FINAL REPORT

AAIU Synoptic Report No:2005-008
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In accordance with the provisions of SI 205 of 1997, the Chief Inspector of Accidents, on 23 November 2003 appointed John Hughes as the Investigator-in-Charge to carry out a Field Investigation into this occurrence and prepare a Synoptic Report.

Aircraft Type and Registration:	Piper Cherokee PA32, N129SC
No. and Type of Engines:	1 x Lycoming IO 540
Aircraft Serial Number:	32-7440057
Year of Manufacture:	1974
Date and Time (UTC):	23 November 2003 @ 15.11 hrs
Location:	Weston Aerodrome (EIWT), Co.Kildare
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 3
Injuries:	Crew - Nil Passengers - Nil
Nature of Damage:	Loss of Starboard Undercarriage Skin damage to rear fuselage
Commander's Licence:	UK PPL
Commander's Details:	Male, aged 44 years
Commander's Flying Experience:	327 hours of which 183 were on type
Information Source:	National Flight Centre, Weston.

1. FACTUAL INFORMATION

1.1 History of the flight

The aircraft departed Ronaldsway, Isle of Man, on 21 November 2003 and arrived in Weston at 16.05 hrs the same day. On the 22 November 2003 the aircraft departed for the City of Derry Airport. The pilot informed the Control Tower that he would be returning to Weston the following day. On the day of the accident, the flight to EIWT was uneventful and weather conditions were fine for a VFR flight. The aircraft joined left downwind for Runway 25 (RWY) as advised by EIWT Tower and the pilot carried out the normal pre-landing checks. There was one other aircraft in the circuit. On turning final for RWY 25, the pilot was immediately aware of turning into the setting sun.

However, he was satisfied that he had identified the runway and he put the aircraft into it's normal landing configuration. He was advised by the Tower that the other aircraft had vacated the runway and was also advised to land at his discretion. He continued a stabilised approach to what he believed was RWY 25. He was also aware of pools of water on the runway, which further impaired his vision. He continued the approach, flared and touched on. Immediately on landing he was aware that the surface was rough and realised that he had landed on an uncompleted taxiway, which ran parallel to RWY 25. He attempted to turn off the taxiway to a grass verge, but in doing so, the right main landing gear caught a depression at the side of the taxiway and sheared off. The aircraft slid to a halt. He shut down the engine, turned off the master switch and magnetos and ensured that the passengers had evacuated safely through the normal exits. The emergency services were immediately on the scene, but were not required. The pilot had a lap and diagonal safety harness and the passengers had the lap type. There were no reported injuries and no damage to any property.

1.2 Damage to the Aircraft

Right main landing gear sheared off on contact with a depression beside the grass verge. There was considerable damage to the fuselage cone area at the rear and minor damage to the stabilizer. The starboard wing was perforated behind its fuel tank.

1.3 Personnel Information

The 44 year old pilot had a total of 327 hours flight experience and 183 hours as Commander of this aircraft type. His assessment as to the cause of the accident was the reduced forward visibility due to "turning final" into the sun, leading to the misidentification of a parallel taxiway under construction as RWY 25. The problem was exacerbated by sun reflecting from standing water on the incompleted taxiway thereby causing further reduced visibility. He said that he landed at about 80 kt. While decelerating through 30 kt, the starboard undercarriage impacted a 2 ft wide trench and slewed the aircraft around.

The pilot said that he had availed of the pre-flight briefing services at a GA office at Ronaldsway on the 21 November 2003, where NOTAMS were available. He then filed a flight plan. At Derry, on the day of the accident, he did not avail of such services apart from filing a flight plan for the flight to EIWT. He was a regular visitor to EIWT and was aware of the extent of the works being carried out there. However, he was never officially informed of these works during pre-flight briefings, prior to departure for EIWT.

1.4 Meteorlogical Information

The pilot reported the actual weather conditions as follows:

Wind	240º/10 kt
Visibility	+ 10 km
Significant weather	Nil
Cloud	FEW 2,500 ft

1.5 Aerodrome Information

AIP Ireland describes EIWT as a VFR only aerodrome, 150 ft AMSL and situated 8 NM west of Dublin City. For rescue and fire fighting services the aerodrome is in the CAT 2 Category. RWY 25/07 is a bitumen/macadam surfaced runway of length 799 metres and width 23.5 metres. As such, the aerodrome comes within the definition of Reference Code 1A of ICAO Annex 14. EIWT is licensed by the IAA as a public use aerodrome. Para. 4.2.7 of the Supplement to Aerodrome Licensing Manual for Lower Category Aerodromes (ALM 003) states that all construction and maintenance work must be reported to the Authority as follows:

> "*Information on the condition of the movement area and the operational status of related facilities shall be provided to the Authority and similar information of operational significance to arriving and departing aircraft and, if appropriate to the aircraft traffic service units, to enable those units to provide the necessary information to arriving and departing aircraft. The information shall be kept up to date and reported without delay particularly in respect of the following:*
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> *(a) Construction or maintenance work*
> *(b) Surface irregularities and contaminents on paved surfaces*
> *(c) Long wet grass, soft ground, standing water, ice or snow on unpaved surfaces".*

Similar instruction in the Aerodrome Licensing Manual (ALM 002) is more onerous and states:

> *"Information on the condition of the movement area and the operational status of related facilies shall be provided to the Authority and similar information of operational significance to the air traffic service units, to enable those units to provide the necessary informarion to arriving and departing aircraft. The information shall be kept up to date and reported without delay."*

1.6 Aeronautical Information Services

ICAO Annex 15 obliges each Contracting State to provide Aeronautical Information Services (AIS) responsible for the provision of aeronautical information necessary for the safety, regularity and efficiency of air navigation. In Ireland, all such information is published in conformity with the AIRAC (Aeronautical Information Regulation and Control) procedures under the authority of the IAA.

The AIS publish temporary changes, lasting 3 months or longer, in the form of Aeronautical Information Publication (AIP) Supplements. Implementation or completion dates of such changes are usually promulgated in advance by a NOTAM issued by the International NOTAM Office by means of the Aeronautical Fixed Telecommunications Network (AFTN). This is a worldwide "trigger" device and draws attention to the upcoming AIP Supplement.

AIS require notification of engineering works by the Airport Authority well in advance of work commencing. Such works by their nature can be anticipated and an AIRAC AIP Supplement would be issued about 3 months in advance of the work commencing. A NOTAM would then be issued one month before issue of the final relevant AIP Supplement. AIS had not been informed of the intended works at EIWT.

However, in September 2004, a new Airport Manager was appointed at Weston Aerodrome and subsequently on 6 November 2004 a NOTAM No. A1660/04 was issued to cover the Work-in-Progress (WIP) at EIWT. This remains effective up to 31 March 2005.

2. DISCUSSION

The pilots's assessment of the cause of the accident was the reduced visibility due to turning final into a low sun, leading to misidentification of the parallel taxiway under construction as RWY 25. The problem was exacerbated by the standing water on the partially constructed taxiway, reflecting the sun and causing further reduced visibility. At the same time the pilot indicated a lack of situational awareness in continuing the approach without the usual visual references such as centreline markings and runway numbers.

The wording of the regulation in ALM 003 (Supplement for Lower Category Aerodromes) leaves the decision as to whether the proposed engineering works are *"appropriate to the air traffic service units"* up to the aerodrome management. The regulation in ALM 002 stipulates that such information "*shall"* be given to the air traffic service units. Perhaps the regulation for Lower Category aerodromes should also require management to report such proposed works to the AIS and other air traffic service units. These units may then decide if promulgation of the information is appropriate.

3. CONCLUSIONS

(a) Findings

3.1 The pilot carried out an approach and landing to a taxiway which was still under construction.

3.2 The aircraft suffered serious damage to its starboard wing and rear fuselage.

(b) Causes

3.3 Misidentification of a parallel taxiway under construction as RWY 25.

3.4 Lack of situational awareness during the approach and landing to identify the correct landing runway

4. SAFETY RECOMMENDATIONS

4.1 The IAA should review the Supplement for Lower Category Aerodromes (ALM 003) in order to conform to the stricter requirements of their Aerodrome Licensing Manual (ALM 002). **(SR 04 of 2005)**

IAA Response

The IAA response was that they intend to review ALM 003.