

DAILY/INITIAL FLIGHT TEST REPORT

1. AIRCRAFT TYPE

UH-1N

2. SERIAL NUMBER

96617

CONDITIONS RELATIVE TO TEST

A. PROJECT/MISSION NO	B. FLIGHT NO/DATA POINTS	C. DATE 1 AUG 88
D. FRONT COCKPIT (Left Seat) BASS/GREEN/DIMMICK	E. FUEL LOAD 300 GALS = 1957 lbs	F. JON 99 94 2407
G. REAR COCKPIT (Right Seat) MAJ W. JONES	H. START UP GR WT/CG 9984 lbs / 139.6 inches	I. WEATHER CLR 7
J. TO TIME/SORTIE TIME 1105 / 117	K. CONFIGURATION/LOADING clean/skids / 3 PAX	L. SURFACE CONDITIONS
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME

4. PURPOSE OF FLIGHT/TEST POINTS

HELICOPTER FAM AND QUALITATIVE EVALUATION OF AIRCRAFT FOR USE AS LIGHT UTILITY AND SAR AIRCRAFT

5. RESULTS OF TESTS (Continue on reverse if needed)

OVERALL: AIRCRAFT IS SUITABLE FOR ITS MISSION.

COCKPIT: SEAT IS NOT VERY COMFORTABLE AND RESULTED IN DISCOMFORT IN THE LOWER BACK AFTER JUST 30 MINUTES. IF USED HELMET BACK AND PAD TO SUPPORT LOWER BACK. LIGHT WEIGHT SEAT IS ALSO NOT VERY CRASH WORTHY. OVERHEAD CENTER CONSOLE RESTRICTS UPWARD VISIBILITY AND INTERFERS TO OPPOSITE SIDE. FLIGHT INSTRUMENTS ARE LARGE AND WELL PLACED.

PERFORMANCE: HOVER IN GND EFFECT : 75% τ = ft 360 pph } 1240 # of fuel
OUT OF " " 79% τ = 368 pph } + 3 PAX + pilots

88 KT CRUISE = 50% τ = 300 pph ft

50 KTS = MOST EFFICIENT AIRSPEED

CLIMB FROM HOVER AT 88% τ = 500 fpm at PA 2900 ft.

IDLE GLIDE AT 80 KTS = 1800 fpm.

FLYING QUALITIES: STAB BAR ON ROTORS ADDS STABILITY IN HOVER BUT FEEDS BACK A DELAYED + OPPOSITE INPUT FROM LATERAL CONTROL INPUTS. FOR INSTANCE, WHEN ROLLING OUT OF A TURN AND NEUTRALIZING CONTROLS, AIRCRAFT WILL START TO ROLL IN SAME DIRECTION AS ROLLOUT AFTER A DELAY OF ABOUT 1.5 SECONDS. THIS IS NOTICEABLE BUT NOT OBJECTIONABLE. CONTROL OF APPROACHES IS FAIRLY EASY AS IS THE HOVER WITH REQUIRED PILOT COMPENSATION EQUAL TO MOST HELICOPTERS ITS SIZE, A LARGE AMOUNT OF THIS COMPENSATION SEEMED TO BE REQUIRED BY THE APPARENTLY LARGE CONTROL LABS ESPECIALLY IN THE COLLECTIVE. THE TIME DELAY IN COLLECTIVE IS VERY OBJECTIONABLE AND MAKES RAPID VERTICAL CORRECTIONS (SUCH AS THAT REQUIRED ON SMALL SHIPS) DIFFICULT OR

6. RECOMMENDATIONS

1. FIX THE HEATING SYSTEM ON THE KC-135
2. IMPROVE PILOT SEATS TO MAKE MORE COMFORTABLE AND CRASHWORTHY
3. TEST HANDLING QUALITIES DURING WINCH LIFTS.

COMPLETED BY CAPT G.A. BASS

SIGNATURE

DATE

Capt K. Green

DIMMICK

[Signature]

1 AUG 88

IMPOSSIBLE. CONTROL FORCES ARE LIGHT AND FORCE TRIM IS NOT REQUIRED FOR ANY TASK. A/C CANNOT BE TRIMMED HANDS OFF IN HOVER. DYNAMICS AND ATMOSPHERIC DISTURBANCES CAUSE A/C TO DIVERGE FROM FWD FLIGHT TRIM SHOT AFTER ABOUT 15-25 SECONDS. F100 FORCES AND DEADBANDS WERE SMALL AND DID NOT NOTICEABLY AFFECT FLYING QUALITIES. LOSS OF DUAL HYDRAULIC SYSTEM WOULD PROBABLY RESULT IN LOSS OF AIRCRAFT ON LANDING IN THE OPINION OF IP.

SLIDE TAKEOFF WAS PERFORMED AT 60% γ . AIRCRAFT BECAME AIRBORNE AT 10KTS AND HAD A 300 fpm CLIMB AT 40 KIAS. THIS CAN BE USED IN AN EMERGENCY FOR HEAVYWEIGHT TAKEOFFS IF AREA PERMITS.