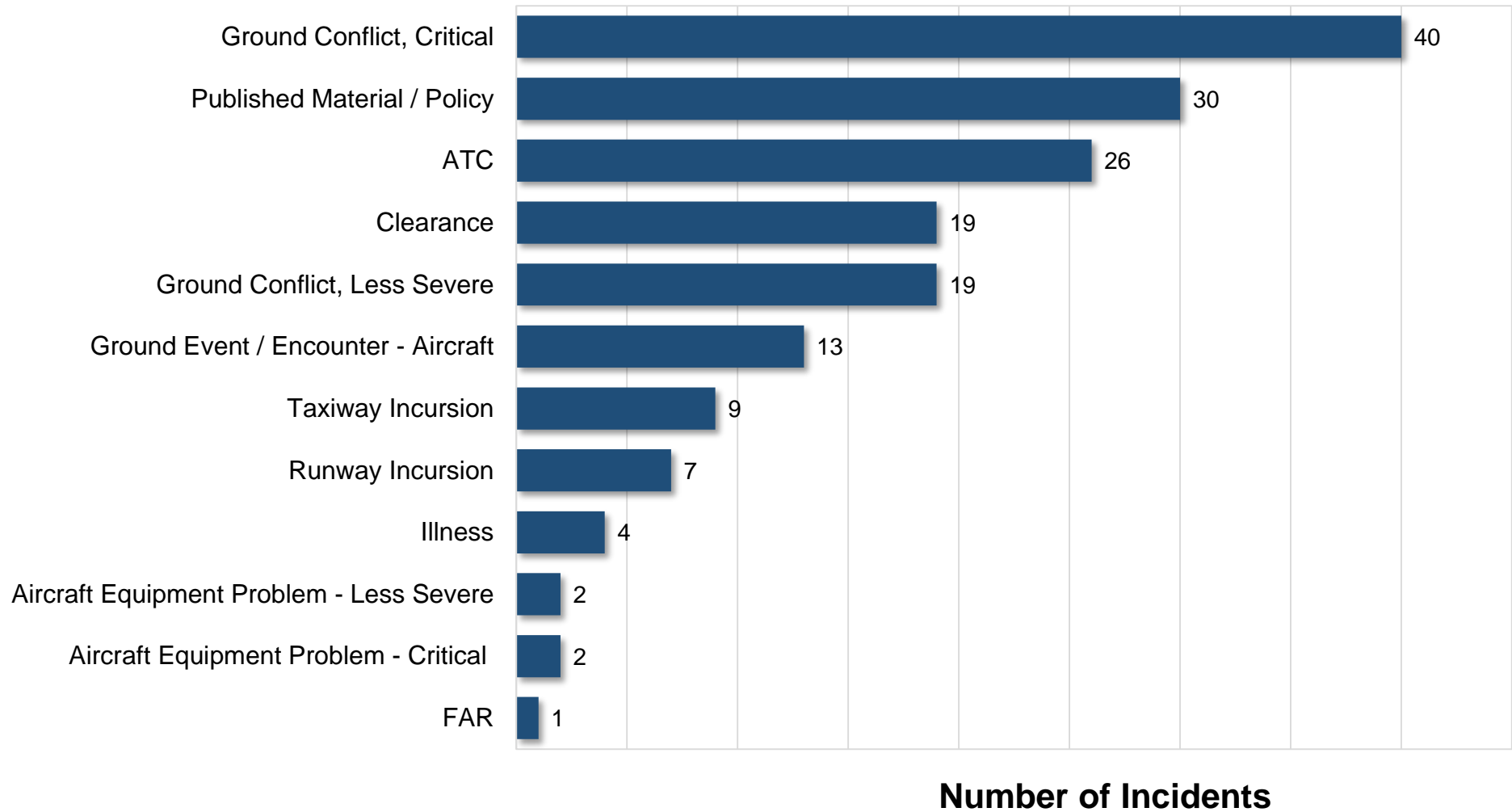
n = 68 Records



Part 121 Taxi/Parked Ground Conflict Related Incidents

Anomalies

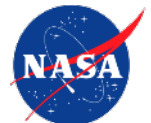
Anomalies



n = 68 Records



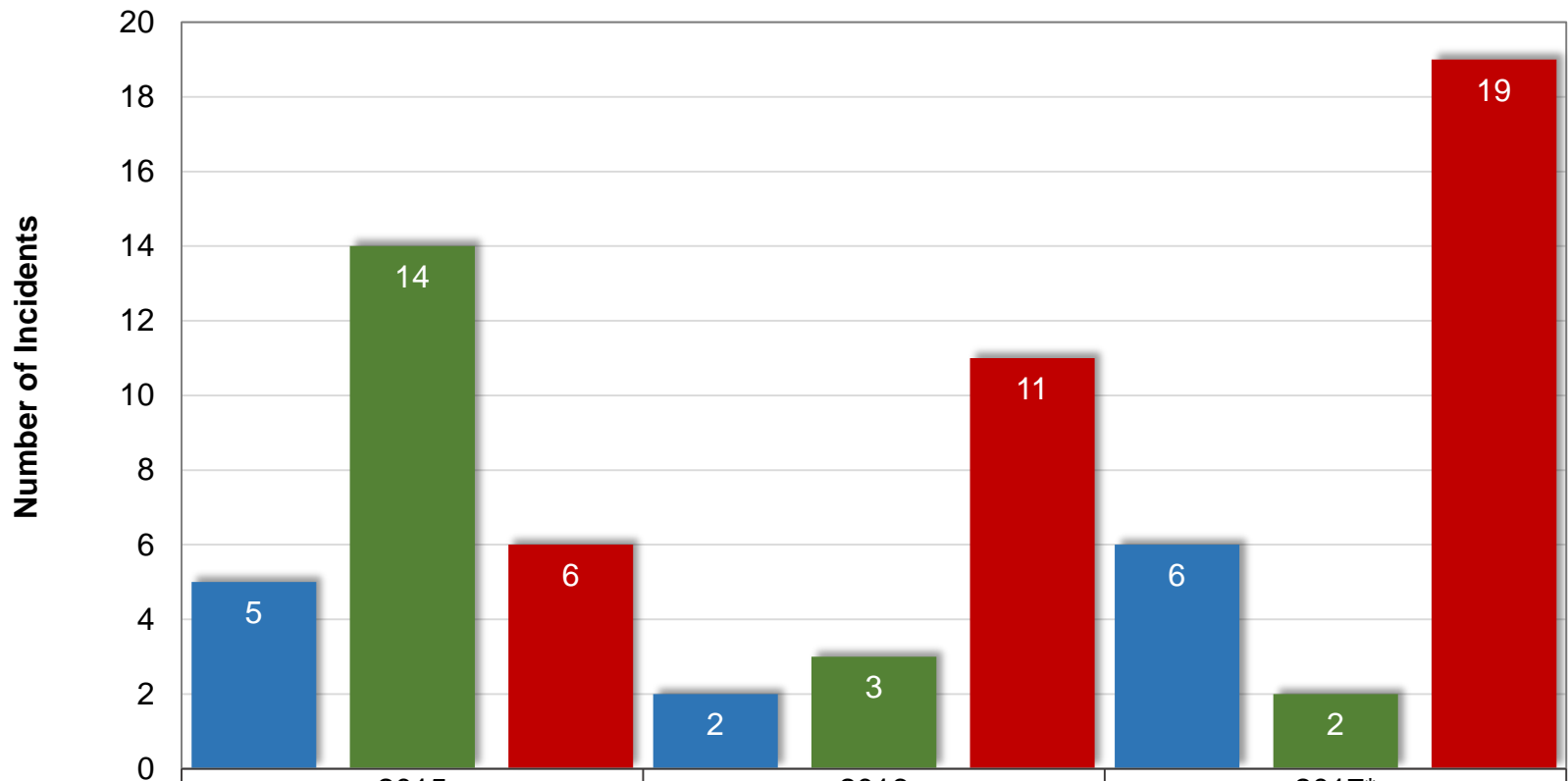
Data references ASRS reports that have received full-form analysis and include the reporters' narrative. Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one anomaly.



Part 121 Taxi/Parked Ground Conflict Related Incidents

Year of Occurrence and Specific Anomalies

Year and Specific Anomalies



	2015	2016	2017*
Ground Event / Encounter - Aircraft	5	2	6
Ground Conflict, Less Severe	14	3	2
Ground Conflict, Critical	6	11	19

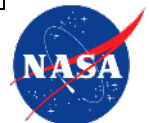


*2017 is complete through September.

Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one anomaly.

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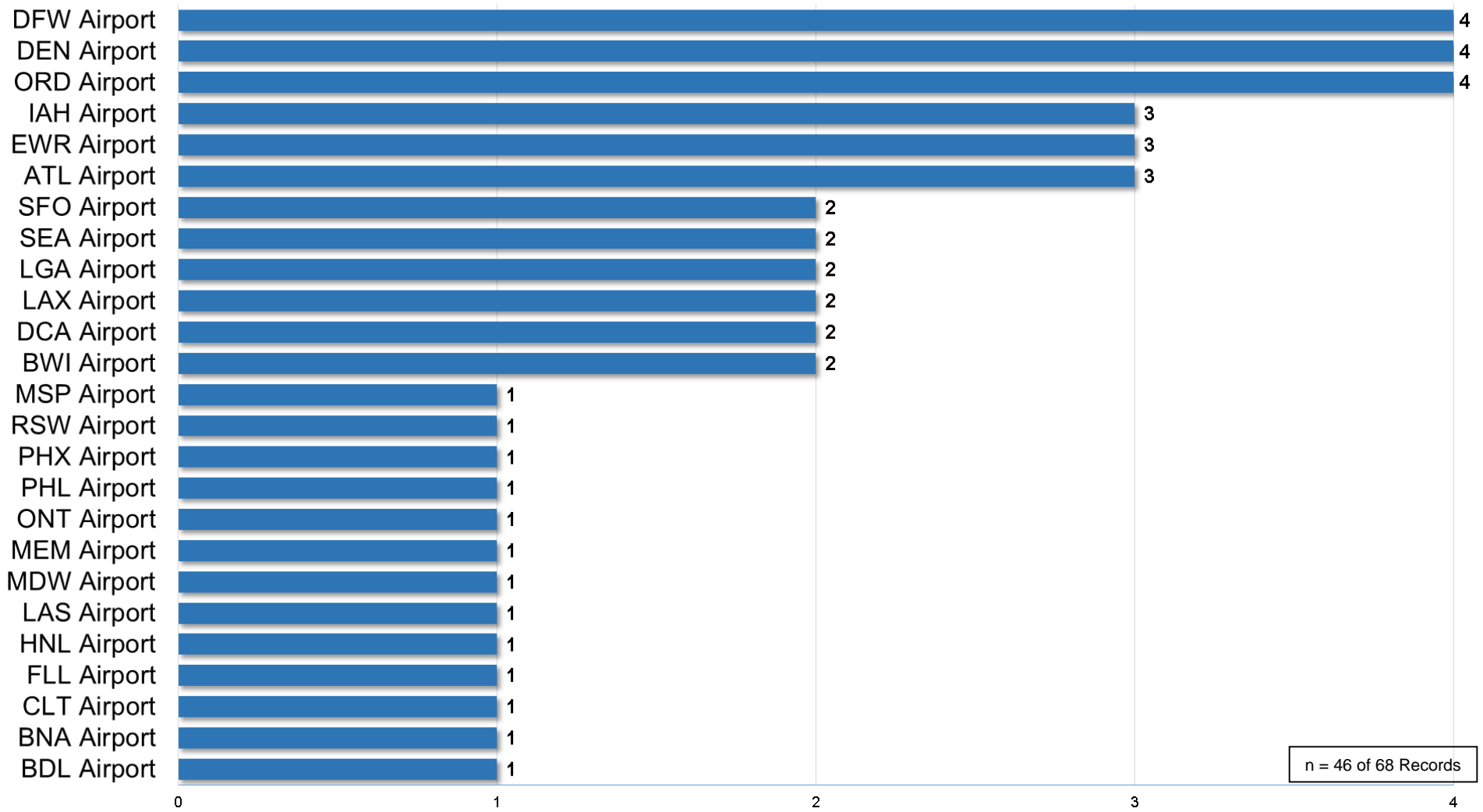
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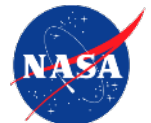
Location of Event

Airport



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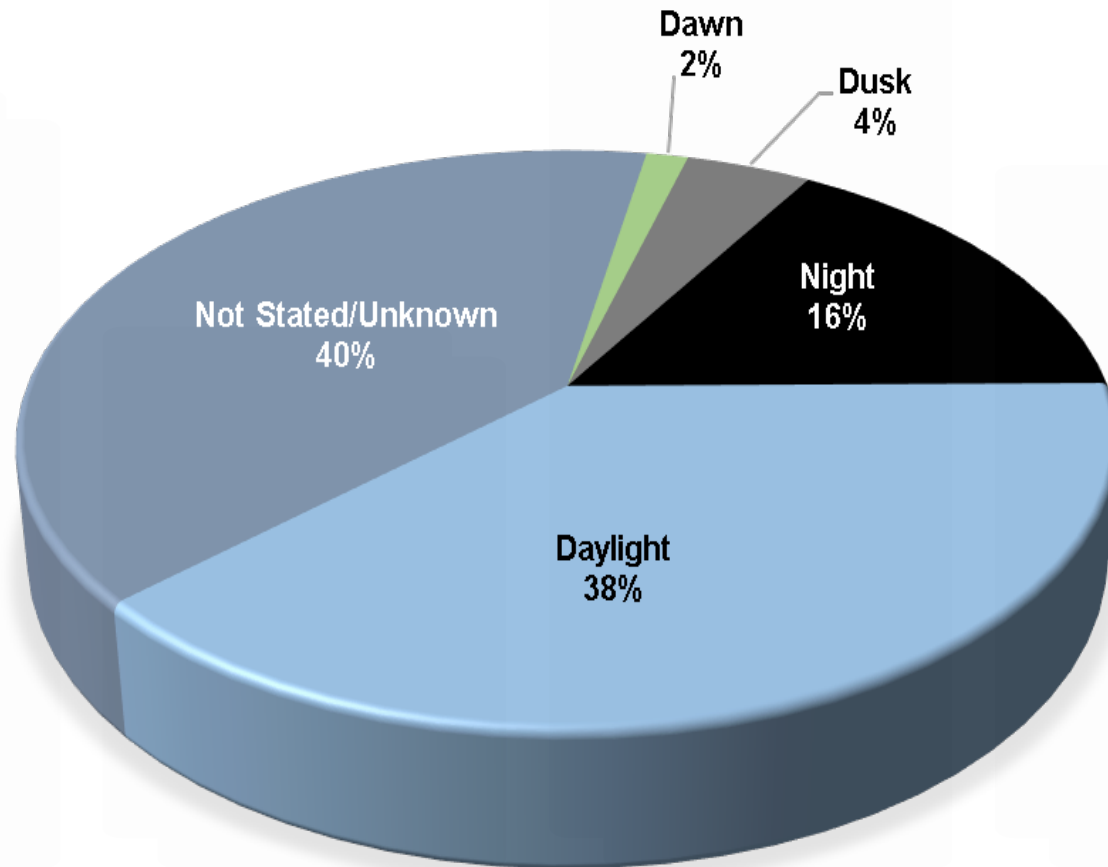
A total of 22 locations were de-identified or unknown.



Part 121 Taxi/Parked Ground Conflict Related Incidents

Light Conditions

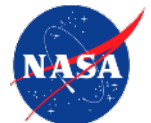
Light Conditions



n = 68 Records



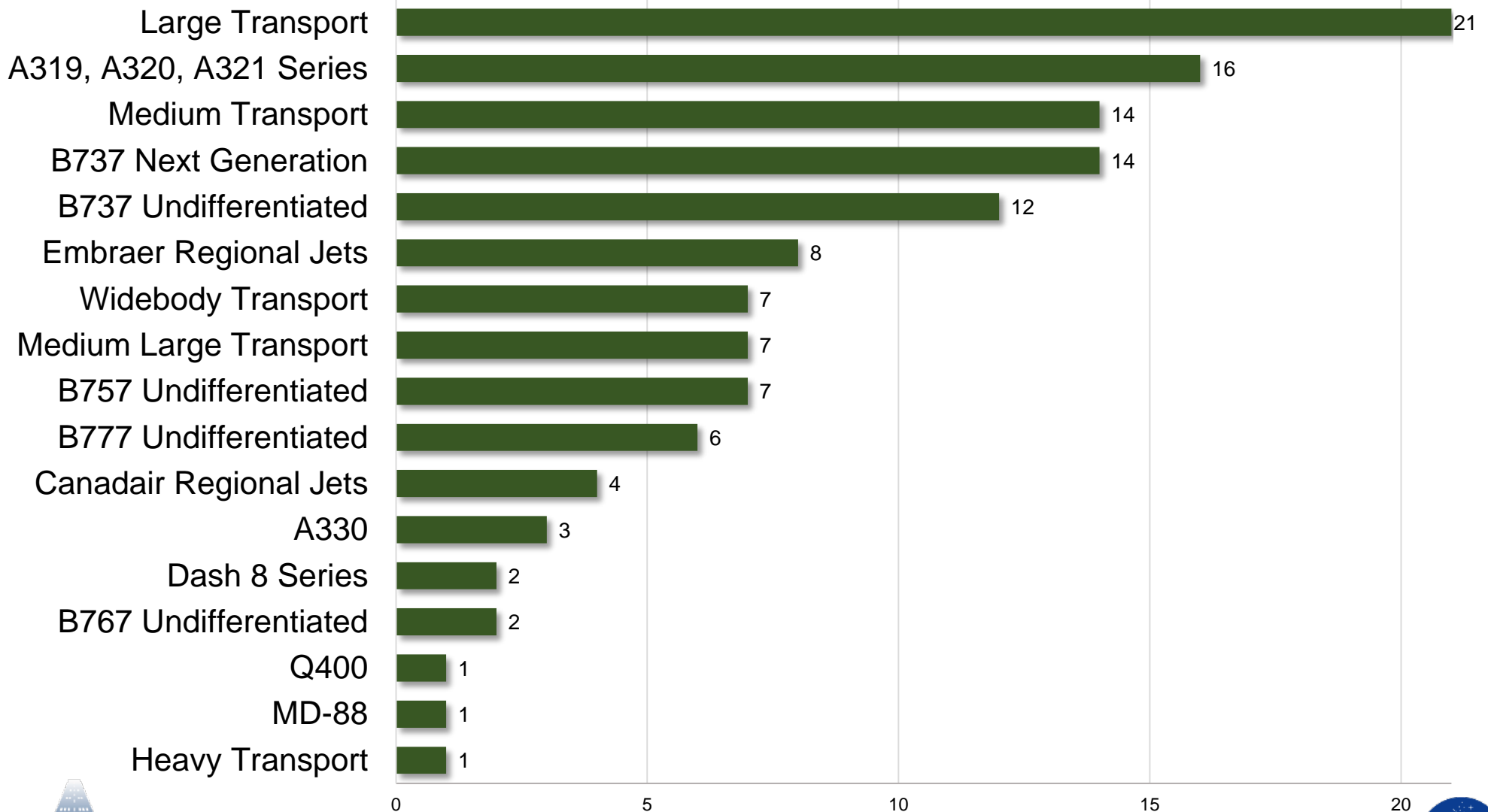
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Part 121 Taxi/Parked Ground Conflict Related Incidents

All Aircraft Involved in Incidents

Make Model Names or Aircraft Weight Classification



Data references ASRS reports that have received full-form analysis and include the reporters' narrative.

n = 68 Records



Part 121 Taxi/Parked Ground Conflict Related Incidents

Conflicting Aircraft by Weight Classification

		Aircraft 2				
		Heavy Transport	Large Transport	Medium Large Transport	Medium Transport	Widebody Transport
Aircraft 1	Large Transport		12	9	2	1
	Medium Large Transport		2	3	6	2
	Medium Transport	1	2	1	4	
	Widebody Transport		2	1		5

n = 53 of 68 Records

Weight Classifications

- Medium Transport (40,001 – 60,000 lbs)
- Medium Large Transport (60,001 – 150,000 lbs)
- Large Transport (150,001 – 300,000 lbs)
- Heavy Transport (Over 300,000 lbs)
- Widebody Transport (Over 300,000 lbs)



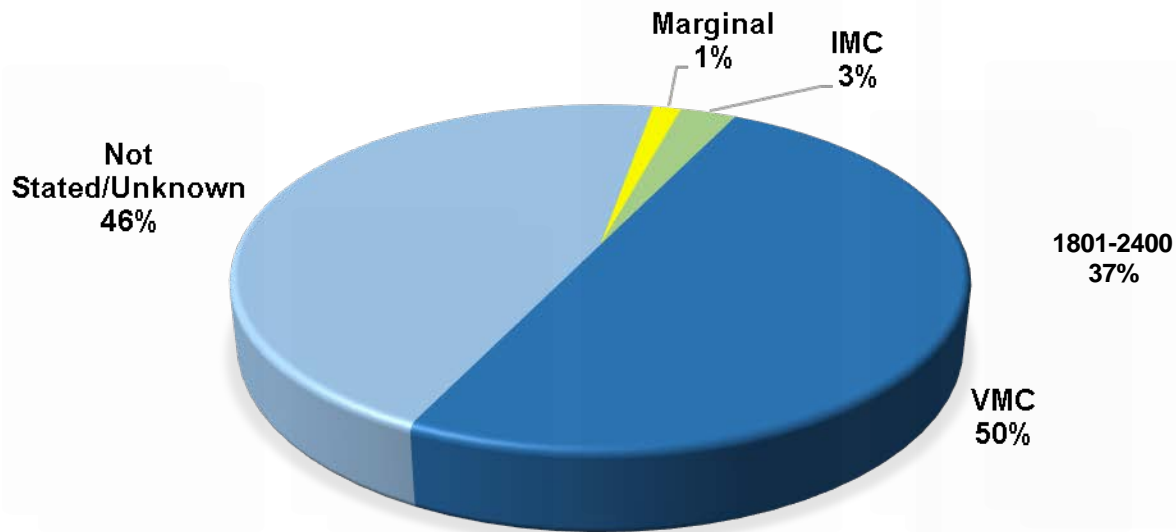
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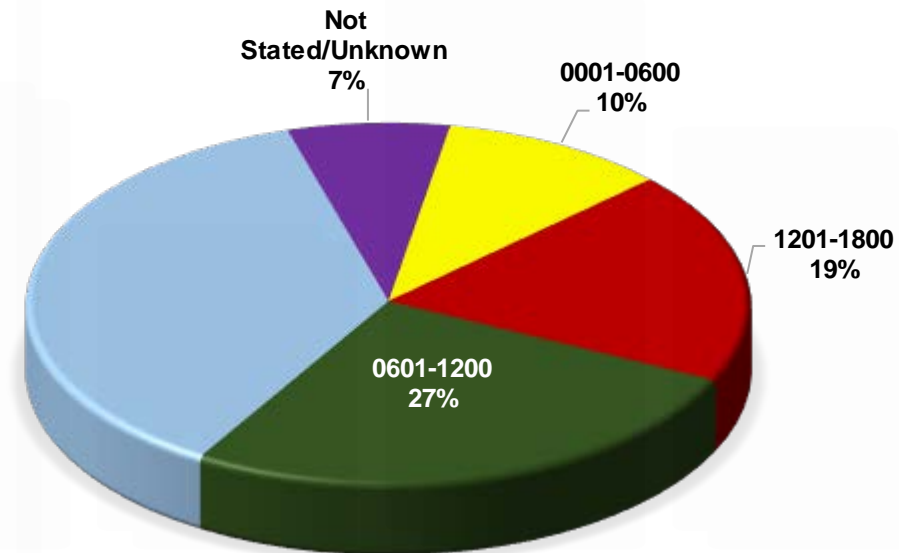
Part 121 Taxi/Parked Ground Conflict Related Incidents

Flight Conditions and Time (Quarter of Day)

Flight Conditions



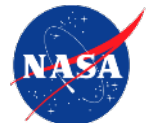
Local Time (Quarter of Day)



n = 68 Records



*ZZZ is used when records are location de-identified or location is not given by the reporter.
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.

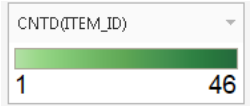


Part 121 Taxi/Parked Ground Conflict Related Incidents

Contributing Factors and Human Factors (Event)

Contributing Factors and Human Factors

		Contributing Factors / Situations								
		Aircraft	Airport	Chart or Publication	Company Policy	Environment - Non Weather Related	Human Factors	Procedure	Staffing	Weather
Human Factors	Situational Awareness	1	12	1	3	2	46	29	2	2
	Communication Breakdown		13	1	3	1	35	29	1	1
	Confusion		6	1	1	1	17	15		1
	Distraction		3		1		12	13	1	1
	Human-Machine Interface				1		1	1		
	Other / Unknown		2		1		4	3		
	Physiological - Other						2	1		
	Time Pressure		1		1		6	4		
	Training / Qualification		2		1		7	4		
	Workload		3		1		4	5	1	



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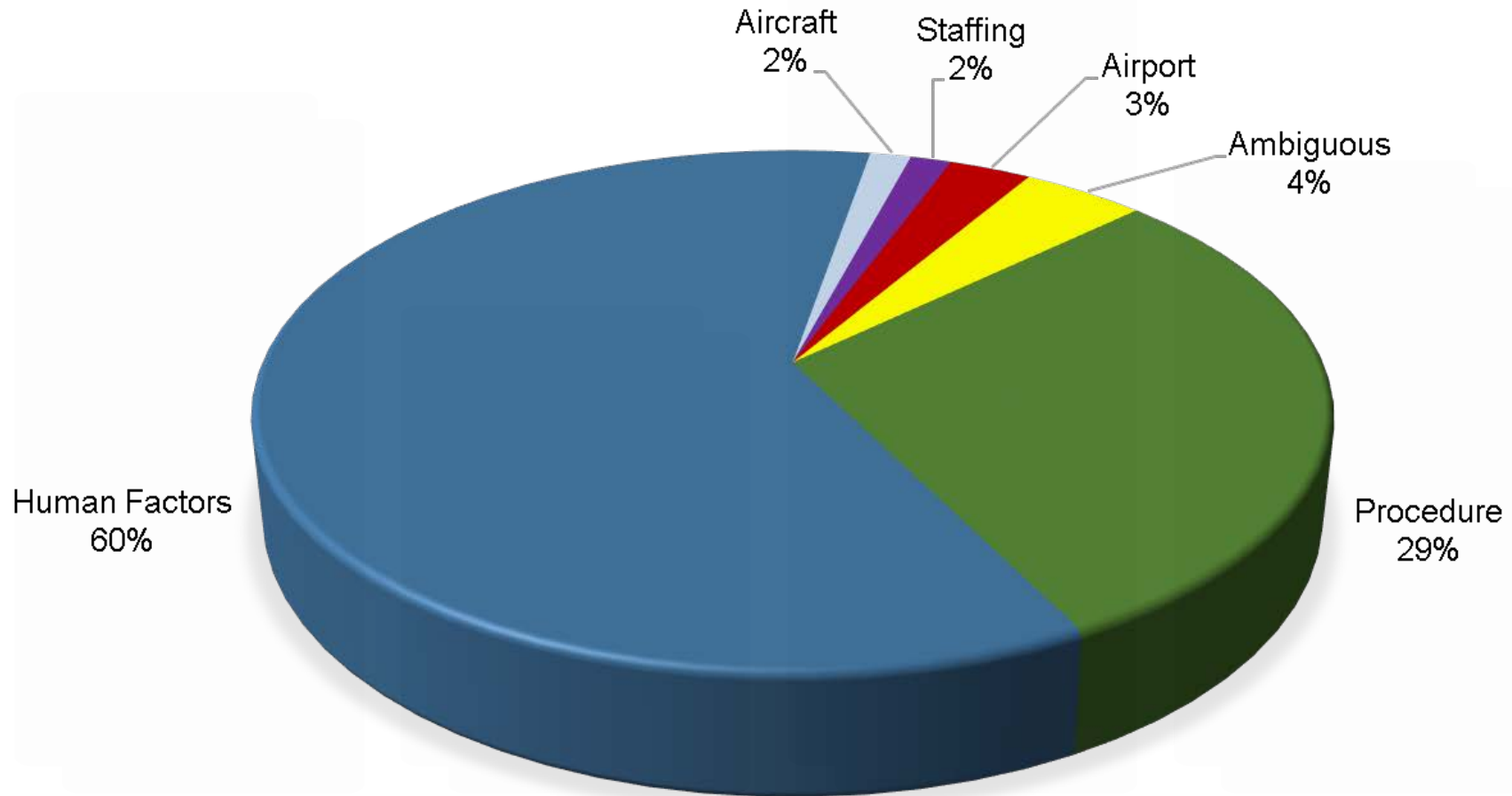
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Part 121 Taxi/Parked Ground Conflict Related Incidents

Primary Problem

Primary Problem



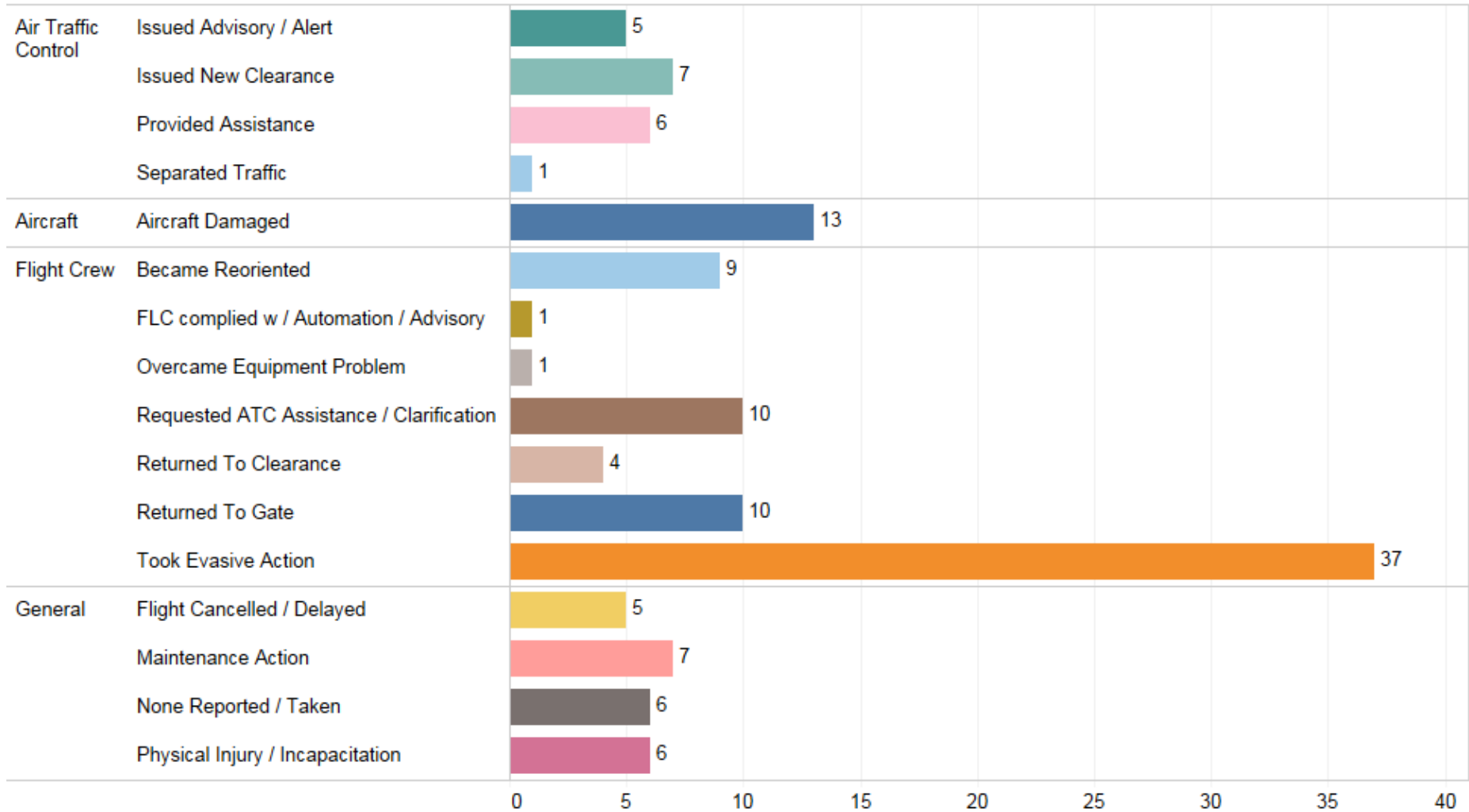
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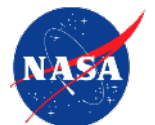
Part 121 Taxi/Parked Ground Conflict Related Incidents Results

Results



n = 68 Records

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Example Record (Winglet Contact)

Record 1341434

Flight crews of the two conflicting aircraft reported the event

- Aircraft X (Taxi-in) Air Carrier
Captain and First Officer
- Aircraft Y (Pushback) Air Carrier
Captain and First Officer

Aircraft X Captain Report: *“Pulling into BNA, the left winglet on my aircraft contacted the right winglet of the aircraft at the adjacent gate. As we approached the gate, I cleared the safety area and noted that there were aircraft at both adjacent gates and assumed wing tip clearance since both other aircraft were stationary.... I proceeded to follow the Marshaler's directions to our gate. The winglets of the aircraft contacted, scraping paint from each, but with no other apparent damage. I was unaware that there had been any contact at all until approximately 20 minutes later....”*

Example Record (Winglet Contact)

Record 1341434

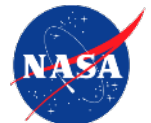
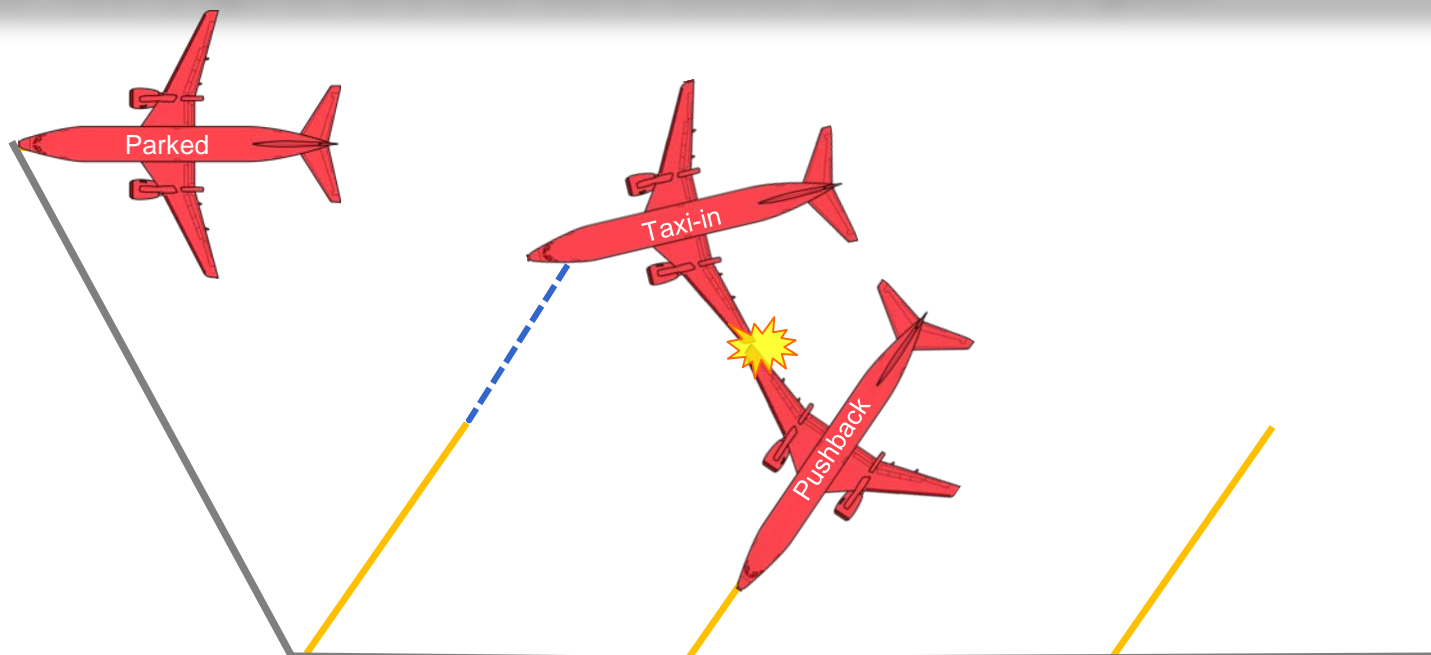
Aircraft X First Officer Report: *“We were assigned Gate Y.... We were aware that no simultaneous pushback/taxi in of aircraft are allowed at the adjacent gates due to converging safety zones. ... I noticed an aircraft parked at Gate X and also noticed a plane parked at Gate Z. ... I also looked at the safety lines and noticed how the lines come to a ‘V’ ... I looked at the safety zone as we approached and verified that Gate X was not moving and that his wingtip appeared to be right at the corner of the “V.” It did not appear to be any farther past the ‘V.’ ... Clearly these gates have a problem. I was unable to tell whether or not the aircraft at Gate X had been moved. All I could tell is that it was stopped and its wingtip appeared to be right at the intersection of the safety lines. While really close, I trusted the lines.”*



Example Record (Winglet Contact)

Record 1341434

Aircraft Y Captain Report: “We began our pushback from Gate X when the Tug Driver noticed an aircraft taxiing inbound around Gate Y. After approximately 10'-15', he stopped the push to allow Company [to] get to their gate, which was Gate Y. While stopped with the number two engine running, we felt a jolt or bump. Informing the Tug Driver, he said we were stationary and did not feel anything. I asked him to look for damage. About that time, Ground Crew from Gate Y walked over and advised our Ground Crew they saw the left winglet of the aircraft inbound to Gate Y impact our right winglet. I shut down the number two engine, and we were towed back to the gate.”



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