

No. 7

Misrair, Antonov 24B, SU-AOM, accident at Cairo Airport, United Arab Republic,
on 30 September 1966. Report not dated, released by the Civil Aviation
Department, Ministry of War, United Arab Republic

1.- Investigation1.1 History of the flight

Flight 322 was a scheduled domestic flight from Cairo to Aswan and return with an intermediate stop at Luxor. It departed Cairo at 0700 hours GMT and the sectors Cairo - Luxor, Luxor - Aswan and Aswan - Luxor were uneventful. At 1128 hours the aircraft was ready for the last sector Luxor - Cairo and at 1130 hours it entered the second taxiway to Runway 20 at Luxor and shortly thereafter it was cleared for take-off. Instead of back-tracking on Runway 20 the pilot took off directly from the point he entered the runway, approximately 400 m from its threshold. During the take-off run the pilot-in-command and the co-pilot saw a camel entering the runway from east to west approximately 700 m in front of them. The speed of the aircraft at that time was about 160 km/h. In an attempt to avoid a collision with the camel, the pilot-in-command deviated the aircraft slightly to the right and took off as soon as he could; however, the right wheel struck the camel while the aircraft was about 2 m above the ground. The right landing gear bracing was broken by the impact and although several attempts to retract the undercarriage were made the right gear could not be retracted whilst the left and nose gears were locked in the "up" position. The pilot-in-command decided to complete the flight and to carry out a wheels-up landing at Cairo Airport where more ground facilities were available. He landed the aircraft wheels up at 1402 hours on a sand strip to the right of Runway 34 at Cairo Airport.

1.2 Injuries to persons

Injuries	Crew	Passengers	Others
Fatal			
Non-fatal			
None	6	37	

1.3 Damage to aircraft

The aircraft was substantially damaged.

1.4 Other damage

The camel was killed.

1.5 Crew information

The pilot-in-command, aged 26, held an airline transport pilot's licence which was valid until 8 February 1967 with rating in the AN 24B (Group I) since 25 September 1965. His instrument rating was valid until 12 July 1967. He had flown a total of 3 304 hours including 675 hours in AN 24B aircraft, of which 131 hours were flown as pilot-in-command. During the 30 days prior to the accident he had flown 110 hours.

The co-pilot, aged 31, held a commercial pilot's licence valid until 18 April 1967 with rating in the AN 24B (Group II) since 4 November 1965. He had flown a total of 1 233 hours including 807 hours as co-pilot in AN 24B aircraft, of which 77 hours were flown during the 30 days prior to the accident.

1.6 Aircraft information

The Certificate of Airworthiness of the aircraft was valid until 29 June 1967. A certificate of maintenance was issued for the aircraft on 27 June 1966 and it was valid for 100 flying hours. The aircraft had flown a total of 201 hours, including 29 hours since the latest check.

The maximum gross take-off weight permitted by the Certificate of Airworthiness was 21 000 kg. At the time of the accident the weight of the aircraft was 19 892 kg. The centre of gravity position at the commencement of the flight was within limits.

The aircraft carried 2 300 kg of fuel. The type of fuel being used was not stated in the report.

1.7 Meteorological information

The weather conditions at the time of the accident at Luxor Aerodrome and at Cairo Airport were fine.

The weather conditions at the time of take-off from Luxor were similar to those given in the 0800 hours weather report: wind 290°/01 kt; visibility 12 km; clouds 2/8 at 6 000 m; temperature 31.8°C; dewpoint 13.5°C; QNH: 1012 mb; QFE: 1001 mb.

1.8 Aids to navigation

Not pertinent to this accident.

1.9 Communications

No information was provided in the report.

1.10 Aerodrome and ground facilities

Not pertinent to this accident.

1.11 Flight recorders

Not mentioned in the report.

1.12 Wreckage

The collision with the camel occurred at approximately 1 500 m from the threshold of Runway 20 at Luxor Airport whilst the aircraft was airborne, and the aircraft's right gear bracing was broken by the impact. During the subsequent wheels-up landing at Cairo Airport the left side and the bottom of the fuselage were damaged; the right and nose landing gear were substantially damaged as were the left engine and its propeller; the right engine and its nacelle were slightly damaged as well as the radome of the aircraft.

1.13 Fire

There was no fire. The fire extinguisher bottles of the aircraft's crash system had been discharged.

1.14 Survival aspects

Airport authorities at Cairo had been duly warned of the impending wheels-up landing and all necessary precautions had been taken. No-one was injured during the wheels-up landing.

1.15 Tests and research

Not pertinent to the accident.

2.- Analysis and Conclusions

2.1 Analysis

The pilot-in-command started the take-off run at Luxor from a point located approximately 400 m after the threshold of Runway 20, just after the junction of the second taxiway with the runway, because he considered that surfacing of the first 400 m of the runway was poor.

Neither the pilot-in-command nor the tower controller had noticed the presence of a camel before the take-off run was initiated. Both pilots first saw the camel when it was about to cross the runway from left to right, some 700 m in front of the aircraft which, by that time, had reached a speed of nearly 160 km/h.

The pilot-in-command decided to continue the take-off and tried to avoid the camel by deviating the aircraft slightly to the right and by taking off as soon as possible. However, the collision could not be avoided and he felt a shock which was due to the right wheel hitting the camel at a point located approximately 1 500 m from the threshold of Runway 20 and about 2 m east of its western edge.

The camel's foot-prints were identified about 100 m east of the runway and 2 m west of the runway and its body was found about 5 m to the right of the runway's edge. The tower controller never saw the camel, but noticed rising sand resulting from the collision. As a result of the impact the right gear bracing was broken and although several attempts were made the right gear could not be retracted, as confirmed by the landing gear warning lights and by visual check. A wheels-up landing was successfully carried out at Cairo Airport, where more ground facilities were available.

2.2 Conclusions

(a) Findings

The crew held the appropriate licences and ratings.

The aircraft had valid Certificate of Airworthiness and of Maintenance. Its gross weight and centre of gravity were within the allowable limits.

The weather conditions were fine at the time of the accident.

On taking-off from Luxor Aerodrome the aircraft's right wheel hit a camel. The pilot made several attempts to raise the undercarriage but the right wheel could not be retracted.

The tower controller did not see the camel at any stage. He only saw the rising sand caused by the collision.

The pilot-in-command decided to complete the flight and land at Cairo Airport where more adequate ground facilities were available. He made a successful wheels-up landing at Cairo.

(b) Cause or Probable cause(s)

Collision of the aircraft with a camel which entered the runway during take-off because neither the pilot-in-command nor the tower controller noticed the camel in proper time.

In addition, attempts of the pilot-in-command to avoid the collision after he first saw the camel were unsuccessful.

3.- Recommendations

None were contained in the report.
