



ACCIDENT INVESTIGATION COORDINATING COMMITTEE

**ACCIDENT REPORT ON
Cessna 150, 8Q-GAB at
Gan International Airport, Maldives
on 1st February 2012**

Operator: Asian Academy of Aeronautics
Manufacturer: Cessna Aircraft Company
Model: Cessna 150L

INTRODUCTION

Maldives is a signatory to Convention on International Civil Aviation (Chicago 1944) which established the International Civil Aviation Organisation. Article 26 of the Chicago Convention obligates the conduct of accident investigation of civil aircraft occurring in their state.

The Accident Investigation Coordinating Committee (AICC) conducted the investigation.

The AICC was assisted by technical staff of Maldives Civil Aviation Authority (MCAA).

The Accident was notified to MCAA at 1045 Hrs. (LT) by Asian Academy of Aeronautics. The accident investigating coordinating committee reached the accident site at 1530 Hrs..

In accordance with Annex 13 to Convention on International Civil Aviation, it is not the purpose of this investigation to apportion blame or liability. The sole objective of this investigation and the Final Report is to prevent accidents and incidents.

Unless otherwise stated recommendations in this report are addressed to the MCAA. It is MCAA who will decide on implementation.

All times in this report are in Local Time unless otherwise stated. Time Difference between Local and UTC is +5 Hrs.

The report is released on 18th September 2014.



Mr. Abdul Razzak Idris
Chairperson
Accident Investigation Coordinating Committee

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List of Abbreviations

AAA	:	Asian Academy of Aeronautics
AICC	:	Accident Investigation Coordinating Committee
C of A	:	Certificate of Airworthiness
C of R	:	Certificate of renewal
CAR	:	Civil Aviation Regulation
CVR	:	Cockpit Voice Recorder
FWD	:	Forward
ICAO	:	International Civil Aviation Organization
LH	:	Left hand
LT	:	Local time
MCAA	:	Maldives Civil Aviation Authority
MAR	:	Maldivian Airworthiness Requirements
MCAR	:	Maldivian Civil Aviation Regulation
MEL	:	Minimum Equipment List
MTOW	:	Maximum takeoff weight
PIC	:	Pilot in command
PROP	:	Propeller
RH	:	Right hand
SIC	:	Second in command
VFR	:	Visual Flight Rules

Synopsis

The 8Q-GAB aircraft departed at 1035 Hrs from Gan International Airport on a solo flight to commence circuit flying. The accident happened on the second circuit following a left hand traffic pattern around runway 10. The aircraft approached in a flat attitude, touched down on “three points” and bounced twice. On the second bounce the nose wheel and strut detached from aircraft and the aircraft came to a halt on the left side of the runway.

The investigation identified the following causal factors:

- Incorrect recovery action after the first bounce.

1. FACTUAL INFORMATION

Organisation:	Asian Academy of Aeronautics Pvt Ltd. (FTO Approval No.001)
Aircraft Type:	Cessna 150L
Aircraft Manufacturer:	Cessna Aircraft Company
Aircraft Owner:	Asian Academy of Aeronautics Pvt Ltd.
Nationality:	Maldivian registered
Registration:	8Q-GAB
Place of Accident:	Gan International Airport, Runway 10, Elevation 0 ft.
Date and Time:	01 st February 2012 at 1045 Hrs.

1.1 History of Flight.

The 8Q-GAB aircraft departed at 1035 Hrs from Gan International Airport on a solo flight to commence one hour of circuit flying. The accident happened on the second circuit following a left hand traffic pattern around runway 10. The aircraft approached in a flat attitude, touched down on “three points” and bounced twice. On the second bounce the aircraft landed on the nose wheel. The accident resulted in detaching the nose wheel and strut from aircraft. And the propeller struck the runway causing both blades to be bent and the engine to cease.

The aircraft came to a halt on the left side of the runway about 100 meters from the initial touchdown point. The pilot evacuates the aircraft safely.

1.2 Injury to persons

Injuries	Crew	Total in the aircraft	Others
Fatal	0	0	NIL
Serious	0	0	NIL
Minor	0	0	NIL
None	1	1	NIL
Total	1	1	NIL

1.3 Damages to aircraft

The aircraft sustained significant damaged. Nose landing gear collapsed (appendix 1) and detached from the engine mount on landing (appendix 2). Engine mount frame was significantly damaged and distorted (appendix 6). The propeller stuck the runway when the nose wheel collapsed causing both blades to be bent (appendix 4 and 5) and the engine to cease. Significant skin damage to the underside of the nose, aft of the landing gear, (appendix 3) on contact with the tire.

1.4 Other damage

NIL

1.5 Personnel information

1.5.1 Captain –

Age:	25
Nationality:	Indian
Gender:	Male
Type of Licence/Permit:	Student Pilot Permit (Aeroplanes)
Medical issued on:	6 th September 2010
Medical expires on:	30 th September 2015
Type of medical:	Class 2
Licence issued on:	27 th February 2011
Licence expires on:	26 th February 2013
Types flown:	C150 (on Maldivian licence)
Total flight time:	66.4 Hrs. (51.6 Hrs. Dual and 14.0 Hrs. Solo)

1.6 Aircraft information

1.6.1 General information –

Aircraft manufacturer:	Cessna
Model:	C150L
Serial number:	15075492
Year of manufacture:	1974
Nationality:	Maldivian
Registration marks:	8Q-GAB
Validity of C of R:	Perpetual (Issued on 22 Nov 2010)
Validity of C of A:	Issued 14 Mar 2011
Name of owner:	Asian Academy of Aeronautics
Name of operator:	Asian Academy of Aeronautics

1.6.2 Aircraft History –

Total flying hours since: -	
- Manufacture:	3998.35 Hrs.
- Last periodic inspection:	13.35 Hrs.

Last inspection carried out at TAT: 3985 Hrs. (200 Hrs. check)

1.6.3 Engines and propellers –

Engine:

Manufacturer:	Teledyne Continental Motors, Inc.
Year of manufacture:	unknown
Model:	O-200-A
Serial number:	253947
Last overhaul date:	3-11-2010
Hours since overhaul:	313 Hrs.
Last check carried out:	200 Hours scheduled check
Hours since last check:	14 Hrs.

Propeller:

Manufacturer:	McCauley Propeller Systems
Year of manufacture:	unknown
Model:	1A101 HCM6948
Serial number:	G 13156
Last overhaul date:	22/02/2009
Hours since overhaul:	349
Last check carried out:	200 Hrs.
Hours since last check:	14 Hrs.

1.6.4 Fuel –

Type of fuel used:	Auto-gas 95
Amount of fuel on board:	101 lbs

1.6.5 Accessories – No Component failed.

1.6.6 Defects – No deferrals.

1.7 Meteorological information

As per the METAR information received from Gan International Airport for 1st February 2012 observed at 0600Hrs. Wind 020° at 5 knots, Visibility 10 km or more, few clouds at 1800 ft.

1.8 Aids to navigation

The aircraft was operating under VFR conditions. Navigational aids were not a contributing factor of the accident.

1.9 Communications

Two VHF sets COM1 and COM2 were both serviceable at the time of departure. No communication problem was reported.

1.10 Aerodrome information

The Aerodrome is certified under Maldives Civil Aviation Authority (Cert no: ADC/001/2007) on 5th November 2007, operated by Gan Airports Company Pvt. Ltd. Consist of Runway 10 and Runway 28.

On the day of the accident the aircraft landed on Runway 10.

1.11 Flight Recorders

The aircraft was not fitted with any flight recorders and none was required by the regulation.

1.12 Wreckage and impact information

Details of the impact are in Appendix 7.

The aircraft sustained significant damaged. Nose landing gear collapsed (appendix 1) and detached from the engine mount on landing (appendix 2). Engine mount frame was significantly damaged and broken (appendix 6). The propeller stuck the runway when the landing gear collapsed causing both blades to be bent (appendix 4 and 5) and the engine to cease. Significant skin damage to the underside of the nose, aft of the landing gear, (appendix 3) on contact with the tire.

1.13 Medical and pathological information

Medical examination of the crew was not conducted. No physical injuries to the crew were recorded.

1.14 Fire

There was no evidence of fire before or after impact.

1.15 Survival Aspect

Aircraft came to a halt on left side of the runway. The student evacuated the aircraft safely.

1.16 Tests and research

No further tests were conducted on any equipment as the cause of the accident was evident.

1.17 Organizational and management information

The Flight Training Organisation is a Maldives Civil Aviation Authority (MCAA) approved FTO Certificate holder.

1.18 Additional Information

Nil

1.19 Useful or Effective Investigation Techniques

Nil

2. ANALYSIS

It was observed by the investigation team that;

- There was a tailwind at the time of the accident which the student was not aware of.
- Flat approach with high speed

3. CONCLUSIONS

(a) Findings

- Flatter than normal approach with high speed.
- No flare before touchdown.

(b) Causal Factor(s)

- Incorrect recovery action after the first bounce.

4. RECOMMENDATIONS

1. Increase awareness on recovery actions after a bounce.
2. Increase awareness on the dangers of nose wheel touch down before the main wheels.

Report compiled by:

Accident Investigation Coordinating Committee

Date: 18th September 2014.

5. APPENDICES

Appendix 1



Picture taken from rear RH side



The nose landing gear collapsed on landing

Appendix 2



Picture taken from FWD of aircraft

The landing gear was detached from the engine mount

Appendix 3



Picture taken from LH side

The tire rubbed against the belly by the landing gear causing skin damage

Appendix 4



Picture taken from FWD RH side

Prop struck the ground when the landing gear collapsed

Appendix 5



Picture taken from FWD LH

Picture Taken from Rear RH

Tip of both the blades were bent

Appendix 6



Picture taken from FWD



Picture taken from LH side

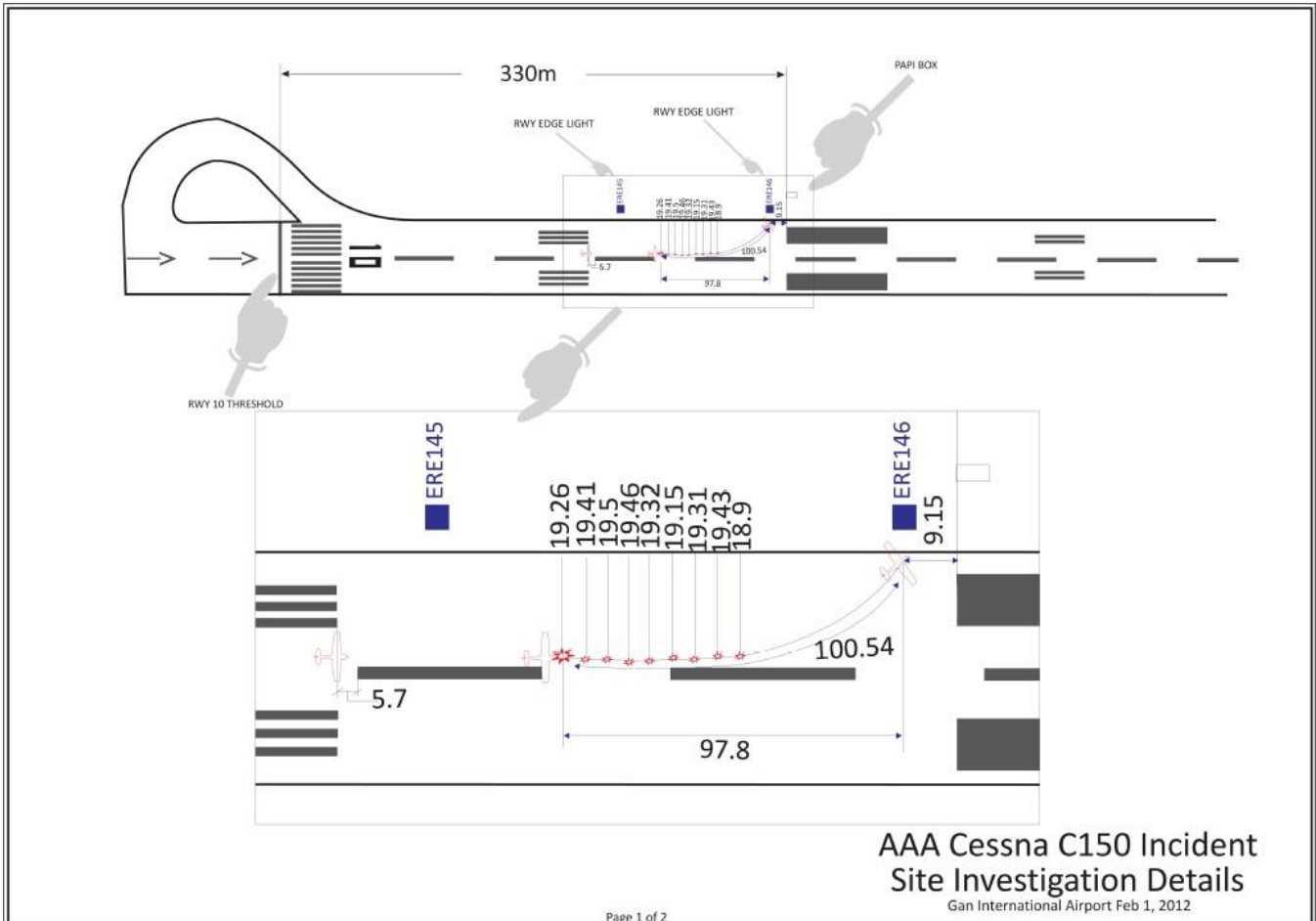


Picture taken from LH side

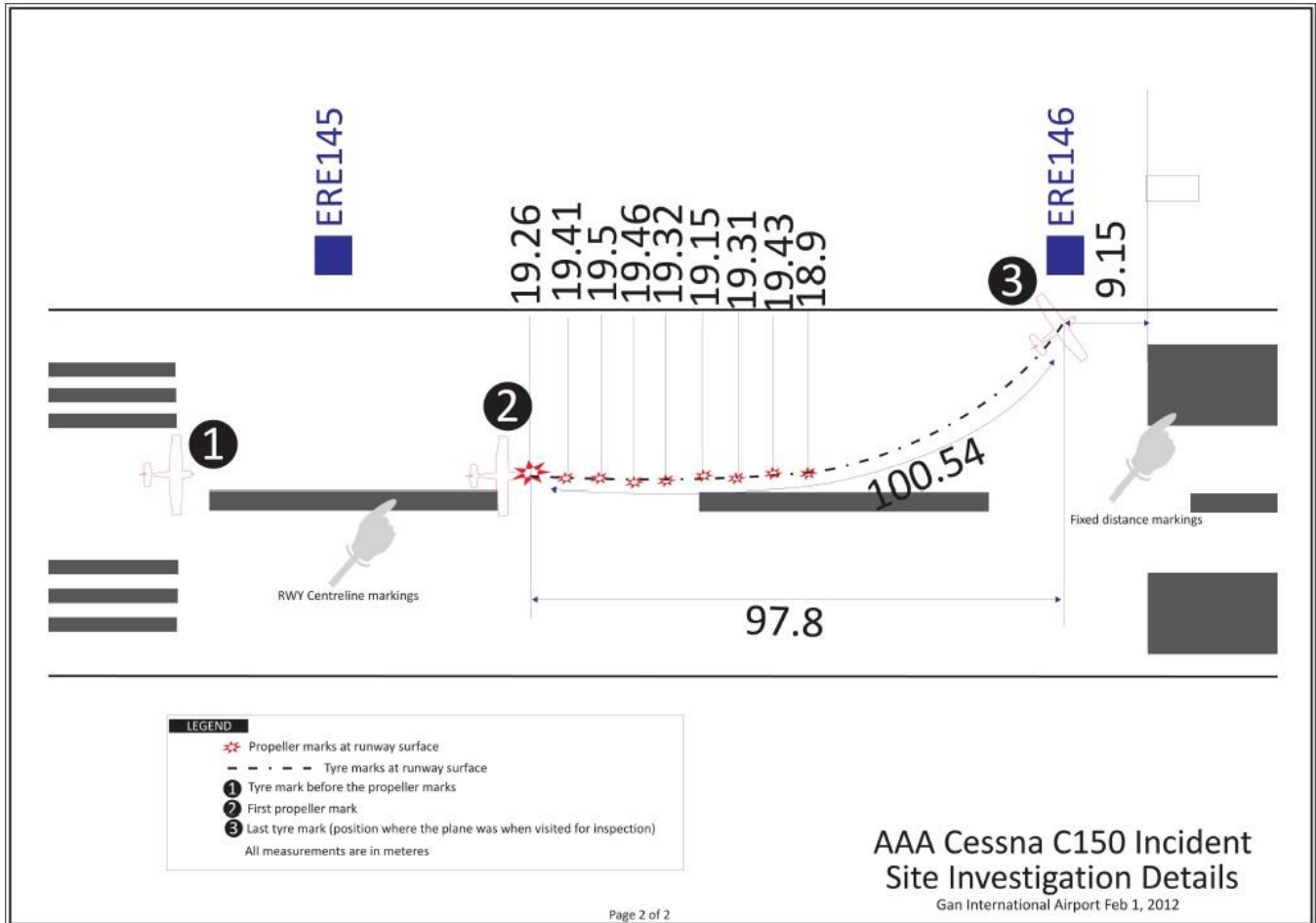
Engine mount frame damaged and broken

Appendix 7

Impact Information (1 of 2)



Impact Information (2 of 2)



END OF REPORT