

DAILY/INITIAL FLIGHT TEST REPORT

1. AIRCRAFT TYPE  
F-4E

2. SERIAL NUMBER  
72-0126

3. CONDITIONS RELATIVE TO TEST

A. PROJECT/MISSION NO	B. FLIGHT NO/DATA POINTS	C. DATE 2 AUG 88
D. FRONT COCKPIT (Left Seat) CAPT BASS	E. FUEL LOAD 16.9 #	F. JON
G. REAR COCKPIT (Right Seat) LT COL FOSTER	H. START UP GR WT/CG 53,100 #	I. WEATHER 4K BKN 6 NM
J. TO TIME/SORTIE TIME 1325 / 0.9	K. CONFIGURATION/LOADING 2 TKS, 2 SUV-20	L. SURFACE CONDITIONS
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME

4. PURPOSE OF FLIGHT/TEST POINTS

EVALUATE AIRCRAFT IN AIG BOMBING/STRAFE.  
LVL LAYDOWN, LOFT, 20° DIVE IN COMPUTED MODES, STRAFE.

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

OVERALL: A/C IS SUITABLE FOR MOST BOMBING MISSIONS WITH THE DETRACTORS OF LIMITED FWD VISIBILITY AND LARGE TURN RADIUS THAT MAKES THE AIRCRAFT OF LIMITED VALUE FOR FAC CONTROLLED CLOSE AIR SUPPORT, THE AIRCRAFT'S TURN PERFORMANCE LIMITS THE ABILITY TO CORRECT FOR LATE TGT ACQUISITIONS. LATERAL CONTROL LIMITED ABILITY TO MAKE FINE CORRECTIONS ON RUN IN.

COCKPIT: MAIN DIFFERENCE IN COCKPIT OVER RF-4C AT EDWARDS IS HOMOGENEOUS GUNSIGHT THAT FURTHER RESTRICTS FWD VISIBILITY AND TGT ACQUISITION. ARMAMENT SWITCHES ARE CLEARLY MARKED AND STRAIGHT FORWARD BUT ARE GROUPED IN THREE DISTINCT AREAS ON THE INSTRUMENT PANEL. AMBER LIGHT ARM CUE ON STATION SELECTION IS VERY WELL MECHANIZED AND MAKES IT EASY TO DOUBLE CHECK THAT SWITCHOLOGY IS SET FOR RELEASE. TYPICAL F-4 SEAT MAKES YOU A HUNCH BACK AFTER AN HOUR.

PERFORMANCE: NEED TO FLY 350-400 KIAS IN PATTERN (20° DIVE) AND HUGE TURN RADIUS REQUIRES CONSIDERABLE PILOT ATTENTION TO ROLL OUT ON TARGET WITHOUT OVERSHOOT. ON THE DECK RUN IN, IT TOOK 4 MILES TO ACCELERATE FROM 150 TO 500 KIAS IN MILITARY, ALL TURNS IN PATTERN WERE FLOWN IN MIL 3-4 G TO KEEP FROM LOSING ENERGY. SLATS COME OUT AT 11 UNITS AND GO BACK IN AT 10. THEY INCREASE THE TURN CAPABILITY SUBSTANTIALLY (G INCREASE OF ABOUT 1-1/2 G AT 400 KTS WITH STIC FIXED) BUT ALSO INCREASE BLEED RATE.

FLYING QUALITIES: MAJOR DIFFERENCE IN AIRFRAME IS VARIABLE SLAT ON WING AND FIXED SLAT ON HORIZONTAL STAB. ROTATION AND LIPTOFF 10 KTS EARLIER THAN RF-4C WITH SAME STICK FORCE AND TRAVEL. STAB IS NOTICEABLY MORE EFFECTIVE LEADING TO SLIGHT TENDENCY TO OVERROTATE. WING SLATS ARE EITHER OUT OR IN CAUSING AN OBJECTIONABLE "DIG IN" IN MODERATE OR GREATER TURNS. THIS REQUIRES CONSIDERABLE PILOT COMPENSATION IN THE FORM OF LONGITUDINAL CONTROL TO AVOID THE "DIG IN" IN NORMAL FLIGHT AND OVERSTRESS IN RAPID

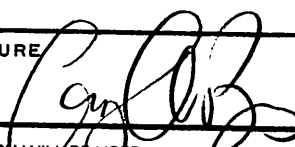
6. RECOMMENDATIONS

1. IMPROVE THE HEATING SYSTEM ON THE KC-135
2. SCHEDULE WING SLATS CONTINUOUSLY OR IN SMALL STEPS RATHER THAN OUT OR IN ALL AT ONCE
3. GROUP ARMAMENT SWITCHES TOGETHER IN COCKPIT

COMPLETED BY

CAPT G.A. BASS

SIGNATURE



DATE

8 AUG 88

ONSET TURNS AT HIGHER SPEEDS. TENDENCY FOR NEW PILOTS TO AIRCRAFT TO OVERSTRESS IN TACTICAL MANEUVERING IS ALMOST A CERTAINTY. SLATS ALSO DECREASE ROLL CONTROL EFFECTIVENESS AT SLOW SPEED AND MOST PILOTS FLY A FAST APPROACH IN GUSTY CONDITIONS. THE GOOD NEWS IS THE ADVERSE YAW PROBLEM OF HARDWING F-4s IS CONSIDERABLY REDUCED. THE AIRCRAFT IS REPORTEDLY MUCH MORE DEPARTURE RESISTANT.

SYSTEMS! GUNSIGHT MOUNT RESTRICTS FWD VISIBILITY AND RESTRICTS TGT ACQUISITION. FOR AS LARGE AS IT IS, THE PILOT'S HEAD MUST BE IN A FAIRLY NARROW AREA OF A FEW INCHES TO SEE THE SYMBOLOGY. SAME RETICLE IS USED FOR ALL MODES INCLUDING STRAFE SO INSIDE SCAN IS REQUIRED TO CHECK MODE SELECTION. CLIP MODE GAVE CONSISTENT HITS 100' LONG IN 20° DIVE AND LEVEL LAYDOWN, WITH BARO RANGING. DIVE TOSS MODE WAS LESS ACCURATE OF COURSE AND CUE TO MAINTAIN AZIMUTH LINE IS NOT EASY TO USE. IT COMMANDS A BANK ANGLE RATHER THAN ALLOWING THE PILOT TO FLY SYMBOLOGY ALONG A LINE SUCH AS IN MORE MODERN SYSTEMS. RADAR WAS NOT WORKING SO DID NOT DO RADAR RANGING. AT FIRST GLANCE SYSTEM WAS AS ACCURATE AS F-18 WOULD BE IN BARO RANGING. DID ONE BLIND LOFT USING INS COORDINATES FOR CENTER OF IMPACT AREA. FLEW CMD NEEDLES ON ALTITUDE GYRO (AGAIN CMD AOB) AND BOMB CAME OFF ABOUT 40° NOSE HIGH AND ~4 MILES. IMPACTED CENTER OF RANGE. MAYBE IT WAS A FLOKE BUT THAT WAS AS GOOD AS I EVER SAW IN THE HORNET. STRAFE MODE IS FAIRLY EASY ALTHOUGH NO RANGE READOUT. ROUNDS HIT CONSISTENTLY ~50 FT SHORT, WITHOUT CORRECTION.

INS USES LORAN TO CONSTANTLY UPDATE ITSELF AND SO IS PROBABLY MORE ACCURATE THAN MOST AFTER AN HOUR OR MORE. GOOD FOR LONG MISSIONS (IF THE ENEMY DOESN'T TAKE OUT THE LORAN)

AIRCRAFT SYSTEMS ALLOW FOR PRECISE LOCATION OF TGTs AND ACCURATE ORDNANCE DELIVERY. PERFORMANCE, AERODYNAMICS, AND FIELD OF VIEW RESTRICT USE OF AIRCRAFT IN HIGH THREAT CAS OR WHERE TGTs ARE NOT COMPLETELY PRE-PLANNED)