

T.O. 1F-106A-1CL-1

PILOTS' ABBREVIATED FLIGHT CREW
CHECKLIST

USAF SERIES

F-106A AND F-106B

Contracts AF41 (603)-11351, F41608-71-D-0973

F41608-78-D-A005

THIS PUBLICATION AUGMENTS T.O. 1F-106A-1, AND T.O. 1F-106A-1-1, FLIGHT MANUAL; T.O. 1F-106A-1-2, SUPPLEMENTAL FLIGHT MANUAL (C); AND T.O. 1F-106A-29, AIRCREW SPECIAL WEAPON DELIVERY TECHNICAL MANUAL (S-RD).

Commanders are responsible for bringing this checklist to the attention of all personnel cleared for operation of the aircraft.

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

15 NOVEMBER 1974
CHANGE 2 - 30 OCTOBER 1978

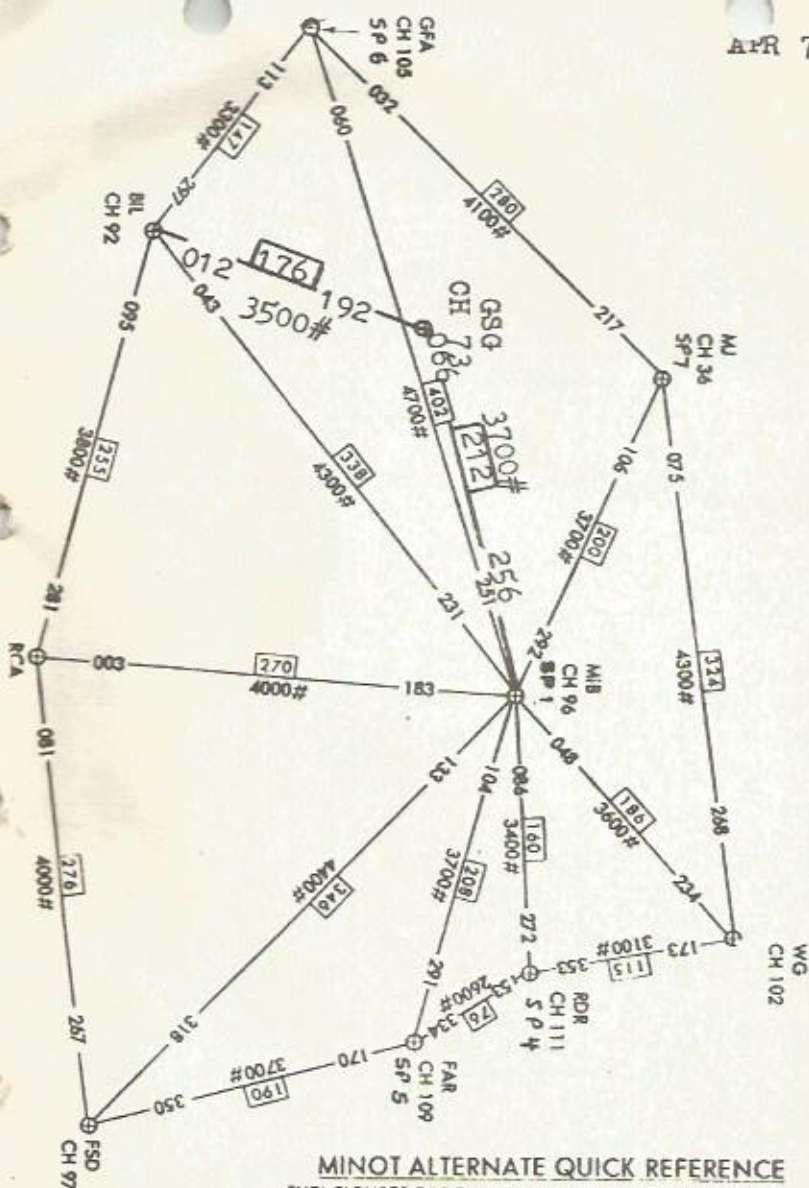
5FIS CHANNELIZATION

UHF	D/L	Min Sate	Low A
236.6 USAF TWR	261.2	AWACS Pri	
292.5 5FIS CAC	267.0	AWACS Sec	
275.8 GND Cont	275.8		
253.5 MIB Twr	253.5		
259.1 Dep Cont	259.1		
319.1 MIN CNTR	319.1		
279.6 MIN CNTR	279.6		
256.6 AR Prim	256.6		
292.7 AR Sec	292.7		
364.2 AICC	364.2		
228.8 Huntress	228.8		
342.5 MIB WX	342.5		
306.4 Huntress	399.8	SSGC	
238.5 Lare 3	278.6	BUIC	
275.0 Lare 4	243.0		
363.8 USAF App	363.8		
271.3 GCA	271.3		
284.0 GCA	284.0		
297.2 GCA	297.2		
326.2 GCA	278.6	20AD 7000	12000
	278.6	21AD 7000	12000
	298.5	22AD 7000	12500
	262.2	23AD 5000	13000
	298.5	24AD 13500	14000
	261.4	25AD 16500	13000
	299.0	26AD 17500	15000

UHF Designators

<u>DESIGNATOR</u>	<u>FREQUENCY</u>	<u>DESIGNATOR</u>	<u>FREQUENCY</u>
1 (Prim Lane 1)	228.9 (Prim Lane 2)	21	375.1
2	234.6	22	369.0
3	281.6	23	344.0
4 (Sec Lane 2)	320.6 (Sec Lane 1)	24	392.8
5	254.2	25	356.0
6	274.4	26	325.5
7	270.4	27	338.4 Recovery GI
8	316.3	28	386.2 Recovery MI
9	309.4	29	306.4
10	324.0	30	251.0
11	238.4	31	238.5 (Sec Lane 4
12	260.8	32	275.0 (Sec Lane 3
13	341.8	33	270.4
14	377.0	34	228.8
15	387.8	35	263.2
16	336.6	36	287.8
17	346.2	37	234.7 (Sec Lane
18	398.0	38	256.6
19	327.9	39	292.7
20	357.3	40	302.4

{ Prim Lane 5 }
 { Prim Lane 3 }
 { Prim Lane 4 }



AIRFIELD	ID	TACAN		ILS		RUNWAY		ELEV	TWR	APP	CAC	GRID R
		SP	CH	SP	HDG	HDG	LGTH					
MINOT	MIB	1	96	2	292	29/11	13.5	1668	253.5	363.8	292.5	13°20'
GRAND FORKS	RDR	4	111	2	351	35/17	12.3	911	349.0	318.1	N/A	6°32'
WINNEPEG INTL	WG	N/A	102	2	359	36/18	11.0	783	236.6	356.6	N/A	6°45'
MOOSE JAW	MJ	7	36	NA	NA	28/10	8.3	1892	236.6	227.6	N/A	20°37'
HECTOR (FARGO)	PAR	5	109	1	351	35/17	9.1	900	290.4	353.6	298.7	5°29'
ELLSWORTH	RCA	N/A	25	1	304	30/12	13.5	3276	253.5	271.3	N/A	14°42'
BILLINGS (LOGAN)	BIL	N/A	92	1	095	09/27	8.6	3606	257.8	284.6	N/A	22°15'
JOE FOSS (SIOUX FALLS)	FSD	N/A	97	2	026	03/21	9.0	1428	257.8	353.6	N/A	5°30'
MALMSTROM	GFA	6	105	3	205	20/02	11.5	3525	253.5	259.1		26°14'
GLASGOW	GSG	N/A	73	13	282	28/10	13.5	2760	290.5		N/A	21°10'

	100	100	200	300	400	500	600	700	800	900	1000	1100	1200								
5	2.5	1.1	3.2	1.7	3.8	2.3	4.4	3.1	5.0	3.8	5.7	4.5	6.4	5.2	7.0	5.9	7.6	6.5	8.1	3.3	9.5
	1.9	0.5	2.0	1.5	0.1	0.6	2.2	1.0	2.3	1.1	2.4	1.2	2.5	1.4	2.6	1.5	2.6			2.7	2.8
10	2.7	1.1	3.3	1.8	3.9	2.4	4.6	3.3	5.2	3.9	5.9	4.7	6.6	5.5	7.2	6.3	7.8	7.0	8.4	9.1	9.8
	2.1	0.5	7.1	0.6	2.2	0.7	2.3	1.0	2.4	1.1	2.5	1.3	2.6	1.5	2.7	1.8	2.8	2.0	2.9	3.0	3.1
15	2.8	1.2	3.4	2.0	4.0	2.7	4.7	3.6	5.3	4.2	6.0	5.0	6.7	5.9	7.4	6.7	8.0	7.4	8.6	9.3	10.0
	2.2	0.6	2.2	0.8	2.3	1.0	2.4	1.3	2.5	1.4	2.6	1.6	2.7	1.9	2.9	1.2	3.0	2.4	3.1	2.6	3.2
20	2.8	1.3	3.5	2.1	4.1	2.9	4.8	3.8	5.4	4.4	6.1	5.3	6.8	6.2	7.5	7.0	8.1	7.7	8.7	9.4	10.1
	2.2	0.7	2.3	0.9	2.4	1.2	2.5	1.5	2.6	1.6	2.7	1.9	2.8	2.2	3.0	2.5	3.1	2.7	3.2	2.8	3.3
25	2.9	1.5	3.6	2.4	4.2	3.1	4.9	4.1	5.5	4.7	6.2	5.6	7.0	6.6	7.6	7.4	8.2	8.0	8.9	9.6	10.3
	2.3	0.9	2.4	1.2	2.5	1.4	2.6	1.8	2.7	1.9	2.8	2.2	3.0	2.6	3.1	2.7	3.3	3.0	3.4	3.1	3.5
30	2.9	1.6	3.6	2.6	4.3	3.3	5.0	4.3	5.6	5.0	6.3	5.8	7.1	6.9	7.9	7.7	8.4	8.3	9.0	9.7	10.4
	2.3	1.0	2.8	1.4	2.6	1.5	2.7	2.0	2.8	2.2	2.9	2.4	3.1	2.9	3.2	3.2	3.4	3.5	3.5	3.4	3.6
35	3.2	1.5	4.0	2.9	4.7	3.7	5.4	4.8	6.0	5.6	6.8	6.4	7.6	7.5	8.2	8.2	8.9	9.0	9.6	10.2	10.4
	2.6	1.3	2.8	1.7	3.0	2.0	3.1	2.5	3.2	2.8	3.4	3.0	3.6	3.5	3.7	3.7	3.9	4.0	4.0	4.1	4.3
40	3.5	2.1	4.3	3.2	5.1	4.1	5.8	5.3	6.4	6.1	7.2	6.9	8.0	8.0	8.7	8.7	9.3	9.6	9.7	10.3	10.9
	2.9	1.5	3.3	2.0	3.4	2.4	3.5	3.0	3.6	3.3	3.8	3.5	4.0	4.0	4.2	4.2	4.3	4.6	4.4	4.7	4.8
45	3.9	2.0	4.8	3.2	5.5	4.7	6.3	6.1	7.0	7.1	7.7	7.9	8.5	8.6	9.2	9.1	9.9	9.7	10.6	11.4	11.0
	3.3	1.4	3.6	2.0	3.8	3.0	4.0	3.8	4.2	4.3	4.3	4.1	4.5	4.6	4.7	4.6	4.9	4.7	5.1	5.8	5.4

F-106A/B PILOTS' ABBREVIATED
FLIGHT CREW CHECKLIST

STARTING ENGINE (SCRAMBLE)

1. Normal Start.
2. All personal equipment — Attach. (FP-RP)

ELECTRICAL POWER SUPPLY (SCRAMBLE)

1. External power — Disconnected.
2. Master electrical power switch — ON.
3. Emergency AC generator — Check.
4. ATG — Check.
5. Generator switch — ON.
6. MA-1 power switch — ON.
7. Altimeter — Reset (Conventional Instrument Display).

HYDRAULIC POWER SUPPLY (SCRAMBLE)

1. Hydraulic and flight control systems — Check.
2. Takeoff trim button — Depress.

BEFORE TAKEOFF (SCRAMBLE)

1. Ejection seat ground safety pin — Remove.
(FP-RP)
2. Canopy — Close, lock, & light out.
3. Idle thrust control switch — OFF.
4. AIR-2A arm/safe/monitor power circuit
breaker — Closed.
5. Cabin air selector switch — PRESS.
6. Emergency fuel — Check.

F-106 TAKEOFF AND LANDING DATA CARD

CONDITIONS

TAKEOFF

LANDING

RUNWAY LENGTH	_____	_____
WIND	_____	_____
OUTSIDE AIR TEMP	_____	_____
PRESSURE ALTITUDE	_____	_____
FUEL REMAINING	_____	_____

TAKEOFF

ENGINE PRESSURE RATIO		
ACCELERATION CHECK	_____ Kts. at _____ Ft.	
TAKEOFF DISTANCE		_____ Ft.
TAKEOFF SPEED		_____ Kts.
REFUSAL SPEED & DISTANCE	_____ Kts. at _____ Ft.	
MAX. ABORT SPEED		_____ Kts.
INITIAL CLIMB SPEED		_____ Kts.

LANDING

IMMEDIATELY
AFTER TAKEOFFFINAL
LANDING

FINAL APPROACH SPEED	_____	_____
PRIOR TO FLARE SPEED	_____	_____
TOUCHDOWN SPEED	_____	_____
LANDING GROUND ROLL	_____	_____
Wheel Brakes Only	_____	_____
Drag Chute Deployed	_____	_____

LIST OF EFFECTIVE PAGES

INSERT LATEST CHANGED PAGES. DESTROY SUPERSEDED PAGES.

Dates of issue for original and changed pages are:

Original015 Nov 74

Change11 Aug 77

Change230 Oct 78

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands.

**TOTAL NUMBER OF PAGES IN THIS PUBLICATION
IS 130 CONSISTING OF THE FOLLOWING:**

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USAF

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INTRODUCTION: In accordance with AFR60-9, the flight crew is required to use this checklist when operating the airplane. It is not mandatory to refer directly to this checklist during the EXTERIOR INSPECTION; however, the pilot is responsible for the line items in the Flight Manual. In addition, the pilot is not required to refer to this checklist when its use is impracticable; in such cases, the pilot shall memorize all line items in sequence prior to accomplishment. The line items in this checklist correspond to the line items in the amplified procedures in the Flight Manual but are not intended to replace them. Refer to the Introduction in the Flight Manual for details on the checklist program.

AIRPLANE DESIGNATION CODE. Checklist line items not applicable to both airplane models are coded as follows:

F-106B — **B** F-106A — **A**

COMMENTS AND QUESTIONS. Any comments, questions, and recommendations should be forwarded on AF Form 847 in accordance with AFR60-9 and T.O. 00-5-1 through your Command Headquarters to San Antonio ALC/MMSRE, Kelly AFB, Texas 78241.

PRINT CODING (Emergency Section)

1. Major Area — UN-11-B
Example: **GROUND OPERATIONS**
2. Procedure Title & Bold Face — UN-10-B
Example: **ENGINE FIRE DURING START**
 1. **THROTTLE — OFF.**
3. Challenge and Response — C-10-M
Example: 3. Canopy — Fully open.
 4. **ATG switch — OFF.**

F-106A AND F-106B ABBREVIATED CHECKLIST

EMERGENCY PROCEDURES

WARNING LIGHT
QUICK REFERENCE

E-9

BAIL
OUT

E-9

E-10

E-26 - E-27

E-6 & E-33

E-22

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BAIL
OUT

E-9

E-20

1 AC POWER FAILURE

13 MISFIRE

E-29

E-21

2 DC POWER FAILURE

14 DOOR OPEN

E-29

3 EMER FUEL ON

15 OIL PRESS

E-14

E-17

4 FUEL LOW L

16 PNEU PRESS

E-22

E-17

5 FUEL LOW H

17 ENG COMPT O PRESS

E-24

E-15

6 FUEL TANK PRESS L

18 O F TANK PRESS
OIL QUANTITY LOW

E-16

E-14

E-15

7 FUEL TANK PRESS R

19 ELECTRONIC COOLING

E-25

E-15

8 FUEL BOOST PRESS L

20 FUEL VALVE CLOSED

E-17

E-15

9 FUEL BOOST PRESS R

21 OXYGEN LOW LEVEL

E-24

E-25

10 ANTI ICE

22 MISSILE DISPLACED

E-28

E-29

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11 HYD OIL HOT

23 FLIGHT MODE FAILURE

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12 CABIN PRESS LOW

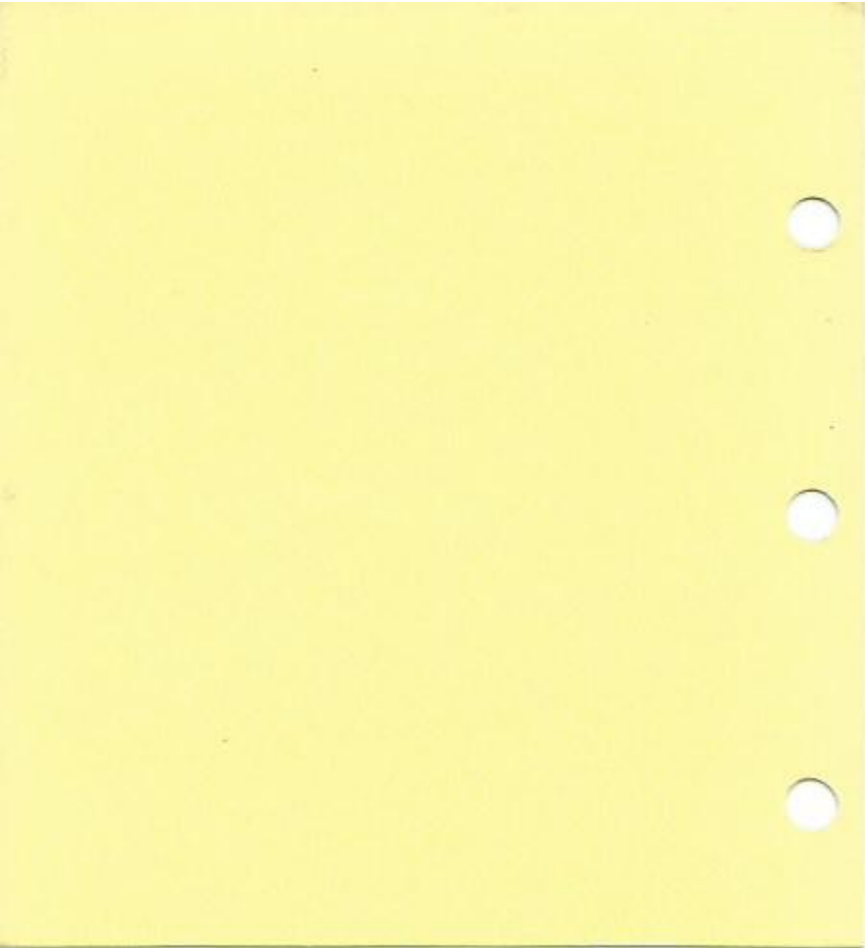
24 CADC FAIL

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GROUND OPERATIONS

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EMERGENCY GROUND EGRESS	E-1



ENGINE FIRE DURING START

1. THROTTLE — OFF.
2. Fuel switches — Close.
3. Master electrical power — OFF.

EXCESSIVE EGT OR FIRE IN TAILPIPE

1. Throttle — Off.
2. Compressor air — Connected.
3. Fuel shutoff & boost pump switches — OFF.
4. Master electrical power — ON.
5. Ignition button — Depress & hold.
6. Throttle — START.
7. Ignition button — Release when fuel in starter flask is expended.
8. Throttle — OFF.
9. Master electrical power — OFF.

EMERGENCY GROUND EGRESS

1. OXYGEN SUPPLY LEVER — OFF.
2. SURVIVAL KIT EMERGENCY RELEASE HANDLE — PULL.
3. Deleted.
4. SAFETY BELT AND SHOULDER HARNESS — RELEASE.
5. CANOPY — JETTISON (if necessary).
6. PARACHUTE FIRING LANYARD — DISCONNECT BY STANDING UP.
6. Depart airplane.

NOTES

TAKEOFF

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AFTERBURNER EXHAUST NOZZLE FAILURE..	E-5
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ABORT

1. THROTTLE - IDLE.
2. DRAG CHUTE - EMERGENCY DEPLOY.
3. TAILHOOK - DOWN (if necessary).
4. EXTERNAL TANKS - JETTISON (if necessary).
5. Maintain aircraft control.
 - a. Nose wheel steering - As necessary.
 - b. Rudder and elevon - As necessary.
 - c. Differential braking - As necessary.
6. Idle thrust control switch - ON.
7. Brakes - As necessary.
8. Shoulder harness - MANUAL LOCK. (FP-RP)
9. Canopy - Retain.

BARRIER ENGAGEMENT PROCEDURES

1. Call for barrier webbing to be lowered.
2. Tailhook - Down (at least 2000 feet from barrier).
3. Steer airplane toward barrier center & follow ABORT procedure.

ENGINE FAILURE DURING TAKEOFF

If decision is made to stop:

1. FOLLOW ABORT PROCEDURE.

If takeoff is continued:

1. EXTERNAL TANKS - JETTISON.
2. ZOOM (IF POSSIBLE) AND EJECT.

ENGINE FIRE DURING TAKEOFF

If decision is made to stop:

1. FOLLOW ABORT PROCEDURE.

If takeoff is continued:

1. THROTTLE - MAX THRUST TO SAFE EJECT ALTITUDE.
2. EXTERNAL TANKS - JETTISON (if necessary).
3. IF ON FIRE - EJECT.

If fire cannot be confirmed:

4. Throttle - Min practical thrust.
5. Land as soon as possible.

AFTERBURNER FAILURE DURING TAKEOFF

If decision is made to stop:

1. FOLLOW ABORT PROCEDURE.

If takeoff is continued:

1. THROTTLE - INBOARD TO FULL MIL POWER.

AFTERBURNER EXHAUST NOZZLE FAILURE DURING TAKEOFF

If an EPR drop or loss thrust does not occur when afterburner is selected:

1. Throttle - Inboard, and abort takeoff.

**LANDING GEAR WARNING AND POSITION LIGHTS
REMAIN ILLUMINATED ON GEAR RETRACTION**

1. Airspeed — Below max gear extension speed.
2. Leave gear handle — UP.
3. Obtain a visual inspection.
4. If visual inspection reveals gear and doors extended: Gear — Recycle.
5. If gear retracts — Continue mission.
6. Gear remains down, doors open — Depress landing gear emergency-up button
7. If gear remains down:
 - a. Gear handle — DOWN.
 - b. Land as soon as practicable.
8. If visual inspection reveals gear down and doors closed or partially closed or if unable to obtain a visual inspection, use LANDING GEAR EMERGENCY EXTENSION procedures.

LANDING GEAR WARNING LIGHT REMAINS ILLUMINATED ON GEAR RETRACTION OR ILLUMINATES ABNORMALLY DURING FLIGHT

1. Airspeed — Below max gear extension speed.
2. Leave gear handle — UP.
3. Obtain a visual inspection.
4. If visual inspection reveals:
 - a. Gear retracted — Recycle.
 - b. One or more gear extended or partially retracted (in proper sequence with doors) — Extend gear and land.
 - c. Gear down and doors open — Depress gear emergency-up button.
 - d. Gear extended, doors closed — Use LANDING GEAR EMERGENCY EXTENSION PROCEDURES.

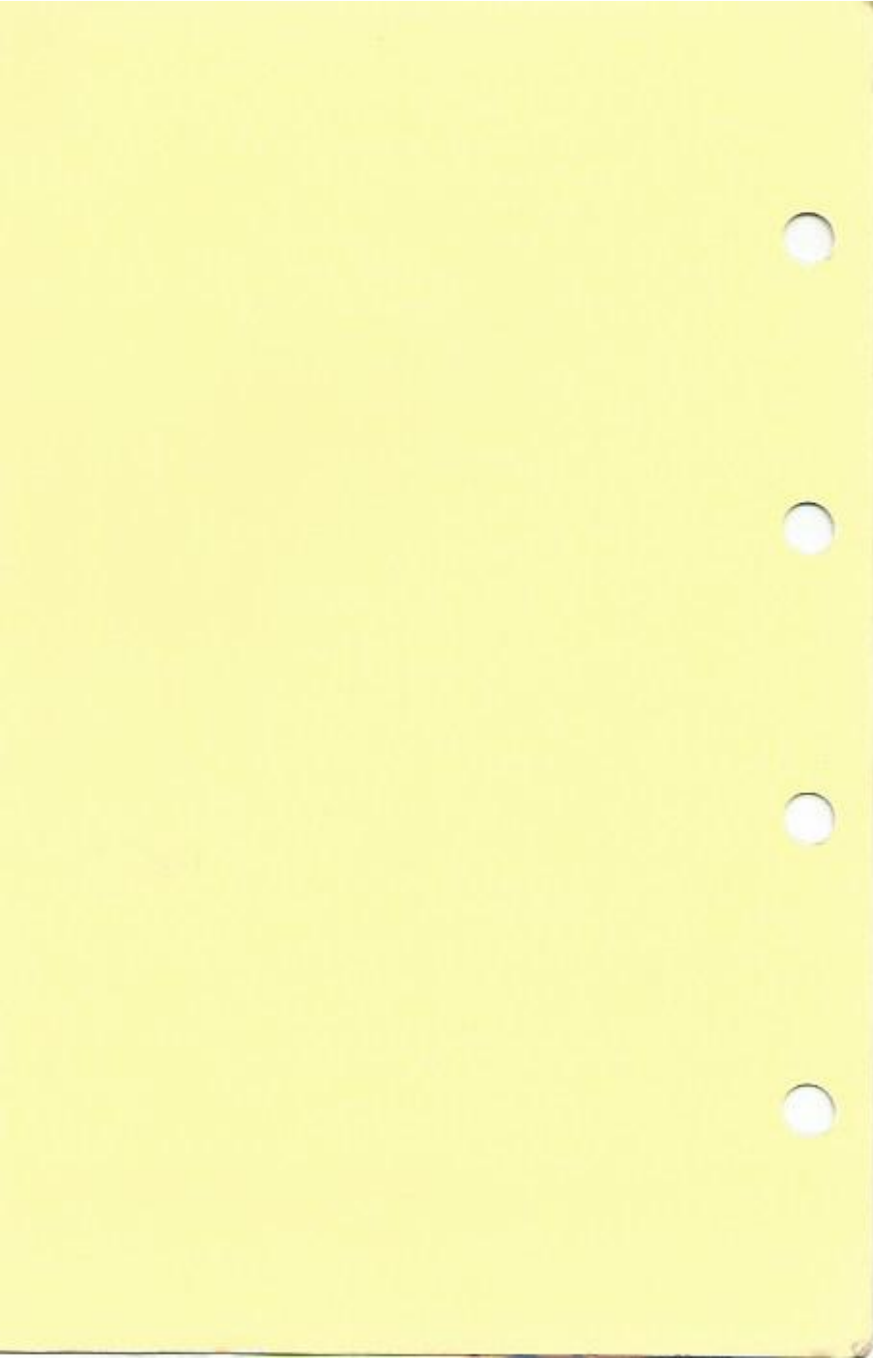
T.O. 1F-106A-1CL-1

LANDING GEAR POSITION LIGHT REMAINS
ILLUMINATED ON GEAR RETRACTION WITH NO
ACCOMPANYING GEAR WARNING LIGHTS

1. Leave gear retracted — do not recycle.
2. Do not perform excessive maneuvering.
3. Feed out external tanks and maximum practical internal fuel prior to gear extension.
4. Extend gear using normal system.
5. An approach end engagement is recommended if practical.

Reflects T.O. 1F-106A-1S-188

E-6A



INFLIGHT

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BEFORE EJECTION**(IF TIME AND CONDITIONS PERMIT)**

- ① 1. Inform other pilot of ejection necessity.
2. Aim airplane toward uninhabited area.
3. Give location to nearest radio facility & select IFF EMER, Mode 3/A.
4. Stow all loose equipment. (FP-RP)
5. Actuate bailout bottle (if applicable). (FP-RP)
6. Cabin air — RAM.
7. Helmet visor — Down. (FP-RP)
8. Airplane — Trim for level flight.
9. Throttle — OFF; reduce speed.
10. Sit erect, elbows tightly against body while grasping the ejection seat handgrips. Head firmly against headrest, chin tucked in.

EJECTION**① 1. ORDER CREWMEMBER TO EJECT.**

- ① a. Bailout warning switch — ON (if necessary).

2. EJECTION SEAT HANDGRIPS — RAISE.

If canopy fails to jettison:

1. Handgrips — Return to down position.
2. Canopy jettison handle — Pull & raise.

If canopy again fails to jettison:

1. Canopy latch handle — Unlock.
2. Canopy — Push open.
3. Canopy switch — Open (if necessary).
4. Ejection seat handgrips — Raise.

ENGINE MECHANICAL FAILURE DURING FLIGHT

1. Throttle — OFF.
2. Airspeed — 250 KCAS (gear up, speed brakes closed).
3. RAT — Extend (if necessary).
4. Fuel shutoff and boost pump switches — OFF.

EXHAUST GAS OVERTEMPERATURE WARNING LIGHT ILLUMINATED

1. Thrust — Reduce (when practical).
2. If the light extinguishes:
 - a. Continue the mission and monitor EGT and other engine instruments.
3. If the light stays on:
 - a. Monitor EGT and other engine instruments. If EGT remains above 635°C and/or the other engine instruments indicate a malfunction, land as soon as practicable.

ENGINE FIRE — STEADY OR FLASHING WARNING LIGHT

1. THROTTLE — MINIMUM PRACTICABLE THRUST.

If fire is confirmed:

2. THROTTLE — OFF.
3. FUEL SHUTOFF SWITCHES — CLOSE.
4. IF FIRE CONTINUES — EJECT.
5. RAT — Extend (if necessary).

AIRSTART

1. THROTTLE — INBOARD FROM AFTERBURNER.
2. FUEL CONTROL SWITCH — EMERGENCY.
3. IGNITION BUTTON DEPRESSED & THROTTLE — AS REQUIRED.
4. RPM — 60-80%, then release ignition button.

Immediate relight not obtained:

5. Throttle — OFF.
6. Fuel control switch — EMERGENCY.
7. All fuel switches — Check.
8. Airspeed — 250 KCAS.
9. Ignition button — Depress & hold.
10. Throttle — START, OFF, then IDLE.
11. RPM — 60-80%, then release ignition button.
12. RAT — Extend (if necessary).

ELECTRICAL FIRE

1. MA-1 — EMER.
2. If fire continues, generator — OFF.
3. If fire persists, master electrical power — OFF
4. If fire continues — Eject.
5. Land as soon as practicable if fire subsides.

AFTERBURNER FAILURE

1. Throttle — Inboard.
2. Wait five seconds.
3. Throttle — AFTERBURNER (if desired).
4. No A/B light in 5 sec, throttle — Inboard.

SMOKE OR FUMES

1. Cabin air — RAM (below 25,000).
Cabin air — OFF (above 25,000).
2. Start descent to 25,000 or below (if practicable).
3. MA-1 — EMER.
4. Cabin temperature control knob — MAN COLD.
5. When smoke or fumes are eliminated, cabin air — PRESS.
6. MA-1 — ON (if not cause of smoke or fumes).

FOG

1. Cabin air — RAM.
2. Cabin air — PRESS, when cockpit clears.
3. Cabin temperature — HOT.

Reflects T.O. 1F-106A-1S-191

**CONTROL LOSS
(POST STALL GYRATION AND SPIN RECOVERY)**

At the first sign of a control loss, neutralize the ailerons and unload the airplane to approximately zero G. If the airplane does not recover:

1. CONTROL STICK – CENTER FORWARD OF NEUTRAL.
2. EMERGENCY DIRECT MANUAL BUTTON – DEPRESS.
3. THROTTLE – IDLE.

If a spin develops:

4. HOLD FULL AILERON IN THE DIRECTION OF SPIN ROTATION MAINTAINING FORWARD STICK UNTIL SPIN IS BROKEN OR EJECTION ALTITUDE IS REACHED.

When the spin is broken:

5. NEUTRALIZE AILERONS – MAINTAIN DIVE ATTITUDE UNTIL AIRSPEED REACHES 140 KCAS.

**NEGATIVE STALL/INVERTED SPIN
RECOVERY PROCEDURES**

1. NEUTRALIZE CONTROLS.
2. ALLOW AIRSPEED TO BUILD TO 140 KCAS OR ABOVE.
3. IF REQUIRED, ROLL UPRIGHT USING RUDDER ONLY.

OIL QUANTITY LOW

1. Follow Oil-Pressure-Low Warning Light Illuminated Procedure.

OIL-PRESSURE-LOW WARNING LIGHT ILLUMINATED

1. Thrust — Minimum required for flight.
2. Airspeed — Below RAT max extend speed.
3. Tanks — Jettison, (if necessary).
4. G forces — Minimize.
5. If engine vibrations become excessive, shut down engine.
6. Land as soon as possible; use flameout landing pattern if practicable and minimum thrust.

ENGINE FUEL CONTROL FAILURE

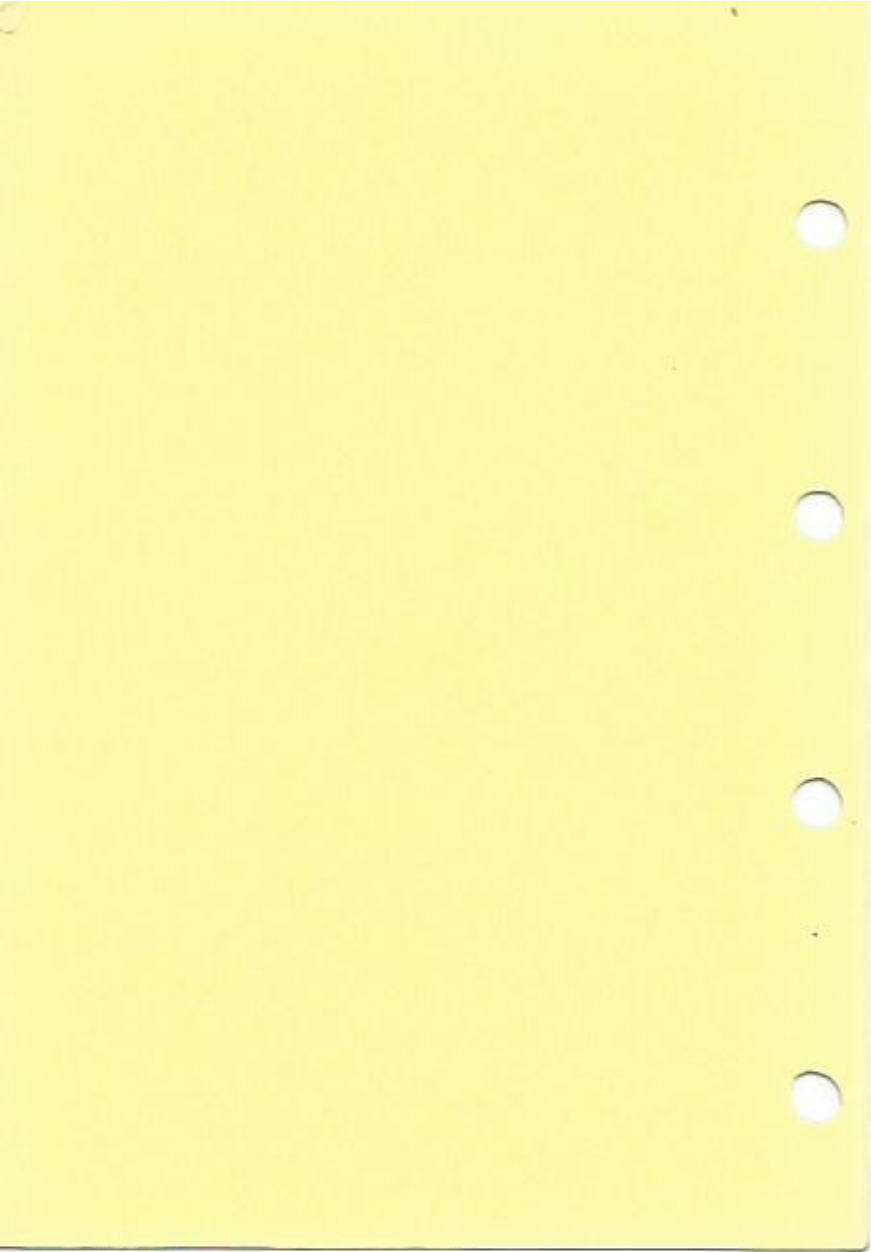
1. Throttle — As required.
2. Fuel control switch — EMER.
3. Control engine speed as necessary.
4. Land as soon as possible.

VARIABLE RAMP FAILURE

1. Speed — Decrease to less than Mach 1.1 (or 500 KCAS), and IDLE RPM below 25,000 ft.
2. Variable ramps — EMER OPEN (retracted).
3. Check other systems for failure.
4. Fuel flow — Monitor for range considerations.
5. Land as soon as practicable, maintaining a minimum of 200 KCAS until starting flare.

MALFUNCTIONING VENT/ANTI-G VALVE

1. Fuselage tank emergency pressure switch —
Check OFF.
2. Fuselage tank switch — OFF.
3. Land as soon as possible.



COMPLETE FUEL BOOST PUMP FAILURE

1. ATG switch — Check AUTO.
2. Operate in a nose-high attitude.
3. Avoid negative G maneuvers.
4. Avoid uncoordinated maneuvers.
5. Avoid rapid decelerations.
6. Fuel quantities — Monitor.
7. When asymmetrical fuel feeding occurs, close fuel shutoff valve on low side when fuel quantity on that side reaches approximately 200 pounds.
8. Land as soon as practicable.

FUEL BOOST PRESSURE-LOW WARNING LIGHT ILLUMINATED: "FUEL BOOST PRESS L OR R"

1. Fuel quantities — Monitor.
2. If fuel flow is symmetrical, assure an erroneous warning indication.
3. Asymmetrical fuel flow — Confirms boost pump failure on one side.
4. Land as soon as possible — Use fuel from side with operating pumps.
5. If sufficient fuel not available — All boost pumps OFF; use FUEL BOOST PUMP FAILURE procedures.

WING TANK PRESSURIZATION FAILURE

1. Land as soon as practicable.
2. On the side of the illuminated warning light, depend on No. 3 wing tank fuel only.
3. Monitor fuel quantity in each wing.
4. Boost pump switch — OFF when fuel quantity low warn light illuminates.

FUEL IMBALANCE

1. Fuel quantity - Check.
2. Boost pumps - OFF (on the side with lowest fuel).
3. Boost pumps - ON (on side with highest fuel)
4. Fuel quantity - Monitor.
If high side is required for safe recovery:
 - a. Boost pump switches - OFF (on side with highest fuel).
 - b. Boost pump switches - ON (on side with lowest fuel).
 - c. High side fuel shutoff switch - CLOSE.
 - d. After five seconds, high side fuel shutoff switch - OPEN.
 - e. All boost pumps - ON.
 - f. Monitor fuel on high side.
 - g. If high side fuel does not feed, depend on low side wing and fuselage tank fuel only. Land as soon as practicable.
 - h. If high side feeds, balance fuel as necessary with boost pumps.
5. When fuel quantities are balanced or fuel quantity-low warning light on high side illuminates, all boost pumps - ON.

FUSELAGE TANK PRESSURIZATION FAILURE

1. Airplanes with F tank emergency pressure switch:
 - a. F tank switch - Check OPEN.
 - ⓐ b. If F tank does not feed, T tank switch - CLOSE.
 - c. F tank emer pressure switch - ON.

2. Airplanes with F tank emer boost pump switch:
 - Ⓐ a. F tank switch — Check OPEN.
 - Ⓐ b. If F tank does not feed, T tank switch — CLOSE.
 - c. F tank shutoff switch — CLOSE.
 - d. F tank emer boost pump switch — ON.
3. Apply positive and negative G's to the airplane.
- Ⓐ 4. If F tank still does not feed:
 - a. T tank switch — OPEN.
 - b. F tank emer boost pump/press switch — OFF.
 - c. F tank switch — OPEN.
 - d. CG switch — TEST and hold.
5. If F tank fails to feed, remaining fuel available is:
 - Ⓐ a. No. 3 tanks.
 - Ⓑ b. Wing and T tanks.

FUEL VALVE-CLOSED WARNING LIGHT ILLUMINATED

1. Check fuel control panel; determine closed valve.
2. Check for asymmetrical fuel feeding.
3. Land as soon as possible.
4. If fuel on closed valve side is not feeding and required for safe recovery:
 - a. Boost pumps (for side with valve indicating closed) - OFF.
 - b. Fuel shutoff switch (for valve indicating closed) - CLOSE.
 - c. After five seconds, fuel shutoff switch - OPEN.
 - d. If light does not go out, depend on the other wing and fuselage tank fuel only.
 - e. If the light goes out, turn on all boost pumps, monitor fuel to insure the affected wing is feeding and balance fuel as necessary with boost pumps.

FUEL QUANTITY-LOW WARNING LIGHT
ILLUMINATED

1. Check for asymmetrical fuel.
2. Land as soon as possible.

FLIGHT WITH LOW FUEL QUANTITY

1. Avoid prolonged turns, decelerations or negative G maneuvers and maintain nose high attitude.
2. Land ASAP from straight-in approach.

ARMAMENT JETTISON

1. Armament selector switch - SALVO.
2. Arm-safe switch - ARM.
3. S.W. release lock switch - UNLOCK.
4. S.W. release lock indicator - "UNLOCK."
5. Armament trigger - Press to second detent.
6. Misfire warning light - Monitor.
7. Armament trigger - Release.

COMPLETE ELECTRICAL FAILURE EXCEPT
BATTERY

The following are either independent of electrical power, or require battery power only and will continue to function with complete generator failure:

1. All airplanes:
 - a. Armament salvo.
 - b. Cabin pressure altitude gage.
 - c. Canopy jettison.
 - d. Drag chute.
 - e. Emergency fuel transfer.
 - f. Exhaust gas temperature gage.
 - g. Landing gear and tailhook down warning lights.
 - h. Manual engine anti-icing.
 - i. Speed brakes.
 - j. Standby magnetic compass.
 - k. Surface trim.
 - l. Tachometer.
 - m. Turn-and-slip indicator.
 - n. Variable ramp emergency retraction.
2. Conventional instrument display only:
 - a. Accelerometer.
 - b. Airspeed indicator.
 - c. Altimeter.
 - d. Vertical velocity indicator.
3. Integrated flight instrument system only:
 - a. Standby airspeed indicator.
 - b. Standby altimeter.

COMPLETE ELECTRICAL POWER FAILURE

1. Important system losses:
 - a. Emergency drag chute.
 - b. Tailhook.
 - c. Interphone and bailout warning.
 - d. Exhaust gas temperature gage.
 - e. Standby attitude indicator.
 - f. Normal landing gear extension.

The following instruments will continue to function:

1. Conventional instrument display:
 - a. Airspeed phase, airspeed-angle of attack ind.
 - b. Cabin pressure altitude gage.
 - c. Accelerometer.
 - d. Tachometer.
 - e. Vertical velocity indicator.
 - f. Altimeter.
 - g. Standby magnetic compass.
2. Integrated flight instrument system:
 - a. Tachometer.
 - b. Standby altimeter.
 - c. Standby airspeed indicator.
 - d. Standby magnetic compass.
 - e. Cabin altitude marker.

AC POWER FAILURE WARNING LIGHT ILLUMINATED

1. Fuel boost — Check (lights not illuminated).
2. Throttle — 83% minimum.
3. Altitude — 35,000 feet or below.
4. Generator — OFF, then ON.
5. Cabin temperature — HOT.
6. Rain removal — ON (if subsonic).
7. If warning light remains on:
 - a. Generator — OFF.
 - b. Land as soon as practicable.
8. Important system losses:
 - a. Automatic vari-ramp control.
 - b. Windshield & canopy anti-icing.
 - c. Pitch & yaw dampers.
 - d. Fuel in ext tanks.
 - e. If ATG is inoperative:
 - (1) Fuel boost pumps.
 - (2) Pitot heat. (Nose Boom).
 - (3) TACAN and ILS.
 - f. If emerg AC generator is inoperative:
 - (1) Engine instruments except tach.
 - (2) Attitude indicators and integrated instruments.
 - (3) Fuel quantity indication.
 - (4) Cockpit lighting.
 - (5) UHF.
 - (6) ADF.
 - (7) IFF.
- * (8). Turn and slip indicator.
9. Land as soon as practicable.

GADC FAILURE WARNING LIGHT ILLUMINATED

1. Refer to standby altimeter and airspeed indicators.
2. Altimeter — STBY (conventional instrument display).

*After T.O. 1F-106A-1157.
Reflects T.O. 1F-106A-1S-198.

DC POWER FAILURE WARNING LIGHT ILLUMINATED

Reduce electrical load since the battery will be the only power source for the DC essential bus.

1. Important system losses:
 - a. Automatic vari-ramp control.
 - Ⓐ b. Automatic cg fuel transfer.
 - c. F tank emer boost pump control.
 - d. Taxi and landing lights.
 - e. Anticollision lights.
 - f. Pitch & yaw dampers.
 - g. Automatic ice detector.
 - h. Fuel in external tanks.
 - i. MA-1 system.

WINDSHIELD HEATING FAILURE

1. If windshield is heated & ac failure is noted:
 - a. Rain removal — ON (if subsonic).
2. If failure is not noted until condensation forms:
 - a. Rain removal — ON (if subsonic).
 - b. Cabin temperature — HOT.

CRACKED WINDSHIELD

Outer Layer Crack

1. Windshield anti-icing, antifog switch — OFF (side corresponding to cracked panel).
2. Ascertain that only the outer layer has cracked.
3. Land as soon as practicable.

Inner Layer Crack

1. HELMET VISOR(S) — DOWN. (FP-RP).
2. CABIN AIR — RAM.
3. Windshield anti-icing, antifog switch — OFF (side corresponding to cracked panel).
4. Airspeed — Reduce.
5. Descend, and land as soon as practicable.

CANOPY UNLOCKED WARNING LIGHT ILLUMINATED

1. Canopy latch handle — Push forward (if LOCKED & latches are engaged).
2. If warning light stays on, handle is not in apparent locked position, or canopy latches are not engaged:
 - a. Airspeed — Reduce to 230 KCAS.
 - b. Cabin air — OFF.
 - c. Land as soon as practicable.

LOSS OF CANOPY IN FLIGHT

1. Airspeed — Reduce to 230 KCAS.
2. Check for physical damage and minimum control speed.
3. Land as soon as practicable.

**PNEUMATIC PRESSURE-LOW WARNING LIGHT
ILLUMINATED**

1. Do not recycle the armament system.
2. Use rudder control with caution.
3. Plan on no-drag-chute landing.
4. There is a possibility of loss of one or both brakes.

LOSS OF CABIN PRESSURE

1. Refrigeration unit switch — ON.
2. Cabin air — PRESS.
3. If cabin altitude is higher than actual altitude:
 - a. Cabin air — OFF.
 - b. Airspeed — Reduce.
4. MA-1 — EMER and descend to 24,000 feet.
5. If cockpit becomes contaminated or depressurization occurs:
 - a. Oxygen mask connections — Check. (FP-RP)
 - b. Cabin air — RAM.

CABIN PRESSURE-LOW WARNING LIGHT ILLUMINATED

1. Descend to 24,000 ft. cabin altitude, if practicable.
2. Land as soon as practicable.

OXYGEN SYSTEM DEPLETED OR CONTAMINATED

1. Emer oxygen manual release — Pull.
2. Oxygen supply — OFF.
3. Descend to a cockpit altitude below 10,000 feet within 10 minutes.

HYPOXIA SYMPTOMS

1. Check hose connections.
2. Oxygen supply — Check ON.

OXYGEN-LOW WARNING LIGHT ILLUMINATED

1. Descend to altitude where oxygen is not required.
2. Actuate emergency bailout bottle, if necessary.

**SUSPECTED PERSONAL LEADS OR SHIP-TO-KIT
DISCONNECT SEPARATION**

1. Oxygen supply lever — OFF.
2. If breathing is normal with the supply lever on, but impossible with it off: Oxygen supply lever — ON.
3. If normal pressure breathing continues or if breathing is difficult, but in either case is unaffected by the position of the oxygen supply lever:
 - a. Oxygen supply lever — OFF.
 - b. Descend below 10,000 ft. cabin altitude immediately.

**ENGINE COMPARTMENT OVERPRESSURE
WARNING LIGHT ILLUMINATED**

1. Airspeed — Below Mach 1.0 as soon as practicable.

**ENGINE ANTI-ICE WARNING LIGHT
ILLUMINATED**

1. Surface and engine anti-icing switch — MAN ON.

**ELECTRONIC COOLING WARNING LIGHT
ILLUMINATED**

Ground Operation

1. Cabin air — OFF.
2. RPM — Increase.

Flight Operation

1. Throttle — Advance (if possible).
2. Flight conditions — Change (if possible).
3. Cabin temperature — Increase.
4. Cabin air — OFF or RAM.
5. If light does not go out within 10 minutes, follow procedures for REFRIGERATION UNIT FAILURE.

REFRIGERATION UNIT FAILURE

1. Refrigeration unit switch — OFF.
2. MA-1 — EMER.
3. Airspeed — 250 KCAS.
4. Land as soon as practicable.
5. MA-1 — OFF (after landing).

THROTTLE HANGUP

1. Retain tanks and burn off excess fuel.
2. Test fuel shutoff valve warning lights.
3. Slow to below max gear lowering speed.
4. Descend to pattern altitude, fly straight-in approach.
5. At 1 to 2 miles from runway, move boost switches to OFF and close fuel shutoff switch on one side. Check fuel warning light on.
6. When landing assured, close remaining fuel shutoff switch. Check fuel warning light on.
7. Execute touchdown and landing.

**HYDRAULIC PRESSURE-LOW WARNING
LIGHT ILLUMINATED (FLASHING)**

1. Airspeed — Below RAT max extend speed.
2. Hydraulic pressure — Check.

Failure of Primary Hydraulic System

1. Avoid violent maneuvers, dives, and unnecessary use of speed brakes.
2. Land as soon as practicable.
 - a. Gear — DOWN (normal extension).
 - b. RAT — Extend.

Failure of Secondary Hydraulic System

1. Flight mode selector switch — YAW.
2. Avoid violent maneuvers, dives, and speed brake use.
3. Land as soon as practicable.
 - a. Gear — Emergency extend.
 - b. Gear handle — DOWN.
 - c. Drag chute handle — Emergency deploy (on landing).

FLIGHT CONTROL SYSTEM OSCILLATIONS AND/OR
HYDRAULIC FLUID OVERHEAT WARNING LIGHT
ILLUMINATED

1. REDUCE AIRSPEED TO 230 KCAS.
2. EMERGENCY DIRECT MANUAL BUTTON – DEPRESS.
3. FLIGHT MODE SELECTOR SWITCH – DIR MAN.
4. If uncontrollable maneuvers are encountered:
 - a. GENERATOR SWITCH – OFF.
 - b. IF CONTROL IS NOT REGAINED, MASTER SWITCH – OFF, CONDITIONS PERMITTING.
 - c. Maintain control by overcoming stick forces.
 - d. If control cannot be regained – EJECT.
 - e. If control is regained land as soon as practicable. See Complete Electrical Failure, this section.
5. If oscillations are encountered, use pitch or yaw modes as required.
6. If oscillations persist or increase:
 - a. Generator switch – OFF.
 - b. If oscillations continue, master switch – OFF.
 - c. If oscillations continue, master switch – ON.
 - d. Maintain safe altitude.
 - e. When oscillations reduce to a safe minimum, land as soon as practicable.
 - f. If airplane becomes uncontrollable – EJECT.
7. During low fuel state keep nose level attitude.
8. Maintain altitude to evaluate nature of overheat.

**HYDRAULIC PRESSURE-LOW WARNING LIGHT
ILLUMINATED: "HYD FAIL" (STEADY)**

1. RAT - EXTEND.
2. IF FLIGHT CONTROL OPERATION IS NOT POSSIBLE - EJECT.
3. Check flight control operation by:
 - a. Moving the control stick and checking control response.
 - b. Checking primary hydraulic pressure gage (if ac power is available).
 - c. Flashing hyd press-low warning light indicates RAT is pressurizing primary system.
4. If pressure is available for flight control operation:
 - a. Avoid violent maneuvers and use of speed brakes.
 - b. Extend landing gear by emergency system.
5. Land as soon as practicable.

ARTIFICIAL FEEL SYSTEM INOPERATIVE

1. Airspeed - Reduce to 230 KCAS.
2. Use minimum control stick movement.
3. Flight mode selector switch - DIR MAN.

**MISSILE DISPLACED WARNING LIGHT ILLUMINATED
WITH MISSILE BAY DOORS CLOSED**

1. If the missile displaced warning light illuminates in flight and the doors are known to be closed, the aircraft should be landed without further armament operation.

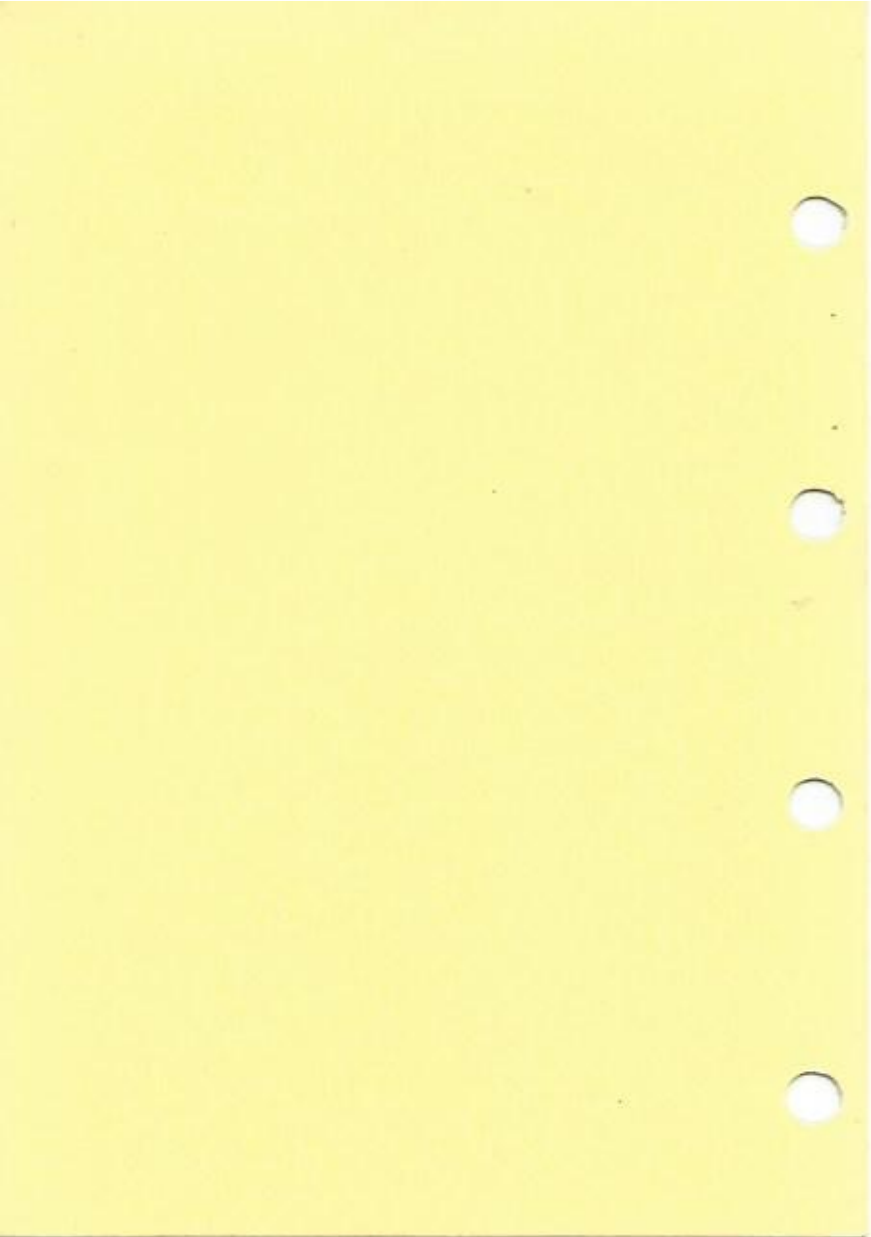
Reflects T.O. 1F-106A-1S-196

**MISSILE DISPLACED WARNING LIGHT ILLUMINATED
WITH LAUNCHERS EXTENDED**

1. If clean configuration is not mandatory:
 - a. Fuel consumption — Monitor for range considerations.
 - b. Land as soon as practicable with launchers extended.
2. If clean configuration is mandatory:
 - a. Auto search button — Press to break lockon.
 - b. 75 seconds — Wait.
 - c. Arm-safe switch — SAFE.
 - d. Armament selector switch — VIS IDENT.
 - e. Missile bay doors close button — Press and hold until door open warning light extinguishes.

**MISFIRE OR DOOR OPEN WARNING LIGHT
ILLUMINATED**

1. Armament trigger — Release.
2. Auto search button — Press to break location.
3. Special weapon release lock switch — LOCK.
4. Special weapon release lock indicator — LOCK or striped.
5. Missile displaced warning light — Check not illuminated.
6. 75 seconds — Wait (if missiles are aboard).
7. Arm-safe switch — SAFE.
8. Armament selector switch — VIS IDENT.
9. Missile bay doors close button — Press and hold until misfire and door open warning lights extinguish.



LANDING

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RUNWAY APPROACH END ARRESTMENT
(BAK-9, BAK-12)

1. Expend excess fuel. Retain empty tanks.

NOTE: Based on engaging the barrier at recommended touchdown speed with armament in, maximum fuel onboard should be:

CONFIGURATION	BAK-9	BAK-12
① AIR-2A	11,000 lbs	9,000 lbs
② M61A1	10,300 lbs	8,300 lbs
③	9,000 lbs	7,200 lbs

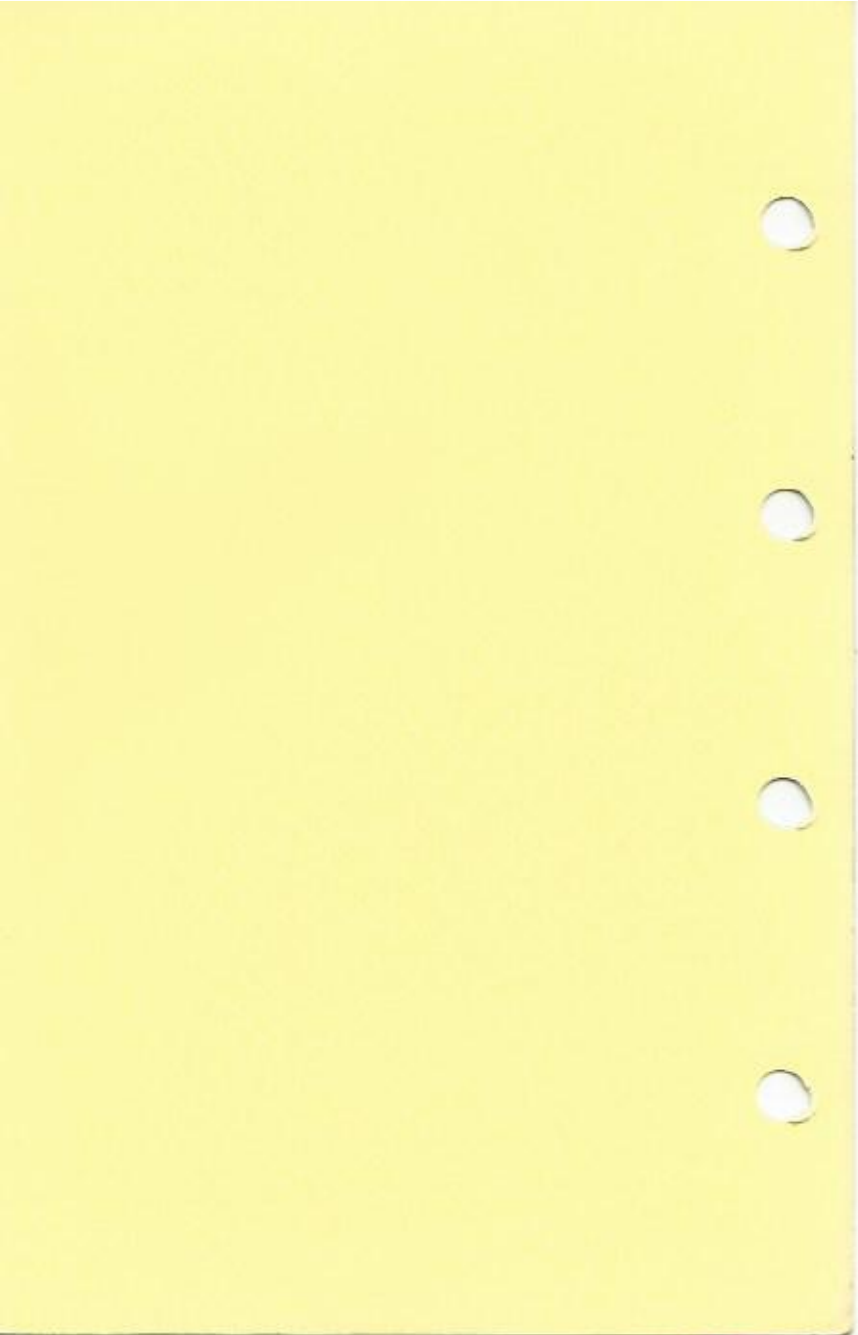
2. Use airborne procedures for respective conditions.
3. Tailhook down button — Depress.
4. Shoulder harness — MANUAL LOCK. (FP-RP)
5. Drag chute — Deploy.
6. Nose wheel steering — Engage.
7. Avoid brake use just prior to engagement.
8. Throttle — IDLE or OFF.
9. Fuel switches — CLOSE.
10. Master electrical power — OFF (if required).

APPROACH END ENGAGEMENT
OPTION CHART

SITUATION	OPTION
Both main down Nose up	Do not engage
One main down Nose down	Engage
One main down Nose up	Engage
All up	Do not engage
Both main up Nose down	Do not engage

DITCHING

1. Tanks — Jettison.
2. Normal approach with speed brakes out.
3. Shoulder harness — MANUAL LOCKED. (FP-RP)
4. Immediately before touchdown:
 - a. Throttle — OFF.
 - b. Fuel switches — CLOSE.
 - c. Master electrical power — OFF.
 - d. Canopy — Jettison.
 - e. Drag chute — Emergency deploy.
5. Abandon the airplane when forward motion stops.



FLAMEOUT LANDING (ALL GROSS WEIGHTS)

1. RAT — Extend.
2. High key: Speed — 250 KCAS.
Altitude — 12,000 ft, minimum.
Gear — Emer extend.
3. Reduce speed — 230 KCAS minimum.
4. Shoulder harness — LOCK. (FP-RP)
5. Low key: SPEED — 230 KCAS minimum.
Altitude — ½ high-key alt.
6. Prior to flare: Speed — 230 KCAS minimum.
Throttle — OFF.
Fuel switches — OFF.
Master switch — OFF.
7. Touchdown: Speed — 155-175 KCAS (175
KCAS with frozen engine).
Drag chute — Emer deploy
Brakes — Apply as required.

LANDING GEAR EMERGENCY EXTENSION

1. Speed — Below landing gear emergency
extend speed.
2. Gear — Emergency extend.
3. Gear handle — DOWN.
4. Gear — Check down and locked.
5. Landing or taxi lights — ON.

**LANDING GEAR WARNING LIGHT REMAINS
ILLUMINATED ON LANDING GEAR EXTENSION**

Recycle. If no safe indication, recycle in zero-G flight. If no safe indication, USE LANDING GEAR EMERGENCY EXTENSION procedure.

PARTIAL GEAR LANDING

1. Tanks — Jettison (if required).
2. Normal approach & landing with speed brakes out.
3. Shoulder harness — **MANUAL LOCKED.**
(FP-RP)
4. Immediately before touchdown:
 - a. Throttle — **OFF.**
 - b. Fuel switches — **CLOSE.**
 - c. Master electrical power — **OFF.**
 - d. Canopy — **Retain.**
5. After touchdown:
 - a. Drag chute — **Emergency deploy.**
 - b. Hold faulty gear off the ground.
 - c. Braking — **As required.**
6. Abandon the airplane when it stops.

BELLY LANDING

1. Tanks — Jettison (if required).
2. Normal approach.
3. Speed brakes — **Open.**
4. Shoulder harness — **LOCKED.** (FP-RP)
5. Immediately before touchdown:
 - a. Throttle — **OFF.**
 - b. Fuel switches — **CLOSE.**
 - c. Canopy — **Retain.**
6. Touchdown attitude — **Normal.**
7. Drag chute — **Emergency deploy.**
8. Master electrical power — **OFF.**
9. Abandon airplane.

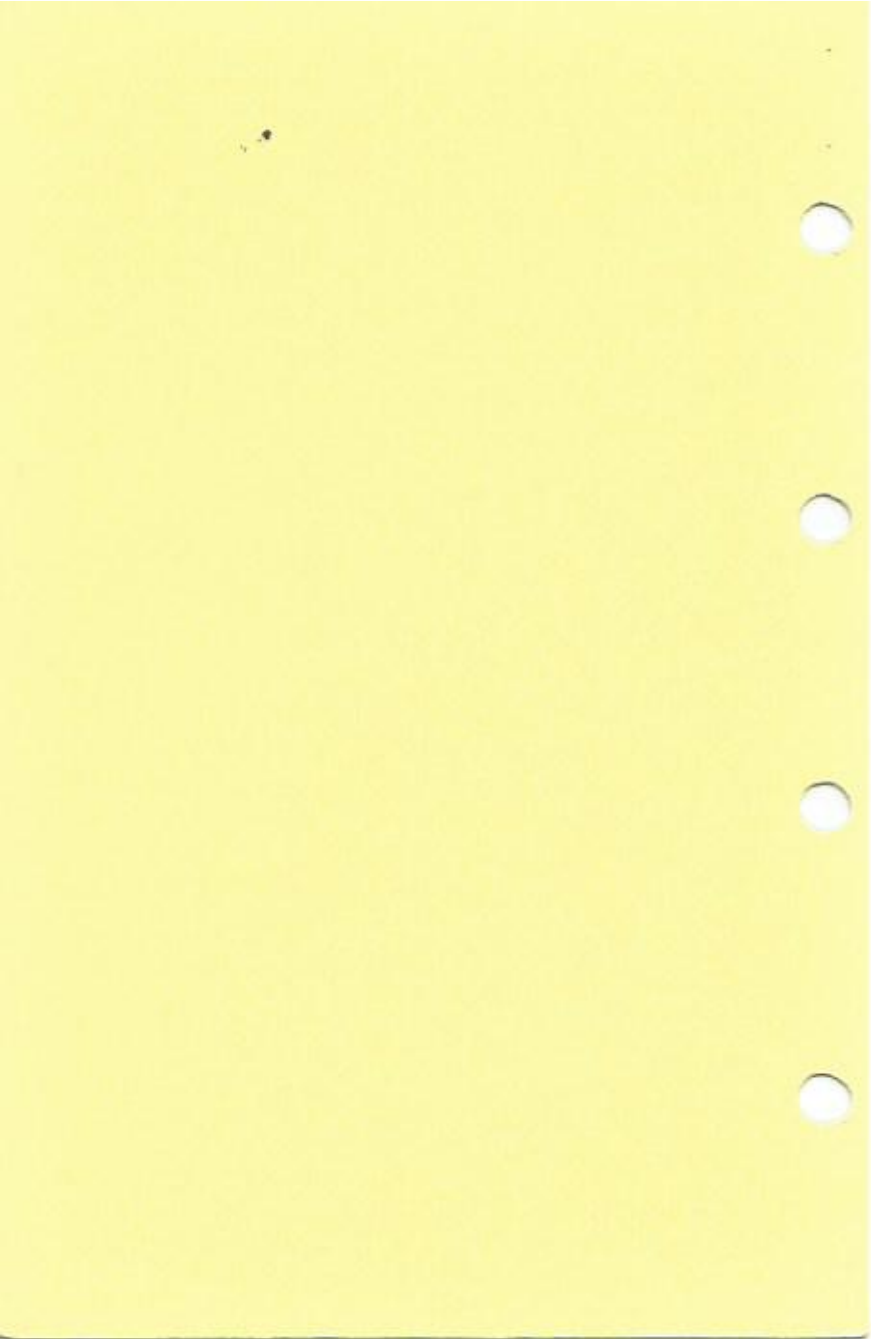
LANDING WITH FUEL IMBALANCE

If a fuel imbalance is noted during flight, the following should be accomplished prior to landing to insure adequate aircraft control.

1. Fuel imbalance — Determine amount and heavy wing.
2. Crosswind component — Determine for landing runway.
3. Appropriate minimum control speed — Select from following table.
4. Using minimum control speed as minimum touchdown speed, add 20 knots for prior to flare speed and 30 knots for final approach speed.
5. Land from a straight-in approach if final approach speed must be increased.

Fuel Imbalance* (Pounds)		Minimum Control Speed (KCAS) ^A ^B				
Clean	360 Gal. Ext Tanks	Cross- wind 0 Kt	Crosswind (Kt) From Side of Lighter Wing			
			5	10	15	20
2500	-	150	150	150	152	164
3000	-	150	150	150	162	172
3500	-	150	150	160	170	180
-	2500	170	170	170	170	174
-	3000	170	170	170	175	184
-	3500	170	170	175	185	192
-	4000	170	170	180	190	198
-	4500	170	180	190	197	204
-	5000	180	186	195	203	210
-	5500	185	193	200	209	216

*For a fuel imbalance less than the amount shown, use the touchdown speeds recommended for the total fuel on board.



**F-106A AND F-106B ABBREVIATED CHECKLIST
(NORMAL PROCEDURES)****TABLE OF CONTENTS**

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PREFLIGHT CHECKS BEFORE EXTERIOR INSPECTION

1. Form 781 — Check.
2. External power — OFF.
3. Canopy support(s) — In place.
4. Windshield & canopy — Check.
5. Ejection seat ground safety pin — Installed.
(FP-RP)
6. Handgrip down lock cable — Check ball secure.
7. Canopy jettison handle — Down. (FP-RP)
8. Seat arming lanyard — Secured. (FP-RP)
9. Personal leads bundle — Secure. (FP-RP)
10. Ejection seat disconnects and hoses — Check.
(FP-RP)
11. Canopy support — Check for security (if installed).
12. Canopy, survival kit & seat maintenance pins —
Removed. (FP-RP)
13. Survival kit mode selector lever — AUTOMATIC.
- 3A. Survival kit beacon switch — AUTOMATIC (red
dot showing).
14. Canopy breaker tool — Check for security.
15. Inertial reel cable & survival kit lanyard — Secure.
16. Safety belt connectors — Secure.
17. Oxygen bailout bottle — 1800 psi min
at 70°F. (FP-RP)
18. Parachute — Install in airplane. (FP-RP)
 - a. Parachute — Place in seat.
 - b. Parachute firing lanyard — Install
 - (1) Plug — Remove.
 - (2) Safety pin — Remove and stow.
 - (3) Lanyard — Insert terminal in
actuator assembly.
 - c. Survival kit — Attach harness release
assemblies to parachute.

19. MA-1 — OFF.
20. RAT handle — UP.
21. Throttle — OFF.
22. Armament selector switch — VIS IDENT (safetied and sealed if primary armament aboard).
23. Arm-safe switch — SAFE (safetied if armament aboard).
24. S.W. release lock switch — LOCK (safetied and sealed if primary armament aboard).
25. S.W. release lock indicator — Striped.
26. Master switch — ON; Battery — Check.
27. AIR-2A Arm/Safe/Monitor power circuit breaker — Open.
28. Master electrical power — OFF.
29. Deleted.
30. Gear handle — Down.
31. Emergency landing gear extension handle — In and secured.
32. All fuses — In. (FP-RP)
33. Slipway door — Closed (if installed).

③ AFT COCKPIT (SOLO FLIGHTS)

Inspect aft seat, consoles, and instrument panel before entering forward seat.

1. Ejection seat ground safety pin — Installed.
2. Seat handgrip down lock cable — Check ball secure.
3. Canopy jettison handle — Down.
4. Ejection seat disconnects & hoses — Check.
5. Canopy & seat maintenance pins — Removed.
6. Survival kit — Remove or secure.
7. Personal leads & all loose items — Stow.
8. Safety belt & shoulder harness — Secure.
9. Fuel shutoff — NORMAL.
10. Variable ramp — AUTO.
11. Fuel control — NORM.
12. Throttle — OFF.
13. Oxygen — OFF.
14. Master electrical power — ON.
15. Gear handle — DOWN.
16. Gear emergency extension handle — In & secure.
17. Flight mode selector — DIR MAN.
18. Drag chute handle — In.
19. TSD light intensity rheostat — OFF.
20. TSD mode selector — MAN.
21. Cockpit lights — Off.
22. Fuse panel — Check.
23. UHF — OFF.

EXTERIOR INSPECTION**A. FORWARD LEFT SIDE.**

1. Canopy access door — Secured.
2. Aircraft placarding — Check armament status.
3. Static ports — Clear.

4. Oxygen access door — Secured.
5. Nose wheel well door hinges — Check.
6. Forward electronics bay door — Secured.
7. Transducer vane — Condition, guard removed, free, & full up.

B. NOSE

1. Radome — Condition & secure.
2. Mast & pitot tube — Condition & cover removed.

C. FORWARD RIGHT SIDE

1. Forward electronics bay door — Secured.
2. Static ports — Clear.
3. Direction finder antenna — Secured.

D. NOSE WHEEL WELL

1. Taxi light — Condition & security.
2. Nose gear door seal — Condition.
3. Control outflow valve — FLIGHT (safetied).
4. Wheel brake reservoirs — Checked (some airplanes).
5. Deleted.
6. Battery and battery charger — Secured.
7. IR circuit breakers — IN.
8. Fuses and circuit breaker — Check.
9. Nose gear safety pin — Remove.
10. Nose wheel steering unit ground pin — Removed.
11. Scissors linkage — Connected.
12. Strut extension — 4-5 inches.
13. Tires — Check.

E. RIGHT SIDE

1. Temperature probe — Condition & clear.
2. Lower aft electronics bay door — Secured.
3. Lower mid-electronics bay door — Secured.
4. Missile bay door — Secured.
5. Upper aft electronics bay door — Secured.
6. Air-conditioning compartment access door — Secured.
7. Boundary layer duct — Clear.
8. Variable ramp — Condition & retracted.
9. Intake duct — Condition & loose articles.
10. Fuel filler cap & access door — Secured.

F. HYDRAULIC COMPARTMENT

1. RAT door — Check pressure relieved.
2. RAT — Condition & turns freely.
3. Primary & secondary hyd accumulator — 750 psi.
4. Hydraulic fluid levels — Not lower than $\frac{3}{4}$ inch below temperature mark.
5. Reservoir pressure — Check approx 55 psi.
6. Reservoir shutoff — Open & pin installed.
7. Lower anticollision light — Condition.
8. Access door — Secured.

G. RIGHT MAIN WHEEL WELL

1. Gear safety pin — Remove.
2. Refuel selector valve — Horizontal.
3. Armament control panel — Check.
4. Armament lock valve — FLIGHT.
5. Hydraulic & fuel lines — Check.
6. Fuses — Check.
7. Starter ignition disarm — ON.
8. Deleted.
9. Ignition disconnect — ARM.

10. Brake & hydraulic lines — Check.
11. Strut extension — 5-6 inches.
12. Landing gear fairing, door, & light — Condition & security.
13. Tire & chocks — Check.

H. RIGHT ENGINE ACCESS COMPARTMENT

1. Magnetron hydraulic system accumulator — 1200 to 1500 psi.
2. Magnetron hydraulic system quantity gage — Full for specified level.
3. Fuel shutoff valve — FULLY OPEN.

I. RIGHT WING

1. External tank — Check. Ground safety pin — Remove.
- 1A. AIS POD — Check for security (if installed).
2. Fuel ambient sense & vent ports — Clear.
3. Wing condition, & position lights — Check.
4. Elevon actuator fairing — No hydraulic leaks.
5. Trailing edge & elevon — Condition.

J. TAIL SECTION

1. Ram air “q” intake covers — Removed.
2. Rudder & position light — Condition.
3. Speed brakes & drag chute — Check.
4. Tailpipe & exhaust nozzle — Check.
5. Tailhook — Check & remove pin.
6. Data link antenna — Check.

K. LEFT WING

1. Trailing edge & elevon — Condition.
2. Elevon actuator fairing — No hydraulic leaks.
3. Wing condition, & position lights — Check.

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4. Oil cap access door — Secured.
5. Fuel ambient sense & vent ports — Clear.
6. External tank — Check. Ground safety pin — Remove.

L. LEFT ENGINE ACCESS COMPARTMENT

1. Hyd lines, fuel lines, & throttle linkage — Check.
2. Compartment door — Open. Secure for alert.
3. Fuel shutoff valve — FULLY OPEN.

M. LEFT MAIN WHEEL WELL

1. Gear safety pin — Removed.
2. External air — Connected.
3. Emergency ac generator — Condition & leaks.
4. Fuses — Check.
5. Hydraulic & fuel lines — Check.
6. Manual air shutoff valve — CLOSED & safetied.
7. Pneumatic pressure gage — 2000 to 3000 psi.
8. Missile bay doors — Manually opened (slow).
9. Missile bay — Check for armament.
10. General condition of rocket or gun — Check.
11. General condition of missiles — Check.
12. Missile bay doors — Closed.
13. Pneumatic system pressure — 3000 psi.
14. Engine hot-section analyzer recorder — Reset.
15. Brake & hydraulic lines — Check.
16. Strut extension — 5-6 inches.
17. Landing gear fairing, door, & light — Condition.
18. Tire & chocks — Check.
19. RAT door & test hook — Close & pull to check.

N. LEFT SIDE

1. Missile bay door — Condition & secured.
2. Emergency canopy jettison access door — Secured.
3. Boundary layer duct — Clear.

4. Variable ramp — Secure & retracted.
5. Intake duct — Condition & loose articles.
6. Air-conditioning compartment access door — Secured.
7. Upper aft electronics bay door — Secured.

INTERIOR INSPECTION

NOTE: Items marked with the symbol ▲ preceding the step cannot be performed if making the interior inspection with battery power prior to battery start. These items (▲) should be checked after battery start. (Refer to INTERIOR INSPECTION AFTER BATTERY START, this section.)

GENERAL

1. Personal equip., belt, harness — Attach & adjust. (FP-RP)
 - 1A. Canopy support — Remove
 - 1B. Ladder — Remove (not cocking).
- ▲ 2. External power — Connected (if available).
- ▲ 3. Seat & rudder pedals — Adjust. (FP-RP)

LEFT-HAND CONSOLE

1. Cabin air handle — Adjust for vertical outlet. (FP-RP)
2. MA-1 test panel cover — Closed.
- ⓐ 3. Intercom volume — As desired. (FP-RP)
- ⓐ 4. Emergency slipway door open switch (if installed) — NORM (guard closed).
- ⓐ 5. Refuel select switch (if installed) — ALL TANKS (guard closed).

- ⊕ 6. Air refuel switch (if installed) — OFF (guard closed).
- ▲ 7. Armament reset button — Depress, for 5 seconds.
- 8. Variable ramps — AUTO (guard closed). (FP-RP)
- 9. Fuses (LH panel) — Check.
- ⊕ 9A. Fuel shutoff switches — OPEN. (T tank switch — CLOSED)
- ⊕ 10. Fuel shutoff switches — OPEN.
- ⊕ 11. Fuel shutoff switch — NORM. (RP)
- ▲ 12. Boost pump switches — Check, then ON.
- ▲ 13. F tank emer press or boost pump — OFF.
- ▲ 13A. External tank emergency switch — OFF
- 14. MA-1 — Recheck OFF.
- 15. Gyro grid reference knob — Set.
- 16. SIF code — Set.
- 17. IFF control panel — Set (as required).
- 18. RAT handle — UP.
- 19. Fuel control — NORMAL. (FP-RP)
- 20. Throttle — OFF. (FP-RP)
- 21. Speed brakes switch — Off. In for cocking.
- 22. UHF functional selector switch — BOTH.
- 23. UHF — Set. (FP-RP)
- 24. Special weapon light — OFF, press-to-test.
- 25. Armament selector switch — VIS IDENT (safetied and sealed if primary armament aboard).
- 26. Arm safe switch — SAFE (safetied and sealed if armament aboard).
- 27. S.W. release lock switch — LOCK (safetied and sealed if primary armament aboard).
- ▲ 28. S.W. release lock indicator — "LOCK" (if primary armament, ATR, or MSR is aboard).
- 29. Armament selection indicator — "NO."
- 30. AIR-2A Arm/Safe/Monitor power circuit breaker — Open.
- 31. ILS channel — Set, minimum volume.
- 32. Cockpit no-fog & vent suit switch — As desired.
- ▲ 33. Landing & taxi lights — Check.
- 34. Reset/MBL switch (if installed) — NORM.
- ⊕ 35. Bailout light switch — Check. (FP-RP)
- ⊕ 36. CG control — AUTO.

- ▲ 37. CG transfer test fail light — ON (full internal fuel); press-to-test (reduced internal fuel).
- 38. Idle thrust switch — OFF (if installed).
- 39. Master electrical power — Recheck OFF (if starting with external power).
- 40. Oxygen system — Check. (FP-RP)
- 41. Radar/IR control panel — Set.
- 42. Gear handle — DOWN. (FP-RP)
- 43. Landing gear emergency extension handle — In. (FP-RP)
- 44. Altitude Band Selector Switch — OFF.

INSTRUMENT PANEL

- 1. Flight mode selector switch — DIR MAN. (FP-RP)
- 2. Heading hold switch — OFF. (FP-RP)
- 3. Altitude hold switch — OFF. (FP-RP)
- 4. DISP/AUTO mode switch — ILS.
- 5. Clock — Set. (FP-RP)
- 6. TACAN range light — Push-to-test (if installed).
- 7. Drag chute handle — In. (FP-RP)
- 8. Gear position lights — On. (FP-RP)
- 9. Gear warning light — Out. (FP-RP)
- 10. External tank empty lights (if installed) — Check.
- 11. Computer mode indicator — Striped. (FP-RP)
- 12. Radar scope controls — Set.
- 13. Engine fire warning loops — Test.
- ▲ 14. Marker beacon light — Press-to-test. (FP-RP)
- 15. Variable ramp warning light — Press-to-test (if installed).
- 16. Warning lights — On (canopy unlocked, master warning, hydraulic pressure-low). (FP-RP)
- 17. Engine instruments — Check. (FP-RP)
- 18. EGT power flag — Not displayed.
- ▲ 19. Fuel quantity — Check.
- 20. RDR/IR selector panel — Set.

21. Oil quantity gage — Indicating normally.
22. Bearing selector switch — NORM (if installed).
(FP-RP)
23. Heading selector switch — NORMAL (if installed).
(FP-RP)
24. TSD controls — As desired. (FP-RP).

RIGHT-HAND CONSOLE

1. Hydraulic pressure — Check.
2. Oil pressure — Check.
3. Refrigeration unit — ON.
4. Cabin air — OFF.
5. Deleted.
6. Deleted.
7. Generator switch — OFF.
8. TACAN function selector knob (if installed) —
As desired.
9. TACAN mode selector switch (if installed) — As
desired.
10. TACAN range selector switch (if installed) — As
desired.
11. TACAN channel — Select.
12. TACAN volume — Minimum.
13. TACAN ECM indicator light — Out.
14. Homing point selector — NOT "A," "T" or "U."
15. Data link antenna — NORM.
16. Master warning lights — Check. (FP-RP)
17. ATG switch — OFF.
18. Canopy latch handle — Unlock (fully aft).
19. Map light — Check (if required).
- *19A. Altitude warning selector — Set.
20. Windshield anti-icing, antifog switches — ON.
21. TACAN-cmd alt switch — As desired (if installed).
- 21A. TACAN bearing/ADF select switch - As desired (if
installed).
22. Emer ac gen — NORMAL.
23. TACAN power switch — NORMAL (if installed).
24. Data link panel — Set.

- ▲ 37. CG transfer test fail light — ON (full internal fuel); press-to-test (reduced internal fuel).
- 38. Idle thrust switch — OFF (if installed).
- 39. Master electrical power — Recheck OFF (if starting with external power).
- 40. Oxygen system — Check. (FP-RP)
- 41. Radar/IR control panel — Set.
- 42. Gear handle — DOWN. (FP-RP)
- 43. Landing gear emergency extension handle — In. (FP-RP)
- 44. Altitude Band Selector Switch — OFF.

INSTRUMENT PANEL

- 1. Flight mode selector switch — DIR MAN. (FP-RP)
- 2. Heading hold switch — OFF. (FP-RP)
- 3. Altitude hold switch — OFF. (FP-RP)
- 4. DISP/AUTO mode switch — ILS.
- 5. Clock — Set. (FP-RP)
- 6. TACAN range light — Push-to-test (if installed).
- 7. Drag chute handle — In. (FP-RP)
- 8. Gear position lights — On. (FP-RP)
- 9. Gear warning light — Out. (FP-RP)
- 10. External tank empty lights (if installed) — Check.
- 11. Computer mode indicator — Striped. (FP-RP)
- 12. Radar scope controls — Set.
- 13. Engine fire warning loops — Test.
- ▲ 14. Marker beacon light — Press-to-test. (FP-RP)
- 15. Variable ramp warning light — Press-to-test (if installed).
- 16. Warning lights — On (canopy unlocked, master warning, hydraulic pressure-low). (FP-RP)
- 17. Engine instruments — Check. (FP-RP)
- 18. EGT power flag — Not displayed.
- ▲ 19. Fuel quantity — Check.
- 20. RDR/IR selector panel — Set.

21. Oil quantity gage — Indicating normally.
22. Bearing selector switch — NORM (if installed).
(FP-RP)
23. Heading selector switch — NORMAL (if installed).
(FP-RP)
24. TSD controls — As desired. (FP-RP).

RIGHT-HAND CONSOLE

1. Hydraulic pressure — Check.
2. Oil pressure — Check.
3. Refrigeration unit — ON.
4. Cabin air — OFF.
5. Deleted.
6. Deleted.
7. Generator switch — OFF.
8. TACAN function selector knob (if installed) —
As desired.
9. TACAN mode selector switch (if installed) — As
desired.
10. TACAN range selector switch (if installed) — As
desired.
11. TACAN channel — Select.
12. TACAN volume — Minimum.
13. TACAN ECM indicator light — Out.
14. Homing point selector — NOT "A," "T" or "U."
15. Data link antenna — NORM.
16. Master warning lights — Check. (FP-RP)
17. ATG switch — OFF.
18. Canopy latch handle — Unlock (fully aft).
19. Map light — Check (if required).
- *19A. Altitude warning selector — Set.
20. Windshield anti-icing, antifog switches — ON.
21. TACAN-cmd alt switch — As desired (if installed).
22. Emer ac gen — NORMAL.
23. TACAN power switch — NORMAL (if installed).
24. Data link panel — Set.

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- 25. Rain removal — OFF.
- ▲26. Thunderstorm lights — Check, then as desired.
- 27. Warning lights dimmer — As desired.
- ▲28. All external internal light switches — Check & set. (FP-RP)
- 29. Formation navigation lights switch — NAV ON.
- ▲30. Pitot heat — Check, then OFF. (ON, for cocking.)
- 31. Canopy antifog switch — Climatic.
- 32. Surface & eng anti-icing — AUTO ON.
- 33. Cabin temperature control — AUTOMATIC.
- 34. Compass control panel — Set.
- ⊕35. Air refuel switch (if installed) — OFF (guard closed).
- ⊕36. Refuel select switch (if installed) — ALL TANKS (guard closed).
- ⊕37. Emergency slipway door open switch (if installed) — NORM (guard closed).
- 38. Fuses — Check. (FP-RP)
- 39. UHF circuit breaker (if installed) — On (up position).

BEFORE STARTING ENGINE

PNEUMATIC START

1. Starter ignition disarm switch — OFF.
2. Use normal start procedure; throttle IDLE at 10% RPM.

STARTING ENGINE

NOTE

Items marked with the symbol ▲ preceding the step cannot be performed if starting with the battery.

1. Clear to start — Check. (FP-RP)
2. Formation/navigation lights switch — NAV ON.

3. Ignition button — Depress & hold.
4. Throttle — START, OFF (until 10% RPM), then IDLE.
- ▲ 5. Fuel flow — Check indication.
6. EGT rise — Check.
7. Hyd press-low warning light — Out (approx 8-10% RPM).
8. Ignition button — Release at approx 30% RPM.
9. Idle — 59-61% RPM.
10. Oil press-low warning light — Out.
11. EGT — Stabilized.
12. External power — Disconnected.

UNSUCCESSFUL, HUNG, OR SLOW START

1. Throttle — OFF.
2. Check for fire.

CLEARING ENGINE

Refer to EXCESSIVE EGT OR FIRE IN TAILPIPE DURING GROUND OPERATIONS in the Emergency Section.

BATTERY STARTING

1. Generators — OFF.
2. Boost pumps — ON.
3. Master electrical power — ON.
4. Fire warning system — TEST.
5. Throttle — Move through normal starting sequence.
6. After throttle in IDLE, emergency AC generator — START.
7. After engine starts, perform ELECTRICAL POWER SUPPLY SYSTEM CHECK AND INTERIOR INSPECTION AFTER BATTERY START.

BEFORE TAXIING

ELECTRICAL POWER SUPPLY SYSTEM CHECK

1. Master electrical power switch — ON.
2. Emergency ac generator — Check.
3. ATG — Check.
4. Generator switch — ON.
5. MA-1 power switch — ON.
6. Armament selector switch — SPL WPN
(AIR-2A not loaded).
7. Radar scope switch — ON.
8. Altimeter — Reset (Conventional Instrument Display).
- *9. Altitude warning selector — SET, CHECK.

INTERIOR INSPECTION AFTER BATTERY START















1. Armament recycle button — Depress, for 5 seconds.
2. Boost pumps — Check, then ON.
3. Special weapon armed light — OFF, press-to-test.
- Ⓐ 4. CG transfer test fail light — Press-to-test.
5. Landing & taxi light switch — Climatic.
6. Oxygen quantity — Check.
7. Marker beacon light — Press-to-test. (FP-RP)
8. Fuel quantity — Check.
9. All light switches — CHECK/TEST, then Climatic.
10. Pitot heat — Check, then OFF.
11. Seat & Rudder pedals — Adjust (FP-RP)

* After T.O. 1F-106-1158.

HYDRAULIC AND FLIGHT CONTROL SYSTEM CHECK

1. Throttle — IDLE.
2. Speed brakes switch — IN, then center (off).
3. Hydraulic pressure — Check 3000 (± 100) psi.
After T.O. 1F-106A-558 - 2800 to 3100 psi
with fluctuations ± 150 psi for secondary
system only.
4. Flight mode selector switch — PITCH.
5. System check:
 - a. Control surface movement.
 - b. Hydraulic system recovery
6. Emergency direct manual button — Depress.
7. Manual mode trigger — Depress.
8. Trim — Check & Set.

AIR REFUELING SYSTEM CHECK (AIR
REFUELING PLANNED)AIR REFUEL
STATUS LIGHTS

- | | | | |
|--|---|---|---|
| 1. Air refuel switch — ON. | | | |
| a. Slipway door — Fully open. | READY |  |  |
| b. Boom latches — Retracted. | | | |
| c. Slipway lights — On. | | | |
| d. Ready light — On. | | | |
| 2. Reset/MBL switch — MBL. | | | |
| a. Boom latches — Extended. | READY |  |  |
| 3. Manual disconnect switch — Depress and hold. | | | |
| a. Boom latches — Retracted. | READY |  | DISCON |
| b. Disconnect light — On. | | | |
| 4. Manual disconnect switch — Release. | | | |
| a. Boom latches — Extended. | READY |  |  |
| b. Disconnect light — Off. | | | |
| 5. Reset/MBL switch — NORM. | | | |
| a. Boom latches — Extended. | READY | CONT |  |
| b. Contact light — On. | | | |
| 6. Manual disconnect switch — Momentarily depress. | | | |
| a. Boom latches — Retracted. |  |  | DISCON |
| b. Ready light — Off. | | | |
| c. Contact light — Off. | | | |
| d. Disconnect light — On. | | | |
| 7. Reset/MBL switch — RESET. | | | |
| a. Boom latches — Retracted. | READY |  |  |
| b. Ready light — On. | | | |
| c. Disconnect light — Off. | | | |
| 8. Air refuel switch — Off. | | | |
| a. Slipway door — Closed. |  |  | DISCON |

GENERAL

1. Oxygen — ON. (FP-RP)
2. Engine anti-ice warning test button — Depress & hold for 3 seconds.
3. Rain removal — ON, then OFF.
4. Canopy — Close (as required).
5. Flight Instruments — Check and set. (FP-RP)
6. Barometer — Set. (FP-RP)
7. EPR — Set. (FP-RP)
8. Ejection seat ground safety pin — Remove and display to crew chief. (FP-RP)
9. Power annunciator — "OK."
10. Chocks — Removed.

RADAR/IR GROUND CHECKOUT PROCEDURE

1. IR Seekerhead — Check extension.
2. Photographic recorder — check.
On \odot gunsight airplanes, set f stop.
3. Search and attack displays — Check centering.
4. DISP/AUTO Mode Switch — MAN NAV or AUTO NAV.
5. Artificial horizon — Adjust 5 degrees high.
6. Firing range bar — note presence from SPL WPN time-in.
7. LC/PUR switch — Depress momentarily.
8. DISP/AUTO Mode Switch — ILS then MAN NAV or AUTO NAV.
9. LC/PUR switch — Depress momentarily.
10. Firing range bar — 3.3 miles (if SPL WPN selected).
11. Nose/tail switch — TAIL.
12. Firing range bar — 1.8 miles (if SPL WPN selected).
13. Armament selector switch — RAD.
14. LC/PUR switch — Depress momentarily.
15. Firing range bar — 0.4 miles.
16. Nose/tail switch — NOSE.
17. Fire range bar — 2.1 miles.
18. Range switch — 16 miles.
19. LC/PUR switch — Depress momentarily.
20. Boresight switch — BORS.
21. Boresight switch — NORM/TRACK.

22. Auto search button — Depress momentarily.
23. RDR/IR select button — Depress and release.
24. Elevation scaling — Check.
25. IR tone and video — Adjust.
26. IR lockon — Accomplish.
27. RDR/IR select button — Depress and release.
28. Auto search button — Depress momentarily.
29. Radar scope — Adjust.
30. Radar lockon — Accomplish.
31. IR seekerhead — Stow.
- A** 31A. Gunsight display — Check.
32. Armament selector switch — VI.
33. DL test pattern — Check.
34. Antenna stabilization and range gate drift — Check.

RADAR GROUND CHECK — MSR OR WSEM's ABOARD

1. With VI selected, armament recycle button depress and hold for 5 seconds.
2. Armament selection indicator — OK (for SPLWPN, RAD, and ALL).
3. Taxi and takeoff — VIS IDENT selected.

TAXIING

1. Brakes & steering — Check.
2. Idle thrust control switch — As desired.
3. Flight instruments — Recheck & set (if necessary).
(FP-RP)
4. Navigation equipment — Check. (FP-RP)

BEFORE TAKEOFF

AIRPLANE CHECK

1. Canopy — Close and lock, check light out.
2. AIR-2A arm/safe/monitor power circuit breaker —
Push in.
3. Cabin air — PRESS.

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4. Pressure suit handle — Cracked (if wearing suit).
5. Ejection seat ground safety pin — Check removed. (FP-RP)
6. Idle thrust control switch — OFF.
7. Flight mode selector switch — DIR MAN.
8. Warning lights — Out.
9. Formation-navigation lights — As required.
10. Pitot heat switch — ON.
11. Line up with nose wheel steering engaged.
12. Gyro erect button — Press to erect (if required).
- *12A. Heading push to sync knob - Press & hold (if required).
13. IFF control panel — As required.

ENGINE CHECK

1. Throttle — IDLE.
2. Fuel control emergency system — Check.
3. Throttle — Full Military.
4. EGT and rpm — Note.
5. EGT spread button — Depress and check.
6. Oil quantity — Check needle in the green range.
7. Engine instruments — Check. (FP-RP)

TAKEOFF

NORMAL TAKEOFF

1. Throttle — FULL MIL POWER.
2. Brakes — Release.
3. Nose wheel steering — Check.
4. Throttle — AFTERBURNER.
5. 120 to 135 KCAS — Smoothly raise nose to takeoff attitude, & allow airplane to fly off ground.
6. Attitude indicator — 10° nose-up indication.

*After T.O. 1F-106-1181.
Reflects T.O. 1F-106A-1S-198.

AFTER TAKEOFF - CLIMB

1. Gear - UP & checked.
2. IFF - Checked.
3. Flight mode - PITCH (above 5000 ft.).
4. Altimeter - Set 29.92 above F.L. 180.
- 4A. Altitude Warning Selector - Set.
5. Standby flight instruments - Check normal operation.

CLIMB

ARMAMENT SAFETY (TRIGGER) CHECK

WARNING

- If doors open, release trigger, select VIS IDENT, wait 75 sec. minimum, then close doors and return to base.

No Primary Armament Aboard

1. Arm-safe switch - SAFE (safetied if armament aboard).
2. S.W. release lock switch - LOCK.
3. S.W. monitor CB - IN.
4. Armament selector - SPL WPN.
5. S.W. armed light - Check not illuminated.
6. LC/PUR switch - Depress.
7. Radar scope - Check for firing bar.
8. Armament trigger - Press to second detent.
9. Armament selector switch - VIS IDENT.

Primary Armament Aboard

1. Arm-safe switch - SAFE and safety wired.
2. S.W. release lock switch - LOCK (safety wired and sealed).
3. Armament selector switch - MISSILES RAD.
4. LC/PUR switch - Depress.
5. Radar scope - Check for firing bar.

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6. Wait 12 seconds minimum then check for no MMST No. 5 light.
7. Armament trigger - Press to second detent.
8. Armament selector switch - VIS IDENT.

FUEL QUANTITY CHECKS

1. Monitor for fuel usage and F tank feeding.

NAVIGATION

RADAR AIRBORNE CHECK

1. Antenna elevation - Check for level sweep.
2. Antenna - Depress.
3. Radar horizon - Drift or tilt.
4. Range gate drift - Recheck.
5. Antenna tracking - Check.
6. Computer operation - Check throughout flight.

IR AIRBORNE CHECK (IIP)

1. IR stow switch - RDR SLVD or RDR SCAN.
2. Auto search button - Press and release.
3. Armament selector switch - Not VIS IDENT.
4. Radar/IR select button - Press and release.
5. IR threshold video control knob - Adjust.
6. IR lock-on - Accomplish.
7. Auto search button - Press and release.
8. Radar/IR select button - As desired.

VISUAL IDENTIFICATION PROCEDURES

1. Arm-safe switch - SAFE.
2. Armament selector switch - VIS IDENT.
3. Display/automatic mode switch - Any position other than ILS or ILS APCH.

4. Radar range lock-on — Accomplish.
5. Flight mode selector switch — As desired.
6. Radar scope — Monitor.
7. Steering dot — Moves to perimeter of V1 command azimuth circle at 6000 ft. or less.
8. VI range circle — Moves down as range decreases.
9. VI command azimuth circle (greater than 6000 feet) — Circle fixed size and designates scope center.
10. VI command azimuth circle (less than 6000 feet) — Circle centered, size increases as range decreases.
11. Closing rate — Adjust to 50 knots or less.
12. VI warn, master warning and flight mode fail lights — Monitor.
13. Flight mode selector switch — Monitor for stepdown to ASSIST.

WEAPON DELIVERY

AIR-2A ATTACK PROCEDURES

AIR-2A Armament Selection

1. Arm-safe switch — SAFE.
2. AIR-2A Arm/safe/monitor power circuit breaker — Check closed.
3. Armament selector switch — SPL WPN.
4. Armament selection indicator — "OK."
5. Arm-safe switch — ARM.
6. MMST confirm light No. 5 — Check illuminated.
7. Special weapon-armed light — Illuminated, "SPL WPN ARMED."
8. Special weapon release lock switch — UNLOCK.
9. Special weapon release lock indicator — "UNLOCK."
10. Photographic recorder — Check operation.
11. Altitude bank selector switch — As desired.

AIR-2A Post-Attack Procedures

1. Arm-safe switch — SAFE.
2. Armament selector switch — VIS IDENT.
3. Special weapon release lock switch — LOCK.
4. Special weapon release lock indicator — Striped.
5. Auto search button — Press and release.

Rocket Lead Collision Attack

1. AIR-2A armament selection — Accomplish.
2. Radar range lock-on — Accomplish.
3. Attack steering — Accomplish.
4. Armament trigger — Press to second detent and hold at 20-seconds before firing time.
5. Radar scope — Monitor for "8" pullout signal.
6. Escape maneuver — Accomplish.
7. Armament trigger — Release.
8. AIR-2A post-attack procedures — Accomplish.

Rocket Radar Pursuit Attack

1. AIR-2A armament selection — Accomplish.
2. LC/PUR switch — Press and release.
3. RDR switch — NORM.
4. Radar range lock-on — Accomplish.
5. Attack steering — Accomplish.
6. Armament trigger — Press to second detent and hold at firing bar cycling.
7. Radar scope — Monitor for "8" pullout signal.
8. Escape maneuver — Accomplish.
9. Armament, trigger — Release.
10. LC/PUR switch — Press and release.
11. AIR-2A post-attack procedures — Accomplish.

Rocket Radar Pursuit/Lead Collision Attack

1. Steps 1 through 5 of ROCKET RADAR PURSUIT ATTACK — Accomplish.
2. LC/PUR switch — Press and release.
3. Steps 3 through 8 of ROCKET LEAD COLLISION ATTACK — Accomplish.

Rocket Radar Pursuit Attack, HOM Mode

1. AIR-2A armament selection — Accomplish.
2. RDR switch — HOM.
3. ATOT — Accomplish.
4. Attack steering — Accomplish.
5. Target at firing range bar — Observe on 4 mile radar scope.
6. Armament trigger — Press to second detent and hold.
7. Radar scope — Monitor for "8" pullout signal.
8. Escape maneuver — Accomplish.
9. Armament trigger — Release.
10. AIR-2A post-attack procedures — Accomplish.

Rocket Radar Pursuit/Lead Collision Attack, HOM Mode

1. Steps 1 through 4 of ROCKET RADAR PURSUIT ATTACK, HOM MODE — Accomplish.
2. Radar scope — Monitor for target burn-through.
3. Steps 3 through 8 of ROCKET LEAD COLLISION ATTACK — Accomplish.

Rocket IR Pursuit Attack

1. AIR-2A armament selection — Accomplish.
2. RDR switch — NORM.
3. IR stow switch — RDR SCAN or RDR SLVD.

4. IR lock-on — Accomplish.
5. Attack steering — Accomplish.
6. Armament trigger — Press to second detent and hold when the target is at the proper range.
7. Radar scope — Monitor for "8" pullout signal.
8. Escape maneuver — Accomplish.
9. Armament trigger — Release.
10. AIR-2A post-attack procedures — Accomplish.

Rocket IR Pursuit/Radar Lead Collision Attack

1. Steps 1 through 5 of ROCKET IR PURSUIT ATTACK — Accomplish.
2. Radar scope — Monitor for radar contact.
3. Radar/IR selector button — Press and release.
4. Steps 3 through 8 of ROCKET LEAD COLLISION ATTACK — Accomplish.

Rocket Pursuit Attack Without MA-1 Range

1. Altitude band selector switch — As required.
2. AIR-2A armament selection — Accomplish.
3. LC/PUR switch — Press and release.
4. Pursuit course to firing position — Accomplish.
5. Armament trigger — Press to second detent and hold.
6. Escape maneuver — Accomplish.
7. Armament trigger — Release.
8. LC/PUR switch — Press and release.
9. Altitude band selector switch — OFF.
10. AIR-2A post-attack procedures — Accomplish.

ROCKET ESCAPE MANEUVER PROCEDURES

Low Altitude Escape Maneuver

1. AIR-2A rocket launch — First establish a 60-degree bank angle, then pull maximum load factor as rapidly as possible.
2. Escape maneuver completion — Continue maximum-g climbing turn for at least 135 degrees of turn.

Level Turn Escape Maneuver

1. Bank angle and load factor — Establish as rapidly as possible.
2. Bank angle and load factor — Maintain until minimum 90° heading change from firing heading is accomplished.

Modified Split-S Escape Maneuver

1. Bank angle — Establish 135 to 180 degrees as rapidly as possible.
2. Maximum load factor — Establish as rapidly as possible.
3. Dive attitude and recovery — Accomplish.

AIM MISSILES ATTACK PROCEDURES

Missile Armament Selection

1. Arm-safe switch — SAFE.
2. Armament selector switch — MISSILES RAD, ALL, or IR.
3. Armament selection indicator — "OK."
4. Arm-safe switch — ARM.

Missile Post-Attack Procedures

1. Auto Search button — Press and release.
2. WSEM's loaded — wait 25 seconds.
3. Arm-safe switch — SAFE
4. Armament selector switch — VIS IDENT.

Missile Lead Collision Attack

1. Missile selection — Accomplish.
2. Radar range lock-on — Accomplish.
3. Attack steering — Accomplish.
4. Armament trigger — Press to second detent and hold.
5. Radar scope — Monitor for "X" fire signal.
6. Pullout maneuver — Accomplish.
7. Armament trigger — Release.
8. Missile post-attack procedures — Accomplish.

Missile Radar Pursuit Attack

1. Missile selection — Accomplish.
2. LC/PUR switch — Press and release.
3. RDR switch — NORM.
4. Radar range lock-on — Accomplish.
5. Attack steering — Accomplish.
6. Armament trigger — Press to second detent and hold.
7. Radar scope — Monitor for "X" fire signal.
8. Pullout maneuver — Accomplish.
9. Armament trigger — Release.
10. LC/PUR switch — Press and release.
11. Missile post-attack procedures — Accomplish.

Missile Radar Pursuit Attack, HOM Mode

1. RDR switch — HOM.
2. Missile selection — Accomplish.
3. Radar angle lock-on — Accomplish.

4. Attack steering — Accomplish.
5. Target at firing range bar — Observe on radar scope.
6. Armament trigger — Press to second detent and hold.
7. Radar scope — Monitor for appearance of "X" fire signal.
8. Pullout maneuver — Accomplish.
9. Armament trigger — Release.
10. Missile post-attack procedures — Accomplish.

Missile IR Pursuit Attack

1. RDR switch — As desired.
2. IR stow switch — RDR SCAN or RDR SLVD.
3. Missile selection — Accomplish.
4. IR lock-on — Accomplish.
5. Attack steering — Accomplish.
6. Armament trigger — Press to second detent and hold.
7. Radar scope — Monitor fire signal.
8. Pullout maneuver — Accomplish.
9. Armament trigger — Release.
10. Missile post-attack procedures — Accomplish.

Missile IR/Radar Pursuit Attack

1. Steps 1 through 5 of MISSILE IR PURSUIT ATTACK — Accomplish.
2. Radar lock-on — Accomplish.
3. Steps 6 through 10 of MISSILE IR PURSUIT ATTACK — Accomplish.

Missile Pursuit Attack Without MA-1 Range

1. Missile selection — Accomplish.
2. LC/PUR switch — Press and release.
3. Attack steering — Fly manually to position interceptor.
4. Armament trigger — Press to second detent and hold.
5. Radar scope — Monitor for fire signal.
6. Pullout maneuver — Accomplish.
7. Armament trigger — Release.
8. LC/PUR switch — Press and release.
9. Missile post-attack procedures — Accomplish.

MISSILE PULLOUT MANEUVER PROCEDURES

1. Level turn — Initiate a smooth turn at missile launch.
2. Modified split-S — Accomplish.

ABORTED ATTACK PROCEDURES

1. Armament trigger — Release.
2. Auto-search button — Press.
3. Arm-safe switch — SAFE.
4. S.W. release lock switch — LOCK.
5. S.W. release lock indicator — "LOCK."
6. Armament selector switch — VIS IDENT.

PRACTICE AIR-2A INTERCEPTS WITH SECONDARY ARMAMENT

1. Arm-safe switch — SAFE (guard safetied & sealed).
2. Special weapon release lock switch — LOCK (guard safetied & sealed).
3. Armament selector switch — SPL WPN.
4. Perform practice AIR-2A intercept.

5. At fire signal perform escape maneuver.
6. Armament selector switch — VIS IDENT.
7. Auto search button — Press & release.

RECOVERY (RTB)

1. Heading indicator — Check.
2. Stable platform check — Accomplish.
- *2A. AHRG check - Accomplish.
3. Fuel quantity & balance — Check.
4. Aircraft position — Verify.

DESCENT

1. Fuel quantity and balance — Check.
2. Cabin temp control — AUTOMATIC HEAT or HOT.
3. Altimeter — Reset at designated altitude.
4. AAU-19A Altimeter (if installed) — Check servoed mode accuracy.
5. Standby flight instruments — Check normal operation.
6. IFF — Checked.
7. Boost pumps — ON.
8. Arm-safe switch — SAFE.
9. Armament selector — VIS IDENT.
10. S.W. release switch — LOCK.
11. S.W. release indicator — "LOCK."
12. Hydraulic pressures — Check.
13. Cockpit no-fog & vent suit switch — As desired.
14. Canopy defog switch — As required.
15. Pressure suit handle — Cracked (if wearing suit).
16. Idle thrust control switch — OFF.
17. Shoulder harness — AUTOMATIC. (FP-RP)
18. Warning lights dimmer switch — As necessary.

BEFORE LANDING

1. Gear handle — DOWN & check. (FP-RP)
2. Landing & taxi light switch — LANDING LIGHTS.
3. Flight mode selector switch — DIR MAN.
4. Speed brakes — OUT.

LANDING**NORMAL LANDING**

1. Throttle — IDLE during flareout.
2. Touchdown speed — As required.
3. Drag chute handle — Pull.
4. Lower nosewheel to runway.
5. Idle thrust control switch — ON.
6. Braking — As necessary.

GO-AROUND

1. Throttle — Full military or maximum.
2. Drag chute handle — In.
3. Speed brakes — Closed.
4. Idle thrust — OFF.
5. Landing gear — UP (when definitely airborne).

AFTER LANDING — CLEAR OF RUNWAY

1. Drag chute — Jettison.
2. Ejection seat ground safety pin — Install. (FP-RP)
3. Parachute — Disconnect and safety.
4. Mode 4 selector knob — Hold if required.
5. IFF master control knob — OFF.
6. Takeoff trim button — Depress.
7. RAT — Extend.
8. RAT handle — Up.
9. Arm-safe switch — SAFE.

10. AIR-2A arm/safe/monitor power circuit breaker — Open.
11. Armament selector switch — VIS IDENT.
12. Special weapon release lock switch — LOCK.
13. Cockpit no-fog & vent suit switch — OFF.
14. Landing & taxi light switch — Climatic.
15. Oxygen — OFF. (FP-RP)
16. Radar intensity — Minimum. (FP-RP)
17. Cabin air — OFF.
18. Canopy — As desired.
19. Formation-navigation lights — NAV ON.
20. Anti-icing, antifog, rain removal and pitot heat — OFF.

ENGINE SHUTDOWN

1. Wheel chocks — Installed.
2. Compressed air — Connected or selected.
3. Canopy — Fully open.
4. ATG switch — OFF.
5. MA-1 — OFF.
6. Boost pumps — OFF.
7. T tank switch — CLOSE.
8. Idle thrust control — OFF.
9. Deleted.
10. Generator switch — OFF.
11. Emer ac generator switch — START.
12. Throttle — OFF.
 - a. Observe "OFF" flag on attitude indicator.
 - b. Monitor fuel quantity.
- 12A. UHF function selector switch — OFF.
13. Master electrical power — OFF.

BEFORE LEAVING AIRPLANE

1. Ejection seat ground safety pin — Installed. (FP-RP)
2. Parachute firing lanyard — Check released and safetied. (FP-RP)
3. All electrical switches — As required.
4. Canopy support(s) — Installed.
5. Form 781 — Complete.

STRANGE FIELD PROCEDURES**IMMEDIATELY AFTER ENGINE SHUTDOWN**

1. Engine oil level — Approx. 2 inches below filler neck (MIL-L-7808 or MIL-L-23699 according to season).
2. CSD oil level — Check service level on sight gages.
3. Hydraulic system reservoirs.
 - a. Relieve system pressure by operating flight controls.
 - b. Hydraulic accumulators —750 (± 25) psi precharge.
 - c. Fluid level — Not more than $\frac{3}{4}$ inch below full mark corresponding to temperature on reservoir temperature gage.
 - d. Service with MIL-H-5606. Close reservoir pressure shutoff valve. Relieve reservoir air pressure by depressing button on filler cap. Remove cap and fill to mark corresponding to reservoir temperature gage.
 - e. Open reservoir pressure shutoff valve; reservoir pressure gage should indicate 55 psi. Check "bleed" indicator, and if bleed is indicated, open bleed fitting on the reservoir servicing panel. When clear fluid flows, tighten bleed fitting.

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4. Engine hot-section recorder — Check and reset.
 - a. Check recorder for temperature data; enter in Form 781.
 - b. Energize ac or dc essential bus — Check EGT gage power failure flag not on display.
 - c. Remove recorder reset button caps — Reset recorder overtemperature flags and clocks.
 - d. Reinstall button caps; turn off electrical power.

REFUELING

1. Fuel — JP-4. [Refer to T.O. 1F-106A-1, Section V, for listing of alternate and emergency fuels.]
2. Refueling truck pressure — 30-60 psi.
3. Refuel until truck gage indicates flow has stopped.
4. Disconnect fuel hose.

TIRE SERVICING

1. Nose tires — 140 psi (41,000 lbs. gross wt. and below)
150 psi (41,001 to 42,720 lbs. gross wt.)
2. Main tires — 225 psi (33,000 lbs. gross wt. and below)
240 psi (33,001 to 35,000 lbs. gross wt.)
260 psi (35,001 to 37,500 lbs. gross wt.)
275 psi (37,501 to 39,750 lbs. gross wt.)
285 psi (39,751 to 41,000 lbs. gross wt.)
295 psi (41,001 to 42,720 lbs. gross wt.)

LIQUID OXYGEN

1. Service with liquid oxygen, MIL-O-27210A, Grade A, Type II.

HIGH-PRESSURE PNEUMATIC SYSTEM

1. Use Besler 56150-17 quick-disconnect assembly and MC-11 or equivalent compressor. If quick-disconnect assembly is not available disconnect tubing aft of quick-disconnect fitting in airplane and connect compressor to tubing. Some airplanes have a tee fitting in the service line for alternate servicing.
2. Charge pneumatic system to 3000 psi.

DRAG CHUTE INSTALLATION

1. Check drag chute handle — pushed in.
2. Insert D-ring between mechanism jaws and release locking pawl. Insure proper locking.
3. Insert pin in jettison switch (pin should fit snugly).
4. Insert drag chute into canister with riser lying flat under the deployment bag and pilot chute flaps positioned at a 45 degree angle from the vertical.
5. Check that the riser keeper is on the top riser and under the pilot chute section of the deployment bag (not extending out beyond the deployment bag).
6. Check that the riser is positioned in the guide bracket with slack removed and riser taut in guide.
7. Position canister restraining straps over pilot chute cone with the upper strap placed on last and insert ripcord pin.
8. Safety wire drag chute ripcord pin to the pilot chute cone, using 0.020 inch diameter copper (breakaway) safety wire as follows:
 - a. Loop one end of the wire around the cable just between top end of ripcord pin and swedged ball on cable.
 - b. Using double twist method, twist wire down to the pilot chute cone.
 - c. Loop one strand of wire around the cone between the ripcord pin and the restraining straps.
 - d. Twist wire ends together and trim excess.
9. Remove pilot chute spring pin and streamer.

MISSILE BAY DOOR OPERATION

TO OPEN MISSILE BAY DOORS

1. Check the high-pressure pneumatic system pressure gage in the left wheel well, to determine that system pressure is between 2000 and 3000 psi. Charge the pneumatic system if necessary.
2. Clear the missile-bay area and post personnel to warn others that doors are to be operated.

ⓑ CAUTION — Do not operate the missile bay doors with the aft electronic compartment door open. Damage to the electronic door may result.

3. Place the manual door-control valve handle (left main wheel well bulkhead) in the OPEN position.
4. Lock the manual door-control valve handle in the OPEN position with the red streamered ground safety pin.
5. Install door safety locks on all door acutating cylinders, if available.

WARNING — If door safety locks are not available, extreme caution should be exercised when checking equipment in the exposed missile bay area. Avoid movement of any of the door control valve indicator pins, as damage to the missile bay doors will result.

TO CLOSE MISSILE BAY DOORS

1. Check that the manual door-control valve handle is safetied in the OPEN position.
2. Remove door safety locks, if installed.

3. Clear the missile-bay area of personnel.
4. Remove and stow the manual door-control valve handle safety pin.
5. Place the manual door-control valve handle in the CLOSE position.
6. Check that pneumatic system pressure is between 2000 and 3000 psi. Charge the pneumatic system, if necessary.

RETRACTING AND LATCHING TAILHOOK

The tailhook is manually retracted and latched. The latching procedure generally requires two men and a special tailhook retracting tool (8-96515). However, the special tool may not be available, and the following alternate method may be used:

1. Disconnect battery.
2. Position a man on each side of extended tailhook.
3. Raise and hold the tailhook in the retracted position.

WARNING

— To prevent serious injury to personnel, do not allow any part of the body to extend into the tailhook extension area.

4. Engage the latch shaft with a 5/8-inch open end wrench, and rotate latch shaft approximately 60° aft (clockwise, looking up). Listen for a definite, audible click which occurs as the latch lever seats in the trigger. (If click is not heard, lock may not be fully engaged. Check mechanism for binding, defective solenoid, etc.)
5. Remove wrench from latch shaft, and check that shaft remains in latched position.

6. Slowly ease off pressure applied to tailhook, until it can be determined that tailhook is firmly latched, then release tailhook.
7. Install the tailhook safety pin.
8. Check that tailhook shoe is held against upper stop with safety wire.

ELECTRICAL POWER REQUIREMENTS

1. MD-3 and MD-4 will provide sufficient power for starting and operation of the MA-1 system.
2. MD-3 with adapter cable 8-96052-801 (6115-00-690-4050) will provide power for starting only.

CAUTION

— Ensure that the MD-3 or MD-4 have 3-phase ac power only. If single phase power is applied, the airplane electrical system can be seriously damaged.



F-106A AND F-106B CHECKLIST PERFORMANCE

Refer to T.O. 1F-106A-1, Appendix Part 9, page A9-1, for explanation and limitations of checklist performance data.

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CLIMB, CRUISE, DESCENT AND SAUNTER										XXX BEST RANGE VALUES AIRSPEED IN KNOTS START TO CLIMB 1070 LB USED			DESCEND AT 275 KNOTS CAS AND 85% RPM TIME IN MINUTES DISTANCE IN NAUTICAL MILES		
CLEAN										CRUISE DATA					
A/B CLIMB			MILITARY CLIMB			ALT 1000 FT STD TEMP °C			CRUISE DATA			DESCENT			
IAS CAS MACH	TIME	DIST	FUEL RE- MAINING (USED)	TIME	DIST	FUEL RE- MAINING (USED)	ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER HR	N. MI. PER 1000 LB	TO SEA LEVEL		
													TIME	DIST	TIME
—	2.7	21.4	7176 (2665)	8.4	71.0	7557 (2274)	40 -56.5	.850 .898 .920	260 276 284	487 515 538	2831 2926 3070	172 176 172			
—	2.2	16.9	7357 (2484)	6.2	51.9	7754 (2087)	35 -54.3	.765 .865 .920	260 297 319	441 498 531	2089 2947 3404	157 169 156			
—	1.8	13.8	7510 (2331)	5.0	41.1	7885 (1956)	30 -44.4	.693 .816 .920	260 311 354	409 481 542	2840 3164 3985	144 152 136			
—	1.5	11.4	7655 (2186)	4.1	32.7	8007 (1834)	25 -34.5	.628 .737 .920	260 309 394	378 443 554	2953 3282 4776	128 135 116			
400	1.2	8.4	7864 (1977)	3.0	22.9	8175 (1666)	20 -24.6	.567 .663 .920	260 306 436	349 407 563	3061 3392 5885	114 120 96			
—	0.5	3.5	8302 (1539)	1.3	9.0	8485 (1356)	10 -4.8	.468 .548 .920	260 304 519	299 350 588	3286 3646 9046	91 96 65			
SAUNTER			DESCENT			SAUNTER			DESCENT			TO SEA LEVEL			
CAS	TIME PER 1000 LB	ALT 1000 FT	RATE	TIME	DIST	FUEL	CAS	TIME PER 1000 LB	RATE	ALT 1000 FT	TIME PER 1000 LB	RATE	TIME	DIST	FUEL
262	21.8	40	6050	10.4	63	529	244	20.6	20	3920	5.9	31	337		
266	22.1	35	4650	9.4	55	494	244	19.9	15	3670	4.6	23	270		
252	21.9	30	4400	8.3	47	447	244	19.1	10	3440	3.2	16	194		
247	21.3	25	4150	7.1	39	396	248	18.2	5	3190	1.7	8	102		

CLIMB, CRUISE, DESCENT AND SAUNTER										DESCEND AT 275 KNOTS CAS AND 85% RPM				
CLEAN										TIME IN MINUTES DISTANCE IN NAUTICAL MILES				
A/B CLIMB					MILITARY CLIMB					CRUISE DATA				
IAS	CAS	MACH	TIME	DIST	FUEL RE- MAINING (USED)	TIME	DIST	FUEL RE- MAINING (USED)	ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER HR	N. MI. PER 1000 LB
—	—	—	2.8	22.0	6716 (2709)	8.8	74.1	7105 (2320)	40	.850	260	487	2916	167
—	—	0.92	—	—	—	—	—	—	-56.5	.899	276	515	3012	171
—	—	—	2.2	17.4	6903 (2522)	6.4	53.7	7305 (2120)	35	.920	284	528	3143	168
—	—	0.92	—	—	—	—	—	—	-54.3	.765	260	441	2882	153
—	—	—	1.9	14.2	7061 (2364)	5.2	42.4	7442 (1983)	30	.869	298	451	3018	165
—	—	0.92	—	—	—	—	—	—	-44.4	.920	319	531	3448	154
—	—	—	1.6	11.8	7210 (2215)	4.2	33.7	7568 (1857)	25	.628	260	378	3000	126
—	—	0.92	—	—	—	—	—	—	-34.5	.744	312	448	3368	133
—	—	—	1.2	8.7	7425 (2000)	3.1	23.5	7742 (1683)	20	.920	394	554	4776	116
—	—	—	—	—	—	—	—	—	-24.6	.567	260	349	3116	112
—	—	—	0.6	3.7	7874 (1551)	1.3	9.2	8061 (1364)	10	.671	310	412	3462	119
—	—	—	—	—	—	—	—	—	-4.8	.920	436	565	5885	96
—	—	—	—	—	—	—	—	—	—	.468	260	299	3360	89
—	—	—	—	—	—	—	—	—	—	.556	308	355	3737	95
—	—	—	—	—	—	—	—	—	—	.920	519	588	9046	65
SAUNTER					DESCENT					DESCENT				
CAS	TIME PER 1000 LB	ALT 1000 FT	TO SEA LEVEL			CAS	TIME PER 1000 LB	ALT 1000 FT	RATE	TO SEA LEVEL				
			TIME	DIST	FUEL					TIME	DIST	FUEL		
263	21.4	40	6050	10.4	63	247	20.2	20	3920	5.9	31	337		
268	21.6	35	4650	9.4	55	247	19.4	15	3670	4.6	23	270		
255	21.4	30	4400	8.3	47	247	18.6	10	3440	3.2	16	194		
248	20.9	25	4150	7.1	39	250	17.8	5	3190	1.7	8	102		

CLIMB, CRUISE, DESCENT AND SAUNTER WITH 360-GALLON EXTERNAL TANKS										XXX BEST RANGE VALUES DESCEND AT 275 KNOTS CAS AIRSPEED IN KNOTS TIME IN MINUTES START TO CLIMB 1070 LB DISTANCE IN NAUTICAL MILES USED				
A/B CLIMB					MILITARY CLIMB					CRUISE DATA				
IAS CAS MACH	TIME	DIST	FUEL RE- MAINING (USED)	TIME	DIST	FUEL RE- MAINING (USED)	ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER HR	N. MI. PER 1000 LB		
—	3.3	26.4	11504 (2991)	12.6	107.9	11714 (2781)	40 -56.3	.850	260	487	3382	144		
—	2.6	20.7	11733 (2762)	8.4	70.8	12074 (2421)	35 -54.3	.765	260	441	3291	134		
0.92	2.2	16.9	11922 (2573)	6.6	54.4	12273 (2222)	30 -44.4	.693	260	409	3298	124		
—	1.8	13.9	12098 (2397)	5.3	42.3	12446 (2049)	25 -34.5	.817	311	481	3590	134		
0.92	1.4	10.2	12349 (2146)	3.8	29.0	12674 (1821)	20 -24.6	.920	354	342	4407	123		
—	0.6	4.3	12871 (1624)	1.6	11.2	13071 (1424)	10 -4.8	.567	260	349	3442	102		
400	—	—	—	—	—	—	—	.687	317	422	3872	109		
400	—	—	—	—	—	—	—	.920	436	565	6494	87		
SAUNTER					DESCENT					DESCENT				
TIME PER 1000 LB					TO SEA LEVEL					TO SEA LEVEL				
CAS	TIME	ALT 1000 FT	RATE	TIME	DIST	FUEL	CAS	TIME PER 1000 LB	ALT 1000 FT	RATE	TIME	DIST	FUEL	
262	19.5	40	6550	9.7	59	489	250	19.1	20	4200	5.4	29	314	
264	19.9	35	4980	8.8	51	455	245	18.5	15	3940	4.2	21	250	
252	19.9	30	4700	7.8	43	414	243	17.8	10	3700	2.9	14	178	
246	19.6	25	4440	6.6	36	367	244	17.2	5	3440	1.5	7	97	

B
CLIMB, CRUISE, DESCENT AND SAUNTER
WITH 360-GALLON EXTERNAL TANKS

 XXX BEST RANGE VALUES
 DESCEND AT 275 KNOTS CAS
 AND 85% RPM
 AIRSPEED IN KNOTS
 TIME IN MINUTES
 START TO CLIMB 1070 LB
 DISTANCE IN NAUTICAL MILES
 USED

A/B CLIMB				MILITARY CLIMB				CRUISE DATA							
IAS	CAS	MACH	TIME	DIST	FUEL RE-MAINING (USED)	TIME	DIST	FUEL RE-MAINING (USED)	ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER HR	N. MI. PER 1000 LB	
—	—	—	3.4	27.3	(3045)	14.7	126.1	(2972)	40 -56.5	.850	260	487	3529	138	
—	—	0.92	2.7	21.2	(2804)	8.8	73.6	(2467)	35 -54.3	.900 .920	277 319	516 531	3510 3904	147 143	
—	—	—	2.2	17.3	(2609)	6.8	56.0	(2255)	30 -44.4	.693	260	409	3392	130	
—	—	0.92	1.9	14.2	(2428)	5.4	43.5	(2075)	25 -34.5	.826 .920	315 354	487 542	3689 4443	132 122	
—	400	—	1.4	10.5	(2171)	3.9	29.8	(1841)	20 -24.6	.567 .696	260 322	349 427	3490 3991	100 107	
—	400	—	0.7	4.4	(1646)	1.6	11.4	(1433)	10 -4.8	.468 .563	260 312	299 359	3738 4147	80 86	
SAUNTER				DESCENT				SAUNTER				DESCENT			
CAS	TIME PER 1000 LB	ALT 1000 FT	TO SEA LEVEL				CAS	TIME PER 1000 LB	ALT 1000 FT	TO SEA LEVEL					
			RATE	DIST	FUEL	RATE				TIME	DIST	FUEL			
264	18.9	40	6550	9.7	59	489	247	18.6	20	4200	5.4	29	314		
266	19.3	35	4980	8.8	51	455	247	18.1	15	3940	4.2	21	250		
255	19.3	30	4700	7.8	43	414	246	17.4	10	3700	2.9	14	178		
248	19.1	25	4440	6.6	36	367	247	16.8	5	3440	1.5	7	97		

CLIMB, CRUISE, DESCENT AND SAUNTER (BASE AIRCRAFT CONFIGURATION WITHOUT EXTERNAL TANKS)										BEST RANGE VALUES ASSUMED IF ABOVE 8 DMT TO CLIMB 1070 LB USED				DESCEND AT 274 KNOTS AND 1000 FT PER MINUTE DISTANCE IN NAUTICAL MILES			
A/B CLIMB		MILITARY CLIMB				ALT		CRUISE DATA									
CAS KNOTS	TIME PER 1000 FT	DIST	FUEL RE- WALKING (LBS)	TIME	DIST	FUEL RE- WALKING (LBS)	1000 FT PER MINUTE	WIND KNOTS	CAS	TAS	LB PER HR	W. WT. PER 1000 LB	TIME PER 1000 FT	DIST	FUEL		
—	2.8	22.7	7096 (2745)	9.7	82.6	7402 (2440)	40	050	260	487	3230	151	4.87	3230	151		
0.92	—	—	—	—	—	—	—	—	277	516	3270	158	—	—	—		
—	2.3	17.8	7289 (2558)	7.0	59.0	7631 (2210)	35	765	260	441	3150	140	4.88	3150	140		
0.92	—	—	—	—	—	—	—	—	299	496	3280	151	—	—	—		
—	1.9	14.6	7451 (2390)	5.6	46.2	7789 (2056)	30	693	260	409	3150	130	5.31	3150	130		
0.92	—	—	—	—	—	—	—	—	305	473	3430	138	—	—	—		
—	1.6	12.0	7609 (2236)	4.5	36.3	7928 (1913)	25	628	260	378	3180	119	5.42	3180	119		
0.92	—	—	—	—	—	—	—	—	308	442	3550	128	—	—	—		
400	1.2	8.8	7825 (2016)	3.3	25.1	8120 (1721)	20	567	260	349	3260	107	5.52	3260	106		
—	—	—	—	—	—	—	—	—	310	412	3680	112	—	—	—		
400	0.6	3.7	8283 (1598)	1.4	9.6	8463 (1378)	10	508	260	299	3520	85	5.68	3520	88		
—	—	—	—	—	—	—	—	—	300	346	3870	89	—	—	—		
—	—	—	—	—	—	—	—	—	313	388	4200	59	—	—	—		
SAUNTER		DESCENT				SAUNTER				DESCENT							
CAS	TIME PER 1000 FT	ALT 1000 FT	RATE	TO SEA LEVEL		CAS	TIME PER 1000 LB	ALT 1000 FT	RATE	TO SEA LEVEL		FUEL					
262	19.5	40	6950	9.7	59	290	19.1	20	4200	5.4	29	314					
264	19.9	35	6950	8.8	51	245	18.5	15	3940	4.2	21	259					
292	19.9	30	6700	7.8	43	243	17.8	10	3700	2.9	14	178					
246	19.6	25	4440	6.6	36	244	17.2	5	3440	1.5	7	97					

CLIMB, CRUISE, DESCENT AND SAUTER

[WITH MAGGALGUN AND TWO 300-GALON EXTERNAL TANKS]

A		MILITARY CLIMB										CRUISE DATA				
		A/B CLIMB		FUEL RE-MAKING (USED)		TIME	DIST	FUEL RE-MAKING (USED)	DIST	FUEL RE-MAKING (USED)	ALT PER 1000 FT	WCH	CAS	TMG	LB PER HR	H. MT. PER 1000 LB
—	—	3.4	27.7	11422 (3073)	15.8	135.3	11390 (3105)	4.0	—6.5	260	487	3610	1.35			
0.92	—	2.7	21.6	11666 (2889)	9.5	88.0	11923 (2972)	3.5	—9.3	260	504	3710	1.36			
—	—	2.2	17.6	11865 (2630)	7.3	60.4	12159 (2336)	3.0	—4.4	260	403	3500	1.17			
0.92	—	1.9	14.4	12050 (2445)	5.7	46.3	12362 (2133)	2.5	—3.5	260	378	3520	1.07			
—	—	1.5	10.6	12312 (2183)	4.1	31.3	12618 (1877)	2.0	—2.6	260	349	3500	0.97			
4.00	—	0.7	4.5	12893 (1642)	1.7	11.8	13050 (1445)	1.0	—1.8	260	299	3070	0.78			
—	—	—	—	—	—	—	—	—	—	313	359	4340	0.91			
SAUTER		DESCENT					SAUTER					DESCENT				
CAS	TIME PER 1000 LB	ALT PER 1000 FT	RATE	TO SEA LEVEL		CAS	TIME PER 1000 LB	WCH	CAS	RATE	ALT PER 1000 FT	TO SEA LEVEL		WCH	H. MT. PER 1000 LB	
				TIME	DIST							TIME	DIST			
263	18.2	4.0	6800	9.5	58	285	18.0	20	4330	20	5.3	28	302			
264	18.4	3.5	5100	8.5	50	245	17.5	15	4080	15	4.1	21	282			
273	18.6	3.0	4800	7.5	42	245	16.9	10	3820	10	2.8	14	173			
248	18.3	2.5	4580	6.4	35	245	16.4	5	3520	5	1.5	7	91			

0-44-883

A SUPERSONIC ACCELERATION, CRUISE AND DECELERATION

CLEAN

ALT 1000 FT		ACCELERATION DATA						CRUISE DATA						DECELERATION DATA			
		TEMP °C		FROM 0.9 MACH			MACH	ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER MIN	N. MI. PER 1000 LB	MACH	TO 0.9 MACH		
		STD		TIME	DIST	FUEL									TIME	DIST	FUEL
45	-66.5	2.4	25.8	765	1.4	55	1.690	404	969	308	52.4	1.40	55	1.1	12	13	
	-56.5	3.1	33.6	946			—	—	—				50	1.2	13	20	
	-46.5	3.5	39.0	1149			—	—	—				45	1.1	12	28	
40	-66.5	1.7	18.0	665	1.4	50	1.953	520	1120	455	41.0	1.40	40	1.0	10	30	
	-56.5	2.0	21.9	768			1.608	423	922				323	47.5	8	32	
	-46.5	2.4	26.9	983			1.264	328	725				232	52.0	30	28	
35	-64.3	1.4	14.7	657	1.4	45	2.005	591	1150	561	34.1	1.83	30	0.7	7	28	
	-54.3	1.6	17.8	781			1.748	518	1003				435	38.5	5	22	
	-44.3	2.0	22.3	970			1.491	440	855				335	42.5	24	21	
45	-66.5	4.4	56.1	1740	1.83	40	2.005	652	1150	670	28.6	1.83	55	1.9	24	21	
	-56.5	5.7	75.1	2175			1.765	580	1012				526	32.0	25	33	
	-46.5	7.7	107.3	3310			1.525	502	875				411	35.5	19	40	
40	-66.5	3.1	39.5	1525	1.83	35	2.005	718	1155	801	24.0	1.83	40	1.3	16	42	
	-56.5	3.8	50.9	1825			1.759	638	1014				630	26.8	13	44	
	-46.5	5.2	71.8	2620			1.513	552	872				496	29.3	11	39	
35	-64.3	2.5	31.6	1450	1.83	30	1.901	752	1120	892	20.9	2.00	35	1.1	13	44	
	-54.3	3.1	40.9	1790			1.690	676	996				715	23.2	29	24	
	-44.3	4.3	59.1	2560			1.478	595	871				569	25.5	29	37	
40	-66.5	3.7	50.8	2001	2.0	20	1.571	753	965	914	17.6	2.00	45	1.7	21	43	
	-56.5	4.9	70.9	2560			1.405	678	863				756	19.0	18	45	
	-46.5	8.0	125.0	4634			1.239	598	761				624	20.3	15	47	
35	-64.3	2.9	39.5	1854	2.0	20	1.571	753	965	914	17.6	2.00	40	1.4	18	45	
	-54.3	3.9	55.5	2458			1.405	678	863				756	19.0	18	45	
	-44.3	6.1	94.0	4110			1.239	598	761				624	20.3	15	47	

SUPERSONIC ACCELERATION, CRUISE AND DECELERATION

CLEAN

AIRSPEED IN KNOTS
TIME IN MINUTES
DISTANCE IN NAUTICAL MILES

ACCELERATION DATA						CRUISE DATA						DECELERATION DATA								
ALT 1000 FT.	TEMP °C STD	FROM 0.9 MACH			ALT 1000 FT STD	TEMP °C	MACH	CAS	TAS	LB PER MIN	M.M. PER 1000 LB	MACH	ALT 1000 FT	TO 0.9 MACH						
		TIME	DIST	FUEL										TIME	DIST	FUEL				
45	-66.5	2.4	25.7	761	55	1.690	404	969	308	52.4	1.40	55	1.1	12	13					
	-56.5	3.0	33.4	940									1.4	1.2	13	20				
	-46.5	3.5	39.2	1156									1.1	1.1	12	28				
40	-66.5	1.7	18.0	664	50	1.953	520	1120	455	41.0	1.83	40	1.0	10	30					
	-56.5	2.0	21.8	766									1.4	0.8	8	32				
	-46.5	2.4	26.9	983									1.1	0.7	7	28				
35	-64.3	1.4	14.7	657	45	2.005	591	1150	561	34.1	2.00	30	0.4	5	22					
	-54.3	1.6	17.8	781									1.4	0.4	5	22				
	-44.3	2.0	22.4	971									1.1	0.4	5	22				
45	-66.5	4.5	57.9	1820	40	2.005	652	1150	670	28.6	1.83	50	2.0	25	33					
	-56.5	6.0	78.8	2280									1.83	1.6	19	40				
	-46.5	8.4	118.2	3530									1.1	1.3	16	42				
40	-66.5	3.1	40.2	1340	35	1.759	638	1014	630	26.8	2.00	40	1.1	13	44					
	-56.5	3.9	51.8	1860									1.83	0.9	11	39				
	-46.5	5.4	74.9	2730									1.1	0.9	11	39				
35	-64.3	2.5	31.7	1470	30	1.901	752	1120	892	20.9	2.00	55	2.1	29	24					
	-54.3	3.1	41.3	1820									2.0	2.2	29	37				
	-44.3	4.3	60.4	2620									1.1	1.7	21	43				
40	-66.5	3.8	51.9	2046	20	1.571	753	965	914	17.6	2.00	40	1.4	18	45					
	-56.5	5.1	73.4	2653									1.405	678	863	756	19.0	1.4	18	45
	-46.5	8.5	134.5	4988									1.239	598	761	624	20.3	1.7	15	47
35	-64.3	3.0	40.0	1874	20	1.405	678	863	756	19.0	2.00	35	1.4	18	45					
	-54.3	4.0	56.5	2504									1.239	598	761	624	20.3	1.7	15	47
	-44.3	6.3	96.7	4230									1.239	598	761	624	20.3	1.7	15	47

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A SUPERSONIC ACCELERATION, CRUISE AND DECELERATION
 WITH 360-GALLON EXTERNAL TANKS

 AIRSPEED IN KNOTS
 TIME IN MINUTES
 DISTANCE IN NAUTICAL MILES

ACCELERATION DATA						CRUISE DATA						DECELERATION DATA			
ALT 1000 FT	TEMP °C [STD]	FROM 0.9 MACH			ALT 1000 FT STD TEMP °C	MACH	CAS	TAS	LB PER MIN	N. MI. PER 1000 LB	MACH	ALT 1000 FT	TO 0.9 MACH		
		TIME	DIST	FUEL									TIME	DIST	FUEL
45	-66.5	4.4	47.2	1401	1.680	448	963	382	42.0		55	1.0	11	11	
	-56.5	6.3	69.1	1948	1.340	351	768	268	47.7		50	1.0	11	19	
	-46.5	7.5	86.1	2533	1.000	248	573	203	47.1		45	1.0	10	24	
40	-66.5	2.6	28.2	1040	1.863	551	1068	539	33.0	1.40	40	0.8	9	26	
	-56.5	3.3	36.5	1280	1.559	461	814	393	37.9		35	0.7	7	27	
	-46.5	4.3	49.7	1793	1.254	364	719	285	42.1		30	0.6	6	24	
35	-64.3	1.9	21.2	949	1.945	634	1115	698	26.6		20	0.4	4	18	
	-54.3	2.4	27.5	1203	1.638	539	939	505	31.0		55	1.5	19	17	
	-44.3	3.3	38.6	1669	1.329	434	762	367	34.6	1.83	50	1.5	18	28	
45	-66.5	7.0	84.9	2607	1.975	709	1138	866	21.9		45	1.4	16	34	
	-56.5	9.9	123.7	3543	1.681	612	969	643	25.1		40	1.2	14	37	
	-46.5	-	-	-	1.388	506	890	481	27.7		35	1.0	12	37	
40	-66.5	4.4	53.6	2049	1.894	750	1116	1000	18.6		30	0.8	9	33	
	-56.5	5.7	72.3	2564	1.580	635	931	705	22.0		55	1.7	22	19	
	-46.5	9.1	123.9	4528	1.264	507	745	507	24.5	2.00	50	1.6	21	30	
35	-64.3	3.0	40.7	1863	1.588	761	975	1078	15.8		45	1.5	19	37	
	-54.3	4.4	56.0	2448	1.332	644	818	784	17.4		40	1.3	16	40	
	-44.3	7.3	100.4	4335	1.076	515	661	568	19.4		35	1.0	13	40	

44-5012

B **SUPERSONIC ACCELERATION, CRUISE AND DECELERATION**
WITH 360-GALLON EXTERNAL TANKS

 AIRSPEED IN KNOTS
 TIME IN MINUTES
 DISTANCE IN NAUTICAL MILES

ACCELERATION DATA										CRUISE DATA					DECELERATION DATA				
ALT 1000 FT	TEMP °C STD	FROM 0.9 MACH			ALT 1000 FT STD	MACH	CAS	TAS	LB PER MIN	N. MI. PER 1000 LB	MACH	TIME	DIST	FUEL	ALT 1000 FT	MACH	TIME	DIST	FUEL
		TIME	DIST	FUEL															
45	-66.5	4.5	48.8	14.50	-	-	-	-	-	-	55	1.0	10	11	1.40	0.8	9	27	
	-56.5	6.6	72.8	20.50	50	1.40	-	-	-	50	1.0	11	18						
	-46.5	8.4	96.8	28.50	-56.5	-	-	-	-	45	1.0	10	24						
40	-66.5	2.7	28.8	10.62	1.798	533	1031	516	33.3	1.40	40	0.8	9	1.83	0.7	7	27		
	-56.5	3.4	37.3	13.09	45	1.40	457	886	37.3	35	0.7	7	27						
	-46.5	4.4	51.0	18.62	-56.5	1.188	342	681	27.3	30	0.6	6	24						
35	-64.3	2.0	21.4	9.58	1.893	619	1085	670	27.0	-	20	0.4	4	1.83	1.5	19	17		
	-54.3	2.5	27.8	12.15	40	1.40	525	914	31.0	55	1.5	19	17						
	-44.3	3.4	38.9	16.84	-56.5	1.294	421	742	34.7	50	1.5	18	27						
45	-66.5	7.5	92.1	28.35	1.938	697	1117	846	22.0	1.83	45	1.4	16	1.83	1.2	14	37		
	-56.5	11.8	150.6	43.30	35	1.70	954	636	25.0	40	1.2	14	37						
	-46.5	-	-	-	-54.3	1.371	499	790	477	27.6	35	1.0	11					37	
40	-66.5	4.5	55.0	21.02	1.875	743	1105	995	18.5	-	30	0.8	9	1.83	1.6	21	29		
	-56.5	6.0	76.3	27.09	30	1.70	628	920	22.0	55	1.7	22	19						
	-46.5	11.6	163.5	59.79	-44.4	1.247	499	735	500	24.5	50	1.6	21					29	
35	-64.3	3.3	41.1	18.82	1.571	753	965	999	16.1	2.00	45	1.5	18	1.83	1.3	15	40		
	-54.3	4.5	57.5	25.16	20	1.70	641	814	17.5	40	1.3	15	40						
	-44.3	8.3	115.3	49.80	-24.6	1.078	516	662	56.6	19.5	35	1.0	13					40	

SUPERSONIC ACCELERATION, CRUISE AND DECELERATION

(RADIAL GUN CONFIGURATION WITHOUT EXTERNAL TANKS)

ADDITIONAL IN KNOTS
TIME IN MINUTES
DISTANCE IN NAUTICAL MILES

ACCELERATION DATA										CRUISE DATA						DECELERATION DATA			
ALT 1000 FT	TEMP °C (EFT)	TIME	FROM 0.9 MACH			MACH	ALT 1000 FT TEMP °C	MACH	CAS	TIME	LB PER MILE	R.M.T. PER 1000 LB	MACH	ALT 1000 FT	TO 0.9 MACH				
			TIME	DIST	FUEL										TIME	DIST	FUEL		
45	-66.5	3.1	13.1	981	1.75	50	174	171.4	407	41.7	55	1.1	12	13					
	-66.5	3.1	15.6	1280	1.8	-56.5	174	174	478	47.6	30	1.2	13	20					
	-66.5	2.0	16.6	1687	1.8	50	174	174	478	47.6	30	1.2	13	20					
40	-66.5	2.1	22.3	823	1.4	45	174	111.8	267	56.7	45	1.4	12	20					
	-66.5	2.5	17.7	778	1.4	45	174	111.8	267	56.7	45	1.4	12	20					
	-66.5	2.5	26.5	1331	1.4	45	174	111.8	267	56.7	45	1.4	12	20					
35	-66.5	1.6	17.2	772	1.4	-56.5	1.65	489	944	42.1	35	0.8	8	30					
	-66.5	2.0	21.9	969	1.4	-56.5	1.65	489	944	42.1	35	0.8	8	30					
	-66.5	2.5	29.1	1266	1.4	40	1.25	395	774	31.0	30	0.7	7	28					
45	-66.5	5.1	61.6	1306	1.7	40	2.00	602	1159	26.6	20	0.4	3	22					
	-66.5	6.9	87.0	2499	1.7	-56.5	1.70	561	978	30.8	55	1.9	24	21					
	-66.5	10.7	145.9	4336	1.7	40	2.00	602	1159	26.6	20	0.4	3	22					
40	-66.5	3.4	43.7	1592	1.7	35	2.00	718	1355	21.9	45	1.6	12	30					
	-66.5	4.3	54.4	1930	1.7	-56.5	1.70	627	984	21.9	30	1.1	16	42					
	-66.5	6.5	86.6	3108	1.7	40	1.61	571	812	26.0	45	1.6	12	30					
35	-66.5	2.6	32.0	1462	1.7	30	1.90	752	1320	19.4	30	0.9	11	22					
	-66.5	3.4	43.6	1906	1.7	-56.5	1.61	647	970	22.0	55	2.1	22	24					
	-66.5	5.2	69.1	3000	1.7	40	1.61	647	970	22.0	55	2.1	22	24					
40	-66.5	5.1	71.7	2128	2.0	-56.5	1.32	511	778	21.0	40	2.2	22	37					
	-66.5	7.0	118.7	3068	2.0	40	1.32	511	778	21.0	40	2.2	22	37					
	-66.5	11.0	181.7	4668	2.0	40	1.32	511	778	21.0	40	2.2	22	37					
35	-66.5	3.8	52.0	2050	2.0	30	1.57	752	964	16.4	35	1.2	15	47					
	-66.5	6.3	95.7	4265	2.0	-56.5	1.34	644	805	17.8	40	1.4	18	45					
	-66.5	11.0	181.7	4668	2.0	40	1.32	511	778	21.0	40	2.2	22	37					

GAS 684

ACCELERATION DATA		CRUISE DATA										DECELERATION DATA					
		ALT 1000 FT	TEMP °C (STD)	TIME	FROM 0.9 MACH		MACH	ALT 1000 FT STD	WIND ° C	MACH	CRUISE	TIME	WIND PER 1000 LB	MACH	ALT 1000 FT	TIME	BEST
45	-66.5	5.7	61.3	1892	1.4	1.50	398	660	500	331	43.3	1.0	11	25	1.0	11	11
	-66.5	8.6	94.9	2072	1.4	1.30	342	746	500	275	44.7	1.0	11	30	1.0	11	19
	-66.5	13.4	131.0	3855	1.4	-56.3	-	-	-	-	-	1.4	1.0	45	1.0	1.0	26
40	-66.5	3.2	38.5	1275	1.4	1.70	511	1020	500	503	31.4	1.4	8	40	0.8	8	26
	-66.5	1.6	46.7	1640	1.4	-56.5	-	-	-	-	31.4	1.4	8	35	0.7	7	27
	-66.5	3.9	68.1	2483	1.4	1.43	421	880	399	38.1	40.0	1.4	8	30	0.6	6	26
35	-66.5	2.3	25.0	1121	1.4	1.10	312	631	263	263	27.2	1.4	4	20	0.4	4	18
	-66.5	3.0	34.4	1503	1.4	1.80	597	1046	640	470	31.0	1.4	17	25	1.3	19	17
	-66.5	3.5	53.3	2338	1.4	1.73	593	875	470	34.5	34.1	1.4	18	50	1.5	18	28
40	-66.5	12.1	145.0	4130	1.6	1.23	398	705	500	22.8	22.8	1.4	16	45	1.4	16	36
	-66.5	4.6	75.1	2080	1.6	1.80	660	1080	600	29.0	29.0	1.4	16	30	1.2	14	37
	-66.5	6.2	106.7	2762	1.6	-51.3	-	-	-	-	27.1	1.4	17	35	1.0	17	37
35	-66.5	3.4	40.2	1808	1.6	1.27	648	744	458	27.1	27.1	1.4	19	30	0.8	9	33
	-66.5	4.8	59.3	2560	1.6	1.80	737	1065	503	19.2	19.2	1.4	19	25	1.7	22	19
	-66.5	9.7	139.4	5574	1.6	1.50	606	889	670	22.0	22.0	1.4	20	50	1.6	21	30
40	-66.5	7.3	87.8	2597	1.7	1.00	480	708	483	28.3	28.3	2.0	19	45	1.5	19	37
	-66.5	7.8	100.5	3174	1.7	1.57	751	965	1064	15.3	15.3	2.0	16	40	1.1	16	40
	-66.5	4.0	94.2	2933	1.7	-24.6	-	-	-	-	18.8	2.0	13	35	1.0	13	40
35	-66.5	5.9	76.9	3362	1.7	1.31	631	806	603	16.7	16.7	1.4	13	40	1.1	16	40
	-66.5	5.9	76.9	3362	1.7	1.04	597	640	566	18.8	18.8	1.4	13	35	1.0	13	40
	-66.5	5.9	76.9	3362	1.7	1.04	597	640	566	18.8	18.8	1.4	13	35	1.0	13	40

ASSUMED IF KNOWN
TIME IN MINUTES
DISTANCE IN NAUTICAL MILES

A SUPERSONIC ACCELERATION, CRUISE AND DECELERATION

(WITH 100 GALLON AND TWO 300-GALLON EXTERNAL TANKS)

OPTIMUM RETURN CLEAN

MODEL: F-106A
DATA BASIS: FLIGHT TEST

CONDITIONS: STANDARD DAY - NO WIND

INITIAL ALTITUDE 1000 FT	60 NM		100 NM		150 NM		200 NM		250 NM		300 NM		350 NM			
	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT		
40	310	40.0	315	520	45.0	520	775	1025	62.0	1020	1290	1540	40.0	1800	40.0	1800
35	320	35.0	325	540	35.0	540	815	1085	37.5	1080	1250	1420	38.5	1610	1390	1880
30	370	30.0	375	610	34.0	590	925	1220	37.5	1120	1320	1600	38.5	1660	2160	1920
25	420	25.0	425	690	31.5	650	1040	1365	37.0	1180	1730	1860	38.0	1720	2420	2000
20	470	20.0	475	780	31.0	740	1170	1500	37.0	1270	1960	2150	38.0	1810	2740	2080
15	530	15.0	535	890	32.0	820	1320	1770	37.0	1370	2220	2375	38.0	1900	3100	2180
10	600	12.0	605	1000	31.5	910	1500	2000	37.0	1460	2500	2720	38.0	2000	3500	2270
5	680	12.0	685	1120	31.0	990	1690	2250	37.0	1550	2810	3120	38.0	2100	3920	2370
SEA LEVEL	760	12.0	770	1260	30.0	1090	1890	2520	37.0	1640	3150	3720	38.0	2190	4400	2470

CRUISE: CLEAN CONFIGURATION

TRUE ALTITUDE 1000 FT	TRUE MACH NO.	CAS KNOTS	FAS KNOTS	FUEL FLOW LB / HR	ENGINE PRESSURE RATIO
40	.89	272	510	2620	2.08
35	.85	291	490	2620	1.87
30	.79	301	467	2620	1.78
25	.71	295	427	2620	1.68
20	.62	285	382	2680	1.57
15	.56	282	340	3100	1.48
10	.51	282	325	3240	1.39
5	.47	284	304	3410	1.32
SEA LEVEL	.43	284	284	3570	1.27

INSTRUCTIONS AND NOTES

- FUEL REQUIRED WITH CLIMB INCLUDES MILITARY THRUST CLIMB TO CRUISE ALTITUDE.
- CLIMB AT 400 KCAS UNTIL REACHING 0.92 M, THEN CLIMB CONSTANT MACH TO ALTITUDE.
- CRUISE AT RECOMMENDED MACH NO.
- AT DISTANCES LESS THAN 60 NM MINIMUM ALTITUDE 12,000 FEET.
- ZERO FUEL OVER LANDING BASE.

CONDITIONS: STANDARD DAY - NO WIND

INITIAL ALTITUDE 1000 FT	60 NM		100 NM		150 NM		200 NM		250 NM		300 NM		350 NM						
	FUEL W/D CLIMB ALT	FUEL FT WITH W/D OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT	FUEL W/D CLIMB ALT	1000 FT OPT CLIMB ALT					
40	330	40.0	330	550	40.0	550	820	1090	45.0	1090	1360	45.0	1360	1910	40.0	1910			
35	340	35.0	340	540	35.0	540	840	1110	37.5	1110	1390	38.0	1390	1950	38.0	1950			
30	380	30.0	380	630	34.0	620	950	1260	37.5	1170	1570	36.0	1450	1890	38.5	1720	2210	39.0	2000
25	430	25.0	430	710	33.5	670	1070	1420	37.0	1230	1780	38.0	1510	2130	38.0	1780	2490	39.0	2070
20	480	20.0	480	800	33.0	760	1200	1600	37.0	1320	2000	37.5	1600	2400	38.0	1880	2800	38.1	2180
15	550	15.0	550	910	32.0	850	1360	1810	37.0	1420	2260	37.5	1700	2710	38.0	1880	3170	38.5	2260
10	610	12.0	610	1020	31.5	940	1520	2020	37.0	1510	2520	37.5	1800	3040	38.0	2070	3550	38.5	2560
5	690	12.0	680	1140	31.0	1030	1710	2280	37.0	1600	2850	37.5	1890	3420	38.0	2370	3980	38.5	2460
SEA LEVEL	770	12.0	760	1280	30.0	1130	1930	2570	37.0	1700	3270	37.5	1990	3850	38.0	2270	4490	38.5	2560

CRUISE: CLEAN CONFIGURATION

TRUE ALTITUDE 1000 FT	TRUE MACH NO.	CAS KNOTS	TAS KNOTS	FUEL FLOW L.B./HR	ENGINE PRESSURE RATIO
40	.90	275	514	3780	2.15
35	.88	294	484	3740	1.93
30	.80	354	472	2960	1.81
25	.72	357	433	3070	1.70
20	.64	374	397	3120	1.59
15	.58	390	360	3250	1.50
10	.52	389	333	3370	1.41
5	.48	389	310	3520	1.33
SEA LEVEL	.44	389	289	3770	1.28

INSTRUCTIONS AND NOTES

- FUEL REQUIRED WITH CLIMB INCLUDES MILITARY THRUST CLIMB TO CRUISE ALTITUDE, 0.92 M, THEN CLIMB CONSTANT MACH TO ALTITUDE.
- CLIMB AT 400 KCAS UN-TL REACHING 0.92 M, THEN CLIMB CONSTANT MACH TO ALTITUDE.
- CRUISE AT RECOMMENDED MACH NO.
- AT DISTANCES LESS THAN 60 NM MINIMUM ALTITUDE 12,000 FEET.
- ZERO FUEL OVER LANDING BASE.

OPTIMUM RETURN WITH ONE GAL. ON EXTERNAL TANKS OR
MAGAZINE CONFIGURATION WITHOUT EXTERNAL TANKS

MODEL: F-106A

DATA BASIS: FLIGHT TEST

ESTIMATED FOR GUN CONFIGURATION

CONDITIONS: STANDARD DAY - NO WIND

INITIAL ALTITUDE 1000 FT	60 NM		100 NM		150 NM		200 NM		250 NM		300 NM		350 NM	
	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB	FUEL FT CLIMB	FUEL FT WITH W/O OPT CLIMB
40	340	48.0	340	570	48.0	530	1130	46.0	1130	1420	45.0	1700	40.0	1700
25	340	35.0	340	600	35.0	600	8190	36.0	8190	1490	36.0	1790	40.0	1790
20	410	20.0	410	640	33.0	640	1020	36.0	1020	1790	36.0	2040	41.0	2040
25	430	25.0	430	760	32.0	720	1130	36.0	1010	1880	36.0	1600	40.0	1600
20	530	26.0	530	850	31.0	810	1270	35.0	1110	1890	35.0	1700	39.0	1700
15	570	35.0	570	930	30.0	910	1420	35.0	1270	1900	34.0	1800	39.0	1800
10	640	32.0	640	1020	29.0	1000	1600	35.0	1310	2120	33.0	1990	32.0	1990
5	710	32.0	710	1190	28.0	1160	1780	35.0	1460	2360	32.0	2080	31.0	2080
SEA LEVEL	800	32.0	790	1350	31.0	1300	2030	35.0	1610	2710	32.0	2190	31.0	2190

CRUISE M01A/GUN OR TWO 360-GAL EXTERNAL TANKS

TRUE ALTITUDE 1000 FT	TRUE MACH NO.	CAL. ANG'D	TAS KNOTS	FUEL FLOW L.B./HR	ENGINE PRESSURE RATIO
40	.89	37.0	531	2870	1.17
20	.84	28.0	483	2600	1.00
20	.77	29.0	454	2300	1.00
15	.78	29.0	421	2100	1.15
20	.64	29.0	381	1800	1.40
15	.57	29.0	342	1620	1.55
10	.51	28.0	328	1470	1.44
5	.46	28.0	300	1360	1.36
SEA LEVEL	.42	27.0	278	1270	1.29

INSTRUCTIONS AND NOTES

- FUEL REQUIRED WITH CLIMB INCLUDES MILITARY THRUST CLIMB TO CRUISE ALTITUDE.
- CLIMB AT 400 KCAS UNTIL REACHING 6.93M, THEN CLIMB CONSTANT MACH TO ALTITUDE.
- AT DISTANCES LESS THAN 60 NM MINIMUM ALTITUDE 31,000 FEET.
- ZERO FUEL OVER LANDING BASE

GAS 148

CONDITIONS: STANDARD DAY - NO WIND

MODEL: F106B
DATA BASIS: FLIGHT TEST

INITIAL ALTITUDE 1000 FT	40 NM		100 NM		150 NM		200 NM		250 NM		300 NM		350 NM								
	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	1000 OPT CLIMB ALT							
40	360	40.0	360	590	40.0	590	880	40.0	880	1180	40.0	1180	1470	40.0	1470	1770	40.0	1770	2070	40.0	2070
75	380	35.0	380	630	35.0	630	940	36.5	940	1250	38.5	1250	1560	38.5	1560	1870	40.0	1870	2180	40.0	2180
30	400	30.0	400	690	31.5	690	1040	36.5	1040	1390	38.0	1390	1740	39.5	1690	2090	40.0	2090	2430	40.0	2430
25	470	25.0	470	770	32.5	770	1150	36.0	1150	1500	38.0	1500	1850	38.0	1850	2200	40.0	2200	2550	40.0	2550
20	520	20.0	520	850	31.5	820	1290	35.5	1150	1720	37.5	1460	2150	39.0	1790	2360	40.0	2070	2620	40.0	2380
15	580	15.0	580	970	30.5	930	1460	35.5	1250	1960	37.5	1560	2420	38.5	1870	2610	39.5	2160	2960	40.0	3400
10	650	12.0	650	1090	29.5	1030	1620	35.5	1350	2170	37.0	1660	2730	38.5	1980	3260	39.5	2380	3800	40.0	4500
5	770	12.0	730	1210	28.5	1130	1820	35.0	1480	2420	37.0	1760	3020	38.5	2080	3660	39.5	2390	4260	40.0	4700
SEA LEVEL	830	12.0	830	1380	27.5	1220	2070	35.5	1550	2750	37.0	1870	3440	38.5	2190	4130	39.5	2500	4820	40.0	5610

CRUISE: TWO 360-GAL EXTERNAL TANKS

TRUE ALTITUDE 1000 FT	TRUE MACH NO.	GAS KNOTS	TAS KNOTS	FUEL FLOW LB HR	ENGINE PRESSURE RATIO
40	.89	274	312	3010	2.27
35	.85	289	488	3640	2.04
30	.78	290	461	3200	1.90
25	.71	318	429	3310	1.78
20	.65	299	399	3440	1.66
15	.58	295	365	3540	1.55
10	.53	291	335	3640	1.47
5	.47	286	307	3720	1.36
SEA LEVEL	.43	284	284	3910	1.21

INSTRUCTIONS AND NOTES

- FUEL REQUIRED WITH CLIMB INCLUDES MILITARY THRUST CLIMB TO CRUISE ALTITUDE
- CLIMB AT 400 KTS UNTIL REACHING 0.93 M THEN CLIMB TO CONSTANT MACH TO ALTITUDE.
- CRUISE AT RECCY-ENDED MACH NO.
- AT DISTANCES LESS THAN 60 NM MINIMUM ALTITUDE 12,000 FEET.
- ZERO FUEL OVER LANDING BASE.

OPTIMUM RETURN WITH M6A1 GUN AND TWO 300-GALON EXTERNAL TANKS

MODEL: F-104

DATA BASIS: ESTIMATED

CONDITIONS: STANDARD DAY - NO WIND

INITIAL ALTITUDE 1000 FT	40 NM		100 NM		150 NM		200 NM		250 NM		300 NM		350 NM	
	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT	FUEL W/O OPT CLIMB ALT	FUEL FT WITH W/O OPT CLIMB ALT
40	360	50.0	360	600	600	900	1210	1520	1830	2140	2450	2760	3070	3380
35	390	51.0	390	660	610	910	1300	1650	2000	2350	2700	3050	3400	3750
30	430	30.0	430	700	33.5	700	1070	1440	1810	2180	2550	2920	3290	3660
25	480	25.0	480	800	37.5	770	1300	1680	2060	2440	2820	3200	3580	3960
20	540	20.0	540	890	31.5	810	1380	1810	2240	2670	3100	3530	3960	4390
15	600	15.0	600	1000	35.5	970	1500	1910	2320	2730	3140	3550	3960	4370
10	670	10.0	670	1130	39.5	1060	1670	2050	2430	2810	3190	3570	3950	4330
5	770	12.0	770	1360	26.5	1160	1860	2210	2560	2910	3260	3610	3960	4310
SEA LEVEL	890	12.0	890	1610	27.5	1260	2130	2480	2830	3180	3530	3880	4230	4580

CRUISE M6A1 GUN AND TWO 300-GAL EXTERNAL TANKS

TRUS ALTITUDE 1000 FT	TRUS MACH NO.	CAS FPKTS	TAS KNOTS	FUEL FLOW LB / HR	ENGINE PRESSURE RATIO
40	.89	274	511	3080	2.27
35	.84	281	549	3140	2.06
30	.78	294	598	3090	1.93
25	.71	299	625	3400	1.80
20	.64	298	592	3540	1.69
15	.58	294	568	3630	1.58
10	.52	287	531	3700	1.48
5	.47	276	500	3600	1.37
SEA LEVEL	.43	261	481	4000	1.30

INSTRUCTIONS AND NOTES

- * FUEL REQUIRED WITH CLIMB INCLUDES MILITARY THRUST CLIMB TO CRUISE ALTITUDE.
- * CLIMB AT 400 KCAS UNTIL REACHING 0.52M, THEN CLIMB CONSTANT MACH TO ALTITUDE.
- * AT DISTANCES LESS THAN 40 NM MINIMUM ALTITUDE 12,000 FEET.
- * ZERO FUEL OVER LANDING BASE.

0 48 613

A

MODEL: F-106A

DATE: 21 FEBRUARY 1967

DATA BASIS: FLIGHT TEST

LANDING DISTANCE

CONFIGURATION: SPEED BRAKES OPEN

(DRAG CHUTE NOT DEPLOYED)

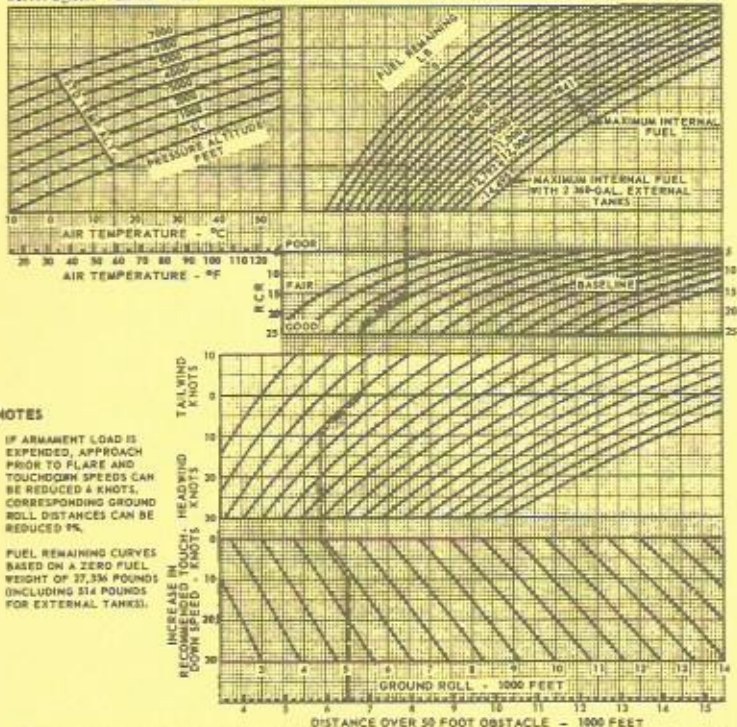
HARD SURFACE RUNWAY

ARMAMENT IN

ENGINE: J75-17

FUEL GRADE: JP-4

FUEL DENSITY: 6.5 LB/GAL



NOTES

IF ARMAMENT LOAD IS EXPENDED, APPROACH PRIOR TO FLARE AND TOUCHDOWN SPEEDS CAN BE REDUCED 4 KNOTS, CORRESPONDING GROUND ROLL DISTANCES CAN BE REDUCED 9%.

FUEL REMAINING CURVES BASED ON A ZERO FUEL WEIGHT OF 37,336 POUNDS (INCLUDING 514 POUNDS FOR EXTERNAL TANKS).

FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS	
	CAS		CAS		CAS	
1000	179		166		147	
2000	181		168		149	
3000	184		171		151	
4000	186		173		154	
5000	188		175		156	
6000	191		177		158	
7000	193		179		160	
8000	195		181		161	

FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS	
	CAS		CAS		CAS	
9500	197		183		163	
10,000	199		185		165	
11,000	201		187		167	
12,000	203		189		169	
13,000	205		191		171	
14,500	207		192		172	
14,495*	208		193		173	

* FULL FUEL WITH TWO 30-GALLON EXTERNAL TANKS

44-1388

B

MODEL: F-106B

DATE: 21 FEBRUARY 1967

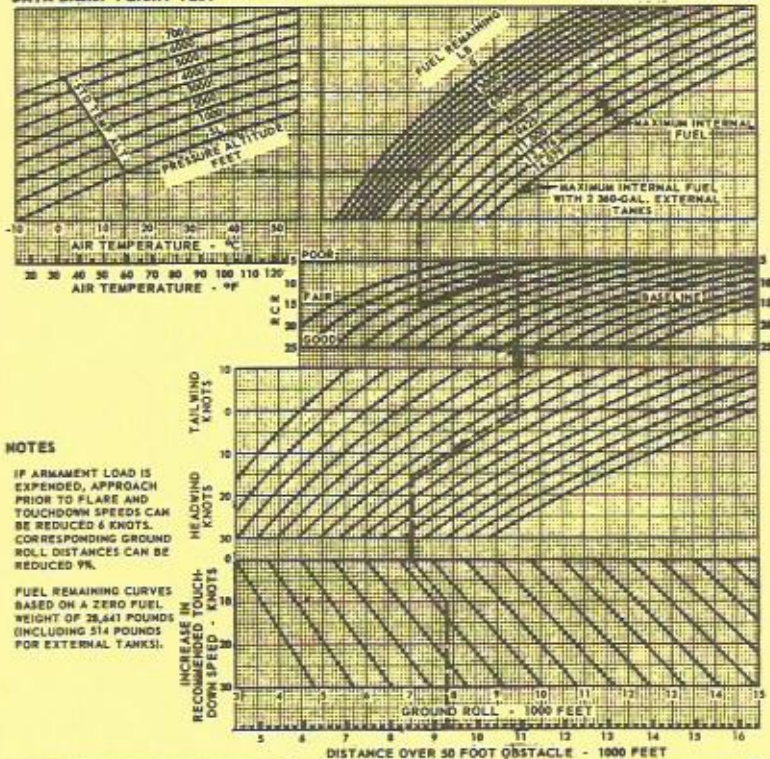
DATA BASIS: FLIGHT TEST

LANDING DISTANCE
 CONFIGURATION: SPEED BRAKES OPEN
 (DRAG CHUTE NOT DEPLOYED)
 HARD SURFACE RUNWAY ARMAMENT IN

ENGINE: J75-17

FUEL GRADE: JP-4

FUEL DENSITY: 6.5 LB/GAL



NOTES

IF ARMAMENT LOAD IS EXPENDED, APPROACH PRIOR TO FLARE AND TOUCHDOWN SPEEDS CAN BE REDUCED 6 KNOTS. CORRESPONDING GROUND ROLL DISTANCES CAN BE REDUCED 9%.

FUEL REMAINING CURVES BASED ON A ZERO FUEL WEIGHT OF 28,641 POUNDS (INCLUDING 514 POUNDS FOR EXTERNAL TANKS).

FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS		FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS	
	CAS		CAS		CAS			CAS		CAS		CAS	
1000	190		177		156		8000	202		187		166	
2000	181		176		157		9000	206		191		170	
3000	192		178		158		10,000	208		193		172	
4000	192		179		159		11,000	210		195		173	
5000	193		180		160		12,000	212		197		175	
6000	193		180		160		13,000	214		199		177	
7000	192		183		163		14,079*	216		200		178	

*4,045B

*FULL FUEL WITH TWO 360-GALLON EXTERNAL TANKS

MODEL: F-106A

DATE: 21 FEBRUARY 1967

DATA BASIS: FLIGHT TEST

LANDING DISTANCE

CONFIGURATION: SPEED BRAKES OPEN
(DRAG CHUTE DEPLOYED)

HARD SURFACE RUNWAY

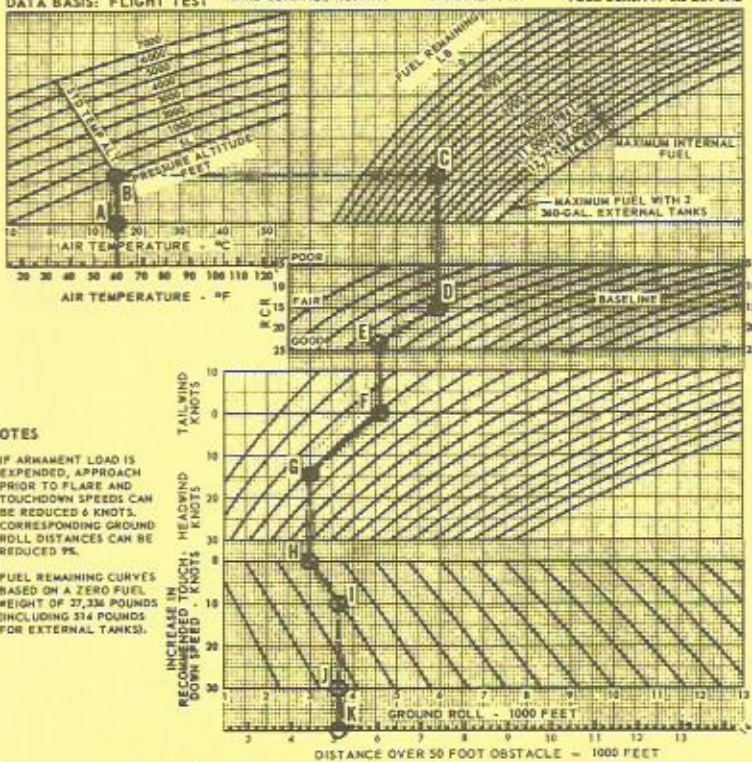
ARMAMENT IN

FUEL DENSITY: 6.3 LB./GAL

A

ENGINE: J75-17

FUEL GRADE: JP-4



FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS	
	CAS		CAS		CAS	
1000	179		166		147	
2000	181		168		149	
3000	184		171		151	
4000	186		173		154	
5000	188		175		156	
6000	191		177		158	
7000	193		179		160	
8000	195		181		161	

FUEL	APPROACH SPEED KNOTS		PRIOR TO FLARE SPEED KNOTS		TOUCHDOWN SPEED KNOTS	
	CAS		CAS		CAS	
9000	197		183		163	
10,000	199		185		165	
11,000	201		187		167	
12,000	203		189		169	
13,000	205		191		171	
14,000	207		192		172	
14,495*	208		193		173	

* FULL FUEL WITH TWO 300-GALLON EXTERNAL TANKS

B

MODEL: F-106B

DATE: 21 FEBRUARY 1967

DATA BASIS: FLIGHT TEST

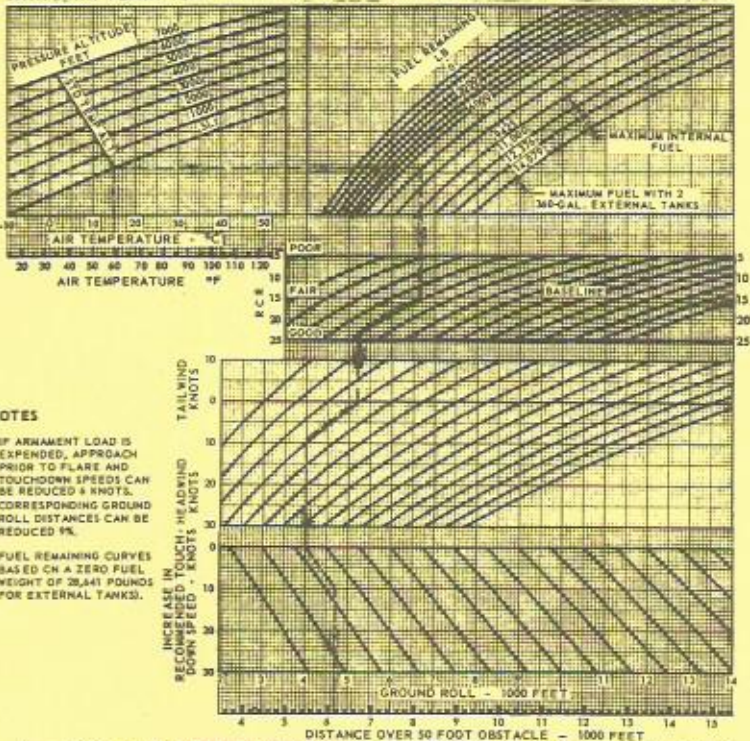
LANDING DISTANCE
 CONFIGURATION: SPEED BRAKES OPEN
 (DRAG CHUTE DEPLOYED)
 HARD SURFACE RUNWAY

ARMAMENT IN

ENGINE: J75-17

FUEL GRADE: JP-4

FUEL DENSITY: 6.3 LB./GAL

**NOTES**

IF ARMAMENT LOAD IS EXPENDED, APPROACH PRIOR TO FLARE AND TOUCHDOWN SPEEDS CAN BE REDUCED 4 KNOTS. CORRESPONDING GROUND ROLL DISTANCES CAN BE REDUCED 8%.

FUEL REMAINING CURVES BASED ON A ZERO FUEL WEIGHT OF 28,441 POUNDS FOR EXTERNAL TANKS.

FUEL	APPROACH SPEED - KNOTS	PRIOR TO FLARE SPEED - KNOTS	TOUCHDOWN SPEED - KNOTS
	CAS	CAS	CAS
1000	190	177	156
2000	191	178	157
3000	192	178	158
4000	192	179	159
5000	192	179	159
6000	191	180	160
7000	191	182	162

FUEL	APPROACH SPEED - KNOTS	PRIOR TO FLARE SPEED - KNOTS	TOUCHDOWN SPEED - KNOTS
	CAS	CAS	CAS
8500	202	187	166
9500	206	181	170
10,000	208	192	172
11,000	210	195	173
12,000	212	197	175
12,000	214	199	177
14,075*	216	200	178

* FULL FUEL WITH TWO 360-GALLON EXTERNAL TANKS

44-2468

LANDING DISTANCE

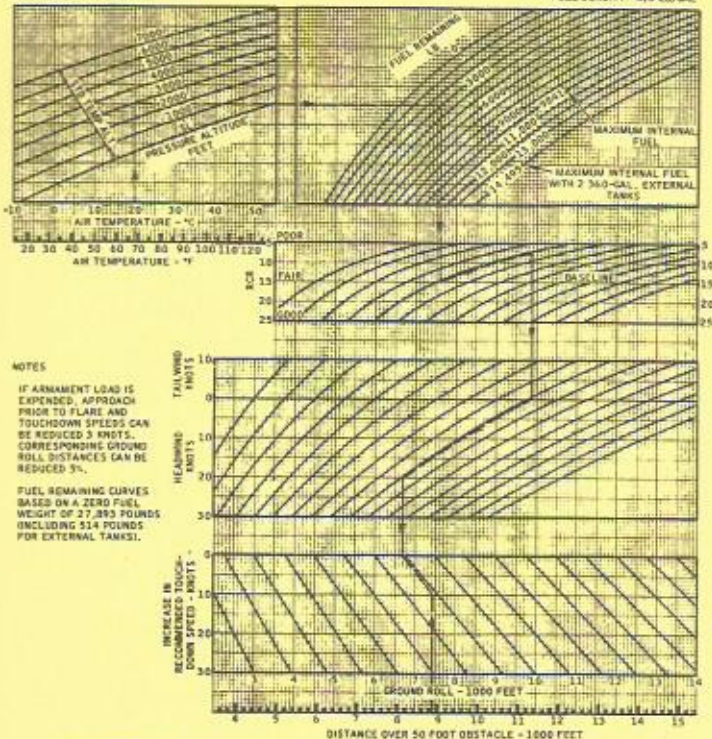
CONFIGURATION: M62A1 GUN, SPEED BRAKES OPEN
(DRAG CHUTE NOT DEPLOYED)

HARD SURFACE RUNWAY ARMAMENT IN

A

MODEL: F-106A
DATE: 2 OCTOBER 1972
DATA BASIS: ESTIMATED

ENGINE: J75-13
FUEL GRADE: JP-4
FUEL DENSITY: 6.5 LB/GAL



NOTES

IF ARMAMENT LOAD IS EXPANDED, APPROACH PRIOR TO FLARE AND TOUCHDOWN SPEEDS CAN BE REDUCED 3 KNOTS. CORRESPONDING GROUND ROLL DISTANCES CAN BE REDUCED 5%.

FUEL REMAINING CURVES BASED ON A ZERO FUEL WEIGHT OF 27,893 POUNDS INCLUDING 514 POUNDS FOR EXTERNAL TANKS.

FUEL LB	APPROACH SPEED KNOTS CAS	PRIOR TO FLARE SPEED KNOTS CAS	TOUCHDOWN SPEED KNOTS CAS
1000	181	168	149
2000	183	170	151
3000	186	172	153
4000	188	175	155
5000	191	177	157
6000	193	179	159
7000	195	181	161
8000	197	183	162

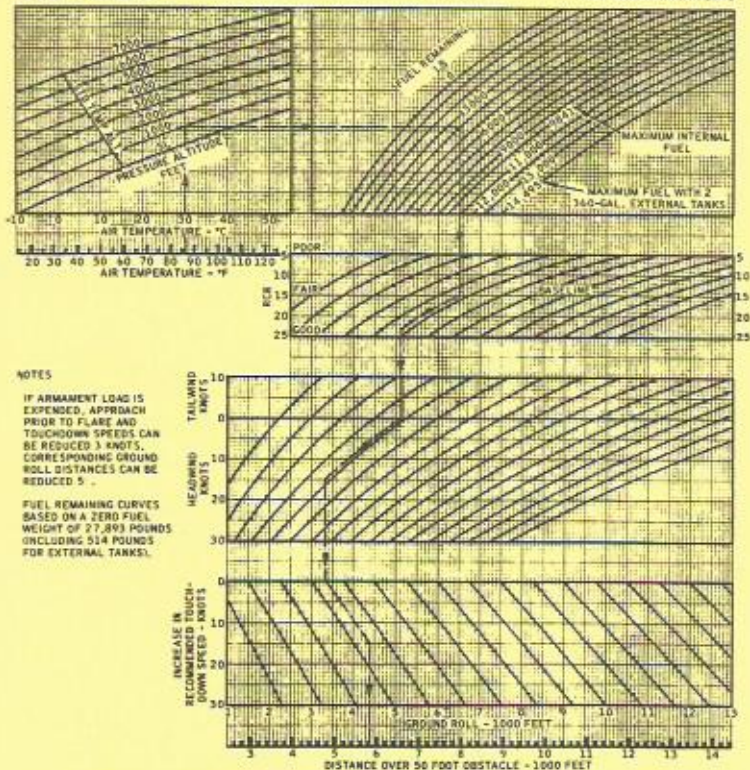
FUEL LB	APPROACH SPEED KNOTS CAS	PRIOR TO FLARE SPEED KNOTS CAS	TOUCHDOWN SPEED KNOTS CAS
9000	199	185	165
10000	201	187	167
11000	203	189	169
12000	205	191	170
13000	207	192	172
14000	209	194	174
14499*	213	195	175

*FULL FUEL WITH TWO 360 GALLON EXTERNAL TANKS

LANDING DISTANCE

CONFIGURATION: M61A1 GUN, SPEED BRAKES OPEN
(DRAG CHUTE DEPLOYED)

HARD SURFACE RUNWAY ARMAMENT IN

ENGINE: J75-17
FUEL GRADE: JP-4
FUEL DENSITY: 6.5 LB/GALMODEL: F-106A
DATE: 2 OCTOBER 1972
DATA BASIS: ESTIMATED

NOTES

IF ARMAMENT LOAD IS EXPENDED, APPROACH PRIOR TO FLARE AND TOUCHDOWN SPEEDS CAN BE REDUCED 3 KNOTS. CORRESPONDING GROUND ROLL DISTANCES CAN BE REDUCED 5 .

FUEL REMAINING CURVES BASED ON A ZERO FUEL WEIGHT OF 27,893 POUNDS INCLUDING 514 POUNDS FOR EXTERNAL TANKS.

FUEL LB	APPROACH SPEED KNOTS CAS	PRIOR TO FLARE SPEED KNOTS CAS	TOUCHDOWN SPEED KNOTS CAS
1000	181	168	149
2000	183	170	151
3000	186	172	153
4000	188	175	155
5000	191	177	157
6000	193	179	159
7000	195	181	161
8000	197	183	162

FUEL LB	APPROACH SPEED KNOTS CAS	PRIOR TO FLARE SPEED KNOTS CAS	TOUCHDOWN SPEED KNOTS CAS
9000	199	185	165
10000	201	187	167
11000	203	189	169
12000	205	191	170
13000	207	192	172
14000	209	194	174
14495*	210	195	175

*FULL FUEL WITH TWO 360 GALLON EXTERNAL TANKS

848,848

A MAXIMUM THRUST TAKEOFF

ROLL DISTANCE, 2000 FEET CHECK SPEED AND REFUSAL SPEED BASED ON AN 8000 FOOT RUNWAY

TAKEOFF SPEED - 176 KCAS CLEAN, 184 KCAS WITH 360-GALLON EXTERNAL TANKS

AIR TEMP ° C		FULL INTERNAL FUEL CLEAN										FULL FUEL WITH 360-GALLON EXTERNAL TANKS										
		SL	1000	2000	3000	4000	5000	6000	ROLL DISTANCE	CHECK SPEED	REFUSAL SPEED	SL	1000	2000	3000	4000	5000	6000	ROLL DISTANCE	CHECK SPEED	REFUSAL SPEED	
-10	14	2780	3000	3230	3490	3750	4030	4360	4660	5010	5430	5900	6360	3450	3750	4010	4340	4660	5010	5430	5900	6360
0	32	3000	3230	3490	3750	4030	4360	4730	5100	5500	6000	6870	145	140	135	130	125	120	116	112	107	104
+10	50	143	138	133	128	123	118	113	108	103	99	93	162	157	152	148	143	139	135	131	127	123
20	68	155	151	146	141	137	132	128	124	120	116	112	107	103	99	95	91	87	83	79	75	71
30	86	147	142	138	134	129	125	121	117	112	108	104	100	96	92	88	84	80	76	72	68	64
40	104	138	134	130	126	122	118	114	110	106	102	98	94	90	86	82	78	74	70	66	62	58
50	122	143	138	134	130	126	122	118	114	110	106	102	98	94	90	86	82	78	74	70	66	62

WIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - SUBTRACT FOR HEADWIND, ADD VALUES IN PARENTHESES () FOR TAIL WIND

ZERO WIND T/O ROLL	ZERO WIND - ADD VALUES IN PARENTHESES () FOR TAIL WIND												
	5	10	15	20	25	30	30	25	20	15			
3000	190 (200)	370 (410)	540 (620)	700 (830)	850 (1050)	1000 (1280)	6000	330 (350)	660 (710)	970 (1080)	1260 (1460)	1540 (1850)	1790 (2240)
4000	240 (250)	470 (510)	690 (780)	900 (1050)	1100 (1330)	1280 (1610)	7000	380 (400)	740 (810)	1100 (1230)	1430 (1660)	1750 (2100)	2040 (2550)
5000	290 (300)	570 (610)	840 (930)	1090 (1260)	1320 (1590)	1540 (1930)	8000	420 (450)	840 (910)	1230 (1390)	1600 (1870)	1950 (2360)	2280 (2850)

B ROLL DISTANCE, 2000 FEET CHECK
SPEED AND REFUSAL SPEED BASED
ON AN 8000 FOOT RUNWAY

TAKEOFF SPEED - 182 KCAS
CLEAN, 190 KCAS WITH 300-
GALLON EXTERNAL TANKS

AIR TEMP ° C	FULL INTERNAL FUEL										FULL FUEL WITH 300-GALLON EXTERNAL TANKS									
	SL	1000	2000	3000	4000	5000	6000	SL	1000	2000	3000	4000	5000	6000						
-10	3060	3330	3560	3850	4140	4460	4800	3770	4100	4380	4740	5100	5500	5960						
	154	148	142	136	131	126	122	144	138	133	128	123	119	115						
	170	164	159	154	149	145	140	161	156	151	146	142	138	134						
0	3330	3560	3850	4140	4460	4800	5220	4100	4380	4740	5100	5500	5960	6460						
	148	142	136	131	126	122	117	138	133	128	123	119	115	110						
	164	159	154	149	145	140	135	156	151	146	142	138	134	129						
+10	3560	3850	4140	4460	4800	5220	5620	4380	4740	5100	5500	5960	6460	6960						
	142	136	131	126	122	117	112	133	128	123	119	115	111	107						
	159	154	149	145	140	136	131	151	146	142	138	134	129	126						
20	3810	4140	4460	4800	5170	5620	6070	4700	5100	5500	5960	6400	6960	7500						
	136	131	126	122	117	112	108	128	124	119	115	111	107	103						
	154	149	145	140	136	132	127	146	142	138	134	130	126	122						
30	4100	4420	4760	5110	5560	6000	6510	5050	5450	5900	6330	6880	7430	8050						
	132	127	122	118	113	109	105	124	120	115	111	107	103	99						
	150	145	141	136	132	128	124	143	138	134	130	126	123	119						
40	4370	4720	5110	5500	5940	6440	7000	5400	5840	6300	6800	7350	7980	8660						
	127	123	118	114	109	105	101	120	116	112	108	104	100	96						
	146	141	137	133	128	124	121	139	135	131	127	123	119	116						
50	4670	5050	5440	5880	6370	6920	7430	5780	6260	6730	7270	7870	8590	9200						
	123	119	114	110	106	102	98	116	112	108	104	100	96	93						
	142	137	133	129	125	121	117	135	131	127	124	120	116	113						

WIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - SUBTRACT FOR HEADWIND

ZERO WIND T/O ROLL	ZERO WIND T/O ROLL											
	5	10	15	20	25	30	5	10	15	20	25	30
3000	190 (200)	370 (410)	540 (620)	700 (830)	850 (1050)	1000 (1280)	330 (350)	660 (710)	970 (1080)	1260 (1460)	1540 (1850)	1790 (2240)
4000	240 (250)	470 (510)	690 (780)	900 (1050)	1100 (1330)	1280 (1610)	380 (400)	740 (810)	1100 (1230)	1430 (1660)	1750 (2100)	2040 (2550)
5000	290 (300)	570 (610)	840 (930)	1090 (1260)	1320 (1590)	1540 (1930)	420 (450)	840 (910)	1230 (1390)	1600 (1870)	1950 (2360)	2280 (2850)

A MILITARY THRUST TAKEOFF
ROLL DISTANCE, 2000 FEET CHECK
SPEED AND REFUSAL SPEED BASED
ON AN 8000 FOOT RUNWAY

TAKEOFF SPEED - 176 KCAS
CLEAN, 184 KCAS WITH 360-
GALLON EXTERNAL TANKS

AIR TEMP		FULL INTERNAL FUEL CLEAN										FULL FUEL WITH 360-GALLON EXTERNAL TANKS									
		SL	1000	2000	3000	4000	5000	6000	ROLL DISTANCE	CHECK SPEED	REFUSAL SPEED	SL	1000	2000	3000	4000	5000	6000			
-10	14	4700	5090	5520	6000	6470	7020	7640	8330	9030	5930	6400	6950	7570	8200	8920	9740	10650			
	117	122	117	112	108	104	100	96	92	88	115	110	106	102	98	94	90	86			
0	32	5090	5520	6000	6470	7020	7640	8330	9030	9900	6400	6950	7570	8200	8920	9740	10650				
	117	112	108	104	100	96	92	88	85	110	106	102	98	94	90	86	82				
+10	50	6000	6470	7020	7640	8330	9030	9900	10880	6950	7570	8200	8920	9740	10650						
	117	142	137	133	129	125	121	117	114	135	131	127	123	119	115						
20	68	6470	7020	7640	8330	9030	9900	10880	11900	7500	8200	8920	9740	10650							
	137	133	129	125	121	117	114	111	108	102	98	94	90	86	82						
30	86	6950	7570	8200	8920	9740	10650	11600	12600	8110	8830	9630	10420								
	134	129	125	121	117	114	110	107	104	98	94	91	87	84	81						
40	104	7470	8150	8830	9600	10450	11350	12300	13300	8740	9520	10420									
	130	126	122	118	114	111	108	105	102	95	91	87	84	81	78						
50	122	8060	8730	9500	10320	11200	12150	13150	14200	9420	10300	11160									
	126	122	118	115	111	108	105	102	99	91	88	84	81	78	75						

WIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - SUBTRACT FOR HEADWIND

- ADD VALUES IN PARENTHESES () FOR TAILWIND

ZERO WIND T/O ROLL	ZERO WIND T/O ROLL									
	5	10	15	20	25	30	35	40	45	50
6000	390	770	1120	1450	1760	2040	2300	2550	2800	3050
	(420)	(850)	(1300)	(1770)	(2240)	(2720)	(3200)	(3680)	(4160)	(4640)
7000	450	880	1300	1670	2020	2350	2680	3000	3320	3650
	(480)	(970)	(1490)	(2030)	(2560)	(3120)	(3680)	(4240)	(4800)	(5360)
8000	510	990	1450	1880	2280	2650	3000	3350	3700	4050
	(530)	(1100)	(1680)	(2280)	(2890)	(3520)	(4160)	(4800)	(5440)	(6080)

AIR TEMP °C		FULL INTERNAL FUEL CLEAN										FULL FUEL WITH 360-GALLON EXTERNAL TANKS												
		SL	1000	2000	3000	4000	5000	6000	ROLL DISTANCE	5L	1000	2000	3000	4000	5000	6000	ROLL DISTANCE	5L	1000	2000	3000	4000	5000	6000
-10	14	520	5640	6150	6680	7200	7800	8500	6540	7080	7680	8380	9080	9870	10630	6540	7080	7680	8380	9080	9870	10630	10630	10630
		121	116	111	107	103	98	95	95	90	87	84	81	78	75	114	109	105	101	97	93	89	89	89
		150	145	141	136	132	128	124	128	124	120	116	113	110	107	143	139	134	130	126	122	118	118	118
0	32	5640	6150	6680	7200	7800	8500	9300	7080	7680	8380	9080	9870	10630	7080	7680	8380	9080	9870	10630	10630	10630	10630	10630
		116	111	107	103	98	95	90	95	90	87	84	81	78	75	109	105	101	97	93	89	89	89	89
		145	141	136	132	128	124	120	128	124	120	116	113	110	107	139	134	130	126	122	118	118	118	118
+10	50	6150	6680	7200	7800	8500	9300	10100	7680	8380	9080	9870	10630	10630	7680	8380	9080	9870	10630	10630	10630	10630	10630	10630
		111	107	103	98	95	90	87	95	90	87	84	81	78	75	105	101	97	93	89	89	89	89	89
		141	136	132	128	124	120	116	128	124	120	116	113	110	107	134	130	126	122	118	118	118	118	118
20	68	6600	7200	7800	8500	9200	10100	11000	7800	8500	9300	10100	10630	10630	7800	8500	9300	10100	10630	10630	10630	10630	10630	10630
		107	103	98	95	90	87	84	95	90	87	84	81	78	75	101	97	93	89	89	89	89	89	89
		136	132	128	124	120	116	113	128	124	120	116	113	110	107	130	126	122	118	118	118	118	118	118
30	86	7070	7720	8400	9080	9980	10860	11630	8400	9080	9980	10860	11630	11630	8400	9080	9980	10860	11630	11630	11630	11630	11630	11630
		103	99	95	91	87	84	81	95	91	87	84	81	78	75	97	94	90	87	84	81	78	75	72
		132	128	124	120	116	113	110	128	124	120	116	113	110	107	127	123	119	115	111	107	103	99	95
40	104	7660	8310	9080	9860	10730	11600	12470	9080	9860	10730	11600	12470	12470	9080	9860	10730	11600	12470	12470	12470	12470	12470	12470
		99	96	92	88	84	81	78	95	92	88	84	81	78	75	94	90	87	84	81	78	75	72	69
		129	125	121	117	113	110	107	125	121	117	113	110	107	104	123	119	115	111	107	103	99	95	91
50	122	8230	8970	9740	10600	11460	12320	13180	10600	11460	12320	13180	14040	14900	10600	11460	12320	13180	14040	14900	15760	16620	17480	18340
		96	92	88	85	81	78	75	95	92	88	85	81	78	75	91	87	83	79	75	71	67	63	59
		125	121	117	114	110	107	104	125	121	117	114	110	107	104	120	116	112	108	104	100	96	92	88

ZERO WIND T/O ROLL		WIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - ADD VALUES IN PARENTHESES () FOR HEADWIND										WIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - SUBTRACT FOR HEADWIND												
		5	10	15	20	25	30	ZERO WIND T/O ROLL	5	10	15	20	25	30	ZERO WIND T/O ROLL	5	10	15	20	25	30	KNOTS	KNOTS	
6000	390	770	1120	1450	1760	2040	9,000	580	1110	1670	2100	2540	2940	3300	9,000	580	1110	1670	2100	2540	2940	3300	3740	4140
	(420)	(850)	(1300)	(1770)	(2240)	(2720)		(600)	(1230)	(1870)	(2530)	(3210)	(3910)	(4610)		(600)	(1230)	(1870)	(2530)	(3210)	(3910)	(4610)	(5310)	(6010)
7000	450	880	1300	1670	2020	2350	10,000	630	1220	1770	2290	2770	3220	3630	10,000	630	1220	1770	2290	2770	3220	3630	4030	4430
	(480)	(970)	(1490)	(2030)	(2560)	(3120)		(660)	(1350)	(2050)	(2780)	(3530)	(4280)	(5030)		(660)	(1350)	(2050)	(2780)	(3530)	(4280)	(5030)	(5780)	(6530)
8000	510	990	1450	1880	2280	2650	12,000	740	1430	2080	2680	3230	3760	4260	12,000	740	1430	2080	2680	3230	3760	4260	4760	5260
	(530)	(1100)	(1680)	(2280)	(2890)	(3520)		(780)	(1600)	(2430)	(3290)	(4180)	(5100)	(6000)		(780)	(1600)	(2430)	(3290)	(4180)	(5100)	(6000)	(6900)	(7800)

A		ROLL DISTANCE, 2000 FEET CHECK SPEED AND REPRISAL SPEED BASED ON 5000 FT. RUMBLE										FULL FUEL WITH 50-GALLON EXTERNAL TANKS - W/AL ON CONFIGURATION									
		MAXIMUM THRUST TAKEOFF										FULL FUEL WITH 50-GALLON EXTERNAL TANKS - W/AL ON CONFIGURATION									
ALT. TIME, sec	g	SL		1000	2000	3000	4000	5000	6000	SL		1000	2000	3000	4000	5000	6000				
		g	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft				
-10	8800	1.04	1.14	146	157	154	151	145	140	ROLL DISTANCE	4570	4810	4960	5000	5000	5000	5000				
	170	1.70	1.65	157	154	151	145	140	135	CHECK SPEED	144	139	134	129	124	119	115				
	145	1.45	1.40	145	140	135	130	125	120	REPRISAL SPEED	161	156	151	147	142	138	134				
0	3000	1.80	1.70	180	170	165	160	155	150	ROLL DISTANCE	4830	5120	5300	5450	5500	5500	5500				
	142	1.42	1.37	141	134	128	124	119	117	CHECK SPEED	139	134	129	124	119	115	111				
	145	1.45	1.39	134	129	124	119	114	110	REPRISAL SPEED	154	151	147	142	138	134	130				
+10	3200	1.90	1.80	180	170	165	160	155	150	ROLL DISTANCE	4120	4360	4500	4600	4600	4600	4600				
	142	1.42	1.37	132	127	122	117	111	107	CHECK SPEED	134	127	124	119	115	111	107				
	139	1.39	1.34	129	124	119	114	109	105	REPRISAL SPEED	151	147	142	138	134	130	126				
20	3900	2.00	1.90	190	180	175	170	165	160	ROLL DISTANCE	4430	4600	4700	4750	4750	4750	4750				
	137	1.37	1.32	127	122	117	111	105	101	CHECK SPEED	129	124	119	115	111	107	103				
	135	1.35	1.30	125	120	115	110	105	101	REPRISAL SPEED	147	143	138	134	130	126	122				
30	4300	2.10	2.00	200	190	185	180	175	170	ROLL DISTANCE	4750	4900	5000	5050	5050	5050	5050				
	132	1.32	1.27	122	117	111	105	100	96	CHECK SPEED	125	120	115	112	108	104	100				
	130	1.30	1.25	120	115	110	105	100	96	REPRISAL SPEED	143	139	135	131	127	123	119				
40	4500	2.20	2.10	210	200	195	190	185	180	ROLL DISTANCE	5090	5200	5300	5350	5350	5350	5350				
	128	1.28	1.23	118	113	107	101	95	91	CHECK SPEED	121	116	112	108	104	100	96				
	126	1.26	1.21	116	111	105	100	95	91	REPRISAL SPEED	139	135	131	127	123	119	115				
50	4700	2.30	2.20	220	210	205	200	195	190	ROLL DISTANCE	5470	5550	5600	5650	5650	5650	5650				
	124	1.24	1.19	114	109	103	97	91	87	CHECK SPEED	117	113	109	105	101	97	93				
	122	1.22	1.17	112	107	101	95	90	86	REPRISAL SPEED	136	132	128	124	120	117	113				

A		VIND CORRECTIONS FOR TAKEOFF ROLL DISTANCE - CORRECTED FOR HEADWIND, ALT VALUES IN PARENTHESES () FOR TAILWIND									
		ZERO WIND 1/3 ROLL									
ALT. TIME, sec	g	5	10	15	20	25	30	35	40	45	
		KT/HR	KT/HR	KT/HR	KT/HR	KT/HR	KT/HR	KT/HR	KT/HR	KT/HR	
3000	1.90	(200)	(410)	(600)	(810)	(1000)	(1280)	(1560)	(1840)	(2120)	
	1.70	(200)	(410)	(600)	(810)	(1000)	(1280)	(1560)	(1840)	(2120)	
	1.45	(200)	(410)	(600)	(810)	(1000)	(1280)	(1560)	(1840)	(2120)	
5000	2.30	(300)	(510)	(700)	(910)	(1100)	(1380)	(1660)	(1940)	(2220)	
	2.10	(300)	(510)	(700)	(910)	(1100)	(1380)	(1660)	(1940)	(2220)	
	1.85	(300)	(510)	(700)	(910)	(1100)	(1380)	(1660)	(1940)	(2220)	

G48-648

AIR TEMP		FULL INTERNAL FUEL - 15 GAL GPH CONFIGURATION										FULL FUEL WITH 50-GALLON EXTERNAL TANKS - 15 GAL GPH CONFIGURATION									
		5L	1000	2000	3000	4000	5000	6000	ROLL DISTANCE CHECK SPEED REPRISAL SPEED	8L	1000	2000	3000	4000	5000	6000					
-10	14	4850	5740	6250	6770	7330	7560	6170	6650	7260	7520	7920	8370	8910	10130						
	16	116	112	107	103	99	95	114	110	106	101	97	91	89	89						
	151	136	131	126	122	118	114	131	127	123	118	113	106	102	118						
0	32	5080	5740	6250	6770	7330	7560	6650	7260	7520	7920	8370	8910	10130	11100						
	116	112	107	99	95	91	86	110	106	101	97	91	86	86	86						
	136	131	126	122	118	114	110	127	123	118	113	106	102	119	112						
+10	50	5740	6250	6770	7330	7560	8720	7260	7870	8130	8530	8930	9330	10220	11100						
	112	107	103	99	95	91	87	105	101	97	93	89	86	86	86						
	136	131	126	122	118	114	110	127	123	118	113	106	102	119	112						
20	68	107	103	99	95	91	87	101	97	93	89	86	86	86	86						
	137	132	128	124	120	116	112	130	126	122	118	114	110	115	115						
	6700	7250	7560	8230	8530	10270	11000	8490	9210	9400	10000	10220	10620	10620	10620						
30	86	103	99	95	91	87	83	98	94	90	86	86	86	86	86						
	133	128	124	120	116	113	109	127	123	119	115	111	111	111	111						
	7180	7500	8230	10050	11200	11200	9110	9900	10220	10220	10220	10220	10220	10220	10220						
40	104	100	96	92	88	84	81	94	90	87	87	87	87	87	87						
	129	125	121	117	113	110	107	124	120	116	112	108	104	100	100						
	7720	8230	9130	9930	11000	11000	9790	10470	10470	10470	10470	10470	10470	10470	10470						
50	122	96	92	89	85	81	77	91	87	84	81	81	81	81	81						
	125	121	118	114	110	107	104	120	116	112	108	104	100	96	96						
	ZERO WIND 7/0 ROLL	5	10	15	20	25	30	ZERO WIND 7/0 ROLL	5	10	15	20	25	30	10						
6000	390	770	1120	1450	1750	2040	2040	9000	580	980	1110	1500	2100	2940	3910						
	(480)	(850)	(1200)	(1700)	(2340)	(2720)	(2720)	9000	(600)	(1000)	(1230)	(1870)	(2530)	(3310)	(4300)						
	450	880	1300	1670	2080	2190	2190	10000	630	1230	1770	2290	2770	3270	3270						
7000	(480)	(970)	(1400)	(2030)	(2560)	(3120)	(3120)	10000	(600)	(1000)	(1330)	(1920)	(2780)	(3230)	(4300)						
	510	990	1370	1880	2280	2650	2650	12000	740	1310	2060	2480	2830	3760	3760						
	(510)	(1100)	(1680)	(2260)	(2890)	(3250)	(3250)	12000	(780)	(1260)	(1740)	(2390)	(2830)	(4180)	(4180)						

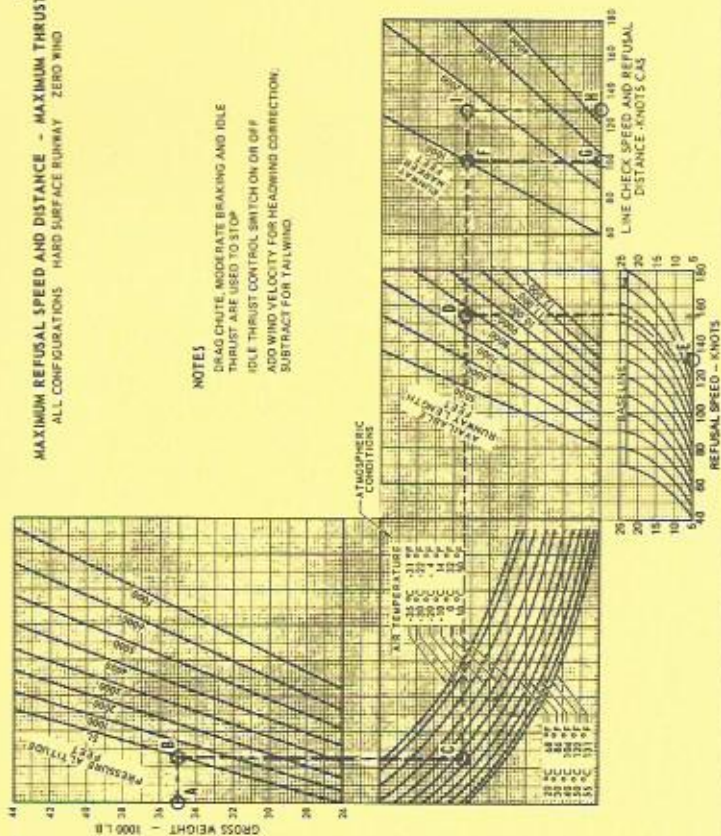
G 44, 447

DATA BASIS: FLIGHT TEST

MAXIMUM REFUSAL SPEED AND DISTANCE - MAXIMUM THRUST
ALL CONFIGURATIONS HARD SURFACE RUNWAY ZERO WIND

NOTES

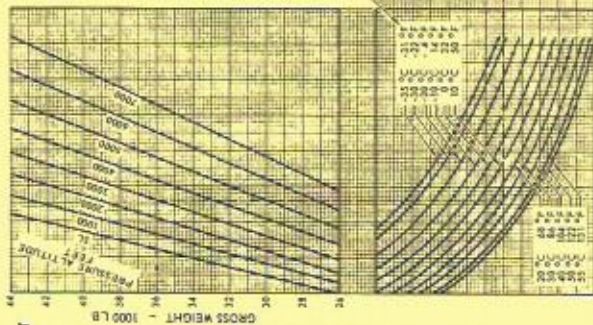
- DRAG CHUTE, MODERATE BRAKING AND IDLE THRUST ARE USED TO STOP
IDLE THRUST CONTROL SWITCH ON OR OFF
ADD WIND VELOCITY FOR HEADING CORRECTION;
SUBTRACT FOR TAILWIND



ENGINE - J79-12
 FUEL GRADE - JP-4
 FUEL DENSITY - 6.5 LB/GAL

MAXIMUM REFUSAL SPEED AND DISTANCE - MILITARY THRUST

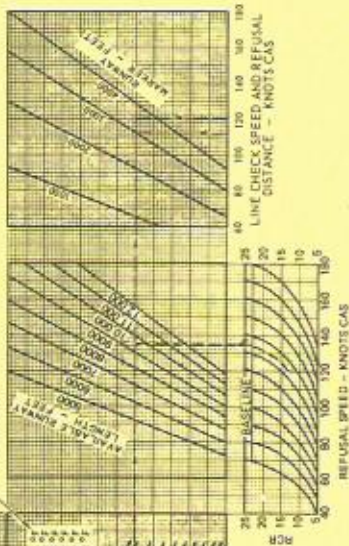
ALL CONFIGURATIONS HARD SURFACE RUNWAY ZERO WIND



NOTES

- DRAG/CLITE, MODERATE BRAKING AND IDLE THRUST ARE USED TO STOP
- IDLE THRUST CONTROL SWITCH ON OR OFF
- ADD WIND VELOCITY FOR HEADING CORRECTION.
- SUBTRACT FOR TAILWIND

ATMOSPHERIC
 CONDITIONS



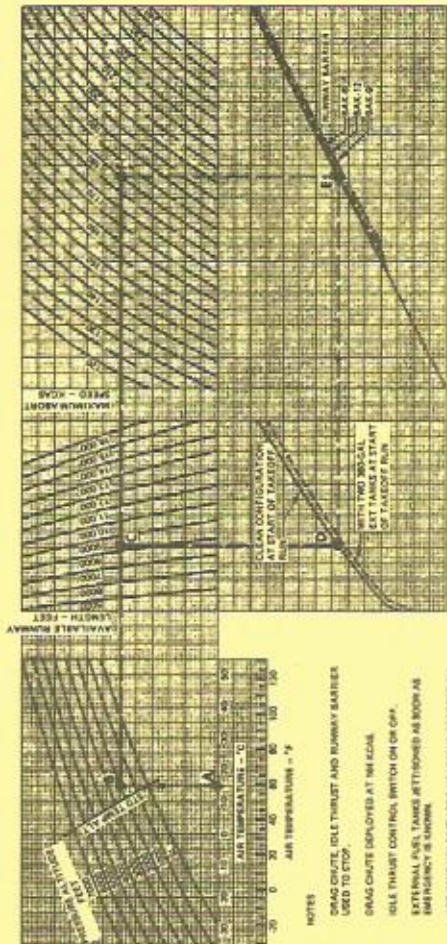
A **B**

MODEL - F106A-9
 DATE - 21 FEBRUARY 1967
 DATA BASIS: FLIGHT TEST

MAXIMUM ABORT SPEED - MAXIMUM THRUST
ALL CONFIGURATIONS HARD SURFACE RUNWAY ZERO WIND

MODEL: F-106A/B
DATE: 8 DECEMBER 1966
DATA-BASE: FLIGHT TEST

ENGINE: JPS-17
FUEL GRADE: #4
FUEL DENSITY: 6.5 LB/GAL



NOTES

DRAG CHUTE, IDLE THRUST AND RUNWAY BARRIER USED TO STOP.

DRAG CHUTE DEPLOYED AT 141 KCAS.

IDLE THRUST CONTROL SWITCH ON OR OFF.

EXTERNAL FUEL TANKS ATTACHED AS SHOWN AS EMERGENCY IS KNOWN.

ADD WIND VELOCITY FOR HEADWIND CORRECTION; SUBTRACT FOR TAILWIND.

DATA VALID FOR BOTH F-106A AND F-106B, BASED ON GROSS WEIGHTS SHOWN BELOW.

F-106A F-106B

FULL INTERNAL FUEL

+ FULL EXTERNAL FUEL

+ ARMAMENT 41,000 LB 42,700 LB

FULL INTERNAL FUEL

+ ARMAMENT 36,000 LB 37,000 LB

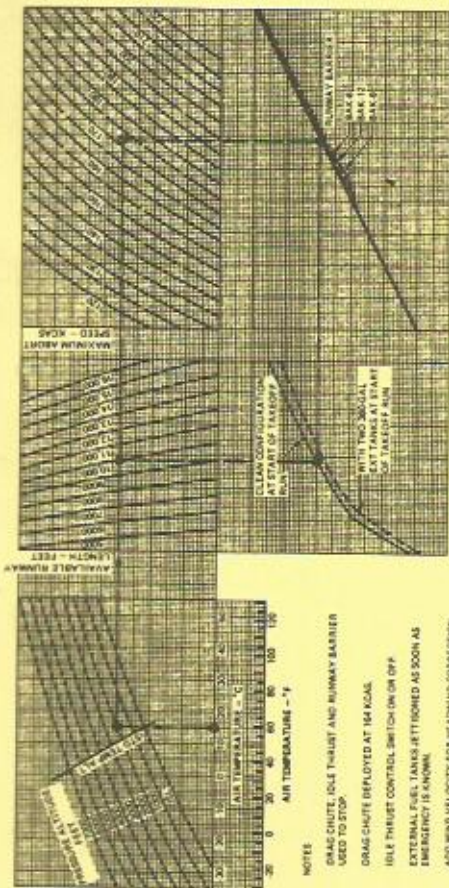
A **B**

MILITARY ABORT SPEED - MILITARY

HARD SURFACE RUNWAY

AVAILABLE RUNWAY LENGTH - FEET

DATA BASED FLIGHT TEST



NOTES

DRAG CHUTE, IDLE THRUST AND RUNWAY BARRIER USED TO STOP

DRAG CHUTE DEPLOYED AT 164 KIAS

IDLE THRUST CONTROL SWITCH ON OFF

EXTERNAL FUEL TANKS JETTISONED AS SOON AS EMERGENCY IS KNOWN

ADD WIND VELOCITY FOR HEADING CORRECTION; SUBTRACT FOR TAILWIND

DATA VALID FOR BOTH F-106A AND F-106B BASED ON GROSS WEIGHTS SHOWN BELOW:

F-106A F-106B

FULL INTERNAL FUEL

* FULL EXTERNAL FUEL

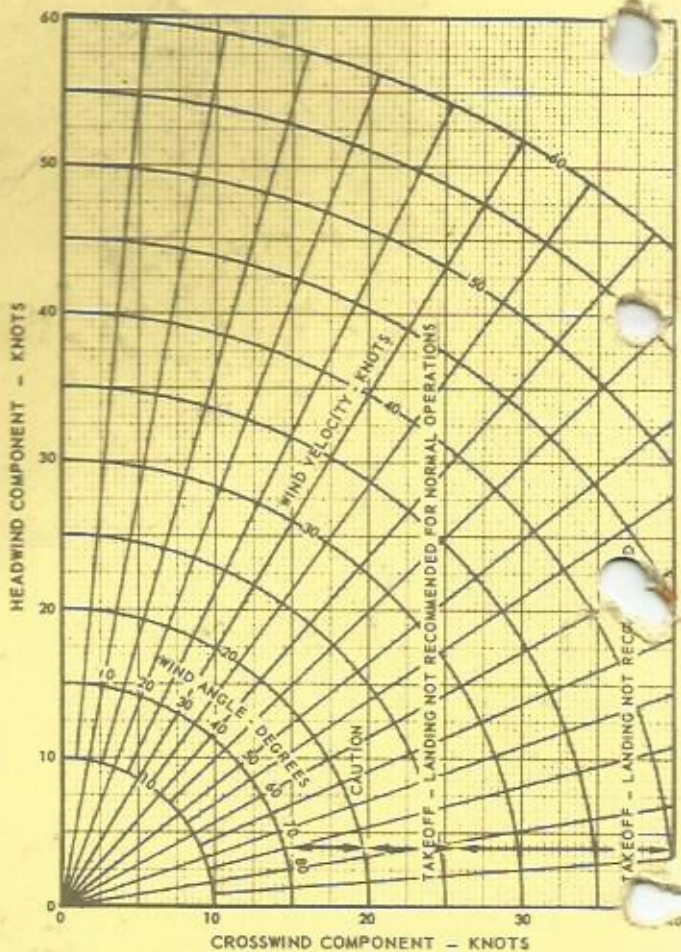
* ARMAMENT

FULL INTERNAL FUEL

* ARMAMENT

30,000 LB 27,982 LB

A B

A B TAKEOFF AND LANDING CROSSWIND CHART
**NOTE**

● ENTER CHART WITH MAXIMUM GUST VELOCITY.

40,297C

T.O. 1-1C-1-17CL-1

02 MAY 1979

PILOTS'

FLIGHT CREW CHECKLIST

F-106 A/B

AIR REFUELING PROCEDURES WITH KC-135

F34601-76-D-1782

CHANGE
NOTICE

LATEST CHANGED PAGES SUPERSEDE
THE SAME PAGES OF PREVIOUS DATE

Insert changed pages into basic
publication. Destroy superseded pages.

Commanders are responsible for bringing this publication to the attention of all affected Air Force personnel.

**PUBLISHED UNDER AUTHORITY OF THE SECRETARY
OF THE AIR FORCE**

Basic and all changes have been merged to make
this a complete publication

1 APRIL 1967
CHANGE 9 1 MAY 1978

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LIST OF EFFECTIVE PAGES

NOTE: The portion of the text affected by the changes is indicated by a vertical line in the outer margins of the page. Changes to illustrations are indicated by miniature pointing hands. Changes to wiring diagrams are indicated by shaded areas.

Dates of issue for original and changed pages are:

Original	0	1 Apr 67	Change	5	1 Jul 72
Change	1	1 May 69	Change	6	1 Jun 73
Change	2	1 Dec 69	Change	7	15 Apr 74
Change	3	30 Oct 70	Change	8	1 May 77
Change	4	1 Jul 71	Change	9	1 May 78

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 14
CONSISTING OF THE FOLLOWING:

Page No.	Change No.	Page No.	Change No.
Title	9	AR-1	7
A	9	AR-2 - AR-3	8
i	0	AR-4	6
ii	6	AR-5 - AR-6	7
iii	8	AR-7	7
iv Blank	8	AR-8 Blank	7

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USAF

USAF ACTIVITIES, - In accordance with T.O. 00-5-2.

A Change 9

YOUR RESPONSIBILITY. In accordance with AFR 60-9, the flight crew is required to use this checklist when operating the subject airplane.

HOW TO BE ASSURED OF HAVING LATEST DATA. Refer to index T.O. 0-1-1-1 for a current listing of all Air Refueling Flight Manuals, Safety Supplements, and Checklists.

TECHNICAL ORDER NUMBER. This checklist is identified by a T.O. number that is identical to that of the applicable Flight Manual except for the addition of the letters "CL" (checklist) and a suffix number indicating the crewmember to which it applies.

CONTENT. This checklist consists of air refueling procedures. The numbered items (line items) correspond to identically numbered items in the amplified procedures in Sections IV and V of the Flight Manual.

FLIGHT MANUAL. This checklist does not replace the amplified version of the procedures in the Flight Manual. To operate the airplane safely and efficiently, you must read and thoroughly understand why each step is performed and why it occurs in a certain sequence.

CONCURRENCY. As changes are made to the amplified checklists in the Flight Manual, concurrent changes will be made to this checklist so that both will agree. However, a change to the Flight Manual may not affect the amplified procedures. Therefore, the Flight Manual date may not be the same as the checklist date. To determine the checklist applicable to a given Flight Manual issue, refer to the bottom of the Flight Manual "A" page under

CURRENT FLIGHT CREW AIR REFUELING CHECKLIST.

For purposes of determining the concurrency between the Flight Manual and this checklist, the latest date of a Safety Supplement or Operational Supplement affecting this checklist will be considered to represent the latest change date of the Flight Manual.

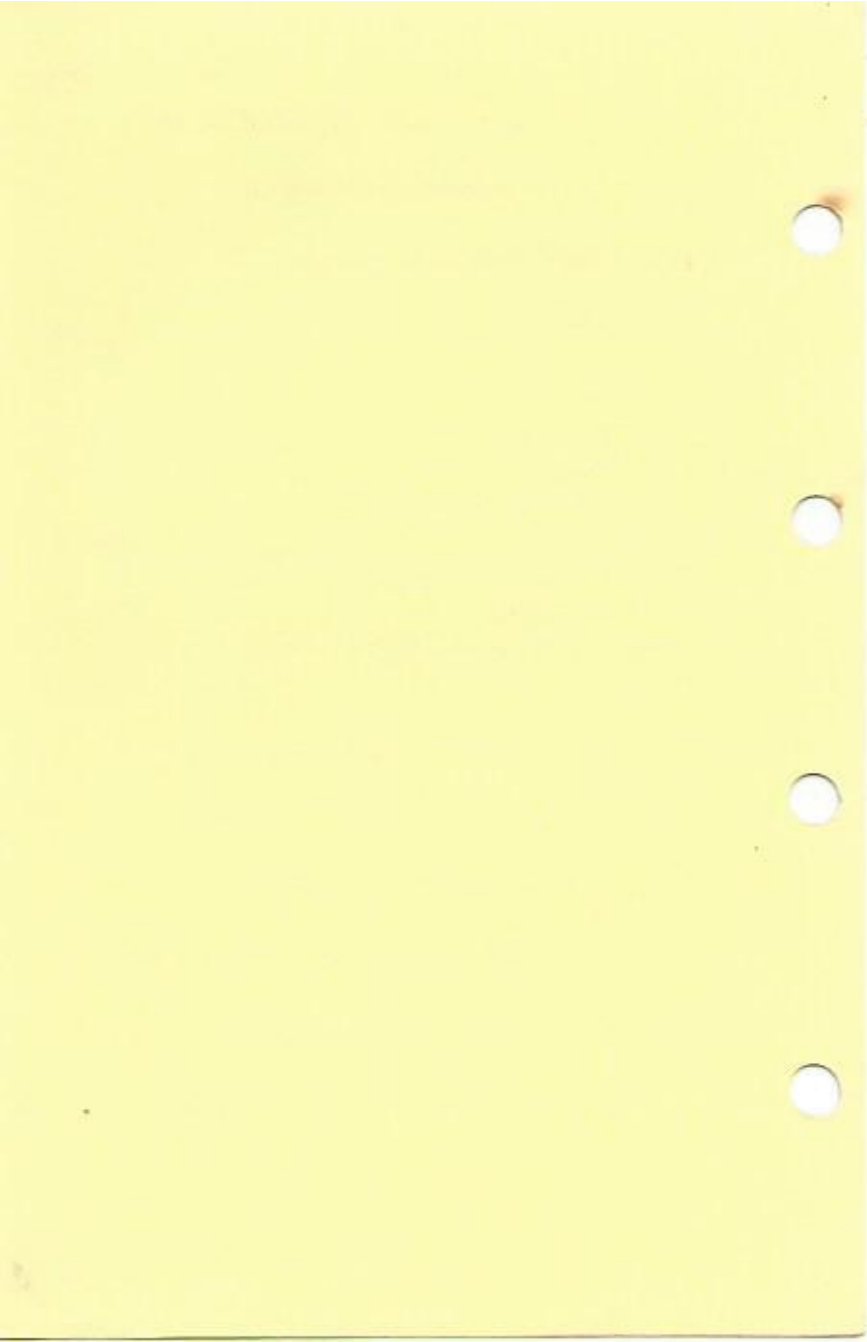
SAFETY SUPPLEMENTS AND OPERATIONAL SUPPLEMENTS.

When you receive an Interim (TWX) supplement affecting your checklist, write in the appropriate information. Printed, replacement checklist pages will be made available to you as soon as possible. When you receive a Formal Supplement affecting your checklist, it will contain a corrected cut-out checklist page. A notation on the bottom inside corner of these pages will indicate that they reflect certain Safety Supplements or Operational Supplements. Note that there is not action in the checklist program that constitutes authority for discarding a Safety Supplement or Operational Supplement. Such Action is authorized only through the title page of the Flight Manual, another Safety Supplement or Operation Supplement, or T. O. 0-1-1-1.

CHANGES AND REVISIONS. When you receive a normal change or revision to your checklist, check to ascertain that it contains all outstanding Safety Supplements and Operational Supplements that affect the checklist. If it does not, add in the outstanding Interim Supplement information by hand (on Formal Supplements, you will be able to accomplish this end simply by retaining the appropriate cut-out page attached to the outstanding supplement).

BINDERS. Binders containing plastic envelopes, to hold and protect the checklist pages, are available through normal AF supply channels. The binders are available with either 15, 25, or 40 envelopes. The Air Force Stock List numbers for these binders are: 7510-766-4268, 7510-766-4269, and 7510-766-4270 respectively. Be sure to order enough binders—if you have a large checklist, you may want to carry it in two small binders instead of a single large one.

COMMENTS AND QUESTIONS. Any comments, corrections and questions should be forwarded on AF Form 847 through your Command Headquarters, and coordinating agencies indicated in the Introduction of the Flight Manual, to Commander, Oklahoma City ALC/MMSRE, Tinker Air Force Base, Oklahoma 73145.



AIR REFUELING PROCEDURES**TABLE OF CONTENTS**

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HOT ARMAMENT SAFETY CHECK (INFLIGHT)

1. Armament Selector Switch – VIS IDENT
2. Armament Safety Switch – SAFE
3. Special Weapon Release Lock Switch – LOCK
4. Special Weapon Release Lock Indicator – LOCK
5. Armament Selection Indicator – BLANK

PRECONTACT

1. Fuel Quantity – CHECK
2. MA-1 Power Switch – RADAR STBY
3. Flight Mode Selector Switch – PITCH
4. Armament Selector Switch – VIS IDENT
5. Arm-Safe Switch – SAFE
- 5.A. TACAN-SET, A/A
6. IFF Mode Selector Switch – AS REQUIRED.
7. Formation-Navigation Lights Switch – FORM ON
8. Formation Lights Dimmer Switch – DIM
9. Emer Slipway Door Open Switch – NORM
(guard closed)
10. Refuel Select Switch – AS REQUIRED
11. Air Refuel Switch – ON
12. Warning Lights Dimmer Switch – BRT (day),
Dim (night)
13. Master Warning Light – DEPRESS (to extinguish)
14. Ready Light – ON

CONTACT

1. Contact Light – ON
2. Ready Light – OFF

DISCONNECT

1. Manual Disconnect Switch – DEPRESS
2. Disconnect Light – ON
3. Contact Light – OFF

POST AIR REFUELING

1. Air Refuel Switch – OFF
2. Warning and Indicator Lights – NORMAL
3. Fuel Quantity – CHECKED
4. MA-1 Power Switch – AS REQUIRED
5. TACAN - AS REQUIRED
6. IFF Mode Selector Switch – AS REQUIRED
7. Flight Mode Selector Switch – AS REQUIRED
8. Formation-Nav Lights Switch – AS REQUIRED

VISUAL SIGNALS

SIGNAL	INDICATION
1. Boom in Trail (a) extended 10 feet	*Ready for Contact
(b) fully extended	1. Tanker Manual Operation. 2. Acknowledge Receiver's Signal that EBL has been selected.
(c) fully retracted	Offload Complete
2. Boom Stowed (a) fully retracted	Tanker Air Refueling System In-operative
(b) extended 5 feet	System Malfunction, Tanker and Receiver Check Air Refueling Systems
3. Tanker Lower Rotating Beacon ON/Flashing Receiver Director Lights	BREAKAWAY
4. Receiver Director Lights Go IN During Contact	Tanker Request for Disconnect, Receiver return to Pre-contact position.
5. Receiver stabilizes in pre-contact position with receptacle open, then closes and re-opens receptacle	1. Receiver has selected EBL on refueling switch. 2. Acknowledge Tanker's Manual Operation Signal.
6. **Steady Light from Receiver or rock wings	Emergency Fuel Shortage Exists

*Receiver(s) in the observation position will move to the precontact position in their briefed sequence only after insuring that the boom is in the ready for contact position and the preceding receiver has cleared the tanker. The receiver will stabilize in the precontact position, then move to the contact position. The boom operator will not give the ready for contact signal until the preceding receiver has cleared the tanker.

**If fuel shortage occurs at times other than scheduled air refueling, the receiver should be positioned so the signal may be seen from the tanker cockpit.

AIR REFUELING EMERGENCY PROCEDURES**REFUELING RECEPTACLE MALFUNCTIONS****MANUAL BOOM LATCHING (CONTACT)**

1. Reset/MBL Switch – MBL
2. Manual Disconnect Switch – DEPRESS AND HOLD
3. Contact Light – ON
4. Manual Disconnect Switch – RELEASE
5. Ready Light – OFF
6. Proceed with normal refueling.

MANUAL BOOM LATCHING (DISCONNECT)

1. Manual Disconnect Switch – DEPRESS/RELEASE
2. Disconnect Light – ON
3. Air Refuel Switch – OFF
4. Warning And Indicator Lights – NORMAL
5. Accomplish Normal Post Air Refueling Checks.

READY LIGHT NOT ILLUMINATED WHEN AIR REFUEL SWITCH IS ON

1. Ready Light – PRESS-TO-TEST
2. Warning And Indicator Lights – CHECK
3. Slipway Door – CHECK POSITION (If door is closed, use secondary HYD SYSTEM FAILURE procedure)

READY AND CONTACT LIGHTS ON AFTER BOOM NOZZLE INSERTED

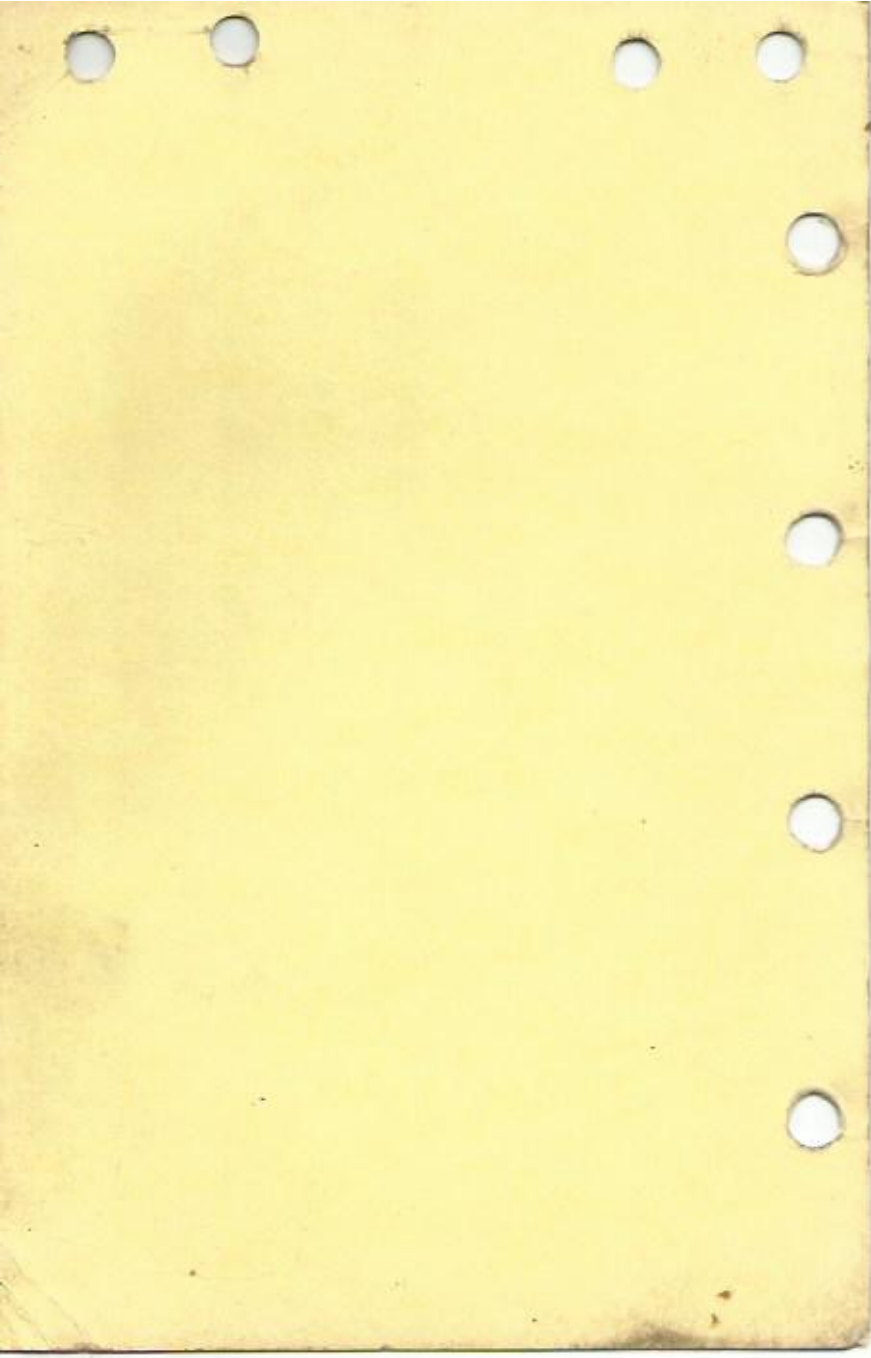
1. Boom Latches – LATCHED (If not latched, use MANUAL BOOM LATCHING procedure)

CONTACT LIGHT DOES NOT ILLUMINATE WHEN BOOM NOZZLE IS INSERTED

1. Have Boom Operator Verify If Nozzle Is Latched
2. If Nozzle Latched, Proceed Normal A/R.
3. If Nozzle not Latched, Rest/MBL Switch – RESET.
4. Attempt Normal Contact And Refueling.
5. If Normal Contact Not Possible, Use MANUAL BOOM LATCHING Procedure.

SECONDARY HYDRAULIC SYSTEM FAILURE

1. Flight Mode Selector Switch – YAW
2. Avoid Use Of Speed Brakes.
3. Refuel Select Switch – AS REQUIRED
4. Air Refuel Switch – ON
5. Emer Slipway Door Open Switch – EMER
6. Ready Light – ON
7. Contact Light – ON
8. Fuel Transfer – INITIATE
9. Fuel Transfer – TERMINATE
10. Air Refuel Switch – OFF
11. Accomplish Normal Post Air Refueling Checks.



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TAKEOFF CHECK TABLE

TEMPERATURE		PRESSURE RATIO SETTING
°F	°C	
113	45	1.93
108	42.5	1.95
104	40	1.96
99	37.5	1.98
95	35	2.00
90	32.5	2.01
86	30	2.03
81	27.5	2.05
77	25	2.06
72	22.5	2.08
68	20	2.09
63	17.5	2.11
59	15	2.13
54	12.5	2.14
50	10	2.16
45	7.5	2.17
41	5	2.19
37	2.5	2.21
32	0	2.22
27	-2.5	2.24
23	-5	2.25
18	-7.5	2.27
14	-10	2.28
9	-12.5	2.29
5	-15	2.31
0	-17.5	2.32
-4	-20	2.34
-8	-22.5	2.35
-13	-25	2.36
-18	-27.5	2.38
-22	-30	2.39
-27	-32.5	2.40
-31	-35	2.41
-35	-37.5	2.43
-40	-40	2.44

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LANDING DATA
RECOMMENDED MINIMUM SPEEDS - KCAS

FUEL LBS.	F-106A			F-106B		
	FINAL APCH.	PRIOR TO FLARE	TOUCH- DOWN	FINAL APCH.	PRIOR TO FLARE	TOUCH- DOWN
1,000	173	160	141	184	171	150
2,000	175	162	143	185	172	151
3,000	178	165	145	186	172	152
4,000	180	167	148	186	173	153
6,000	185	171	152	187	174	154
8,000	189	175	155	196	181	160
10,000	193	179	159	202	187	166
12,000	197	183	163	206	191	169
14,000	201	186	166	210	194	172

- NOTE:** •Add 8 knots for missiles, gun and ammo.
 •Add 6 knots for missiles and AIR-2A.
 •Add 5 knots for gun with no missiles or ammo.

MINIMUM TOUCHDOWN OR NOSEWHEEL LIFTOFF SPEED

CROSSWIND COMPONENT KNOTS	TOUCHDOWN OR LIFTOFF SPEED KCAS
15	160
16	161
17	162
18	163
19	164
20	165
21	168
22	172
23	177
24	183
25	189
26	195

- With a crosswind component below 15 knots, use minimum recommended touchdown speeds (corrected for gusts).
- With a crosswind component of 15 knots or above, compare the minimum recommended touchdown speed (corrected for gusts) with the touchdown speed for the crosswind component, and use the higher speed.
- Landing with a crosswind component of 15 knots or above is not recommended when wearing a full pressure suit.
- Normal operations with a crosswind component from 21 to 26 knots is not recommended.