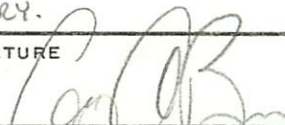
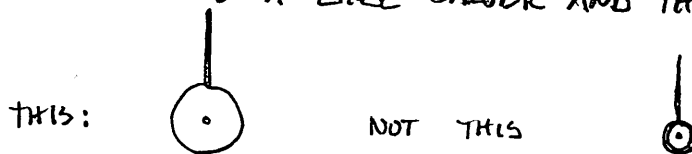


DAILY/INITIAL FLIGHT TEST REPORT		1. AIRCRAFT TYPE	2. SERIAL NUMBER
		F-16B	78-0088
3. CONDITIONS RELATIVE TO TEST			
A. PROJECT/MISSION NO	B. FLIGHT NO/DATA POINTS	C. DATE	
		16 SEP 88	
D. FRONT COCKPIT (Left Seat)	E. FUEL LOAD	F. JON	
BASS	5600	996TPS	
G. REAR COCKPIT (Right Seat)	H. START UP GR WT/CG	I. WEATHER	
JOLLEIT	24,000	CLR 50 HHzc	
J. TO TIME/SORTIE TIME	K. CONFIGURATION/LOADING	L. SURFACE CONDITIONS	
1140 / 1.2	CLEAN		
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME	
4. PURPOSE OF FLIGHT/TEST POINTS			
EVALUATE F-16 SYSTEMS IN A/G AND LOW LEVEL NAVIGATION MODE.			
5. RESULTS OF TESTS (Continue on reverse if needed)			
<p><u>START/TAXI</u>: FLT CONTROL TEST IS LONG WITH NUMEROUS STEPS THAT DO NOT CONCERN THE PILOT, HE JUST HAS TO CLEAR AND STEP. SHOULD BE MECHANIZED TO BE A ONE SWITCH TEST AND THEN COME UP GO/NO GO WHEN ITS DONE. IF ITS NOGO THEN YOU CAN GET INTO THE SYSTEM AND USE IT TO (DIAGNOSTICATE) ITSELF BUT THE PILOT DOESN'T NEED TO BE A CLEARING AND STEPPING MACHINE. IT SLOWS DOWN THE GND CHECKS, INTERRUPTS DATA ENTRY + CHECKS, AND SHOULD BE MORE AUTOMATED.</p> <p><u>FCND</u>: EXCELLENT CENTRALIZED LOCATION FOR ENTRY OF DATA AND SELECTION OF VARIOUS DATA MODES, AND UPDATES. EASY TO USE IN FLT ALTHOUGH REQUIRES HEADS DOWN. MAJOR DIS-ADVANTAGE IS LOCATION ON LEFT CONSOLE. I HAD A CROOK IN MY NECK BY THE TIME I FINISHED PLUGGING IN ALL OF THE INS POINTS. AN UP FRONT CONTROL FOR INPUT OF DATA WOULD BE BETTER AND WOULD ALLOW FOR SAFER INPUTS IN FLIGHT. MEMORY STORAGE BETWEEN FLIGHTS IS A DEFINITE PLUS TO AVOID REENTRY OF SAME WAYPOINTS. CRUISE MODE WAS A VALUABLE FEATURE TO OBTAIN INSTANTANEOUS CRUISE AND ENDURANCE PARAMETERS.</p> <p><u>SMS</u>: FAIRLY USER FRIENDLY BUT LED VICE CRT DISPLAY REQUIRES MORE ABBREVIATIONS AND MORE PAGES. CONFUSING SOMETIMES EVEN FOR EXPERIENCED USER (IP COULDN'T FIGURE OUT WHY THE DESIRED DELIVERY MODE WOULDN'T STAY POT). BIGGEST DISADVANTAGE IS THAT A/G WEAPONS ON MAIN DELIVERY PAGE ARE IN CODES % IE HK-84 SUCK = BSOL SO YOU HAVE TO KNOW THEM. WHY INTRODUCE ANOTHER CODE? EXCELLENT ABILITY TO RECONFIGURE A/G FOR A-A, A-G, NAV, WITH ONE PUSHBUTTON.</p> <p><u>HVD</u>: SMALL FOV REQUIRES PILOT TO LEAN HEAD AND SHOULDERS SLIGHTLY FORWARD IN ORDER TO SEE TOTAL SYMBOLOGY. A LITTLE FATIGING AFTER A WHILE. IT JUST SEEMS AS THOUGH ALL THE SYMBOLOGY IS BUNCHED TOGETHER. SYMBOLOGY IS EASY TO INTERPET HOWEVER ONCE ONE IS FAMILIAR. THE RUNNING CLOCK, STEERING BAR, AND COMMAND AIRSPEED ARE EXCELLENT AND MAKE NAVIGATION AND TIMING VERY EASY TO DO WITH LITTLE PILOT</p>			
6. RECOMMENDATIONS			
<ul style="list-style-type: none"> <li>* PUT IN AN UP FRONT CONTROL TO CENTRALIZE ANIONICS AND MAKE DATA ENTRY EASIER</li> <li>* INCREASE HVD FOV</li> <li>* ALLOW FOR PREPROGRAMMING OF DATA WITH POWER OFF.</li> <li>* GET RID OF BSOL ETC CODES ON SMS</li> <li>* MAKE FCS CHECKS GO/NOGO FOR FIRST TRY.</li> </ul>			
COMPLETED BY		SIGNATURE	DATE
CAPT GREG BASS USMC			20 SEP 88

## WORKLOAD.

RADAR: ANGLE OF DISPLAY IN COCKPIT CAUSED REFLECTION AND DIFFICULTY IN READING WITH OVERHEAD SUN ANGLE. HAD TO SHADE WITH HAND SEVERAL TIMES. <sup>TO SEE DISPLAY</sup> A/G RANGE NOT HOTAS SELECTABLE (DISADVANTAGE) BUT CAN HOTAS SELECT EXPAND AND DBS MODES. GAIN FOR CURSOR MOVEMENT WITH TDC WAS A LITTLE TOO HIGH FOR BOTH HUD + RADAR SLEWING (CONSTANT GAIN FOR BOTH, NOT SELECTABLE) AND CAUSED ME TO SLOW DOWN MOVEMENTS RESULTING IN SLIGHTLY LONGER TIME TO PUT CURSOR ON DESIRED POINT. 90° ORIENTATION <sup>DIFFERENCE</sup> OF PLANE OF TDC MADE IT UNCLEAR AT FIRST WHICH WAY TO MOVE TDC TO MOVE CURSOR  $\updownarrow$   $\leftrightarrow$ . EASY TO LEARN THAT THOUGH. EXPAND MODE VERY BLURRY AND REQUIRED CONSIDERABLE RADAR EXPERIENCE TO INTERPET. DBS MODE RESOLUTION IS ABOUT TWICE TO THREE TIMES THAT OF EXP MODE BUT AGAIN REQUIRES CONSIDERABLE INTERPETATION. MAPPING MODE VERY NICE, GOOD RESOLUTION EVEN INSIDE 5 MILES AND EASY TO INTERPET. MAJOR DISADVANTAGE IS SMALL SIZE OF DISPLAY. DOGFIGHT/MISSILE <sup>ORD</sup> SWITCH MAKES HOTAS TO AA MODE (AND BACK) POSSIBLE. SFT DISPLAY DOES NOT PRESENT PICTORIAL PICTURE OF TGT ASPECT IE: ONE MUST READ IT AND CONVERT IT IN YOUR HEAD TO GEOMETRY.

BOUING MODES: LOFT MODE A LITTLE CONFUSING WITH ALL OF THE BARS BUT PROVIDES A GOOD SA. ON WHERE YOU ARE IN THE DELIVERY AND WHAT YOUR OPTIONS ARE. CLIP MODE EXCELLENT. BOMB FALL LINE VERY EASY TO PLACE AND TRACK WITH NO NOTICEABLE A/C DYNAMIC EFFECTS ON RAPID CORRECTIONS. PRESENTATION OF A/C BRESIGHT ALLOWS MINIMIZATION OF PENDULUM EFFECT ON RAPID ROLL INS. I WOULD MAKE CLIP PIPPER A LITTLE LARGER AND THINNER IE:



AS THE PIPPER TENDED TO OBSCURE THE TARGET AT PICKUP TIME. DIVE/TOSS MODE SUFFERS FROM AFOREMENTIONED TDC GAIN PROBLEM BUT DESIGNATION WITH THE PICKLE BUTTON IS A VER' GOOD FEATURE.

INS: VERY TIGHT SYSTEM. ABOUT 1/8 NM ERROR AT TGT AFTER 40 MINUTES OF NAVIGATION. VIP MODE VERY NICE AND WOULD BE VERY USEFUL IN CAS (IE IP TO TGT).