Ground Collision Occurrence
Yangon International Airport

On 12 February 2015

Presentation by
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**Brief History**

On 12\textsuperscript{th} Feb 2015, 23:55 Local time, Korean Air, Airbus A.330-200 (HL-7538) taxi out along the taxiway for take-off from Runway 03 of Yangon International Airport. The aircraft ground collision with left wingtip to the Bangkok Air, ATR-72-500 (HS-PGA) empennage which already park on the Apron A.
<table>
<thead>
<tr>
<th>Injuries</th>
<th>Crew</th>
<th>Passengers</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>serious</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Minor</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nil</td>
<td>13</td>
<td>134</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>134</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
State Involves - Korean, Thailand, France

Purpose of investigation-
  - Prevention of accident and incident.
  - Not purpose for blame or liability.

Investigation report
According to Annex.13, Attachment. B
The State of Occurrence and Investigation responsible for Initial Notification, Preliminary report and final report. The report are not for individual but whole circumstance of event.
1. **Annex.13, Definition**

**Accident** - An Occurrence associated with the operation of an aircraft which in the case of a manned aircraft, take place between the time any person boards the aircraft with the intention of flight until such time as all persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the flight and the primary population system is shut down, in which

(a) a person is fatally or seriously injured as a result of:
   - being in the aircraft, or
   - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
   - direct exposure to jet blast.

(b) the aircraft sustains damage or structural failure which
   - adversely affects the structural strength, performance or flight characteristics of the aircraft, and
   - would normally require major repair or replacement of the affected component.

(c) The aircraft is missing or is completely inaccessible
Incident-

An Occurrence other than an accident, associated with the operation of an aircraft which effects or could effects the safety of operation.
The type of incident Annex-13, attachment C

Serious incident

An incident involving circumstances indication that there was a high probability of an accident and associated with the operation of an aircraft which the operation of aircraft ---

Note – The difference between accident and serious incident lies only in the result
- Examples of serious incidents can be found in Attachment C
Damage of Korean Airway.
A-330-200 (HL-7538).
L/H wingtip let damage.
(Minor repair).
According to Annex.13 definition.
(HL-7538) damage incident.
Damage of Bangkok Airway

ATR.72- 500 (HS- PGA)

- Horizontal stabilizer, leading edge.
- Vertical stabilizer trailing edge.
- Rudder damage (sustains damage)

According to Annex.13 definition damage accident.

PG – 705/6 (Bangkok Airways)
Vertical stabilizer was defected
ICAO and Commercial Aviation Safety Team (CAST) jointly chartered the CAST/ICAO Common Taxonomy Team (CICTT).


Occurrence is defined as “accident or incident

Ground Collision (GCOL).

Collision while taxi ling to or from a runway in use.

- Includes collision with an aircraft, person, animal, ground vehicle, obstacle, structure etc.
Example of Occurrence (1)

Category: Accidents and Incident

Description
On 30 September 2010, an Airbus 330-200 being operated by KLM on a passenger fight from Khartoum to Abu Dhabi UAE taxied for departure along the main taxiway parallel to the runway in normal night ground visibility and when passing behind a parked Airbus A340-500 with passengers on board hit the lower empennage of that aircraft with its left wing tip without awareness of any impact. None of the 142 occupants on the A 330 or any of those on the A 340 were injured.

Investigation
The Accident was notified the Sudan DGCA Air Accident Investigation Central Directorate (AAICD).

Damage to the A 330 was found to have been limited to the left winglet but damage to the A 340 was found to extend to:

- the left hand stabilizer
- the aft fuselage lower frame.
- the APU inlet splitter
- the APU fire bottle compartment access door.
- the right hand establisher

Final report - Incident, Major Factor, Contributing Factors

Safety Recommendations
• Damage to Aircraft

A- 345 was substantially damaged and A- 332 was slightly damaged.

• Investigation has been conducted by AAICD participated with UAE,GCAA. Final Report (Incident).
Example-2

- B 738/B763, Barcelona Spain, 2011(GND HF)

Category: Accidents and Incidents

Description

On 14 April 2011, a Ryan air Boeing 737-800 failed to leave sufficient clearance when taxiing behind a stationary Boeing 767-300 American Air at Barcelona and the 737 wingtip was in collision with the horizontal stabilizer of the 767, damaging both.

Both aircraft completed their intended flights without incident after which the damage was discovered, that to the 767 requiring that the aircraft be repaired before further flight.

Investigation

In Investigation was carried out by the Spanish CIAIAC. FDR data from both aircraft and ground radar recordings were available to the Investigation.

Example-3

- B744/763, Melbourne Australia, 2006 (GND HF)

Description

On 2 February 2006, a Boeing 747-400 United Airlines was taxiing for a departure at Melbourne Airport. At the same time, a Boeing 767-300 Australian Airlines was stationary on taxiway Echo and waiting in line to depart from runway 16. The left wing tip of the Boeing 747 collided with the right horizontal stabilizer of the Boeing 767 as the first aircraft passed behind. No one was injured during the incident.

The Investigation

The Investigation report on the accident prepared by ATSB, The 747 sustained substantial damage to the leading edge of the left wing tip.

“The 767 sustained significant damage to the right horizontal stabilizer. A substantial section outboard of the elevator was destroyed.”

Category – Accidents and Incidents

Example-4 Wing Tip Collision Incident, Change Airport

On August 2007, two Boeing 777-200 ER Aircraft were departing from change Airport. 9V-SVH was taxiing along taxiway C1W and 9V-SVO was being bushed back from Bay F-37. 9V-SVH left wing hit the right wing of 9V-SVO.

**Damage of Aircraft**

**Boeing 777-200 ER (9V-SVH)**

The left hand wingtips; leading edge slat, wing fiberglass panels were damaged. **Boeing 777-200 ER (9V-SVO)**

The right hand wingtip leading edge trailing edge fiberglass honey comb, R/H aileron were damaged. Investigation by AAIB, Singapore.

Final report classified the occurrence (incident).
Cockpit Voice Recorder
The aircraft was fitted a Fairchild cockpit voice recorder model FA-2100, S/N 00224874. CVR recording periods are about two hours and successfully transcribed at AAIB, Singapore.

Flight recorders
The aircraft was fitted with a Honeywell Solid State Flight Data Recorder (SSUFDR) and a Honeywell Solid State Cockpit Voice Recorder. PN 980-4700/042 S/N- 11687. Recorder was successfully downloaded and analysed at AAIB, Singapore.
**Survival aspects**

Yangon International Airport, ATC contacted to Korean Air HL-7538 Pilot and gave information about the occurrence and HL-7538 returned to Yangon International Airport and safely landed at about 00:55 hrs (local time). No person was injured.

**Additional information**

There was no evidence that any security-related issues contributed to the development of the occurrence.

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**ONGOING INVESTIGATION ACTIVITIES**

- The investigation is continuing and will include the following:
  - An analysis on the FDR, CVR data.
  - An assessment of the operating procedures.
  - An assessment of Yangon International Airport Ramp operation procedures.
  - An assessment of Yangon International Airport Apron management.
  - Preparing draft final report
- Just for information.
- Report category -
  (Upon damage category for Bangkok Air accident and for Korean Air incident)
- Operation state –
  (Korean Air operation state,
   Bangkok Air is non operation, night parking)
- Suggestion if any.

Thank for Attention