

CAV/ACC/29/68

ACCIDENT INVESTIGATION BRANCH

CIVIL AIRCRAFT ACCIDENT

Report on the accident to DH.89A Rapide
Aircraft Registration number 5Y-KLB
which occurred on 7th August, 1968
on Bukoba Airstrip, Tanzania.

EAST AFRICAN COMMUNITY

ACCIDENT REPORT
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Civil Aircraft Accident Report No. CAV/ACC/29/68

AIRCRAFT: DH.89A Rapide 5Y-KLB. ENGINE: DH.Gipsy Queen II.

REGISTERED OWNER: Caspair Ltd., P.O. Box 2238, Nairobi.

PILOT: Hasan Oguz BARUT - uninjured

PASSENGERS: Three adults, 1 infant - uninjured

PLACE OF ACCIDENT: On Bukoba Airstrip, Tanzania.

DATE AND TIME: 7th August, 1968. 0602 hours.

ALL TIMES IN THIS REPORT ARE G.M.T.

S U M M A R Y

After landing and whilst taxiing to the passenger terminal the aircraft swung to the right with such force that the pilot was unable by braking and use of engine power to correct it. The aircraft ran into a small ditch, hit a wall and was substantially damaged. No one was injured and fire did not occur.

1. INVESTIGATION

1.1 History of the Flight

On 7th August, 1968, the aircraft departed from Entebbe at 0505 on the regular Lake Service to Bukoba with three adult passengers and one infant. The landing was made at 0600 on runway 13 using normal braking, and the aircraft taxied clear of the runway to the right at the pilot's estimate of 20 to 25 m.p.h. There are no marked taxi-ways on the airfield and in order to line up in front of the terminal building the aircraft had to execute an "S" turn. On turning the aircraft to port for the second part of the "S" turn the pilot claims that the Port brake failed and he attempted to swing the aircraft by use of the Starboard engine but the acceleration was too slow to have any effect before the aircraft struck the ditch and the wall in front of the terminal.

1.2 Injuries to Persons

Injuries	Crew	Passengers	Others
Fatal	-	-	-
Non-fatal	-	-	-
None	1	4	-

1.3 Damage to Aircraft

The aircraft received substantial damage.

1.4 Other Damage

None.

1.5 Crew Information

Mr. Hasan Oguz BARUT born 23.11.23 holds East African Commercial Pilot's Licence No. 647 (K.594) and Radiotelephony Operator's Licence No. 730 (K.647) valid until 28.12.68 and endorsed for DH.89A Rapide following a technical examination on this type on 20.1.68. Through his latest application for renewal of licences dated 1.7.68 Mr. Barut claimed a total flying experience of 7675 hours and 25 minutes as follows:-

i/c by day	-	7121 hours	15 minutes
i/c by night	-	310 hours	0 minutes
Co-pilot by day	-	210 hours	10 minutes
Co-pilot by night	-	34 hours	0 minutes
		<hr/>	
		7675	" 25 "
		<hr/>	

Total flying time on this type was 90 hours.

1.6 Aircraft Information Serial No. 6877

The aircraft, a DeHavilland 89A Rapide was manufactured by the Brush Coachworks Co., of Loughborough, England. It arrived in East Africa in 1953 and was issued with a Certificate of Airworthiness No.129 on 29.4.53 which has been renewed until the present period 3.8.68 to 2.8.69.

The aircraft has been maintained to an approved maintenance schedule reference A.C. AMS. DH. 89A Issue I, and a Check II had been carried out on 15.7.68 the Certificate of Maintenance issue, being valid for 50 hours or 30 days. A further Check I, should have been carried out on August 2nd at 853.4 hours, but no evidence of this exists.

The Operators' staff at Entebbe claim to have been authorised to carry out a progressive Check III which entailed carrying out portions of the Check III each month, and claim that the aircraft was undergoing the portion of the Check III involving the brakes on the 6th August. No mention of this work was made to the investigating officer by the engineer concerned, nor to the operators management, who were interviewed on 8th August, neither was any record of this in the aircraft log book when seen on 8th August. The log books, when submitted, subsequently contained an entry dated 7th August showing the "Port brake secondary and primary shoes replaced". Correspondence with the operator produced details of the check carried out after replacement of the Port brake, and a correction to the log entry dates to August 6th.

As brake failure was claimed in the pilot's report, particular attention was paid to the system during the survey of the wreckage and no defects were apparent. Due to the wheels being jammed in the ditch it was not possible to check the braking action. Instructions were given to the operator's management representative on the scene to salvage the Port wheel when the aircraft was lifted out of the ditch, and forward this to Nairobi for investigation. When enquiries were made later it was found that this wheel had been given with the rest of the wreckage to a local Missionary school and attempts made to retrieve it have proved negative.

The technical log entries for the flight were not available until November 12th after repeated correspondence, and some doubt may be cast on this entry as the numbering is out of sequence with the remainder of the entries obtained. This entry shows the loading for the flight to be "In limit" and not in accordance with Regulation 25 of the East African Air Navigation Regulations.

1.7 Meteorological Information

Wind, calm; visibility, 10 km; weather, overcast with continuous slight rain; temperature + 20°C.

Although the wind at the time of the accident was reported calm, it is a feature of the airfield that on most days the wind blows from the South which tends to weathercock the aircraft towards the terminal building when landing on runway 13.

1.8 Aids to Navigation

Not applicable.

1.9 Communications

Not applicable.

1.10 Aerodrome and Ground Facilities

The ground surface was slightly wet at the time of the accident following light rain.

A skid mark made by the Port Wheel was evident and was in-line with the direction of the aircraft on impact, indicating that braking action was available on the Port wheel.

1.11 Flight Recorders

Not required to be fitted.

1.12 Wreckage

Both engines and propellers had struck the earth bank beyond the ditch and had been pushed **rearwards** causing the rear spars of the lower mainplane to fracture, the lift struts to buckle and the engine mountings to distort.

The wheels had dropped into the ditch causing the undercarriage legs to shear and the bracing structure to distort.

The fuselage had tilted, causing the nose to be crushed and on returning level caused the tail wheel fork to fracture.

1.13 Fire

Fire did not occur.

1.14 Survival Aspects

The occupants were correctly secured and received no injuries.

1.15 Tests and Research

It has not been possible to establish the serviceability of the Port brake due to it not being made available when the wreckage was disposed of.

2. ANALYSIS AND CONCLUSIONS

2.1 Analysis

The reported brake failure cannot be conclusively established in the absence of the port wheel but it was evident from the skid marks that substantial braking action did take place on the port wheel whilst the aircraft was heading towards the ditch. There was no evidence of mechanical failure of the brake system after the accident.

2.2 Conclusion

a) Findings

(i) The aircraft had had work carried out to the port wheel prior to the accident which had not been certified at that time, and should have had a Check I carried out at 853.4 hours (since Check IV).

(ii) The pilot was properly licensed.

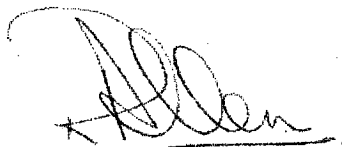
- (iii) There was no pre-crash failure of the aircraft.
- (iv) The operator of the aircraft was negligent in that:
 - a) he did not cause the suspected item to be preserved until investigation had been completed;
 - b) he did not cause the necessary documents to be produced for investigation;
 - c) he did not cause a load sheet to be compiled for the flight in question.

a) Cause

The most probable cause of the accident was that the aircraft was moving at a speed too great for the braking capabilities of the aircraft to manoeuvre within the space available.

3. RECOMMENDATIONS

Open ditches and walls should not be located near to manoeuvring areas whenever possible.



R. Allen.
INSPECTOR OF ACCIDENTS

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