

DAILY/INITIAL FLIGHT TEST REPORT

1. AIRCRAFT TYPE

OH-58A

2. SERIAL NUMBER

710799

3. CONDITIONS RELATIVE TO TEST

A. PROJECT/MISSION NO	B. FLIGHT NO/DATA POINTS	C. DATE
D. FRONT COCKPIT (Left Seat) BASS / CLAPP	E. FUEL LOAD 355 #	28 JULY 88
G. REAR COCKPIT (Right Seat) TRAINER	H. START UP GR WT/CG 2600 pounds	I. WEATHER 1200 OVC 6
J. TO TIME/SORTIE TIME 1400 / 2.0	K. CONFIGURATION/LOADING	L. SURFACE CONDITIONS
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME

4. PURPOSE OF FLIGHT/TEST POINTS

EVALUATE A/C FOR LIGHT UTILITY AND OBSERVATION MISSION.

SEE NEXT PAGE

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

OVERALL: AIRCRAFT IS SUITABLE FOR MISSION. WHILE BEING VERY MANEUVERABLE IT HAS LIMITED PERFORMANCE AND CAPACITY.

COCKPIT: LEFT SEAT IS NOT ADJUSTABLE BUT CONTROLS ARE WELL PLACED. FLIGHT INSTRUMENTS ARE ON RIGHT SIDE BUT READABLE FROM LEFT. OVERHEAD CONSOLE RESTRICTS FIELD OF VIEW IN TURNS. AFT FIELD OF VIEW ALMOST TO 180° WITH DOORS OFF AND WITH HEAD OUT IN SLIPSTREAM.

PERFORMANCE: 28°C

HOVER IN GND EFFECT: τ 53 psi T5
OUT OF " " : 56 psi 650°C } 250# fuel + 2 pilots

CRUISE AT 900' 85 KIAS $\tau = 45$ PSI } at fuel load of 320 pounds

TRIM SHOTS:	KIAS	τ
	32	40
	60	38
	92	58 psi

MOST EFFICIENT AIRSPEED IS ABOUT 40 KIAS
T5 LIMITED AT THIS LOADING, MAX RATE OF CLIMB AT SL.

FLYING QUALITIES:

LONG PERIOD AT 80 KIAS IS SLIGHTLY DIVERGENT WITH A PERIOD OF ABOUT 60 SECONDS. TRIM HANDS OFF NOT POSSIBLE BUT CONTROL FORCES ARE VERY LIGHT AND TRIM SYSTEM IS NOT REQUIRED FOR ANY TASK. AIRCRAFT IS SUSCEPTABLE TO GUSTS AS IT IS VERY

6. RECOMMENDATIONS

1. IMPROVE THE HEATING SYSTEM ON THE KC-135

COMPLETED BY

CAPT G.A. BASS

SIGNATURE

G.A. Bass

DATE

8 AUG 88

LIGHT AND CONSTANT CORRECTIONS ARE REQUIRED BY PILOT EVEN IN CRUISE FLIGHT. AIRCRAFT DOES NOT WANT TO SLOW DOWN AND SUBSTANTIAL REDUCTION IN COLLECTIVE IS REQUIRED TO AFFECT AN APPROACH FROM 60 KTS, AND 500 FT. FREEPLAY IN CONTROLS DOES NOT AFFECT FLYING QUALITIES NOTICEABLY EXCEPT FOR THE ANTI-T PEDALS WHEN DOING TURNS IN A HOVER. WITH WIND, THERE WAS NO NOTICEABLE LAGS OR TIME DELAYS IN THE CONTROL SYSTEM AND FINE CONTROL IN ALL THREE AXES WERE POSSIBLE. CORRECTION FOR GUSTS IN THE HOVER WAS POSSIBLE WITH ACCEPTABLE PILOT WORK LOAD.

START/STOP PROCEDURES: STRAIGHT FORWARD. LACK OF ROTOR BRAKE WOULD BE A PROBLEM ABOARD SHIP.

DAILY/INITIAL FLIGHT TEST REPORT

1. AIRCRAFT TYPE

CH 136 KIOWA

2. SERIAL NUMBER

136201

3. CONDITIONS RELATIVE TO TEST = OH-58A

A. PROJECT/MISSION NO	B. FLIGHT NO/DATA POINTS	C. DATE
D. FRONT COCKPIT (Left Seat) BASS / LAMB	E. FUEL LOAD 370 pounds	F. JON 5 AUG 88
G. REAR COCKPIT (Right Seat) MAJ ISTCHENKO CAF	H. START UP GR WT/CG 2950	I. WEATHER CLR 7
J. TO TIME/SORTIE TIME 1349 / 1.0	K. CONFIGURATION/LOADING CLEAN 2 PILOTS 1 PAX	L. SURFACE CONDITIONS
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME

4. PURPOSE OF FLIGHT/TEST POINTS

EVALUATE A/C FOR LIGHT UTILITY AND OBSERVATION MISSION. ADDITIONAL COMMENTS FROM SECOND FLIGHT

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

OVERALL: AIRCRAFT IS SUITABLE FOR MISSION.

PERFORMANCE: 80 KT CRUISE 60 psi γ
 5' HOVER 58 psi 650°C } wt
 100' " 63 psi 680° } 2775 lbs WIND 8-10 KTS

OPTIMUM A/S = 42-43 KIAS

IDLE DESCENT: KIAS ROD
 90 KIAS 2300 rpm
 60 KIAS 900 rpm

C.W. LIMITS 35 SIDE, 30 KT REAR
 45 KT WIND WITH 15 KT GUST LIMIT FOR ROTOR STOP + START

FLYING QUALITIES:

80 KT SHORT PERIOD $T \approx 0.5$ sec. LONG PERIOD $T \approx 30$ seconds at 50 KIAS AND IS DIVERGENT. ABOVE 70 KIAS DO NOT GET AN OSCILLATION. AT HIGHER SPEEDS A/C IS MORE SUSCEPTABLE TO GUSTS. CONSTANT CORRECTION IN FLIGHT IS REQUIRED AND A/C CANNOT BE TRIMMED HANDS OFF. CONTROL FORCES ARE LIGHT AND FORCE TRIM IS NOT REQUIRED FOR ANY TASKS OR FOR PILOT RELIEF. SLIGHT ADVERSE YAW RESULTS FROM ROLL INPUTS. AIRCRAFT CAN BE FLOWN WITH FROZEN LATERAL STICK BY USE OF PEDALS. WIDE SKIDS CAN BE USED FOR ROLL ON/OFF UP TO 50 KTS. PEDAL FREEPLAY OF ABOUT 3/4" IS NOTICEABLE AND REQUIRES PILOT COMPENSATION (LEARNED) WHEN TURNING TAIL THROUGH WIND IN A HOVER. HIGH MASS ROTOR ALLOWS A LARGER SAFETY MARGIN DURING AUTO-ROTATIONS.

6. RECOMMENDATIONS

1. FIX THE HEATING SYSTEM ON THE KC-135
2. TEST A/C WITH DOORS INSTALLED

COMPLETED BY

CAPT G.A. BASS

MAJ JW LAMB

SIGNATURE

[Signature]

[Signature]

DATE

8 AUG 88