

FINAL REPORT

AAIU Synoptic Report No: 2007-007

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In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Accidents, on 28/12/05, appointed Mr. John Hughes as the Investigator-in-Charge to carry out a Field Investigation into this Serious Incident and prepare a Synoptic Report.

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| Aircraft Type and Registration: | A330-300, EI-ORD |
| No. and Type of Engines: | 2 x CF6-80E1 |
| Aircraft Serial Number: | 059 |
| Year of Manufacture: | 1994 |
| Date and Time (UTC): | 28 December 2005 @ 10.36 hrs |
| Location: | Dublin Airport |
| Type of Flight: | Public Transport |
| Persons on Board: | Crew - 2 & 10 Passengers - 325 |
| Injuries: | Crew - Nil Passengers - Nil |
| Nature of Damage: | Nil |
| Commander's Licence: | ATPL |
| Commander's Details: | Male, aged 55 years |
| Commander's Flying Experience: | 11,359 hours, of which 1556 were on type |
| Information Source: | Dublin Airport Duty Manager |

SYNOPSIS

Flight EI-105 to New York (JFK) pushed back from Stand 37 with 325 passengers on board and had just commenced taxi when the crew were alerted by ATC that there was a baggage Loader accidentally locked in the cargo hold. The aircraft returned to Stand 55 and the staff member was removed. There were no injuries reported and no damage to property.

1. FACTUAL INFORMATION

1.1 History of the Flight

The two loading crews engaged in loading bags on to EI-ORD, Flight EI-105 to New York, were on Duty at Dublin Airport since 05.00 hrs. Crew No.1 Loading Shift Leader (Leader) took control of both crews and they proceeded to load bags on to the aircraft.

FINAL REPORT

During this process the Leader was alerted to the fact that one of the passengers who had boarded and left again, and whose 6 bags had already been loaded into a Unit Loading Device (ULD), might not be allowed to travel on the flight.

Meanwhile, on instruction from the Ramp Agent (Redcap), the Leader went down from the airbridge to have two empty ULDs removed from the No. 4 cargo hold. The crew then locked up that hold. The Leader was then given an indication that the passenger might be travelling after all. He instructed his crew to lock up the aircraft, signed the load plan and gave it to the Redcap at the airbridge. As they had time to spare, the Redcap requested a check of the loading cards (used to identify the location of all passengers bags) in order to be in a position to quickly locate the passenger's bags should Airport Security decide that this passenger was not being allowed to travel.

The Leader was in the process of checking the cards when he noticed that there was a bag in one of the ULDs, which should have been on Flight EI-145 bound for Los Angeles. He informed the Redcap and a member of his crew Loader (2) that he was going to retrieve this bag. He obtained a "Wampo" (conveyor belt loader) and opening the nets, entered the aircraft through Bulk Cargo Door (Hold 5) in order to get to Hold 4 where the bag had been located. Because of the two empty ULDs, which did not travel, he was quickly able to move ULDs around in order to get to the one containing the L.A. bag. In the meantime the passenger had been given permission to travel on EI-ORD and was allowed to re-enter the cabin. When the passenger was cleared to travel on the aircraft, the Redcap told Loader (2) that there was no need to remove the passenger's bags.

Some of the crewmembers that had completed loading, returned to the aircraft, as they were aware that the flight was delayed. Loader (2) relayed the information from the Redcap to Loaders (3 and 4). However, he did not inform them that the Leader had re-entered the Cargo Hold. Loader (3 or 4) then indicated by "thumbs up" sign to a colleague, Loader (5), who was standing near the Bulk Cargo hold, to close the door. He looked into the hold of the aircraft, locked up and joined the driver of the Wampo, which was then driven away. The Leader at this time, however, was working in Hold 4 and could not be seen by the crewman locking the Bulk Cargo door.

By this time the Leader had located the Los Angeles bag. However, as the lights remained on in the hold he did not notice that pushback had commenced. When the engines powered up he realised that he was locked in. He saw that the Bulk Cargo hold door had been closed during the time that he had been removing the bag from the ULD. The Leader was aware that the Bulk Cargo Hold door could be opened from inside the hold but he did not try to open the door. He phoned the base supervisors office and told them of his predicament. ATC contacted the Flight Crew and advised them of the situation. The aircraft taxied to Stand 55 where the door was opened and the Leader exited the aircraft.

1.2 **Personnel Information**

The Leader joined the Company as a Loader in 1989 and was promoted to Leader in 1995. He was very experienced on loading the Airbus A330 aircraft. The Leader had received a Shift Leader training course in 2000 and since then had received several refresher-training courses.

FINAL REPORT

1.3 Training and Procedures

Some information is given during the on-the-job Shift Leader Training Program i.e. “Thumbs up” signal is normally used to indicate to the Loaders that the aircraft is ready for close up. There are no written procedures or formal training given to Loading Shift Leaders on closing up a flight. The situation of a person being shut into a Cargo Hold is not covered in the training course. There are no procedures dealing with the situation of a staff member being shut in an aircraft Cargo Hold. Following this incident, the Operator’s Air Safety Office recommended that a training item be included in the Loading Training Program to draw attention to the relevant aspects of this incident.

1.4 Aircraft Information

There are 5 Cargo Holds in the Airbus A330 aircraft; Forward Cargo Holds 1 and 2, Aft Holds 3 and 4 and Bulk Cargo Hold 5. The Cargo Holds are ventilated and heated. The heating system in the Aft Cargo Hold of the A330 aircraft maintains a temperature of 15 degrees centigrade.

The lights in Cargo Holds 4 and 5 were on and the Loading Shift Leader did not have a problem seeing inside the hold at any time during the incident.

If the Bulk Cargo Hold door is opened when the aircraft is moving a visual and aural warning will be activated in the cockpit to alert the pilot that the door is open. During takeoff at speeds of above 80 knots and until the aircraft reaches an altitude of 1,500 feet the warnings are inhibited.

1.5 Organisational and Management

The Operators Air Safety Office conducted an investigation into this incident and their recommendations included the following:

- Ground Operations should produce a procedure for close-up of aircraft.
- Ground Operations should produce a procedure for the late removal of items from the cargo holds
- Ground Operations should provide a communications system that would enable the Loading Shift Leader to immediately alert the Ramp Agent if an emergency should arise.

2. ANALYSIS

A sequence of events started in the Baggage Hall, where a bag for Flight EI-145 was loaded in error into a ULD that was loaded onboard Flight EI-105. The Leader, who checked the ULD contents before loading it on to Flight EI-105, did not notice this error. Having entered and worked in the hold for some time, the Leader was unaware that the Bulk Cargo door was being shut and that the aircraft was moving. (On some other aircraft, once the door is shut, the interior lights extinguish.) There was also a clear break down in communications between the Loading staff resulting in the Leader being shut in the No. 4 Cargo Hold.

FINAL REPORT

The Leader had informed the Ramp Agent and a member of his crew that he was about to enter the hold in order to retrieve a bag. It was fortunate that the Leader had a mobile phone on his person at the time.

This was a serious incident. Cases have occurred where loaders have been inadvertently locked in a hold. Some years ago, a loader was locked in a hold on a two-hour flight from Philadelphia to Chicago. This was a traumatic event for this person. The Investigation agrees with all the recommendations of the Operators Air Safety Office. The Ramp Agents role is the co-ordination of all operational activities within the turn-round including loading, fuelling, aircraft servicing and the management of any disruptions to these events. However, in this case a set of circumstances and disruptions combined to militate against a timely and efficient dispatch of EI-ORD. The situation which the Ramp Agent and Loader found themselves in was not helped by the absence of laid down written procedures to cover such circumstances. For this reason the Investigation deems it prudent to reiterate the Safety Recommendations below.

3. CONCLUSIONS

(a) Findings

The aircraft was locked up, pushed back and taxied whilst the Loading Shift Leader was still working in the No. 4 Cargo Hold.

(b) Cause

Due to inadequate Operator procedures a breakdown in communication took place between the loaders, resulting in some of the loaders being unaware that their Leader was locked in No 4 Cargo Hold

4. SAFETY RECOMMENDATIONS

1. The Operator should produce a procedure for close-up of aircraft. [\(SR 05 of 2007\)](#)
2. The Operator should produce a procedure for the late removal of items from the cargo holds. [\(SR 06 of 2007\)](#)
3. The Operator should provide a communications system that would enable the Loading Shift Leader to immediately alert the Ramp Agent if an emergency should arise. [\(SR 07 of 2007\)](#)

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