



ACCIDENT INVESTIGATION COORDINATING COMMITTEE

AIRCRAFT ACCIDENT REPORT 2020/02

**PRELIMINARY REPORT ON INVESTIGATION OF THE
SERIOUS INCIDENT INVOLVING CESSNA 172 RG AIRCRAFT, 8Q-GAD, OPERATED BY
ASIAN AVIATION ACADEMY
AT GAN INTERNATIONAL AIRPORT, MALDIVES,
ON 04 JANUARY 2020**

INTRODUCTION

Maldives is a signatory to the Convention on International Civil Aviation (Chicago, 1944) which established the principles and arrangements for the safe and orderly development of international air transport. Article 26 of the Convention obligates Signatories to investigate accidents to civil aircraft occurring in their State.

This report is based upon the investigation carried out by the Accident Investigation Coordinating Committee (AICC) in accordance with Annex 13 to the Convention, the Civil Aviation Act 2/2001 and the Civil Aviation Regulations. The sole objective of this investigation is to prevent accidents and serious incidents. It is not the purpose of this investigation to apportion blame or liability as envisaged in Annex 13 to the Convention.

The AICC was assisted by Maldives Civil Aviation Authority (MCAA), and Asian Academy of Aeronautics Pvt Ltd (AAA).

All timings in this report are in local time unless otherwise stated. Time difference between local and UTC is +5 hours.

The report is released on 6 September 2020.



Mr. Abdul Razzak Idris

Chairperson

Accident Investigation Coordinating Committee

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List of Abbreviations

AAA	Asian Academy of Aeronautics Pvt. Ltd.
AIA	Addu International Airport
AICC	Accident Investigation Coordinating Committee
ATC	Air Traffic Controller
ATO	Approved Training Organisation
CPCP	Corrosion Prevention Control Procedure
CPL	Commercial Pilot License
DME	Distance Measuring Equipment
EASA	European Union Aviation Safety Agency
FAA	Federal Aviation Administration (USA)
FSTD	Flight Simulation Training Device
GACL	Gan Airport Company Ltd
GIA	Gan International Airport
GoM	Government of Maldives
lbs.	Pounds
MACL:	Maldives Airports Company Limited
MCAA	Maldives Civil Aviation Authority
MCAR	Maldives Civil Aviation Regulations
MLG	Main Landing Gear
N/A	Not Applicable
NLG	Nose Landing Gear
RAF	Royal Air Force (United Kingdom)
STO	State Trading Organisation Limited
TAT	Total Air Time
UTC:	Universal Time Co-ordinated
VHF	Very High Frequency
VRMG :	Gan International Airport

SYNOPSIS

On 04 January 2020, a Cessna 172RG aircraft, registration 8Q-GAD owned and operated by Asian Academy of Aeronautics (AAA), suffered a serious incident during landing at Gan International Airport (VRMG) at approximately 15:21 hrs. The aircraft was returning to land after completion of the second training flight of the day, with two crew onboard, one being the instructor pilot and the other a trainee pilot, pursuing a training course at AAA.

On approach, the instructor pilot reported a malfunctioning landing gear system; green light failed to illuminate after the landing gear selector lever was selected down which is an abnormal and unsafe condition. In an effort to verify the condition of the nose gear with the Air Traffic Controller (ATC), aircraft carried out several low fly passes. To ATC, all three landing gears appeared down but their locked condition could not be ascertained.

With all efforts exhausted, the crew decided to land on the runway with all precautionary measures taken. After landing and as soon as the nose landing gear touched the runway it collapsed. Aircraft came to a halt with the propeller striking the runway. The crew evacuated the aircraft without any physical injuries.

To clear the aircraft from the runway, the nose of the aircraft was lifted and the nose landing gear doors were manually opened. The collapsed nose landing gear was then manually forced into the locking position. This action enabled the aircraft to be finally pushed to the hangar for further investigation.

The serious incident was notified to the AICC at 1542 hours, on the same day. Investigation began on 6 January 2020 with two Investigators arriving in Gan at about 1230 hours.

1. FACTUAL INFORMATION

Aircraft Owner: Asian Academy of Aeronautics
Registered owner: Asian Academy of Aeronautics
Operator: Asian Academy of Aeronautics
(ATO Certificate No: 001, Initial issue 25 July 2010 and last renewed on 01 Jan 2018)
Aircraft Type: Cessna 172 RG
Nationality: 8Q (Republic of Maldives)
Registration: 8Q-GAD
Aircraft Manufacturer: Cessna Aircraft Corporation
Manufacturer's Serial No.: 172RG0293
Place of Accident: Gan International Airport (VRMG)
Latitude: 0° 41' 36" S
Longitude: 73° 9' 20" E
Date and Time: 04 January 2020 at 15:21 hours

1.1 History of Flight

1.1.1 Background

The aircraft, registration 8Q-GAD was scheduled to operate a total of 04 training flights on the day. The first flight on this aircraft was done by another pair, an Instructor pilot and a trainee, which lasted for 1 hour 2 minutes. The affected flight was the second flight of the day on the aircraft. The aircraft departed from VRMG with an instructor and a trainee pilot, and the incident occurred during landing.

The Instructor pilot reported to duty at 12 noon and completed a training flight with another student on aircraft 8Q-GAA.

The student pilot was flying the type 172RG for the very first time as an introduction flight on this type. The affected flight was the student pilots first flight of the day.

According to the load sheet completed, the aircraft had a total of 336 lbs of fuel on the second flight of the day. Take-off mass of the aircraft was 2380.5 lbs when it left for the intended flight, VRMG-VRMG.

The crew carried out the pre-flight and walk-around checks prior to the flight. No abnormalities were recorded or reported by the pilots during or after the checks accomplished. The company usually schedules a series of training flights back to back on the aircraft and issues a combined "flight release" for all such flights on a given day.

The instructor was seated on the right seat while the trainee pilot was seated on the left. It was on approach to VRMG that the crew reported the defect on the aircraft landing gear system.

The instructor pilot landed in GIA after having exhausted all their efforts to reconfirm positive extension of the landing gears with ATC.

The debriefing comment in the "CPL PREP" Assessment criteria sheets states that as part of the training, the effects of landing gear was demonstrated and practiced one time; and manual gear extension was demonstrated to student and practiced one time.

1.1.2 Aircraft

Cessna Aircraft Model 172RG, Manufacturer's Serial Number 172RG0293 was built in 1980 and as of incident date it had accrued a TAT of 9,140.53 hours.

1.1.3 Flight crew

The instructor had flown Cessna 172 RG aircraft for over 62 hours prior to the incident. The instructor reported for duty at AAA Gan, as scheduled at 12 noon and conducted one training flight with a different student, on another aircraft, before this flight. The student pilot had an accumulated over 174 hrs.

1.2 Injury to persons

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

1.3 Damage to aircraft

During the investigation carried out, the following components were found damaged;

- Propeller assembly
- NLG door assemblies
- Engine exhaust pipe stack

No other obvious damages were observed.

1.3.1 Damages to the landing gear

No obvious damages were identified during the post-incident investigations carried out on the landing gears although the nose landing gear actuator assembly is the prime suspect which led to this incident.

In the multiple retraction and extension checks carried out, with the aim of duplicating the failure on NLG down and lock condition, the NLG was found to be operating normally within the Service Manual prescribed limits. Each time the function check was carried out the NLG down and locked condition indicator light (green) illuminated in the cockpit. The checks accomplished did not confirm that the landing gear system, including the landing gear actuator assembly was defective. Thus, the incident is deduced to be the result of an intermittent defect occurred on the landing gear system.

1.3.2 Damages to the engines and propellers

Propeller is found badly damaged after it had struck the runway; blades bent, twisted and chafed, as seen in the images in the Appendix 5.7 of this report.

While no physical damages can be observed on the exterior of the powerplant, it may have sustained damage.

1.4 Other damage

There were no damages to any other property or objects.

1.5 Personnel information

1.5.1 Instructor

Age:	33 yrs
License:	CPL-A (valid till 29 April 2025)
Aircraft Ratings:	Nil
Last proficiency check:	25 April 2019
Last instrument rating renewal:	25 April 2019
Last line check:	N/A
Last medical:	Class I – valid till 8 Aug 2020

Flying experience

Total all types:	1611.1 hours
On Type:	65.8 hrs
Last 90 days:	22.6 hrs
Last 28 days:	22.6 hrs
Last 24 hours:	3.0 hrs

1.5.2 Trainee

Age:	28 yrs
License:	N/A
Aircraft Ratings:	N/A
Last proficiency check:	N/A
Last instrument rating renewal:	N/A
Last line check:	N/A
Last medical:	Class I – Issued 22 Dec 2019

Flying experience

Total:	172.4 hrs
Last 90 days:	1.1 hrs
Last 28 days:	1.1 hrs
Last 24 hrs:	1.1 hrs

1.5.3 Cabin Crew

None

1.6 Aircraft Information

1.6.1 General information

Cessna Model 172RG aircraft is a high-wing monoplane of all-metal semi-monocoque construction. It is equipped with fully retractable tricycle landing gear consisting of tubular spring-steel main gear struts and a steerable nose gear. The steerable nose gear is equipped with an air/hydraulic fluid shock strut. The aircraft is configured to seat four people including the crew. Aircraft is powered by a four-cylinder, horizontally-opposed air-cooled Lycoming engine which drives an all-metal constant-speed McCauley two-bladed propeller. This model

172RG features rear side windows, a "wrap-around" rear window and a swept-back fin and rudder.

Manufacturer:	Textron Aviation (previously Cessna Aircraft Company)
Registration:	8Q-GAD
Powerplants:	1 x Lycoming O-360-F1A6 piston engines (4 cylinders)
Manufacturer's Serial Number (MSN):	172RG0293
Year of construction:	1980
Total Air Time at time of accident:	9,140.53 hours
Certificate of Airworthiness:	Perpetual, issued on 14 March, 2011 by MCAA
Airworthiness Review Certificate:	Last issued on 25 October 2019. It expires on 24 October 2020
Last periodic inspection	(100 hourly) carried out on 27 December, 2019
Last inspection carried out at TAT	50,533.17 hrs

The aircraft is incorporated with a modification; installing a red indicator light replacing the UP indicator (amber) light which cautions the pilots of GEAR UNSAFE condition. The GEAR UNSAFE (red) light is ON anytime the gear is in transit (retract cycle), or whenever system pressure drops below 1000 psi with the safety (squat) switch closed.

During a normal cycle, landing gear extended and locked can be detected by illumination of the DOWN indicator (green) light. Indication of gear retracted is provided by illumination of the UP indicator (amber) light.

AAA could not demonstrate the basis (approved data) for installation of the red light. This could be carried out based on a Service Letter or Service Bulletin published by the manufacturer or a Change Bulletin developed and approved by an approved design organisation.

1.6.2 Engines and Propellers

Aircraft is installed with a four-cylinder, horizontally-opposed air-cooled Lycoming Engine which drives an all-metal constant-speed McCauley two-bladed propeller.

Engine (single)	
Manufacturer:	Lycoming
Year of manufacture:	UNKNOWN
Propeller (Single)	
Manufacturer:	McCauley
Year of manufacture:	UNKNOWN
Model:	
Serial number:	

1.6.3 Cabin Layout and Configuration

The aircraft is fitted with a total of four seats to accommodate both crew and passengers. The aircraft has two large doors which can be served as exits. It also has a small lockable cargo holder, normally kept locked on the left hand side of the fuselage.

1.6.4 Recent maintenance

The last scheduled Maintenance Check (100 hourly) carried out on 27 December 2019 was complied with at Total Air Time (TAT): 9,118.41 hours.

The Maintenance Checks are split into:

- Preflight - complied with before every flight by pilots
- Daily Inspection - complied with prior to the first flight of the day
- 50 hourly Check - complied with at intervals not exceeding 50 hours
- 100 hourly Check - complied with at intervals not exceeding 100 hours
- Annual Check - complied with annually (100 hourly check items)
- CPCP - complied with, every year

The Checks are part of the Light Aircraft Maintenance Program – Aeroplanes reference MP/C 172/01 approved by MCAA, dated 01 January 2016.

The aircraft had no outstanding deferred defects at the time of incident or any defects reported on the day of the incident occurrence.

1.6.5 Flight Controls

The flight controls consist of conventional, manually actuated primary flight controls operated through cables, pulleys, and mechanical linkages. Rudder and elevator trim are manually controlled and mechanically actuated; aileron trim is electrically actuated. Secondary flight controls consist of electrically operated wing flaps. A stall warning system provides warning of impending stall condition of the aircraft.

1.6.6 Powerplants

Refer to 1.6.2

1.6.7 Fuel

According to the load sheet completed, the aircraft had 336 lbs. of fuel when it departed on the intended training flight: VRMG-VRMG.

1.6.8 Accessories

None

1.6.9 Defects

Aircraft had no open defects as per information available with AAA.

1.6.10 Aircraft load

Load Limitations:

Maximum Take-Off Mass	2650 lbs
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Distance from Datum to Main Wheel center line (A) 57.75 inches

Distance from Nose Wheel center line to main wheel center line (B) 63.75 inches

Centre of Gravity (Empty Weight) 37.98 inches.

The aircraft was last weighed on 11 September 2018. The basic empty weight calculated is 1711.5 lbs. while the Centre of gravity remained at 37.98" from the datum.

1.6.11 Load sheet

The Instructor pilot prepares the load sheet and leaves a copy on the ground prior to departure.

1.7 Meteorological information

The information prescribed below was gathered from ATC at Gan International Airport.

METAR VRMG 041000Z 04003KT 9999 -SHRA SCT017 FEW018CB 30.6/24.8 Q1008.8 CB
N,SSE,OVHD TEMPO 5000 -SHRA=

1.8 Aids to navigation

The aircraft was operating under visual flight rules. Navigation was not a factor in this incident.

1.9 Communications

The aircraft was equipped with one VHF radio set which was serviceable at the time of departure. The pilots did not report any communication defects.

1.10 Aerodrome information

GAN (VRMG) is an international airport with day and night landing facilities.

Reference 0° 41' 36" N 73° 9' 20" E

Gan Airport was initially built by the Royal Navy and was used as a military airbase during World War II and up until 1976. The airport was upgraded to an international airport and is now owned and managed by AIA - a company owned by GACL, MACL and STO.

The GIA is an airport with a 3600 meter asphalt runway with fire category CAT 7, and is open for international traffic.

AAA flying school along with AAA's maintenance facility is housed in GIA since 2010.

1.11 Flight Recorders

None required.

1.12 Wreckage and impact information

1.12.1 Accident site visit

AICC investigators visited accident site and aircraft twice to investigate into identifying the cause of the serious incident.

1.9.2 Salvage operations

To remove the aircraft from runway, the nose of the aircraft was lifted manually after which the nose wheel well door was forced open and the nose gear forced down and locked. The aircraft was then pushed to the hangar.

1.13 Medical and pathological information

None

1.14 Fire

None

1.15 Survival Aspects

Instructor and trainee pilot evacuated themselves immediately after the incident. Normal exits of the aircraft were used for evacuation.

1.16 Tests and research

Since the defect normally connected with nose landing gear collapse could not be duplicated on ground during repeated cycling of the landing gear systems, the nose landing gear actuator assembly, part number 1280514-9 require removal and thorough testing in an overhaul shop to possibly establish the root cause of the nose landing gear collapse occurred.

1.17 Organizational and Management Information

Asian Academy of Aeronautics Pvt Ltd (AAA) is a MCAA approved training organization holding Approved Training Organisation (ATO) Certificate No 001. AAA provide training courses including the use of Flight Simulation Training Device (FSTD) to trainee pilots with a fleet of 13 aircraft (including the affected aircraft) comprising of Cessna 150, 152, 172, Piper PA34. The company holds Continuing Airworthiness Management Organisation Approval MV.MG.004 for managing the maintenance, and MCAR M, Subpart F, approval MV.MF.001 for carrying out maintenance on the aircraft on its register.

Regular inspections and periodical flight checks were conducted on the operation and crew by the MCAA to verify compliance and competency.

Annual audits with random spot checks and regular Airworthiness Review Inspections were found being carried out by the MCAA.

1.18 Additional Information

AICC investigation team assessed the evidences available on site. Instructor and Trainee Pilots, ATC plus key eyewitnesses were interviewed by the investigators.

1.19 Useful or Effective Investigation Techniques

None


2. ANALYSIS

As part of the analysis carried out post incident, actions/tasks listed below were accomplished on the incident-stricken aircraft, parked in the hangar located at GIA.

- Visual inspection of the damaged areas/components, and for any hydraulic leaks etc.
- removed the nose landing gear doors to facilitate landing gears retraction and extensions
- removed nose landing gear doors i.a.w Cessna 172RG, Service Manual, Section 5-122.
- jacked up the aircraft i.a.w Service Manual, Section 2-4 and verified satisfactory operation of the landing gear indication system indication lights, retraction and extension of the landing gears, flap actuated (20 degree) warning horn and operation of the emergency hand pump

Landing gear function check was carried out primarily to duplicate anomaly affecting NLG collapse occurred, and identify the root cause of the incident. No abnormalities were identified during the repeated cycling of the landing gear system carried out. Therefore, no conclusions could be drawn on identifying the cause of the defect reported by pilot and subsequent collapse of the nose landing gear.

Review of the records confirm that the nose gear actuator assembly installed was received with TAS TRACEABILITY FORM, reference 1063412, issued by Texas Aircraft Salvage 802 Hurt RD Bloomburg, TX 75556 (903) 728-5307. The document identifies 0603 as the serial number of the aircraft to which it was last installed. Serial number of the installed unit stamped 4 digit number is 1059 . Field 11 of the Traceability Form states (in field 11) that Airworthiness status "to be determined by the installing agency".

(1). Country U.S.A.	TAS TRACEABILITY FORM		(2). Reference #: 1063412
(3). Agency Texas Aircraft Salvage 802 Hurt RD Bloomburg, TX. 75556 (903) 728-5307			
(4). Part #: 1280514-9	(5). Description: ACTUATOR ASSEMBLY - NOSE GEAR		(6). Serial #: NA
(7). Aircraft: CESSNA	(8). Model: 1980 - 172RG	(9). Reg #: N6273V	(10). Serial #: 0603
(11). Airworthiness To be determined by the installing agency.			
(12). Authorized Signature: 		This form is for the purpose of traceability. The item/s described in blocks (4), (5) and (6) were removed from the aircraft described in blocks (7), (8), (9) and (10) by the agency listed in block (3). Airworthiness of the item/s described in blocks (4), (5) and (6) are to be determined by the agency listed in block (11) of this form.	

Review of past maintenance records show a number of defects relating to the landing gear system was filed in the past. Details of the defects and the rectification actions taken by AAA are summarized below:

Date	ATL page #	Defect	Rectification Action
6 June 2017	514	Alternator & Landing gear fuse came out while deploying	Checked on ground. Alternator and landing gear syst. Failure not observed. Request flight test to check landing gear and DME failure
7 June 2017	515	Alternator & Landing gear fuse came out twice	Found power pack motor damaged. Replaced with new P/N 9881128, serial # 1104. Replaced nose wheel tyre Part Number 070-312-0, s/n 4191500203
21 Aug 2017	545	Gear pump circuit breaker popped out. Used manual extension	Performed service on fluid level on power pack. Aircraft landing gear check on jacks. No failure observed. Aircraft ready to service
10 Oct 2017	567	Ldg Gear circuit breaker popped out	Replaced landing gear breaker. Hyd level checked and re filled
13 Oct 2017	568	Landing Gear circuit breaker popping out and discharging	All electrical connection cleaned and secured. Checked ok
21 Oct 2017	575	Landing Gear not lock in up position	refilled hydraulic tank
17 May 2018	674	Right landing gear does not retract completely	Installed new MLG actuator part # 9882015-2 serial # 16068. Performed flight test. Satisfactory
16 July 2018	707	Gear up not working	Replaced relay part # UN10110. Checked. Found working properly

3. CONCLUSIONS

Based on the above analysis, the following findings are drawn and presented as conclusions of the investigation

3.1 Findings

1. The defect reported by pilot could not be reproduced on ground, in static condition during several function checks carried out on the landing gear system, post incident.
2. The nose landing gear actuator assembly was received with a TAS TRACEABILITY FORM issued by Texas Aircraft Salvage Agency, but had no MCAR Form One as required, which ensures airworthiness of the unit.
3. Installation of gear unsafe indication light (red) on the aircraft by AAA maintenance facility located in GIA. Approval of this modification cannot be verified.

4. SAFETY RECOMMENDATIONS

1. The operator to:
 - a) Remove the nose gear actuator assembly/locking mechanism and have it shipped it to the manufacturer or a duly approved shop for further investigation.
 - b) Ensure that all modifications carried out on the aircraft do have approved data to support incorporation.
 - c) Ensure that all components have appropriate Authorised Release Certificates prior to installation on the aircraft operated.
2. MCAA to:
 - a) Investigate findings 2 and 3 as they are unapproved installations, and take appropriate actions.

5. APPENDICES

5.1 Communication transcripts

N/A

5.2 Flight data recorder readouts

N/A

5.3 Flight plan and Load Sheet

5.3.1 Load Sheet

DATE	9/01/2020
SERIAL NO.	12/5526
A/C REG.	8Q GAD
STUDENT	MARLOW
INSTRUCTOR	HARRIS

172RG

SAMPLE LOADING PROBLEM	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb. -ins. /1000)	Weight (lbs.)	Moment (lb. -ins. /1000)
1. Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)	1624	61.6	1711.5	64.48
2. Usable Fuel (At 6 Lbs./Gal.)			336	15.8
Standard Tanks (62 Gal. Maximum)				
Reduced Fuel (44 Gal.)	264	12.7	-	
3. Pilot and Front Passenger (Station 34 to 46)	340	12.6	341	12.5
4. Rear Passengers	340	24.8		
5. * Baggage Area 1 (Station 82 to 108 - 200 Lbs. Max.)	90	8.6		
6. * Baggage Area 2 (Station 108 to 124 - 50 Lbs. Max.)				
7. RAMP WEIGHT AND MOMENT	2658	120.3	2388.5	92.78
8. Fuel allowance for engine start, taxi and runup	-8	-.4		
9. TAKEOFF WEIGHT AND MOMENT (Subtract Step 4 from Step 7)	2650	119.9	2380.5	92.38
10. Locate this point (2650 at 119.9) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.		ZFM	2052.5	76.98
* The maximum allowable combined weight capacity for baggage Areas 1 and 2 is 200 lbs.				

Figure 6-5. Sample Loading Problem

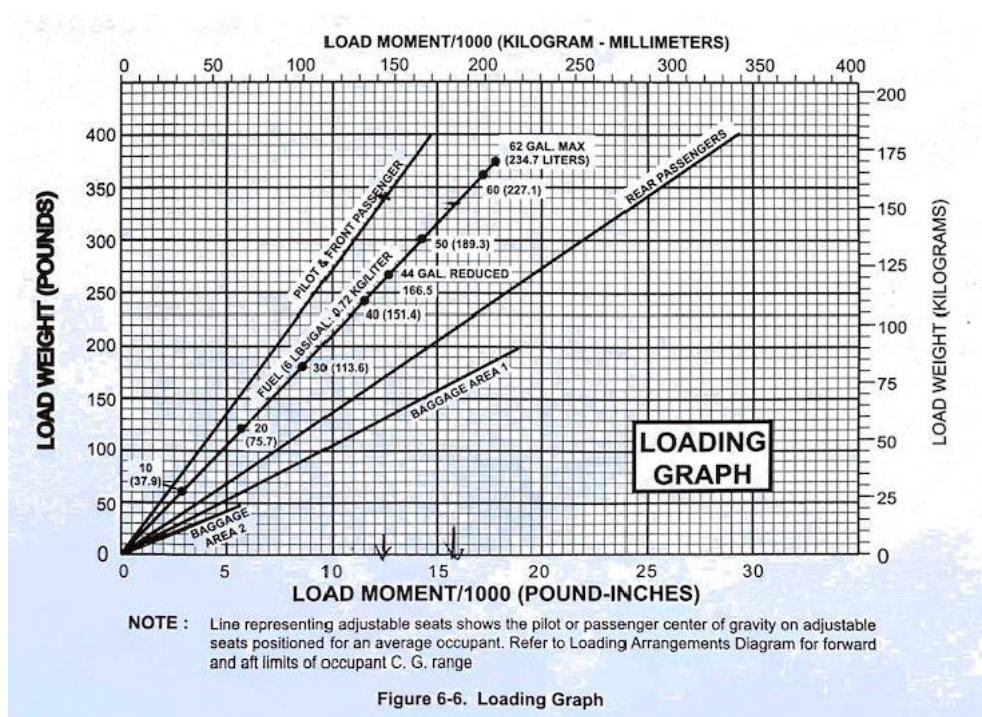


Figure 6-6. Loading Graph

5.4 Technical investigation reports

N/A

5.5 Pertinent pages from manual and logbooks

5.5.1 Techlog Sheet for affected flight

A/C Type CESSNA 172 RG		A/C Reg. No. 8Q-GAD		AIRCRAFT TECHNICAL LOG SHEET Asian Academy of Aeronautics (Pvt) Ltd. Gan International Airport, Republic of Maldives										DATE 04/01/2020		Tech Log Serial No. 992	
I certify that I have inspected this Aircraft in accordance with approved Daily Inspection Schedule														CAM Signature		Lic No 66-0675	
Pre Flight Inspection carried out (Signature of Pilots)																	
S #	FROM	TO	FLIGHT TIME			FUEL (Gal)		OIL (qts)		CAPTAIN'S NAME	LIC NO	SIGN	LDGS	HOBBS TIME	TOTAL AIRCRAFT TIME & LEGS STATE		
			T/O	LAND	TOTAL	UP LIFT	TOTAL	UP LIFT	TOTAL						Total Time	T/L	
1	VMMH	VMMH	1210	1312	0102	30	6.11	0.5	7.91	BALA	970			114	144-159=12		
2	VMMH	VMMH	1430	1526	0101					CHADIS	926			15	159-170=11	BRING FWD	9138.95
3																THIS PAGE	2.18 9/L
4																CARRY FWD	9140.53
5																CERTIFICATE OF RELEASE TO SERVICE	
6																SERIAL NUMBER	AD010/19
7																TOTAL A/C TIME	
8																ISSUED TIME	DATE
9																CERTIFICATE OF MAINTENANCE REVIEW	
10																LAST SCHEDULE CHECK SERVICE	
11																Description	100H
12																Done at	9118.41
TOTAL			02.03									2/L 2.03 = 2.18			NEXT SCHEDULE CHECK SERVICE		
No.	DEFECT (State if Nil)		Rectification										Description				
1	- NIL												50H				
2	FUSELAGE COLLAPSED WHILE FLYING												Due at 9168.41				
3													Remaining 30.06				
4													NOTE				
5													A new sheet must be started for each days flying as well as defect has been recorded and rectified				
6																	
7																	
8																	
9													Distribution of Tech Log Sheet				
10													White	Stay in Log Book			
11													Pink	Maintenance			
DEFERRED LIST			- NIL -										Green	Flight Operation			
Certifies that the work specified except as otherwise specified was carried out in accordance with MCAR-M and in respect to that work Aircraft in considered ready for Release to service												CRS CAM Signature	CAM Lic. No.	Dual Signature	Licence Number	DATE	

5.5.2 ATO Certificate copy



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

ATO No: 001

APPROVED TRAINING ORGANISATION CERTIFICATE

Pursuant to Civil Aviation Regulation MCAR – AIRCREW, and subject to the conditions specified below, the Maldives Civil Aviation Authority hereby certifies,

ASIAN ACADEMY OF AERONAUTICS (PVT) LTD
AAA Hanger
Gan International Airport,
Addu Atoll
Republic of Maldives
Telephone: (960) 6898829 (960) 759 9149
Fax: (960) 689 8829
E-mail: info@aaa-ffa.com, ceo.ht@aaa-ffa.com

as a Part-ORA certified training organisation with the privilege to provide Part-FCL training courses, including the use of FSTDs, as listed in the attached training course approval.

CONDITIONS

This certificate is limited to the privileges and the scope of providing the training courses, including the use of FSTDs, as listed in the attached course approval.

This certificate is valid whilst the approved organisation remains in compliance with Part-ORA, Part-FCL and other applicable regulations.

Subject to compliance with the foregoing conditions, this certificate will remain valid to the expiry unless the certificate has been surrendered, superseded, limited, suspended or revoked.


Date of initial issue: 25th July 2010
Date of renewal: 1st January 2018


Hussain Jaleel
CHIEF EXECUTIVE



5.5.3 AMO approval

اسم القرآن الكريم



MALDIVES CIVIL AVIATION AUTHORITY
REPUBLIC OF MALDIVES

Reference:
MV.MF.001

MAINTENANCE ORGANISATION APPROVAL CERTIFICATE

Pursuant to Civil Aviation Regulations for the time being in force and subject to the conditions specified below, the Civil Aviation Authority hereby certifies:



ASIAN ACADEMY OF AERONAUTICS PVT LTD
AAA HANGER AND OFFICE FACILITIES
GAN INTERNATIONAL AIRPORT
ADDU CITY
REPUBLIC OF MALDIVES

as a maintenance organisation in compliance with MCAR-M Section A Subpart F, approved to maintain the products, parts and appliances listed in the attached approval schedule and issue related certificates of release to service using the above references.



CONDITIONS

1. This approval is limited to that specified in the scope of approval section of the approved maintenance organisation manual as referred to in Section A of MCAR-M Subpart F, and
2. This approval requires compliance with the procedures specified in the approved maintenance organisation manual, and
3. This approval is valid whilst the approved maintenance organisation remains in compliance with MCAR-M.
4. Subject to compliance with the foregoing conditions, this approval shall remain valid for an unlimited duration unless the approval has previously been surrendered, superseded, suspended or revoked.

Revision Number: 04
Date of this Revision: 03 October 2016
Date of Original Issue: 09 August 2012

Signed: 
For the Civil Aviation Authority 

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MAINTENANCE ORGANISATION APPROVAL SCHEDULE			
Reference: MV.MF.001			
Organisation: ASIAN ACADEMY OF AERONAUTICS PVT LTD			
CLASS	RATING		LIMITATION
AIRCRAFT	A2	Aeroplanes	Cessna 150 Series
			Cessna 172 Series
			Piper PA-34 Series
ENGINES	B2	Piston	Lycoming O-235 Series
			Lycoming O-320 Series
			Lycoming O-360 Series
			Rolls-Royce Continental O-240 Series
			Continental O-200 Series
			Teledyne Continental TSIO-360 Series
			Teledyne Continental LTSIO-360 Series
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C4	Doors — Hatches	All maintenance specified in the Scope of Work in the Company MOE
	C5	Electrical Power	
	C8	Flight Controls	
	C12	Hydraulic	
	C14	Landing Gear	
	C16	Propellers	
	C20	Structural	
<p>This approval is limited to the products, parts and appliances and to the activities specified in the scope of work section of the approved maintenance organisation manual.</p> <p>Maintenance Organisation Exposition Reference: MV.MOE.MF.001 at latest amendment</p>			
<p>Revision Number: 04 Date of this Revision: 03 October 2016 Date of Original Issue: 09 August 2012</p>		<p>Signed:  For the Civil Aviation Authority </p>	

5.6 Maps and diagrams
N/A

5.7 Photographs

The below photos show the damages to the aircraft caused due to the accident.



Figure 1: Aircraft on runway



Figure 2: NLG wheel well



Figure 3: Bent Propeller



Figure 4: Manual System handle



Figure 5: landing gear selector switch and gear position indicator lights



Figure 6: Handle for manual operation of Landing gear