

DAILY/INITIAL FLIGHT TEST REPORT

1. AIRCRAFT TYPE
P-3C

2. SERIAL NUMBER
162318

3. CONDITIONS RELATIVE TO TEST

A. PROJECT/MISSION NO OVR EVAL #1	B. FLIGHT NO/DATA POINTS	C. DATE 22 AUG 88
D. FRONT COCKPIT (Left Seat) GRADY	E. FUEL LOAD 26,000 lbs	F. JON H 1591
G. REAR COCKPIT (Right Seat) LT MAC BOLLMAN	H. START UP GR WT/CG 95,700 lbs / 26.0%	I. WEATHER CLR 7
J. TO TIME/SORTIE TIME 1140 / 1.9	K. CONFIGURATION/LOADING CLEAN	L. SURFACE CONDITIONS W CALM
M. CHASE ACFT/SERIAL NO	N. CHASE CREW	O. CHASE TO TIME/SORTIE TIME

4. PURPOSE OF FLIGHT/TEST POINTS
EVAL FOR ANTI SUB / SURVEILLANCE MISSION

→ Mission - Broader Surveillance for DEE!

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

COCKPIT: BIG, ROOMY, GOOD FIELD OF VIEW EXCEPT 12 O'CLOCK HIGH HIDDEN BY OVERHEAD CONSOLE. ADEQUATE LOOKOUT REQUIRES BOTH SEATS TO LOOK DUE TO LACK OF CROSS COCKPIT VISIBILITY. INSTRUMENT PANEL WELL PLACED. HP AND TIT GAGES ARE VERY LARGE AND EASY TO READ. FLIGHT INSTRUMENTS ARE WELL ARRANGED FOR A GOOD INSTRUMENT CROSS SCAN WITH THE POSSIBLE EXCEPTION OF THE ALTIMETER WHICH IS LOW TO THE LEFT. EXCELLENT AIR CONDITIONING WITH APD ON THE DECK. HIGH NOON AND THE COCKPIT WAS VERY COOL.

STARTUP: QUICK AND EASY. A LITTLE COMPLICATED ON THE PROP CHECKS (BUT NOT AN? MORE SO THAN MOST TURBOPROPS) MOSTLY RUN BY THE ENGINEER, #1-#4 STARTED ON THE TAXI WHICH SPEEDS GROUND OPS. READY TO TAXI IN 5 MINUTES

TAXI: NO NOTICEABLE DEADBAND IN AWS, VERY ACCURATE CONTROL WITH NO NOTICEABLE LAG. BRAKES ARE A LITTLE SENSITIVE WITH ABOUT A 1/2 SEC DELAY. SPEED CONTROLLED WELL WITH REVERSE THRUST.

T.O.: 3000' ROLL ROTATE 115, T.O. AT 120 KIAS. ABOUT 510 FORCE ON AFT YOKE TO ROTATE. NO NOTICEABLE TRANSIENTS ON GEAR OR FLAP TRANSITION.

TRIM SYSTEM: MANUAL IN ALL AXES. GOOD RATE ALLOWS GROSS CORRECTIONS QUICKLY WITH ENOUGH THROW FOR FINE ADJUSTMENT. AIRCRAFT WAS EASILY TRIMMED WITHIN 100 FT AND 5 KTS CH: 3.

CROUSE: TRIMMED AT MAX RANGE A/S 185 KIAS; FUEL = 25,000 lbs, 15K', HP 1400, TIT 730° FF 900^{1/2} / HR FF / ENGINE. ELECTRONIC PROP SYNCHRONIZER IMPROVES RIDE AND NOISE PROBLEMS

L.S. @ 185 KTS	A/S	F _s
140 KTS	10 lbs	PULL
160	3 lbs	PULL
195	5 lbs	PUSH
228	15 lbs	PUSH

DYNAMICS: 190 KIAS 15K; S.P. 2 OVERSHOOTS $\omega_n = 2$ HZ
DUTCH ROLL 4 OVERSHOOTS, $\omega_n = 4$ HZ ϕ/p rolls to 1-1

SPIRAL: NEUTRAL TO SLIGHTLY DIVERGENT

6. RECOMMENDATIONS

- EQUIP AIRCRAFT WITH ANTI-SKID SYSTEM *Must be based on recommendations*
- TEST AIRCRAFT AT REALISTIC MISSION GROSS WTS

COMPLETED BY

CAPT BASS, MAJ GRADY

SIGNATURE

[Signature], W.L. Grady Jr.

DATE

24 AUG 88

MAN FLT 15K' 15K'

A08

F₂

Above 40° AOB F₂ builds

up fast. Hard to overshoot.

F₂

15

2 lbs

30

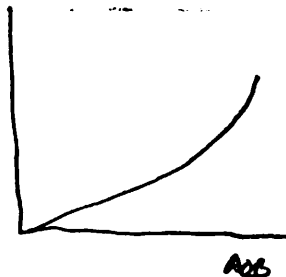
5 lbs

40

6 lbs

50

12 lbs



LANDING: A/S CONTROL A LITTLE DIFFICULT ON FINAL I SKTS CH 4. I 10K CH: 2. TRANSITION TO LANDING FLAPS AT 300 FT AGL COMES LATE AND IS A MAJOR PITCH CHANGE REQUIRING TWO AND A HALF HANDS FULL OF AFT TRIM. A/S CONTROL THROUGH TRANSITION WAS EASY. FLARE WAS EASY TO CONTROL WITH A FEW INCHES OF AFT STICK AND 10-15 lbs. JUDGMENT OF HEIGHT WAS EASY AND SMOOTH TOUCHDOWNS WERE MADE 3 OUT OF 3 TIMES. CONTROL OF GLIDESLOPE WAS MORE DIFFICULT DUE TO THE SENSITIVITY OF THE THROTTLES IN THE 1000-2000 HP RANGE. VERY EASY TO OVER-CONTROL POWER. PRACTICE REQUIRED TO MAKE SMALL CORRECTIONS. OVERALL POWER RESPONSE IS GOOD WITH NO NOTICEABLE DELAY OR LAG. POWER AVAILABLE IS ADEQUATE FOR GO AROUND WITH LANDING FLAPS BUT REQUIRES CREW COORDINATION TO MAXIMIZE POWER WITHOUT OVERPOWERING ENGINES. THREE ENGINE APPROACH REQUIRES SLIGHT COMPENSATION AND RUDDER FORCES ARE LIGHT (≈ 25 lbs) WITH POWER CORRECTIONS IN 1000-2000 HP RANGE. MAX REVERSE ^{3 ENGINE} ON TOUCHDOWN EASILY CONTROLLABLE WITH RUDDER AND AILERON FODDER (50 lbs MAX). SLIGHT PRESSURE ON BRAKE ON TOUCHDOWN RESULTED ON BLOWN LINBOARD MAIN TIRE WHILE NO NOTICEABLE DAMAGE TO OUTBOARD. APPARENTLY THIS IS A COMMON TENDENCY IN THE FLEET.

LEVEL ACCEL: 15K' WITH IRDS EXTENDED

AT MAX CONT POWER

AS	TIME
140	0+06
150	0+13
160	0+18
170	0+23
180	0+29
190	0+35
200	0+43
210	—
220	0+56
230	1+05
240	1+13
250	1+20
260	1+34
270	1+46
280	2+04
290	2+24
300	2+44

OVERALL: VERY SUITABLE FOR MISSION. EXTREMELY LONG RANGE AND GOOD LATER PERFORMANCE. SOLID RIDE AT LOW LEVEL, NOT BUMPY AT ALL ON HOT DAY. GOOD INSTRUMENT FLYING AIRPLANE. NOISE LEVEL IN COCKPIT LOW TO MODERATE ALLOWING PLAIN VOICE SPEECH AT NORMAL TALKING LEVEL. T.O. AND LANDING PERFORMANCE ALLOW BASING AT A LARGE NUMBER OF AIRFIELDS.