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## Truck hits BAe-146 at Dublin Airport on March 12, 1999

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**Micro-summary: A truck hit this BAe-146.**

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**Event Date: 1999-03-12 at 1020 UTC**

**Investigative Body: Air Accident Investigation Unit (AAIU), Ireland**

**Investigative Body's Web Site: <http://www.aaiu.ie/>**

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*AAIU Report No.2001-008*  
*AAIU File No. 1999 0011*  
*Published.: 17/07/2001*

<b>Aircraft Type and Registration:</b>	BAe 146, EI-CLI
<b>No. and Type of Engines:</b>	Four, Allied Signal ALF502 R-5
<b>Aircraft Serial Number:</b>	3159
<b>Year of Manufacture:</b>	1990
<b>Date and Time (UTC):</b>	12th March 1999, 10.20 hrs
<b>Location:</b>	Stand 24 Dublin Airport
<b>Type of Flight:</b>	Public Transport
<b>Persons on Board:</b>	49 Transit Passengers and cabin crew.
<b>Injuries:</b>	None
<b>Nature of Damage:</b>	Port Aileron damaged
<b>Commanders Licence:</b>	Air Transport Pilots Licence
<b>Commanders Age:</b>	40 years
<b>Commanders Flying Experience:</b>	5000 hours, 2300 on Type
<b>Information Source:</b>	Airline Safety Officer

### **SYNOPSIS**

Whilst on a Paris-Dublin-Cork transit flight the BAe 146 was parked on Stand 24 at Dublin Airport. A cleaning truck, intending to park on the port side of the aircraft at a point forward of the aircraft approached the stationary aircraft from behind. As the truck passed the aircraft the top RHS of the truck struck the port aileron removing part of the aileron tip and the outboard static discharger. It also tore a 3x1 inch hole at the outboard part of the aileron. The driver of the truck reported the incident and the aircraft was declared unserviceable.

## 1. **HISTORY**

### 1.1 **Witness Recollections**

The crew of the cleaning vehicle were informed that the aircraft, which was transiting Paris-Dublin-Cork, was coming on to Stand 24. Having been instructed to go there, they proceeded along the road under Pier B in the direction of Pier A. (see map). The driver said that but for the fact that the aircraft was transiting on to Cork, passengers would exit the aircraft from the rear. He would then have parked his vehicle at the front of the aircraft. As it was, he did not want to park the vehicle in a position where it would block the exit of the transit passengers.

As they approached the intersection with what was then the outer service road around Pier B, the shift supervisor, who was in the vehicle, instructed the driver to turn left on to this road. When he was in line with the drain running parallel to Stand 24 lead-in line, he left the road and turned right. He therefore had to cross the taxilane and the red boundary lines to get to the LHS of the aircraft.

He did not go to the front of the aircraft because the cleaning crew would then have to wait until the passengers had disembarked. This he thought would have delayed the departure of the aircraft to Cork.

The driver had been on extended leave prior to this incident and was unaware that the vehicle had been fitted with a yellow beacon light.

The driver of the cleaning vehicle said that as he approached the aircraft from the rear, transit passengers were leaving from the front exit. He thought he had sufficient clearance between his vehicle and the aircraft. As he drove past the wing of the aircraft he 'heard a bang'. He immediately stopped the vehicle and got out to find the vehicle's yellow beacon on the ground. He then became aware that his vehicle had struck the aircraft's wing tip. He reported this to the aircraft's engineer. The Engineer and Captain agreed, on inspection of the aircraft, that it was not fit for flight. The remaining passengers then left the aircraft. The driver said he was using the aircraft's red wing light to guide the vehicle past the wing tip. He did not see any boundary line around the Stand. He said that because of the building programme and the proximity of the portacabins, Stands had been 'changed around' and that the adjacent Stand 25 was not now in use. There was nothing painted on the ground to guide the vehicle in.

## **1.2 Training**

The driver said that he had done numerous safety courses including the European SCARF (Safety Courses of Airport Ramp Functions) programme.

He had been driving for the Aircraft Operator for four years and was qualified for driving water trucks and sewage trucks and was upgraded during the summer of 1998.

## **1.3 Apron Area**

The Airport Directive No 2 issued on 1<sup>st</sup> March 1995 states as follows:

- 3.3.2.1 All vehicular traffic on the apron shall utilise the appropriate vehicle roadways at all times. Under no circumstances should any vehicle move outside the apron boundary line except when using the designated crossing points in the approved manner.
- 3.3.2.2 Any vehicle servicing an aircraft shall use the service roads until adjacent to the aircraft stand and from there shall approach the aircraft.
- 3.3.2.9 Passing under the wings of parked aircraft must be avoided whenever possible.

The Aircraft Operator's "Ramp Operators Booklet" also states:

- Use the marked roadways when driving to and from aircraft stands.
- Equipment should not be parked or driven underneath, the wing or tail of aircraft unless required to do so by the operation.

Stands 25 to 30 were removed from service due to the ongoing airport building programme. Part of the adjoining apron was also incorporated into the airside road structure as a 'temporary road' (see map).

The area around Stand 24 is very congested. The passing road traffic at this corner is very heavy with not a lot of space on the apron for vehicle holding. The congestion has been aggravated by the ramp restrictions imposed by the new building works. Less than six months after this incident, Stand 31 was abandoned by aircraft operators because of the danger of FOD to their aircraft.

It has therefore become common practice for some aircraft servicing vehicles to cross the taxilane in the area between Pier A and Pier B in order to service aircraft on Stands 22, 23 & 24.

## 2. ANALYSIS

This incident was caused by a combination of a number of factors. The driver and the shift supervisor decided to approach the aircraft from the rear. The driver used the aircraft's red wing tip light as a guide there being no visible guideline on the ground. Had the vehicle gone to the front of the aircraft it is unlikely that it would have collided with the aircraft in the same manner.

Due to the building programme and the resulting roadway on what was Stand 25, the area of Stand 24 had become restrictive and extreme caution was necessary when manoeuvring servicing vehicles in this area. Stands 25 to 30 were officially removed to make way for the building site.

It is clear from the Airport Directive and the Aircraft Operator's own instructions that vehicles should use the marked roadways when driving to and from aircraft stands. The Directive prohibits the driver from driving the vehicle across the red taxilane boundary line. However the Investigation found that contravention of this regulation was taking place on a regular basis in this area by buses, dolleys on tow, catering and cleaning trucks. The investigation also found that some of the lines, particularly white lines needed to be repainted.

## 3. CONCLUSIONS

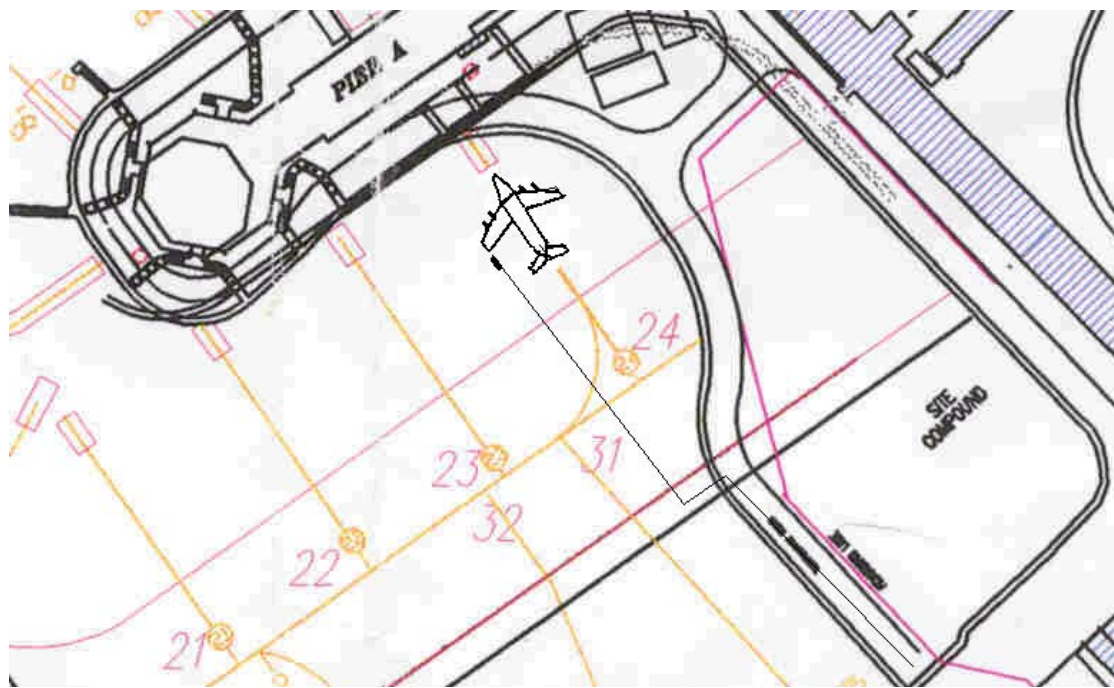
Due to the 6 bay building site at Dublin Airport and the incorporation of a roadway outside of that site, aircraft parking space is at a premium. This puts pressure on servicing activity on remaining Stands 24 and 31 where caution was necessary when manoeuvring vehicles to and from those stands. Extra markings, even of a temporary nature, are therefore required as guidelines to servicing vehicles such as cleaning trucks, water and sewage vehicles and refuellers.

As it was, the driver of this cleaning truck should not have crossed the taxilane to approach the aircraft and having done so did not create enough clearance between his vehicle and the aircraft.

## 4. SAFETY RECOMMENDATIONS

- 4.1 The driver should be retrained by his company in the correct manner of driving on the airport's movement area. **(SR 16 of 2001)**
- 4.2 The Airport Authority should more rigidly police the movement of aircraft servicing vehicles in the movement area in order that such vehicles comply with the Airport Directive. **(SR 17 of 2001)**

*Note: The recommendation 4.1 has already been carried out.*



EI-CLI on Stand 24, showing the direction from which the vehicle came.