

OCCURRENCE REPORT: 67656

Flight Safety incident reports are produced under the authority of the Minister of National Defence (MND) pursuant to Section 4.2 of the Aeronautics Act (AA), AND in accordance with A-GA-135-001/AA-001, Flight Safety FOR the Canadian Forces. They are prepared solely FOR the purpose of accident prevention AND shall not be used FOR legal, administrative OR disciplinary action.

FSIS 67656 15 APR 1982 AIR ACCIDENT

Status: supplemental sent

ED 353 15/APR/1982 15:30

Unclassified

1. Injury Level: No Injury

2. Aircraft/Operated By: CC130316

3. Aircraft Ownership: 435 SQN / 17 WING / 3435 /

4. A. Location: - CALGARY -

Latitude: N51-7

Longitude: W114-1

4. B. Date/Time: 151300Z APR 1982

4. C. Phase of Flight: TAKE-OFF - INITIAL CLIMB TO 500 FEET ON TAKE-OFF

5. Damage Level: Serious - Major component / 3rd line maint

7. Mission Type: TRANSPORT AND COMMUNICATIONS, TALEX (INCLUDES HELOS)

8. Description: AFTER TAKEOFF ANOTHER CC130 WHICH HAD JUST LANDED REPORTED THAT OUR RH REAR MAIN GEAR WAS HANGING WHILE OUR GEAR WAS IN TRANSIT.

22. A. Investigation: AN UP INDICATION WAS ACHIEVED, AND THE FLT ENGR REPORTED THAT THE DOORS APPEARED TO BE CLOSED. CALGARY TOWER ALSO REPORTED THAT THE GEAR APPEARED UNUSUAL. THE GEAR WAS SELECTED DOWN AND THE RH GEAR INDICATED UNSAFE. THE INSPECTION PANELS, WHICH WERE OPAQUE WITH OIL, WERE OPENED AND THE REAR WHEEL WAS OUT OF SIGHT. AT THIS TIME WE NOTICED OUR UTILITY HYDRAULICS WERE DEPLETING AND WE ASSUMED THAT THE WHEEL HAD DEPARTED. A VISUAL INSPECTION BY A CC138 VERIFIED THAT THE GEAR WAS STILL ATTACHED BUT MISALIGNED. THE GEAR WAS CHAINED DOWN, FUEL DUMPED AND THE AC LANDED AT NAMAQ AT 1540Z.

23. Cause Factors: PERSONNEL MANAGEMENT/NDHQ JUDGEMENT *** FINDINGS ***

THE LOCK WASHER FAILED TO RETAIN THE MLG PISTON BEARING RETAINING NUT PROBABLY BECAUSE THE LOCK WASHER DESIGN WAS INADEQUATE AS A SECURE RETAINING DEVICE. ALTHOUGH AWARE OF THE DESIGN DEFICIENCY, NDHQ FAILED TO INSTITUTE AN INSPECTION FREQUENCY TO CONFIRM THE SECURITY OF THE LOCK WASHER.

MATERIEL AIRFRAME DESIGN *** FINDINGS *** THE LOCK WASHER FAILED TO RETAIN THE MLG PISTON BEARING RETAINING NUT PROBABLY BECAUSE THE LOCK WASHER DESIGN WAS INADEQUATE AS A SECURE RETAINING DEVICE. ALTHOUGH AWARE OF THE DESIGN DEFICIENCY, NDHQ FAILED TO INSTITUTE AN INSPECTION FREQUENCY TO CONFIRM THE SECURITY OF THE LOCK WASHER.

24. Preventive Measures: (SEE DETAILED DESCRIPTION) *** PREVENTIVE MEASURES *** 1. A SPECIAL INSPECTION WAS CARRIED OUT ON ALL LANDING GEAR LOCKWASHERS. 2. AN NDI INSPECTION INSTITUTED EVERY 1600 HRS. 3. ALL SHOCK STRUTS HAVE BEEN MODIFIED WITH A SET SCREW IN ADDITION TO THE LOCK WASHER.