

AIRCRAFT ACCIDENT REPORT AND EXECUTIVE SUMMARY

				Reference:	CA18/2/3/8524	
Aircraft Registration	ZU-BEG	Date of Accident	27 July 2008		Time of Accident	1145Z
Type of Aircraft	Piper PA-22 (Fixed Wing)		Type of Operation		Private	
Pilot-in-command Licence Type		Private Pilot	Age	44	Licence Valid	Yes
Pilot-in-command Flying Experience		Total Flying Hours	122.32		Hours on Type	14.0
Last point of departure		Port Elizabeth International Airport (FAPE).				
Next point of intended landing		Port Elizabeth International Airport (FAPE).				
Location of the accident site with reference to easily defined geographical points (GPS readings if possible)						
At approximately 5 metres on the right-hand side of Runway 26 at Port Elizabeth International Airport.						
Meteorological Information		Wind Direction: 270°/ 25 Gusting 32kts, Visibility: Good.				
Number of people on board	1 + 1	No. of people injured	0	No. of people killed	0	
Synopsis						
<p>The pilot and passenger were engaged on a private, visual flight rules (VFR) flight by day. They took off at approximately 1040Z, from Port Elizabeth International Airport (FAPE) for a flight to Jeffery's Bay – Paradise Beach area. When the aircraft returned to FAPE at approximately 1139Z, the pilot contacted the tower and requested permission to land. The pilot was given instructions to hold and join as number two behind a local airline aircraft "Express 387". After the airliner had landed, the pilot proceeded with the final approach to Runway 26 and aimed to touch down on the runway designation markings. During landing, when the aircraft was about to touch down, the pilot experienced some unexpected gusting wind conditions from the left which resulted in the aircraft 'ballooning'. The pilot immediately took corrective action, probably unintentionally over-correcting and as a result the aircraft bounced on the runway with a subsequent hard touch-down. This resulted in the right-hand side main landing gear ring shock cord and left-hand side shock strut failing. The identified components and/or parts then separated from the aircraft and were found lying on the runway. After the aircraft bounced, it got airborne again and started drifting towards the grass area on the right-hand side of the runway. The pilot then applied full engine power in an attempt to initiate a go-around. The pilot realised that the aircraft was not gaining sufficient airspeed and decided to put it down on the grass. When the landing gear contacted the ground, the aircraft ground looped on the grass, approximately 5 metres off the runway. In the process of the ground loop, the aircraft sustained substantial damage to the left-hand side wing and the nose landing gear collapsed.</p>						
Probable Cause						
<p>The pilot experienced strong surface wind conditions during landing and the aircraft bounced and landed hard and sustained substantial damage to the landing gear with an associated runway excursion.</p>						
IARC Date			Release Date			



AIRCRAFT ACCIDENT REPORT

Name of Owner/Operator : S. P Socratous
Manufacturer : Piper Aircraft Corporation
Model : PA-22 (Tri-Pacer)
Nationality : South African
Registration Marks : ZU-BEG
Place : Port Elizabeth
Date : 27 July 2008
Time : 1145Z

All incident times given in this report are indicated according to Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.

Purpose of the Investigation:

*In terms of Regulation 12.03.1 of the Civil Aviation Regulations (1997) this report was compiled in the interests of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and **not to establish legal liability.***

Disclaimer:

This report is given without prejudice to the rights of the CAA, which are reserved.

1. FACTUAL INFORMATION

1.1 History of Flight

1.1.1 The pilot and passenger were engaged on a private, visual flight rules (VFR) flight by day. They took off at approximately 1040Z, from Port Elizabeth International Airport (FAPE) for a flight to Jeffery's Bay – Paradise Beach area. When the aircraft returned to FAPE at approximately 1139Z, the pilot contacted the tower and requested permission to land. The pilot was given instructions to hold and join as number two behind a local airline aircraft "Express 387".

1.1.2 On completion of the transmission with ZU-BEG, another pilot of aircraft: ZS-ZGZ also transmitted to the tower, declaring that he was experiencing an emergency. He requested landing clearance from the ATC, in order to perform an emergency landing. The ATC then informed FAPE Rescue and Fire-Fighting Services (RFFS) of the emergency and continued to man the radio. The RFFS responded by dispatching to Runway 26 and waited at the holding point of taxiway C1 for ZS-ZGZ to land.

1.1.2 In the mean time, while all these activities were happening, the pilot of ZU-BEG followed the earlier instructions given by ATC, advising that he should join on as number two behind the airline aircraft "Express 387". The pilot of ZU-BEG waited

until the Express aircraft had landed and exited from Runway 26. He then commenced with the approach for landing on Runway 26. At approximately 1145Z, the pilot of ZU-BEG contacted the tower and reported that he was involved in an accident.

1.1.3 The ATC was stunned when the pilot notified him of the accident. It appears as if he had completely forgotten about giving landing instructions to the pilot of ZU-BEG. There was also no evidence indicating that he gave subsequent instructions to ZU-BEG, especially with the developing emergency situation with ZS-ZGZ. After confirmation was given by the pilot of ZU-BEG that he and the passenger were fine, the accident of ZU-BEG became the priority and resulted in instructions given to the RFFS to respond to the accident site. The accident of ZU-BEG also came as a surprise to the fire-fighters, because they were put on standby for ZS-ZGZ. When the fire-fighters arrived at the wreckage, they found the pilot and passenger outside the aircraft. The fire-fighters realised that the implication of the events was that ZS-ZGZ was still flying and would also need emergency assistance. For this purpose, they decided to divide into two response teams and assist both aircraft simultaneously.

1.1.4 When the pilot of ZS-ZGZ contacted the tower again, he was duly informed by ATC of the accident. Due to the fact that he was already coming in for landing, the ATC gave him instructions to land deep and at his own discretion on Runway 26. After ZS-ZGZ landed, the pilot notified ATC and the aircraft was escorted by one of the fire-fighter vehicles to ensure that it was able to exit the runway safely.

1.1.5 The wreckage of ZU-BEG was in close proximity to Runway 26, which had prompted ATC to suspend all further operations to and from FAPE in the interests of safety. After taking this decision, the RFFS recovered the wreckage and other hazardous debris from the accident site.

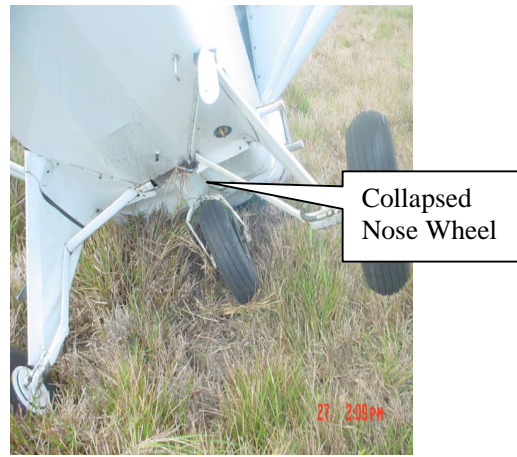
1.2 Injuries to Persons

Injuries	Pilot	Crew	Pass.	Other
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	-	-	-	-
None	1	-	1	-

1.3 Damage to Aircraft

1.3.1 The aircraft sustained major damaged in the accident. (See below, photos of damage.)

Photo 1 & 2 showing substantial damage caused to the aircraft



1.4 Other Damage

1.4.1 There were only minor scratch marks caused to Runway 26.

1.5 Personnel Information

Pilot:

Nationality	South African	Gender	Male	Age	44
Licence Number	*****	Licence Type	Private Pilot		
Licence valid	Yes	Type Endorsed	Yes		
Ratings	None.				
Medical Expiry Date	31 March 2009				
Restrictions	Corrective Lenses.				
Previous Accidents	None				

Flying Experience:

Total Hours	122.3
Total Past 90 Days	4.75
Total on Type Past 90 Days	4.75
Total on Type	16.02

Air Traffic and Navigation Service Personnel:

On the day of the accident, the following air traffic control staff was on duty in the tower at Port Elizabeth Intl. Airport:
 Tower Air Traffic Services Assistant,
 Aerodrome and
 Approach Controllers.

Their training and experience records were reviewed and there were no anomalies identified. All of them had valid licences.

1.6 Aircraft Information

Airframe:

Type	Piper PA-22	
Serial Number	22-4458	
Manufacturer	Piper Aircraft Corporation	
Date of Manufacture	1957	
Total Airframe Hours (At time of Accident)	4389.33	
Last Annual Inspection (Date & Hours)	17 June 2008	4388.33
Hours since Last Annual Inspection	1.0	
Authority to Fly (Issue Date)	18 June 2008	
C of R (Issue Date) (Present owner)	08 August 2006 (S.P Socratous)	
Operating Categories	Private Operation Authority to Fly	

1.6.1 The aircraft maintenance documents and logbooks were checked in the investigation and there was no evidence found of any technical defects which were not cleared. The engine and propeller overhaul operating time were identified in the logbook as unknown.

1.6.2 When the aircraft wreckage was recovered from the accident site, the failed parts were the left-hand side shock strut, P/N: 487558 and ring shock cord (P/N: 31322-06). These items were found during an accident debris inspection of Runway 26. The wreckage of the aircraft was on the right side, approximately 50 m off the runway.

Engine:

Type	Lycoming O-320
Serial Number	L-7661-27
Hours since New	4389.33
Hours since Overhaul	unknown

Propeller:

Type	McCauley
Serial Number	P70748
Hours since New	4389.33
Hours since Overhaul	unknown

1.7 Meteorological Information

Wind direction	270°	Wind speed	25G32 kts	Visibility	Good
Temperature	unknown	Cloud cover	None	Cloud base	None
Dew point	unknown				

1.7.1 The above information shows evidence of the weather conditions that prevailed on the day of the accident. The weather information was obtained from Port Elizabeth Air Traffic Control Services.

1.8 Aids to Navigation

- 1.8.1 The pilot flew the aircraft on a visual flight rules (VFR) flight by day. When arriving at FAPE, the pilot was cleared by ATC to do a visual approach. For this reason, the navigation and landing aids available, such as: Non-Directional Radio Beacon (NDB), Very High Frequency Omni-directional Radio Range (VOR), Distance Measuring Equipment (DME) and Instrument Landing Systems (ILS) – RWY26/08 were not relevant to the accident.
- 1.8.2 The aircraft had standard navigational aids installed. The aircraft also had the following additional navigational aids: Mode S Transponder – Bendix King 76A and Rockwell Collins VHF 25TE TSO Navigation Receiver installed. The pilot flew the aircraft under visual flight rules (VFR) by day, and thus required a mode “A/C” altitude reporting transponder and appropriate radio communication equipment.

1.9 Communications

- 1.9.1 A Becker AR 400 VHF radio was installed in the aircraft. The radio installed in the aircraft was in a serviceable condition.
- 1.9.2 The Air Traffic Control (Tower) and Pilot of ZU-BEG communicated on radio frequency 118.1. MHz the ATC responded as to the request for landing instructions by instructing the pilot to hold and to join in as number two behind an airline aircraft “Express 378”. After the “Express 378” aircraft had landed and exited Runway 26, the pilot of ZU-BEG commenced with the landing. There was no record of any further communication from the tower to ZU-BEG, the same as was the case with “Express 378” other than to give a final instruction to land. At approximately 1139Z, the pilot of ZU-BEG called out the word “Tower” and after a few seconds at approximately 1145Z, he reported the accident.
- 1.9.3 Records show that the ATC was stunned when the pilot reported the accident to him. According to a recording in the tower, the one controller voiced his anger at the pilot of ZU-BEG in a conversation with his other colleagues. As the ATC had not cleared the pilot to land, everybody in the tower and the RFFS were caught by surprise, when he reported the accident. The pilot on the other hand believed that ATC had cleared him when they gave him instructions to join as number two behind the “Express 378” aircraft.
- 1.9.4 The ATC communicated with the RFFS, informing them of the emergency experienced by pilot of ZS-ZGZ in flight. The fire-fighting services dispatched their response vehicles and were waiting at the holding point of taxiway C1 for ZS-ZGZ to do an emergency landing. They were not aware of the landing of ZU-BEG. At approximately 1146Z, the ATC informed them of the accident of another aircraft ZU-BEG. The direction of the crash site was given as near the threshold of Runway 26. The RFFS were obviously very surprised with the new information, but immediately reacted to the call and drove their vehicles to the accident site of ZU-BEG.
- 1.9.5 The ATC, in consultation with the RFFS, concluded that the accident site could be a potential hazard to other aircraft coming to land and take off from FAPE. A decision was taken to close the runway to all aircraft and to advise other traffic to divert to alternate destinations. During this time, the aircraft wreckage was recovered from

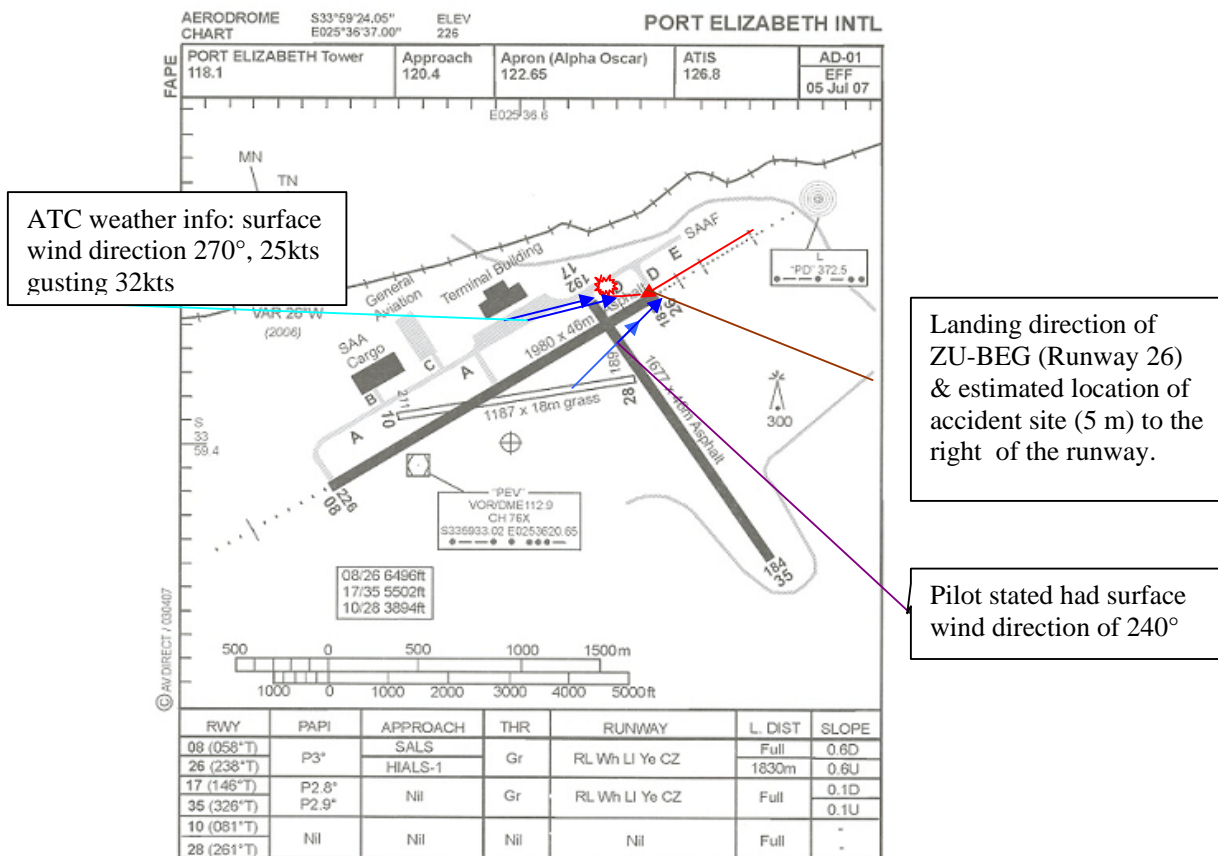
the accident site, a runway safety inspection done and FAPE re- opened for operations.

1.9.6 At approximately 1310Z, the FAPE - RFFS reported the accident of ZU-BEG telephonically to the SACAA Accident and Incident Investigation Division (AIID). The initial information given was that ATC had closed the airport for approximately an hour and that the aircraft was already recovered from the accident site.

1.10 Aerodrome Information

Aerodrome Location	Port Elizabeth	
Aerodrome Co-ordinates	S335924 E0253637	
Aerodrome Elevation	226 Feet	
Runway Designations	08/26	17/35
Runway Dimensions	1980 x 46	1677 x 46
Runway Used	26	
Runway Surface	ASPH PCN	
Approach Facilities	ILS, NDB, VOR and DME	

1.10.1 The information identified above of FAPE in the block diagram was extracted from the South African Aeronautical Information Publication (AIP).



1.10.2 The aircraft heading and wind direction information shown on the sketch above is per the Pilot and ATC statements.

1.11 Flight Recorders

1.11.1 The aircraft was not fitted with a Cockpit Voice Recorder (CVR) or a Flight Data Recorder (FDR) and neither was required by regulations to be fitted to this type of aircraft.

1.12 Wreckage and Impact Information

1.12.1 The RFFS, assisted by an AMO, recovered the aircraft wreckage from the accident site. According to an ACSA technical report, ID 15539, which was compiled by FAPE - RFFS, the following wreckage and impact information is included:

- (i) Observed during the recovery was that ZU-BEG's nose landing gear had broken on landing and the aircraft had bounced into grass 5 metres from Runway 26. Fire trucks R1 & R2 were already on standby positions for the earlier alert of ZS-ZGZ and immediately moved to the crash site of ZU-BEG. Phase 1 of the assistance was then provided to ZU-BEG. There were two on board. Due to the proximity of the wreckage to the runway, the runway was closed from 13H45 (1145Z) until 14H27 (1227Z) whilst they dragged the aircraft 50 metres clear. The aircraft was then removed from the field by 16H00 (1400Z).



Photo 2, showing how the aircraft had impacted the ground.

1.12.2 The findings of the ACSA report were verified by examination of the aircraft wreckage and impact damage. As the aircraft came in for landing, it was subjected to gusting wind conditions and became unstable. A hard landing with subsequent ballooning followed. In the process, the right-hand side main wheel impacted with the runway surface and sustained damage. The aircraft drifted to a grass area which was towards the right side off the runway. The left-hand side wingtip impacted with the ground and the aircraft ground looped and this resulted in the collapse of the nose wheel.

1.13 Medical and Pathological Information

1.13.1 There was no injury sustained in the accident.

1.14 Fire

1.14.1 There was no evidence of pre- or post-impact fire.

1.15 Survival Aspects

Rescue and Fire Fighting Services (RFFS):

1.15.1 The accident was considered to be survivable. The damage caused to the aircraft did not cause any injuries to the pilot and passenger.

1.15.2 The RFFS of FAPE had their response vehicles standing at the holding point of C1 taxiway, awaiting ZS-ZGZ to execute an emergency landing. The RFFS were caught by surprise, when ATC informed them of the accident of ZU-BEG. When the RFFS arrived at the accident site, they found that the pilot and passenger had already safely evacuated the aircraft. The fire-fighters then secured the scene and assisted the pilot and passenger away from the accident site.

1.16 Tests and Research

1.16.1 None considered necessary.

1.17 Organisational and Management Information

1.17.1 The aircraft was maintained by an appropriately rated Approved Person.

1.17.2 Port Elizabeth Intl. Airport had a Category 7 Aerodrome Licence No. 1004, which was issued on 31 January 2008. The Aerodrome Licence was valid from 01 February 2008 to 31 January 2009.

1.17.3 When reviewing the audit and occurrences history of the aerodrome, the following information came forward:

- (i) Publication of Aeronautical Information Circular - Supplement AIC SO45/07 dated September 2007: Port Elizabeth International Airport; "construction work in progress", stating that construction work would be carried out on RWY17/35 during the period 15 July 2008 to 10 September 2008 and that it would be closed during the above period.
- (ii) The above AIC was then further amended by B0644/08 NOTAMN, issued on 21 July 2008, stating that "RWY 17/35 closed from 50m north and south of RWY 26/08" which was valid until 31 July 2008, at approximately 1400Z.

1.17.4 As Runway 17/35 could not be used, the accident of ZU-BEG resulted in ATC closing the only available RWY 26/08.

1.17.5 The RFFS at FAPE are managed by the Airports Company of South Africa (ACSA). The facilities of the RFFS are located on the northern side of the airport and they

have unrestricted access to the controlled area of the airside. Six (6) fire-fighters were on duty on the day of the accident. The RFFS performed their duties in the following manner:

- (i) The accident of ZU-BEG came as a surprise to the RFFS. They were on standby and ready to assist with the emergency of ZS-ZGZ, when they responded to the location of the accident site and found that the aircraft involved in the accident was not ZS-ZGZ but ZU-BEG. The implication was that they still had another aircraft coming in for an emergency landing. In order to effectively deal with the unfolding confusing scenario, they divided into two response teams with the intention of providing assistance to both aircraft simultaneously. ZS-ZGZ landed after the accident, but was advised to land deep down the runway.
- (ii) The RFFS, together with the help of two aircraft maintenance organisations at the airport, were in the process of recovering the aircraft wreckage of ZU-BEG, when ATC requested feedback on how long the recovery would take. It took the recovery team approximately 45 minutes to recover the aircraft wreckage from the accident site.

1.17.6 The RFFS telephonically reported the accident to the SACAA AIID on Sunday, 27 July 2008 at approximately 1310Z. This was approximately 1 hour, 20 minutes after the occurrence. At no time before receiving the report of the accident did the fire fighting services request permission in terms of regulation 12.04.5, from the Investigator in Charge, to remove the aircraft from the accident site. When requested to give an explanation into the procedures followed, when reporting occurrences and obtaining the necessary permission to remove accident and/or incident aircraft from the airside, the RFFS management responded by referring to the minutes adopted in a meeting, which was held at the airport and decision taken:

Reference: ATNS/PE/M50/01: ACSA/ATNS, page 4, item 10.3 of 05 December 2007 stating that “after the discussion it was agreed that ATNS will remove current procedure, i.e. if an accident occurs at the airport or within 5.4 nm from the airport, it will be the ACSA’s responsibility to contact the CAA”.

1.17.7 Port Elizabeth International Airport (FAPE) Air Traffic and Navigational Control Services (ATNS) had a valid Licence No. 0019, issued on 09 November 2007 to 30 November 2008.

1.17.8 There were three members of the Air traffic Control personnel on duty on the day of the accident. According to the records held by the ATNS, Port Elizabeth Intl. Airport, the work experience of the three employees were identified as follows:

- (i) **Aerodrome Controller:**
The aerodrome controller as an ATC employee of ATNS since 1997, resigned and left to work in the Middle East in 2005. He returned to ATNS in 2006 and his level of experience since 30 May 2006 was validated at FAPE. There was no record of any disciplinary and/or reprimands taken against him. According to the roster, the aerodrome controller’s shift started at 08h30 and continued until 14h30.
- (ii) **Approach Controller:**

The approach controller has been an employee of ATNS since 01 November 2001. His level of experience since 09 June 2006 was validated at FAPE. There was no record of any disciplinary and/or reprimands taken against him. According to the roster, the aerodrome controller's shift started at 06h30 and continued until 12h30.

(iii) Tower Air Traffic Services Assistant (TWR ATSA):

The assistant has been an employee of ATNS since 12 December 2006. His level of experience since 07 October 2007 was validated at FAPE. According to the roster, the TWR ATSA shifts started from 10h00 and continued until 16h00 on the day of the accident. There was no record of disciplinary and/or reprimands filed against the TWR ATSA.

1.17.10 The performance of the Air Traffic Controllers was reviewed in the investigation and the following noted:

- (i) None of the controllers in the tower actually saw ZU-BEG landing on Runway 26. This was an indication that the controllers were not monitoring the movements.

1.18 Additional Information

1.18.1 The pilot reported that the aircraft touched down in an area between the runway designation numbers (26) and the white painted threshold markings. When he commenced the approach, he was aiming for the runway designation marks. The aircraft landed normally, but according to the pilot then ballooned or bounced.

1.18.2 ZU-BEG ground looped, approximately 5 metres from the right-hand edge of Runway 26. The extent of damage caused by the ground loop to the undercarriage and left side wingtip can be seen in the photo below.



Photo: Left side wingtip digging into the ground.

1.18.9 Left-Hand Main Landing Gear:

The left-hand side shock strut, P/N: 487558 was found broken off from the top shock strut end, P/N: 12639-00 and separated from the aircraft. The part was found

at an unidentified location on Runway 26. The RFFS found a small piece of ring shock cord (P/N: 31322-06) on Runway 26.



Broken R/H Side Shock Strut and Ring Shock Cord

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2. ANALYSIS

- 2.1 The pilot and passenger were engaged on a private, visual flight rules (VFR) flight by day. The pilot flew the aircraft from FAPE, on an uneventful flight to Jefferys Bay – Paradise Beach area and back. When the aircraft returned to FAPE at approximately 1139Z, the pilot contacted the tower and requested permission to land. The pilot was given instructions to hold and join as number two behind a local airline aircraft, the “Express 387”, an aircraft of one of the local airlines that was in the process of landing. The pilot adhered to the call and waited until Express 387 had landed. The pilot then proceeded with the final approach to Runway 26 and aimed to touch down at the runway designation markings.
- 2.2 During landing, when the aircraft was about to touch down, the pilot experienced some unexpected gusting wind conditions from the left which resulted in the aircraft ‘ballooning’. The pilot immediately took corrective action, probably unintentionally over-correcting and as a result the aircraft bounced on the runway with a subsequent hard touchdown. This resulted in the right-hand side main landing gear ring shock cord and left-hand side shock strut failing. The identified components and/or parts then separated from the aircraft and were found lying on the runway. .
- 2.3 After the aircraft bounced, it became airborne again and started drifting towards the grass area on the right-hand side of the runway. The pilot applied full engine power in an attempt to initiate a go-around. As the aircraft was not gaining sufficient airspeed, the pilot decided to put it down on the grass. When the landing gear contacted the ground, the aircraft ground looped on the grass, approximately 5 metres off the runway and sustained substantial damage to the left-hand side wing and nose landing gear that collapsed.
- 2.4 Other significant events identified were the actions of FAPE – ATC operational performances on the day. It would appear as if the traffic within the movement area of the aerodrome was not being effectively monitored by ATC, when the aircraft landed and was involved in the accident. The ATC was totally caught by surprise with the accident occurring to ZU-BEG. It would appear as if the priority had shifted to another aircraft declaring an emergency. The same can also be said for the

RFFS. Only when the pilot of the accident aircraft reported the occurrence, did ATC become aware it.

3. CONCLUSION

3.1 Findings

- 3.1.1 The pilot and passenger were engaged on an uneventful private, visual flight rules (VFR) flight by day.
- 3.1.2 The pilot had a valid Private Pilot's Licence (PPL) and the type rating was endorsed on it.
- 3.1.3 The ATC reported that the weather conditions at the time were fine, with a surface wind 25° gusting 32° from direction 270°.
- 3.1.4 The pilot reported that he experienced an unexpected gust from the left with a direction of approximately 240°.
- 3.1.5 The pilot stated that the aircraft ballooned during landing and was subsequently subjected to a hard landing.
- 3.1.6 This resulted in the right-hand side main landing gear ring shock cord and left-hand side shock strut failing. The identified components and/or parts then separated from the aircraft and were found lying on the runway.
- 3.1.7 The aircraft drifted towards a grass area on the right-hand side off the runway and the left wing tip dug into soil in open grass which resulted in a ground loop.
- 3.1.8 There were no injuries sustained by the pilot and passenger.
- 3.1.9 With another aircraft declaring an emergency, confusion developed in the tower. No landing clearance was requested by, nor given to ZU-BEG.
- 3.1.10 No anomalies were found with the training and experience of the ATC personnel manning the tower during the accident.
- 3.1.11 The RFFS were informed of the emergency landing and awaited the arrival of ZS-ZGZ, when they were informed by ATC of the accident of ZU-BEG.
- 3.1.12 After the accident had happened, operations to and from FAPE were suspended by ATC, pending the safe recovery of ZU-BEG from the location of the accident site close to the runway.
- 3.1.13 The other runway (35/17) was closed to operations, due to maintenance work in progress.
- 3.1.14 Apart from the impact damage sustained in the accident, the aircraft was found to be in a serviceable condition for normal operation.
- 3.1.15 Evidence found shows that FAPE RFFS had dealt with both emergency situations effectively.

3.1.16 The aircraft wreckage was recovered from the accident site by FAPE - RFFS without receiving permission to do so from the Investigator-in-Charge.

3.2 Probable Cause/s

3.2.1 The pilot experienced strong surface wind conditions during landing and the aircraft bounced and landed hard and sustained substantial damage to the landing gear with an associated runway excursion.

4. SAFETY RECOMMENDATIONS

4.1 It is recommended that the Commissioner for Civil Aviation should require the SACAA to increase its oversight activity of ATNS and ACSA activities and should revise where needed, requirements to ensure that their personnel do recurrent training on relevant procedures. This is to ensure the existence of clear instructions and guidance to speedily identify potential occurrences, which may require protection of wreckage and the conditions under which such may be moved.

4.2 It is recommended that the Commissioner for Civil Aviation review the adequacy of requirements to ensure the availability of suitable equipment which can be utilised in the recovery of aircraft.

4.3 It is recommended that the Commissioner for Civil Aviation require that the skill and knowledge of the pilot be verified in respect of the use of communications with ATC and flying within controlled airspace.

5. APPENDICES

5.1 Nil.

-END-

Report reviewed and amended by the Advisory Safety Panel
26 May 2009