



# **FINAL REPORT**

## **ACCIDENT INVOLVING 4X-CBL PROPELLER AIRCRAFT AT THE OLD GENERAL AVIATION AREA DURING TAXING –IN ON 10/5/2018 AT LARNACA INTERNATIONAL AIRPORT**

**REF 3/18**

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ΕΠΙΤΡΟΠΗ ΔΙΕΡΕΥΝΗΣΗΣ ΑΕΡΟΠΟΡΙΚΩΝ  
ΑΤΥΧΗΜΑΤΩΝ & ΣΥΜΒΑΝΤΩΝ ΚΥΠΡΟΥ



AIRCRAFT ACCIDENT & INCIDENT  
INVESTIGATION BOARD CYPRUS

Αρ. Φακ.: 16.15.01.4/18  
Τηλ: 24-643086 / 24802915  
Φαξ: 24-643052

25 May 2018

**SUBJECT: FINAL ACCIDENT REPORT INVOLVING 4X-CBL PROPELLER A/C AT THE  
OLD GENERAL AVIATION AREA DURING TAXING –IN ON 10/5/2018  
AT LARNACA INTERNATIONAL AIRPORT**

**OBJECTIVE OF THE INVESTIGATION**

***"The Investigation of this Accident has been conducted by the AAIIB in accordance with Annex 13 of the Chicago Convention, European Regulation 996/2010 and Cyprus Aircraft Accident & Incident Investigation Law 2015.***

***In accordance with Annex 13 to the Convention on International Civil Aviation, EU Regulation 996/2010 and the Cyprus Aircraft Accident & Incident Investigation Law 2015 [N.73(I)/2015], the sole objective of the investigation of an accident or incident shall be the prevention of accidents and incidents. It is not the purpose of this activity to apportion blame or liability.***

***Any judicial or administrative proceedings to apportion blame or liability should be separate from any investigation conducted under the provisions of ICAO Annex 13.***

*Consequently, the use of this report for any other purpose except for the prevention of accidents in the future could lead to wrong interpretations.*

## **ΣΚΟΠΟΣ ΤΗΣ ΔΙΕΡΕΥΝΗΣΗΣ**

*«Η διερεύνηση του συγκεκριμένου ατυχήματος διενεργήθηκε από την ΕΔΑΑΣ σύμφωνα με το Παράρτημα 13 της Σύμβασης για τη Διεθνή Πολιτική Αεροπορία, τον Κανονισμό (ΕΕ) 996/2010 και τον περί Διερεύνησης Αεροπορικών Ατυχημάτων και Συμβάντων Νόμο του 2015 [N.73(I)/2015].*

*Σύμφωνα με το Παράρτημα 13 της Σύμβασης για τη Διεθνή Πολιτική Αεροπορία, τον Κανονισμό (ΕΕ) 996/2010 και τον περί Διερεύνησης Αεροπορικών Ατυχημάτων και Συμβάντων Νόμο του 2015 [N.73(I)/2015], η διερεύνηση αεροπορικών ατυχημάτων και συμβάντων δεν έχει σκοπό στην απόδοση υπαιτιότητας ή ευθύνης. Ο μοναδικός σκοπός της διερεύνησης και του πορίσματος είναι η πρόληψη των ατυχημάτων και συμβάντων.*

*Οποιαδήποτε δικαστική ή διοικητική διαδικασία για απόδοση υπαιτιότητας ή ευθύνης, θα πρέπει να είναι ξεχωριστή από οποιαδήποτε έρευνα η οποία διεξάγεται σύμφωνα με το Παράρτημα 13 του Διεθνούς Οργανισμού Πολιτικής Αεροπορίας (Δ.Ο.Π.Α).*

*Κατά συνέπεια, η χρήση αυτού του πορίσματος για οποιοδήποτε άλλο σκοπό εκτός από την πρόληψη των ατυχημάτων στο μέλλον θα μπορούσε να οδηγήσει σε λανθασμένες ερμηνείες»*

Aircraft Operator: PRIVATE

Aircraft Type and Model: PIPER PA 31T

Registration: 4X - CBL

Location: LARNACA INTERNATIONAL AIRPORT

Date and Time: 10<sup>TH</sup> OF MAY 2018 07:10Z

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## **ABBREVIATIONS:**

AAIIB AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION BOARD

EASA EUROPEAN AVIATION SAFETY AGENCY

ICAO INTERNATIONAL CIVIL AVIATION ORGANISATION

KIAS KNOTS INDICATED AIRSPEED

LT LOCAL TIME

PIC PILOT IN COMMAND

RWY RUNWAY

UTC COORDINATED UNIVERSAL TIME

IAW IN ACCORDANCE WITH

AMIU AIRSIDE MONITORING / INSPECTION UNIT

A/C AIRCRAFT

F.O.D. FOREIGN OBJECT DAMAGE

FWD FORWARD

## **SYNOPSIS**

### **1. FACTUAL INFORMATION**

#### **1.1. HISTORY OF THE FLIGHT**

On 10<sup>th</sup> of May 2018 a turboprop aircraft landed at Larnaca airport at 07:10Z, following a private flight from Dov Airport - /Israel (LLSD), with one pilot and 3 passengers.

After vacating the runway from taxiway "D" the aircraft followed, the "follow me" car through taxiway "C" into the old light aircraft apron where a marshaller was standing in front of stand 19. At this point the follow me car left the aircraft under the control of the marshaller who signalled to the pilot where the stand was. The pilot continued under the guidance of the marshaller, initially straight ahead and then turned into stand 18 in order to continue forward for stand 19 where he should have turned again 90° into this stand before the final stop.

The pilot was taxiing in stand 18 and turned late to the right resulting his left wing to be over the adjacent service road, where cars are passing with a speed limit of 40 Kms/hr. While the aircraft was proceeding in stand 18 towards stand 19 and parallel to the service road the pilot was looking at the marshaller, who was standing at 45° to his right, the left propeller of the aircraft struck a concrete cover of a disused water meter, that was in stand 19 and 1.6 meters from the service road. The Marshaller before the aircraft impact crouched down to see if it was clear for the aircraft to continue but he did not see the obstruction. Even after the accident he continued marshaling the pilot to proceed forward, as he did not realize of what had happened.

## 1.2 INJURIES TO PERSONS

None

## 1.3. DAMAGE TO AIRCRAFT

After striking the cement block all 3 blades of the left propeller were destroyed completely. A secondary damage might also occurred in the blades pitch change mechanism, propeller shaft and reduction gearing.

## 1.4 Other Damage

Disused water meter concrete cover destroyed.

## 1.5 Personnel Information

**The pilot** is a holder of a valid commercial pilots' license with instrument rating and type rating for the aircraft flown.

His medical certificate was also valid. All his certificates are issued by the state of Israel.

**The marshaller** is an employee of a handling company operating at both Larnaca and Paphos Airports. He is a holder of a marshalls certificate which was issued to him on 08 of March 2013 by his company after successful training and evaluation. He was reassessed to confirm his competency on 7/1/15, 8/1/15, 10/1/15, and 11/1/15 in order to fulfill the 3 years' revaluation check in accordance with his company training manual issue 2, revision 2 of April 2018, page 24 paragraph 4.

No other reassessment was conducted by his company until the day after the accident, exceeding the required 3 years' reassessment period by 4 months.

## 1.6 AIRCRAFT INFORMATION

The aircraft Serial Number 31T8020080 until the time of the accident was in an airworthy condition.

After the accident it became grounded at Larnaca Airport until the required maintenance work is carried out.

The aircraft, was registered in the state of Israel on 12/8/1998 and has a valid certificate of airworthiness that expires on 3/12/18.

#### **DIMENSIONS**

WING SPAN	13 M
LENGTH	10.57 M
HIGHT	3.89 M
MTOW	4082 KG

#### **AIRCRAFT TYPE**

PIPER PA 31T CHEYENNE

#### **PILOT STATEMENT.**

Pilot in his report stated that he landed at Larnaca airport on 10<sup>th</sup> of May 2018 at 07:10 Z. After an uneventful flight he vacated the RWY from Taxiway D and followed the follow me car that was awaiting his a/c on Taxiway C in order to provide guidance towards the old light aircraft apron for parking. The follow me car directed the pilot to Taxi parallel to the marshaller who was standing in front of the allocated stand indicating the stands position. The pilot understood that he will have to make a 180<sup>o</sup> turn in order to park in the allocated stand.

He stated that the marshaller was facing north west clearly guiding him to taxi fwd parallel to him in order to guide him into a right 180<sup>o</sup> turn into the parking PSN.

As he was looking at the marshaller now to his right guiding him fwd he initiated a turn and kept looking at him for guidance.

The pilot underlined in his report that up to this point the marshaller did not indicate or signaled that there is an obstruction on the tarmac and when reaching 90<sup>o</sup> degrees into the turn a very loud sound was heard with vibration from the left engine, making obvious that the aircraft struck an object that could not be seen from the cockpit.



After the impact he mentioned that the marshaller did not signal him to stop and then he shutted down the engines.

The plane was then towed to a local aircraft maintenance hangar.

### **AMIU FOLLOW ME DRIVERS STATEMENT.**

The AMIU driver stated in his report that he guided the A/C to its stand and then left it under the control of the marshaller.

At that time the A/C stopped for a moment and then the marshaller signaled to the pilot where the stand was. The A/C continued straight with a slight left turn and then executed a 90° turn to the right. At this point the marshaller crouched down to see if the aircraft was clear to go forward, and then signaled the A/C to continue on the same heading until the A/C propeller struck the cement block.

### **WITNESS STATEMENT FROM THE FORESTRY DEPARTMENT.**

The witness was standing in the forestry department aircraft refuelling area, which is approximately 100 m from stand 19 and he was observing the marshalling of the incoming A/C.

He saw at first the A/C following the follow me car and then a marshaller guiding the A/C initially perpendicular to the service road. He stated that when the A/C was very close to the service road, the marshaller signaled for the A/C to turn right and taxi parallel to the service road.

As the A/C was advancing fwd the witness heard a loud noise. From the position he was standing and his viewing angle he thought that the left prop struck a metal box which was in front of the A/C.

Despite the loud noise the marshaller continued to signal for the A/C to advance fwd. He saw the A/C to shake irregularly and the marshaller to run towards the A/C. The witness then went close to the A/C to see that the left propeller struck a cement block.

### **1.7 Meteorological information.**

Not relevant to the accident.

### **3. CONCLUSION**

1. The concrete water meter cover position was inside parking position 19 and there was no sign of any kind for this obstruction.

Although ICAO Annex 6 paragraph 4.5 states that the pilot in command shall be responsible for the operation and safety of his aeroplane from the moment the aeroplane is ready to move for the purpose of taking – off until the moment it finally comes to rest at the end of the flight and its propulsion units are shut down, in this case as there was no contrasting colour of the obstruction in relation to the surrounding colour of the parking area, and the absence of any kind of warning it was extremely difficult for the pilot to have spotted the obstruction at a time where his attention and vision was at the marshaller who was standing in a different direction with his left wing hanging over the adjacent road taxiing parallel to it.

2. The handling companies training manual states that the marshaller should arrive at the parking site in good time in order to ensure that there are no F.O.D. or obstructions in the parking area. If the aircraft is to be marshalled around an obstruction or in a confined space the marshaller must request the assistance of another marshaller or wing man. And that all staff involved are briefed as to the manoeuvre to be executed.

3. As per the handling company's training manual, marshallers should be reassessed and retrained every 3 years. In this case, the marshaller was retrained and evaluated the following day of the accident, exceeding the required 3 years' reassessment period by 4 months.

### **RECOMMENDATIONS**

1. All obstructions in the light aircraft apron stands used to park arriving aircraft including the disused water meter concrete covers, should either properly be identified and fixed or totally removed to avoid cases where parking light a/c do not follow the prescribed route.
2. Arriving A/C should be guided by the follow me service with a procedure developed by Hermes when parking in the old general aviation area.

3. When marshalling an aircraft in confined space with obstacles a second marshaller should be present in order to ensure the safety of the parking aircraft.
4. The allocated marshaller should inspect the parking area in advance, so he has a good knowledge of the area, and if necessary to remove any obstructions like trolleys and steps that might be in the way.
5. The handling company should ensure that all marshallers recurrent training is taking place within the 3 years' period as written in their training manual.

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