





BAHAMAS
AIR ACCIDENT
INVESTIGATION DEPARTMENT
JL CENTER, BLAKE ROAD
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NASSAU N. P., BAHAMAS

# AIRCRAFT ACCIDENT REPORT

CESSNA C-172 N51AC

**ENGINE FAILURE** 

NASSAU N. P., BAHAMAS

June 8<sup>th</sup>, 2015

Abstract: This report explains the circumstances surrounding the ditching of N51AZ, a Cessna C172 aircraft. N51AZ owned and operated by Prestigious Aircraft Inc., ditched in waters 12nm southeast of Nassau, New Providence. The ditching occurred on June 8 2015 at approximately 7:30 pm local time (2330UTC). There were four adults and one enfant on the aircraft at the time of the unfortunate event. No injuries were sustained by any of the occupants as a result of the ditching.

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# BAHAMAS AIR ACCIDENT INVESTIGATION DEPARTMENT

The Bahamas Air Accident Investigation Department (BAID) is the aviation accident investigation unit of the Ministry of Transportation & Aviation

The BAID's function is to promote and improve safety and public confidence in the aviation industry through excellence in:

- Independent investigation of aviation accidents and other safety occurrences
- Safety data recording, analysis and research
- Fostering safety awareness, knowledge and action.

# The BAID does not investigate for the purpose of apportioning blame or to provide a means for determining liability.

The BAID performs its functions in accordance with the provisions of the *Bahamas Civil Aviation (Safety)* (Amendment) Regulations (BASR), Schedule 19, International Civil Aviation Organization (ICAO) Annex 13 and, where applicable, relevant international agreements.

The Bahamas Air Accident Investigation Department is mandated by the Ministry of Transportation and Aviation to investigate air transportation accidents and incidents, determine probable causes of accidents and incidents, issue safety recommendations, study transportation safety issues and evaluate the safety effectiveness of agencies and stakeholders involved in air transportation.

The BAID makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations and safety alerts. When the BAID issues a safety recommendation, the person, organization or agency must provide a written response within 90 days. That response must indicate whether the person, organization or agency accepts the recommendation, any reasons for not accepting part or all of the recommendation, and details of any proposed safety action to give effect to the recommendation.

Official Copies of accident reports can be obtained by contacting:

The Bahamas Air Accident Investigation Department JL Center, Blake Road P. O. Box AP-59244 Nassau N. P., Bahamas (242) 397-4700 Ext. 4778

Unofficial copies of accident reports investigated and completed by the BAID can be viewed on the BAID's website at <a href="https://www.aaipu-bcaa.com">www.aaipu-bcaa.com</a>





### **BAHAMAS AIR ACCIDENT INVESTIGATION DEPARTMENT**

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#### ABBREVIATIONS AND TERMINOLOGY

When the following terms are used in this report, they have the following meanings:

ATS	Air Traffic Services	MET	Meteorological Office /	
ATC	Air Traffic Control		Department	
BAID	Bahamas Accident	METAR	Weather Report furnished by	
	Investigation Department		Meteorological Department	
CASR	Bahamas Civil Aviation	MOTA	Ministry of Transport &	
	(Safety) Regulations		Aviation	
C of A	Certificate of Airworthiness	MYNN	Lynden Pindling Int'l Airport	
C of R	Certificate of Registration	NM or nm	Nautical Miles	
DCA	Director of Civil Aviation	NTSB	National Transportation	
EST	Eastern Standard Time (-4 Safety Boar		Safety Board	
	hours to convert from UTC)	USA	United States of America	
FAA	Federal Aviation	VFR	Visual Flight Rules	
	Administration	UTC / Z	Universal Coordinated Time /	
			Zulu Time	
ICAO	International Civil Aviation			
	Organization	VOR	Very high frequency Omni-	
			range station.	

#### **DEFINITIONS**

When the following terms are used in this report, they have the following meanings as per BASR 2013 and ICAO Annex 13;

**Accident** - An occurrence associated with the operation of an aircraft which takes place between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:

- a) a person is fatally or seriously injured as a result of:
- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
- adversely affects the structural strength, performance or flight characteristics of the aircraft, and
- would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas,

tires, brakes, fairings, small dents or puncture holes in the aircraft skin; or

- c) the aircraft is missing or is completely inaccessible.
  - Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified as a fatal injury by ICAO.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

**Accredited representative -** A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State.

**Adviser** - A person appointed by a State, on the basis of his or her qualifications, for the purpose of assisting its accredited representative in an investigation.

**Aircraft -** Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Causes - Actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident.

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**CFIT** - Controlled Flight into Terrain occurs when an airworthy aircraft under the complete control of the pilot is inadvertently flown into terrain, water, or an obstacle. The pilots are generally unaware of the danger until it is too late.

**Fatal injury** - means any injury which results in death within 30 days of the accident.

**Investigation -** A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.

**Investigator-in-charge -** A person charged, on the basis of his or her qualifications, with the responsibility for the organization, conduct and control of an investigation.

Note.— Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.

**Maximum mass -** Maximum certificated take-off mass.

**Operator -** A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

**Preliminary Report.** The communication used for the prompt dissemination of data obtained during the early stages of the investigation.

**Safety Recommendation.** A proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.

**State of Design -** The State having jurisdiction over the organization responsible for the type design.

**State of Manufacture -** The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

**State of Occurrence -** The State in the territory of which an accident or incident occurs.

**State of the Operator -** The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

**State of Registry -** The State on whose register the aircraft is entered.

Note: - In the case of the registration of aircraft of an International operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International.

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#### **FOREWARD**

August 15, 2015

Mr. Ivan Cleare Director (Acting) Department of Civil Aviation JL Center, Blake Road Nassau, N.P., Bahamas

Hon. Minister

The attached report summarizes the investigation into the circumstances of the ditching involving N51AZ, a single engine Cessna C172 aircraft, registered in the United States of America to Prestigious Aircraft Inc. This ditching occurred on 8 June, 2015 at approximately 7:30pm local (2330Z), in waters approximately 12 nautical miles Southeast of New Providence after the pilot declared a Mayday and advised ATC that the aircraft had an engine failure. The aircraft was reportedly ditched at GPS coordinates N24 degrees 53 min and W077 degrees and 15 minutes.

This report is submitted pursuant to Part XII, Regulation 80, and Schedule 19 of the Bahamas Civil Aviation (Safety)(Amendment) Regulation (BASR) and in accordance with Annex 13 to the Convention on International Civil Aviation Organization (ICAO). In accordance with referenced regulations and annex, the fundamental purpose of such investigation is to determine the circumstances and causes of these events, with a view to the preservation of life and the avoidance of similar occurrences in the future. It is not the purpose of such investigations to apportion blame or liability.

This report contains facts which have been determined up to the time of publication. Information is published to inform the aviation industry and the public of the circumstances surrounding this accident. Up to the publication of this report, the aircraft had not been located or recovered from the ocean. The contents of this report may be subject to alterations or amendments if the aircraft or additional factual information becomes available.

Regards

Delvin R. Major

Bahamas Air Accident Investigation Department

Ministry of Transport & Aviation



# BAHAMAS AIR ACCIDENT INVESTIGATION DEPARTMENT

#### **TITLE**

**Registered Owner:** Prestgious Aircraft Inc. **Operator:** Prestgious Aircraft Inc.

Manufacturer: Cessna
Aircraft Type: C172P

Nationality: United States of America

**Registration:** N51AZ

Place of Accident: New Providence, Bahamas

**Date of Accident:** 8 June, 2015

**Notification:** DCA, NTSB, Cessna

**Investigating Authority**: Bahamas Air Accident Investigation Department

**Investigator in Charge:** Delvin R. Major **Accredited Representative:** None- Assigned

**Releasing Authority:** Ministry of Transport & Aviation

**Date of Report Publication:** 15 August, 2015



#### 1.0 FACTUAL INFORMATION:

#### 1.1 HISTORY OF THE FLIGHT

On June 8, 2015 at approximately 7:30pm local (2330Z) the BAID received information that a Cessna C172 aircraft, registration N51AZ ditched in waters 12nm SE of New Providence. The incident was reported to have occurred on the 138 degree radial from the Nassau VOR. The flight was inbound on a flight from Crooked Island, Bahamas to New Providence, Bahamas. The aircraft last reported coordinate at the time of the ditching was 24° 53' N and 077° 15'W or 13 nm SE of Lynden Pindling Int'l Airport (MYNN).

ATC reported that the pilot declared an emergency citing engine problems and that he was not sure he would make it to Nassau. The pilot reported five (5) souls onboard, four adults and an infant. Shortly after making this report, ATC noted that the aircraft was lost on radar. Search and Rescue efforts were initiated and assets were contacted and deployed in an effort to locate the downed aircraft and its occupants. Assisting in the search and rescue efforts were the United States Coast Guard, Bahamas Air Sea and Rescue Association and the Royal Bahamas Defense Force (RBDF). The occupants were able to exit the aircraft after the ditching and they floated in the water, on a life raft. They were afloat until they were rescued some 3 hours later by the RBDF.

Follow-up interview with the pilot revealed that there appeared to be technical problems with the fuel switching valve for the aircraft fuel system. When the fuel selector lever was switched from the both fuel tank position to either the left fuel tank or right fuel tank position, there seem to be an imbalance as more fuel were being used from the left tank versus the right tank. However, when selected to the right tank, the aircraft seemed to suffer some fuel starvation and started to run rough, therefore the selector lever was maintained in either the left tank or both tank position.

As the aircraft was never located and recovered, there was no way to analyze the valve to confirm or verify whether it was a contributing factor in the engine loss encountered.

At the time of the ditching weather forecast for the Northwest Bahamas indicated winds from 090 degrees at 9 knots. Significant weather over the central portions of the NW and SE Bahamas indicated SCT/BKN clouds 1,500 to 2,500 feet with towering

cumulonimbus clouds. Weather in the vicinity of the ditching at the time of the ditching was reported as VFR.

#### 1.2 INJURIES TO PERSONS

Injuries	Crew	Passengers	Others	Total
Fatal				
Serious				
Injuries				
None	1	4		5

#### 1.3 DAMAGE TO AIRCRAFT

No damage could be assessed as the aircraft was never recovered from the ocean for further analysis or inspections to occur.

#### 1.4 OTHER DAMAGE

Not Applicable

#### 1.5 PERSONNEL INFORMATION

Mr. Antiqueko Gibson was the pilot of the ditched aircraft. He was in possession of required pilot certification issued by the Federal Aviation Administration (USA).

#### 1.6 AIRCRAFT INFORMATION

N51AZ was a fixed wing, single engine aircraft which was manufactured in 1980.

The aircraft was registered in the United States of America with a recent registration issue date of 03 February, 2015.

The 172P model aircraft was mounted with a single reciprocating engine; model number 0-320 Series, manufactured by Lycoming.

The aircraft airworthiness classification was standard and category was normal utility. The aircraft's airworthiness date was established as 23 December, 1980. The aircraft was issued serial number 17274529 by the manufacturer.

#### 1.7 METEOROLOGICAL INFORMATION

At the time of the ditching weather forecast for the Northwest Bahamas indicated winds from 090 degrees at 9 knots. Significant weather over the



central portions of the NW and SE Bahamas indicated SCT/BKN clouds 1,500 to 2,500 feet with towering cumulonimbus clouds. Weather in the vicinity of the ditching at the time of the ditching was reported as VFR.

#### 1.8 AIDS TO NAVIGATION

Navigational aids at Lynden Pindling International Airport were operational and not a factor in this occurrence.

#### 1.9 COMMUNICATIONS

Communications were established with Nassau Approach Control and Tower and information relayed was able to assist with search and rescue efforts by establishing aircraft location at time of ditching.

#### 1.10 AERODROME INFORMATION

Aerodrome information not applicable as aircraft was ditched in waters. However nearest airport to ditching site was Lynden Pindling International Airport which was located 12nm NW of ditching site.

#### 1.11 FLIGHT RECORDERS

N51AZ was not fitted with a flight recorder as none was required by regulations for this type of aircraft.

#### 1.12 WRECKAGE AND IMPACT INFO

Not applicable as the aircraft was never located or recovered from the ocean.

#### 1.13 MEDICAL AND PATHOLOGICAL

Not applicable, no injuries were sustained by any of the occupants

#### **1.14 FIRE**

Not applicable.

#### 1.15 SURVIVAL ASPECTS

The ditching was survivable and all occupants were rescued by search and rescue personnel.

#### 1.16 TESTS AND RESEARCH

Not applicable because aircraft was not located or recovered from the ocean.

#### 2.0 ANALYSIS

No analysis was conducted in this investigation as the aircraft was never located or recovered from the ocean.

#### 3.0 CONCLUSIONS

#### 3.1 FINDINGS

- The pilot was properly certified and qualified for the flight.
- The airplane was properly certificated and maintained in accordance with existing regulations.

#### 3.2 PROBABLE CAUSE

The probable cause of this accident has been **undetermined** as the aircraft was never located or recovered for further inspection and analysis. Should the aircraft be located and recovered in the future, the BAID reserves the right to reopen this investigation and provide a follow-up probable cause if applicable.

#### **4.0 SAFETY RECOMMENDATIONS:**

The BAID makes no recommendations in this investigation as the aircraft was never recovered to allow for further analysis and inspections.