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CIVIL AVIATION DEPARTMENT

CESSNA 207A V3-HFD

REPORT ON ACCIDENT AT

SAN PEDRO, AMBERGRIS CAYE, BELIZE

DISTRICT, ON 8th MARCH, 1995.

PHILIP S.W. GOLDSON INTERNATIONAL AIRPORT
LADYVILLE, BELIZE, CENTRAL AMERICA

CIVIL AVIATION DEPARTMENT:

AIRCRAFT ACCIDENT REPORT	:	2/95
OPERATOR	:	TROPIC AIR LIMITED
AIRCRAFT	:	CESSNA
	:	MODEL 207A
	:	SERIAL NUMBER 20700676
	:	NATIONALITY - BELIZE
	:	REGISTRATION - V3-HFD
PLACE OF ACCIDENT	:	SAN PEDRO AIRPORT AMBERGRIS CAYE
DATE OF ACCIDENT	:	8th MARCH, 1995.

SYNOPSIS:

The Civil Aviation Department became aware of the accident at about 3:20 p.m. on Wednesday 8th March, 1995. Since there was bad weather and no fatalities were reported, a decision was made to send a representative of the Civil Aviation Department early the next day to investigate the accident.

The aircraft was engaged on a regular flight (Tropic 280) from Belize City to San Pedro, Ambergris Caye. There were six passengers and one crew member on this flight.

The aircraft received substantial damage. The pilot claims that on the landing roll, the port tyre dropped into a hole and burst. As a result of this the pilot said that he lost control of the aircraft and was unable to steer it to a safe location. The aircraft crashed into a parked Twin Otter aircraft of the same company. One passenger received minor injuries. The captain of the Twin Otter indicated that there were ten passengers aboard his parked aircraft. Immediately after the crash, the pilots instructed the passengers to deboard. There was no fire.

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1. FACTUAL INFORMATION:

1.1 HISTORY OF THE FLIGHT:

Tropic 280 was a scheduled flight that departed Municipal Airport, Belize City, at 2:55 p.m. with destination to San Pedro Airport, Ambergris Caye.

On approaching San Pedro Airport, the pilot claims that there was change of weather. He said he experienced moderate rain and gusty winds and chose Runway 06 for landing. Before landing the pilot said he made an over-flight of the airport at 500 feet. This had been suggested to him by another company pilot due to the weather conditions. The pilot claims he touched down at the threshold of Runway 06 with full flaps and with a speed of 80 knots. Still rolling, he says he braked but due to excessive water on the runway, he did not put full force on the brakes in order to avoid hydroplaning on the runway. He claims everything was normal until the port tyre dropped into a hole and burst causing the aircraft to suddenly make a 90° turn and allowing its nose to face the fence east of the runway. He said he tried to manoeuvre the aircraft to a safe area but was heading towards an office building. To avoid this, the pilot said he stamped on the left pedal and was able to turn the aircraft away from the building. The aircraft went to crash into a parked aircraft on the apron. The pilot claims he did not experienced any tailwind. The accident happened at approximately 3:15 p.m. local time. The pilot immediately after the crash, instructed the passengers to deboard. One passenger received minor injuries.

1.2 INJURIES TO PERSONS:

Injuries	Crew	Passengers	Other
FATAL	-	-	-
NON-FATAL	-	1	-
NONE	1	5	-

1.3 DAMAGE TO AIRCRAFT:

The Cessna 207 received the following damages:

- The port wing was damaged. The entire wing and flight controls were extensively damaged.
- The windshield was completely destroyed.
- The aircraft skin forward of the right hand side of windshield was torn.
- The tail section was ripped in half aft of the back window.

/3.....

Serial Number:	20700676
Manufacturer:	Cessna Aircraft Corp. U.S.A.
Construction Date:	1980
Certificate of Airworthiness:	Certificate No. G/150 renewed on 27th October, 1994 and valid to 26th October, 1995.
Certificate of Registration:	The registered owner was SE Leasing Limited, P.O. Box 63, San Pedro, Ambergris Caye. Certificate No. G/150 issued on 24th June, 1994.
Engine Tach Time:	443.8
Total Airframe Hours:	8209.2
Last 100 hour check:	16th February, 1995.
Hours flown since last inspection:	72.2

1.6.2 STALL WARNING

The sector record sheet shows that the stall horn was innoperative and there are no indications that any rectification was done.

1.6.3 MASS AND CENTRE OF GRAVITY

Since no weight and balance reports are prepared by the company for this type of aircraft, it cannot be determined if the aeroplane was within the approved limits for mass and centre of gravity at the time of the accident.

1.7 METEOROLOGICAL INFORMATION

No local meteorological reports are produced for the local area, however, on this particular day and time, the Meteorological Department has indicated that there was a cold front crossing the country from the northwest which produced outbreaks of showers and thundershowers over Ambergris Caye beginning at 3:00 p.m. and lasting until 6:00 p.m. local time. During this period winds were gusty.

1.8 AIDS TO NAVIGATION:

There is no navigation aid at San Pedro. The only visual ground aid is a windsock.

1.9 COMMUNICATIONS:

The pilot was using frequency 122.8 MHz which is a frequency assigned by the Civil Aviation Department. This is known as the Common Broadcast Frequency. The pilots make known their positions and intentions when using this frequency. These transmissions are known as "Blind Transmissions".

1.10 AERODROME AND GROUND FACILITIES:

The San Pedro Airport is a Government owned aerodrome with the Civil Aviation Department being held responsible for its upkeep and maintenance. It is situated at Ambergris Caye, NE of P.S.W.G. International Airport at coordinates 17° 52'N 87° 58'W to provide a terminal for domestic scheduled services, general aviation and private operators in Belize.

The runway is orientated 06/24 and is 2300 ft. X 35 ft. Aircraft maintenance facilities are available. There are no air traffic control or flight information services and no immediate available crash/rescue services. There in one windsock but no navigational aid.

1.11 FLIGHT RECORDER:

No flight recorder was fitted or is required to be fitted.

1.12 EXAMINATION OF THE AIRCRAFT AND ACCIDENT SITE:

The aircraft had been removed from the accident site. This had been approved by the Civil Aviation Department. Witness marks could be seen where the aircraft skidded after it left the runway. Both aircraft were damaged as mentioned on Section 1.3.

1.13 MEDICAL AND PATHOLOGICAL INFORMATION:

Not applicable.

1.14 FIRE:

None.

1.15 SURVIVABILITY:

The accident was survivable. Occupants of both aircraft were able to deboard safely.

1.16 TEST AND RESEARCH:

None.

1.17 ORGANIZATIONAL AND MANAGEMENT INFORMATION:

Not applicable.

1.18 ADDITIONAL INFORMATION:

None.

1.19 USEFUL OR EFFECTIVE INVESTIGATION TECHNIQUES:

None.

2. ANALYSIS:

Ground personnel at the time of the accident indicated that there was a wind shift which would give a pilot using runway 06 for landing, a tailwind situation. Pilots that landed before and after indicated that there was poor visibility and strong tailwinds. The pilot claims that he landed at the threshold of runway 06 during poor visibility and gusty winds. While the aircraft rolled, he claims he braked with little force due to excessive water on the runway. He said he landed with full flaps and at speed of 80 knots. The pilot claims he did not experienced any tailwind. The aircraft port tyre dropped into a hole and burst. The pilot said he lost control of the aircraft. The aircraft abandoned the runway, skidded, entered the apron and crashed into another aircraft. Both aircraft received damages as mentioned on Section 1.3. One passenger received minor injuries.

3. CONCLUSIONS:

(a) FINDINGS:

1. The commander's Validation Certificate was valid at the time of the accident.
2. The aircraft's Certificate of Airworthiness was current at the time of the accident.

3. The commander's Medical Certificate was valid.

4. The weather conditions were producing poor visibility in rain and gusty winds.

5. The runway surface was very wet.

6. There were some holes on the runway.

7. Due to the water on the runway, the pilot applied little force on the brakes allowing the aircraft to roll at a high speed.

8. The engineering section indicated that there was no malfunctioning of the braking system.

10. Both aircraft were substantially damaged after the crash.

(b) PROBABLE CAUSES:

1. The failure of the pilot to fully assess the weather conditions during the landing stages of the flight.

2. The rolling of the aircraft at a high speed due to the light application of brakes on wet surface conditions.

3. The bursting of the aircraft's tyre.

4. SAFETY RECOMMENDATIONS:

It is recommended that:

1. The surface condition of the runway be fixed as soon as possible.

2. Quick response be given when reports are received that conditions of runways are deteriorating.

3. That the proposed 1000 feet of runway be added to the length of San Pedro runway.

4. That pilots abide by the Rules of the Air, Visual Flight Rules and other safety measures published by the Civil Aviation Department through its Aeronautical Information Circulars.

5. That companies be required to prepare weight and balance reports for all types of aircraft flying for the purpose of public transport.

6. That Air Traffic Control and Meteorological Services be provided at San Pedro Airport.

APPENDICES:

1. Copy of Pilot's Report.

2. Copy of Official Weather Report.

E. O. GOMEZ
Inspector of Accidents
Civil Aviation Department
Belize.

May, 1995.

APPENDIX 1

March 8,1995

Civil Aviation Department
Goldson International Airport
Ladyville, Belize

I departed runway 30 Municipal airport at 2:55 p.m. with a total of six passengers in V3-HFD. The winds were blowing N.E., 10-12 knots. After airborne runway 30, I reported to the tower on 121 that I was 1000 ft. I was instructed to report again at Port- Of- Stuck. V3-HFD reported Port-Of-Stuck and was instructed by the Tower to switch to 122.8 I was still at 1000 ft. and everything was normal.As V3-HFD approached East Of Cangrejo Caye, I started to descend to 500 ft. Approaching San Pedro, the weather changed and it began torain moderately and the winds were now gusting a little harder. I approached San Pedro runway 06 and overflew the the airstrip at 500 feet. I then entered left-downwind, 10 degree flaps. On final approach, full flaps, 80 knots, I touchdowned at the threshold 06. Still rolling, I braked, but due to excessive water on the runway, I did not put full force on the brakes to avoid hydroplaning on the runway. I tapped the brakes lightly but steadily and everything was normal until the left tire fell into a large pot-hole on the runway and the tire bursted causing the airplane to suddenly make a 90 degree turn, the nose now facing the chainlink fence to the East.
I attempted to direct the plane into the open area South of the Tropic Air building towards the fence. This was not happening, and I was heading towards the Tropic Air building. To avoid this, I stamped on the left rudder and the airplane turned away from the building, but headed directly into V3-HTD that was stationed on the ramp. I pulled the mixture and the engine cut-off. V3-HFD then collided into V3-HTD.I immediately instructed everyone to deboard the airplane. There was one minor injury to a passenger.

My Ref. MD/0601/95 **Your Ref.**

From: Chief Meteorologist

To: Director of Civil Aviation

Subject: Weather Conditions on 8 March 1995

Date..... 9 March 1995

This is in response to your request for information concering weather conditions in San Pedro on 8 March 1995.

A strong cold front crossed the country during the afternoon of 8 March 1995. It moved across the Yucatan Pennisula from the northwest. This system produced outbreaks of showers and thundershowers over Ambergris Caye beginning around 3:00 PM local time . These conditions lasted until 6:00 PM. During this period winds were gusty. Speeds at the Philip Goldson International Airport reached 22 knots. Similar conditions were likely over San Pedro.

Later that night the rains ended but the winds became more gusty. Speeds of forty knots were recorded at Half Moon Caye.

Carlos Fuller
Chief Meteorologist