



F5E TIGER II

**NORMAL PROCEDURES
EMERGENCY PROCEDURES
TACTICAL QUICK REFERENCE**

NOTICE

- This checklist is provided for simulation use only and must not be used in real world operations. Furthermore, use it in the simulation at your own risk; the author is not liable if usage of this document causes you to botch your super-secret bombing mission or any other operation you are undertaking.
- This checklist **intentionally** does not include many items contained in USAF TO 1F-5E-1. It is designed to allow players to go from the chocks to the fight expeditiously as possible and as such, frequently skips items that do not require player interaction.
- This checklist is provided as a public release for public use and distribution. However do not release edited editions or selected portions of this document without the author's permission.

INSTRUCTIONS

- Boxed items, like this line, are to be conducted from memory.
- Emergency and Abnormal items may be looked up from the Emergency Table of Contents (EMER ToC) tab.
- Lights on the Caution Panel and their appropriate tab are looked up using the last page of the checklist.

LOG OF EFFECTIVE PAGES / REVISION HISTORY

REV	DATE	COMMENTS
0	4 JAN 2017	DRAFT PRINTING
1	12 JAN 2017	PUBLIC RELEASE: ADDED INSTRUCTIONS, REMOVED LOGO AND OTHER PERSONALIZATION DATA

LIMITATIONS

FLIGHT / SPEED / G LIMITATIONS

MAX TAXIING SPEED WITH OPEN CANOPY-----	50 KNOTS
MAX DRAG CHUTE DEPLOYMENT SPEED-----	180 KIAS
MAX LANDING GEAR EXTENSION SPEED -----	260 KIAS
MAX LANDING LIGHT RETRACTION SPEED-----	300 KIAS
MAX NOSEWHEEL STEERING ENGAGEMENT SPEED -----	65 KIAS
MAX CROSSWIND LANDING COMPONENT w CHUTE-----	20 KNOTS
MAX CROSSWIND LANDING COMPONENT wo CHUTE -----	35 KNOTS
MAX TAKEOFF RUN GROUNDSPED-----	230 KNOTS
MAX SPEED FULL FLAPS-----	330 KIAS or .85 M
MAX LANDING SINK RATE, ≤3700 LB FUEL, NO STORES -----	600 FPM
MAX LANDING SINK RATE, ALL OTHER CONFIGS -----	360 FPM
MAX AIRSPEED, NO PYLONS-----	710 KIAS or 2.0 M
MAX G, NO PYLONS-----	+ 7.3 / -3.0

CONSULT USAF TO 1F-5E-1 FOR CARRIAGE / RELEASE LIMITATIONS FOR OTHER CONFIGURATIONS

LIMITATIONS

**BEFORE STARTING,
STARTING, BEFORE TAXI**

BEFORE STARTING

- 1) OXYGEN SUPPLY -----ON
- 2) BATTERY -----ON
- 3) GENERATOR (LEFT AND RIGHT) ----- L GEN and R GEN
- 4) FUEL BOOST PUMP (LEFT AND RIGHT) -----ON
- 5) CANOPY ----- CLOSED
- 6) ROTATING BEACON -----ON
- 7) MASTER CAUTION LIGHT AND PANEL ----- CHECK / CLEAR
- 8) CREW CHIEF -----GROUND AIR SUPPLY / CONNECT

STARTING ENGINES (EXTERNAL AIR)

- 1) CREW CHIEF -----GROUND AIR SUPPLY / APPLY
- 2) LEFT START BUTTON (at 10% minimum engine RPM) -----PUSH
- 3) LEFT THROTTLE ----- IDLE
- 4) START PARAMETERS (idle achieved in ~35s) -----MONITOR
 - IDLE SPEED -----49-52%
 - EGT -----≤925° DURING START, IDLE ≥140°
 - NOZZLE POSTION -----60-79%
 - FUEL FLOW -----~400 PPH
 - OIL PRESSURE -----5-20 PSI
 - LEFT GENERATOR-----ONLINE
 - UTILITY HYDRAULICS -----2800-3200 PSI
 - AUX INTAKE DOORS -----BARBER POLE
- 5) CREW CHIEF -----GROUND AIR SUPPLY / APPLY
- 6) RIGHT START BUTTON (at 10% minimum Engine RPM) -----PUSH
- 7) RIGHT THROTTLE ----- IDLE
- 8) START PARAMETERS (idle achieved in ~35s) -----MONITOR
 - IDLE SPEED -----49-52%
 - EGT -----≤925° DURING START, IDLE ≥140°
 - NOZZLE POSTION -----60-79%
 - FUEL FLOW -----~400 PPH
 - OIL PRESSURE -----5-20 PSI
 - RIGHT GENERATOR-----ONLINE
 - FLIGHT CONTROL HYDRAULICS -----2800-3200 PSI
 - AUX INTAKE DOORS ----- OPEN
- 9) CREW CHIEF -----DISCONNECT AIR SUPPLY

BEFORE TAXI

- 1) CREW CHIEF ----- REARM / REFUEL AS REQUIRED
- 2) PITCH DAMPER AND YAW DAMPER ----- PITCH and YAW
- 3) RADAR MODE ----- STBY
- 4) FLAP LEVER ----- THUMB SW
- 5) FLAP THUMB SWITCH ----- AUTO (CHECK FLAPS FULL)
- 6) SPEED BRAKES -----RETRACT
- 7) PITCH TRIM ----- SET AS REQUIRED
- 8) AIRSPEED BUG-----SET
- 9) ALTIMETER-----ELECT and SET FIELD ELEVATION
- 9) STANDBY ATTITUDE INDICATOR -----UNCAGE

BEFORE TAXI (CONTINUED)

- 10) GUNSIGHT MODE SELECTOR-----MSL
- 11) RWR POWER-----ON
- 12) NAVIGATION AND COMMUNICATION RADIOS-----AS REQUIRED
- 13) FUEL AND ARMAMENT-----CHECK QUANTITY
- 14) MASTER CAUTION LIGHT AND PANEL -----CHECK/CLEAR

TAXI

- 1) EXTERIOR LIGHTS-----AS REQUIRED
- 2) NOSE WHEEL STEERING AND WHEEL BRAKES -----CHECK

BEFORE TAKEOFF

- 1) EXTERIOR LIGHTS-----AS REQUIRED
- 2) PITOT ANTI-ICE -----PITOT
- 3) ENGINE ANTI-ICE -----AS REQUIRED
- 4) MASTER CAUTION LIGHT AND PANEL -----CHECK / CLEAR

TAXI, TAKEOFF, CLIMB,
INGRESS

TAKEOFF

- 1) NOSE STRUT SWITCH-----EXTEND
- 2) WHEEL BRAKES -----APPLY and HOLD
- 3) THROTTLES-----ADVANCE TO 90%
- 4) WHEEL BRAKES -----RELEASE
- 5) THROTTLES-----MIL / MAX (AS REQUIRED)
- 6) NOSE WHEEL STEERING -----DISENGAGE PRIOR TO 60 KIAS
- 7) ELEVATOR-----ROTATE 10 KNOTS BEFORE V_{Lo}

AFTER TAKEOFF/CLIMB

- 1) LANDING GEAR-----UP
- 2) FUEL AUTOBALANCE AND EXTERNAL FUEL -----AS REQUIRED
- 3) RADAR -----STBY or OPER
- 4) ENGINE ANTI-ICE -----AS REQUIRED

TARGET AREA INGRESS

- 1) EXTERNAL LIGHTS -----OFF or AS REQUIRED
- 2) FLARE AND CHAFF SYSTEM-----SINGLE or PRGM
- 3) RADAR -----STBY or OPER
- 4) MASTER ARM-----GUNS MSL & CAMR
- 5) MISSILE STATIONS-----ARM
- 6) RELEASE PARAMETERS -----REVIEW

TARGET AREA EGRESS

- 1) EXTERNAL LIGHTS-----AS REQUIRED
- 2) FLARE AND CHAFF SYSTEM-----OFF
- 3) RADAR-----STBY or OPER
- 4) MASTER ARM-----OFF
- 5) MISSILE STATIONS-----SAFE

DESCENT AND APPROACH

**EGRESS, DESCENT,
LANDING, SHUTDOWN**

- 1) ALTIMETER-----SET
- 2) FUEL AUTOBALANCE / CROSSFEED-----OFF
- 3) HYDRAULIC PRESSURE-----CHECK
- 4) ENGINE ANTI-ICE-----AS REQUIRED
- 5) V_{APP} / V_{REF}-----CALCULATE
- 6) NAVIGATION AND APPROACH BRIEFING-----SET / COMPLETE
- 7) EXTERNAL LIGHTS-----AS REQUIRED

BEFORE LANDING / LANDING

- 1) AUX INTAKE DOORS-----OPEN (≤300 KIAS, ≤3000 MSL)
- 2) LANDING GEAR-----DOWN (3 GREEN)
- 3) FLAPS-----FULL
- 4) DRAG CHUTE-----AS REQUIRED
- 5) WHEEL BRAKES-----AS REQUIRED

ROLL OUT / AFTER LANDING

- 1) DRAG CHUTE-----JETTISON
- 2) PITOT HEAT AND ENGINE HEAT-----OFF
- 3) RADAR MODE SELECTOR-----OFF

SHUT DOWN

- 1) GUNSIGHT MODE SELECTOR-----OFF
- 2) BACKUP ATTITUDE INDICATOR-----CAGED
- 3) CANOPY-----OPEN
- 4) THROTTLES-----CUTOFF
- 5) EXTERNAL LIGHTS-----OFF
- 6) FUEL PUMPS / DAMPERS / GENERATORS-----OFF
- 7) BATTERY-----OFF

TWO ENGINE GO AROUND

- 1) THROTTLE-----MIL / MAX (AS REQUIRED)
- 2) SPEED BRAKES-----IN
- 3) DRAG CHUTE-----JETTISON AS REQUIRED
- 4) LANDING GEAR-----UP
- 5) FLAPS-----AS REQUIRED

AIR TO AIR LOADOUT SIMPLIFIED TAKEOFF CRITERIA			
APPROX T/O WEIGHT	STORES	LIFT OFF KIAS	TRIM
15,600	INTERNAL FUEL, GUN AMMO	152	8
16,000	INTERNAL FUEL, GUN AMMO, AIM9	155	7
17,100	INTERNAL FUEL, GUN AMMO, AIM9, CL (1x) 150 GAL TANK	162	8
18,000	INTERNAL FUEL, GUN AMMO, AIM9, CL (1x) 275 GAL TANK	169	8
18,200	INTERNAL FUEL, GUN AMMO, AIM9, OB (2x) 150 GAL TANK	172	7
20,000	INTERNAL FUEL, GUN AMMO, AIM9, OB (2x) 275 GAL TANK	172	7
19,300	INTERNAL FUEL, GUN AMMO, AIM9, 3x 150 GAL TANK	168	7
22,000	INTERNAL FUEL, GUN AMMO, AIM9, 3x 275 GAL TANK	180	7

AIR TO GROUND LOADOUT SIMPLIFIED TAKEOFF CRITERIA			
APPROX T/O WEIGHT	STORES	LIFT OFF KIAS	TRIM
18,000	INTERNAL FUEL, GUN AMMO, AIM9, 4x LAU3 ROCKET PODS	161	7
20,100	INTERNAL FUEL, GUN AMMO, AIM9, OB LAU3 ROCKET PODS, IB MK 82LD, CL 250 GAL TANK	178	8
21,000	INTERNAL FUEL, GUN AMMO, AIM9, 9x MK82LD	182	8
21,100	INTERNAL FUEL, GUN AMMO, AIM9, 4x CBU52B, CL 275 GAL TANK	179	8
21,200	INTERNAL FUEL, GUN AMMO, AIM9, 4x GBU12, CL 275 GAL TANK	174	7
22,000	INTERNAL FUEL, GUN AMMO, AIM9, OB MK82LD, IB 275 GAL TANK, CL MK83LD	178	7

PERF
DATA

COMMON LOADOUT ITEM WEIGHT				V _{REF} (15% MAC)	
ITEM	WEIGHT		2X WGT	GROSS WT	KIAS
EMPTY AIRCRAFT	10,700			11,000	139
GUN AMMO	386			12,000	146
AIM9 P5	190		380	14,000	158
MK 82 LD	531		1062	16,000	168
MK 82 SE	511		1022	18,000	178
MK 83	985		1970	20,000	188
MK 84	1971			22,000	198
GBU 12	798		1596		
CBU 52B	785		1570		
LAU 3	516		1032		
MK 82 (5x) + MER	2657 (BOMBS)	200 (MER)	2857		
INTERNAL FUEL	4511				
150 GAL TANK	148 (TANK)	975 (FUEL)	1123	2246	
275 GAL TANK	229 (TANK)	1175 (FUEL)	2004	4008	

TAKEOFF TRIM	
% MAC	TRIM
AFT OF 18	6
14-18	7
10-14	8
FWD OF 10	9

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1

ENGINE FIRE OR FAILURE, OR EMERGENCY DURING TAKEOFF

- SPEED BELOW CRITICAL FAIL— TAKEOFF ABORTED**

- | | |
|--------------------|--------|
| 1) THROTTLES----- | IDLE |
| 2) DRAG CHUTE----- | DEPLOY |

- ◇ **IF ENGINE FIRE**

- 3) Refer to ENGINE FIRE; **TAB A2**

- ◇ **IF ENGINE FAILURE**

- 3) THROTTLES ----- OFF

- SPEED ABOVE CRITICAL FAIL— TAKEOFF CONTINUED**

- | | |
|-----------------------------|---------------------------------|
| 1) THROTTLES----- | MAX |
| 2) DIRECTIONAL CONTROL----- | MAINTAIN |
| 3) EXTERNAL STORES ----- | JETTISON (AS REQUIRED) |
| 4) ROTATE ----- | 5 KNOTS BEFORE SE TAKEOFF SPEED |
| 5) CLIMB AT----- | SINGLE ENGINE TAKEOFF SPEED |
| 6) LANDING GEAR----- | UP (POSITIVE RATE OF CLIMB) |

- ◇ **IF ENGINE FIRE**

- 7) Refer to ENGINE FIRE; **TAB A2**

- ◇ **IF ENGINE FAILURE**

- 7) Refer to EMERGENCY AIRSTART— ONE ENGINE;
TAB A1 or ENGINE FAILURE / PRECAUTIONARY
SHUTDOWN; **TAB A4**

A

2

ENGINE FIRE LH OR RH



- 1) THROTTLE (AFFECTED ENGINE)----- IDLE

- IF LIGHT REMAINS ILLUMINATED**

- 2) THROTTLE (AFFECTED ENGINE)----- OFF
- 3) LIGHT STILL ILLUMINATED ----- **FUEL SHUTOFF CLOSED**
 - ◇ **IF FIRE IS CONFIRMED / CONTINUED**
 - 4) EJECT / EVACUATE

- ◇ **IF FIRE LIGHT EXTINGUISHES**

- 4) LAND AS SOON AS POSSIBLE. Refer to SINGLE
ENGINE APPROACH AND LANDING; **TAB C1**

- IF LIGHT EXTINGUISHES AND FIRE IS NOT CONFIRMED**

- 2) FIRE WARNING LIGHT----- TEST
- 3) LAND AS SOON AS PRACTICAL

3

EMERGENCY AIRSTART — ONE ENGINE

- 1) THROTTLE (AFFECTED ENGINE) ----- OFF
 - 2) ALTITUDE ----- BELOW FL 250
 - 3) AIRSPEED ----- 250 KIAS
 - 4) FUEL BOOST PUMP SWITCHES ----- LEFT / RIGHT
 - 5) BATTERY SWITCH ----- BATT
 - 6) ENGINE RPM ----- $\geq 12\%$
 - 7) START BUTTON (AFFECTED ENGINE) ----- PUSH
- **IF START OCCURS**
 - 2) PROCEDURE COMPLETE
 - **IF START DOES NOT OCCUR**
 - 2) Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN;
TAB A4

4

ENGINE FAILURE / PRECAUTIONARY SHUTDOWN

- 1) THROTTLE (GOOD ENGINE) ----- AS REQUIRED
 - 2) EXTERNAL STORES ----- JETTISON (AS REQUIRED)
 - 3) LANDING GEAR ----- UP
 - 4) SPEED BRAKES ----- IN
 - 5) THROTTLE (AFFECTED ENGINE) ----- OFF
 - 6) FUEL BALANCING ----- AS REQUIRED
- **INOPERATIVE EQUIPMENT WITH LEFT ENGINE FAILED**
 - a) SPEED BRAKE
 - b) LANDING GEAR NORMAL EXTENSION
 - c) NOSEWHEEL STEERING
 - d) STABILITY AUGMENTER
 - e) GUN GAS DEFLECTOR AND PURGE DOORS
 - f) NORMAL WHEEL BRAKES
- 7) Refer to SINGLE ENGINE APPROACH AND LANDING; **TAB C1**

A

1 **OIL PRESSURE EXCEEDS LIMITS**

- 1) AFFECTED THROTTLE ----- **ADJUST TO HOLD PSI WITHIN LIMITS**
- 2) AFFECTED THROTTLE ----- **OFF (AS REQUIRED)**
- 3) Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN;
TAB A4

2 **COMPRESSOR STALL**

- 1) THROTTLE (AFFECTED ENGINE)-----**REDUCE UNTIL RECOVERY**
- 2) INCREASE AIRSPEED AND ADVANCE THROTTLE SLOWLY
- 3) THROTTLE ----- **OFF (IF ENGINE WON'T RECOVER)**
- 4) AIRSTART MAY BE ATTEMPTED, Refer to EMERGENCY AIRSTART
— ONE ENGINE; **TAB A3**

3 **ENGINE NOZZLE FAILURE**

- IF NOZZLE FAILURE OCCURS IN THE CLOSED RANGE, EXCESSIVE EGT WILL RESULT. IF THE NOZZLE FAILS IN THE OPEN RANGE, LOW EGT WILL RESULT. AFTERBURNER MAY NOT BE AVAILABLE AND THRUST IS REDUCED.
- 1) IF CONDITION IS SEVERE Refer to ENGINE FAILURE / PRECAUTIONARY SHUTDOWN; **TAB A4**

B

4 **MAXIMUM GLIDE (BOTH ENGINES FAILED)**

- 1) EXTERNAL STORES----- **JETTISON**
- 2) AIRSPEED ----- **240 KIAS**
- 3) FLAPS----- **UP**
- **APPROXIMATE GLIDE DISTANCE FOR EACH 1000 AGL: 1.1 NM WITH OR WITHOUT PYLONS OR WINGTIP AAMs**
 - a) FL 400: 45 NM
 - b) FL 300: 34 NM
 - c) FL 200: 23 NM
 - d) 10000 FEET: 11 NM

5 FUEL AUTOBALANCE SYSTEM MALFUNCTION

- 1) AUTO BALANCE SWITCH----- **CENTER (MANUALLY)**
- 2) FUEL BALANCING----- **USE MANUAL PROCEDURES (AS RQD)**

6 FUEL LOW L OR R

Indicates usable fuel in the respective tank is 400 lb or less

L FUEL LOW

R FUEL LOW

- 1) FUEL BALANCE -----**CHECK**
- 2) LAND / EJECT ----- **AS REQUIRED**

7 FUEL PRESSURE LOW L OR R

Indicates system fuel pressure is 6.5 PSI or less

L FUEL PRESS

R FUEL PRESS

- 1) RPM -----**REDUCE**
- 2) ALTITUDE ----- **DESCEND TO FL 250 OR BELOW**

8 EXT TANKS EMPTY

Indicates external fuel tank is empty

**EXT TANKS
EMPTY**

- 1) EXTERNAL TANK SWITCH (AFFECTED POS) ----- **OFF**
- 2) EXTERNAL TANK JETTISON ----- **AS REQUIRED**

B

1**SINGLE ENGINE APPROACH AND LANDING**

Delay lowering landing gear until just before intercepting glide path. Nosewheel steering, landing gear extension, and wheel brakes rely on utility (left engine) hydraulic pressure. Windmilling RPM may be sufficient to allow normal extension of landing gear. However, if gear does not extend, use the alternate release system. Gear extension may take 35 seconds.

- 1) FLAP THUMB SWITCH ----- **AUTO**
- 2) LANDING GEAR ----- **DOWN**
- 3) AIRSPEED ----- **INCREASE 10 KIAS ABOVE NORMAL**
- 4) AOA INDICATOR ----- **14.0 UNITS ON FINAL APPROACH**
- 5) DRAG CHUTE ----- **AS REQUIRED ON LANDING**

2**SINGLE ENGINE GO AROUND**

- 1) THROTTLE ----- **MAX**
- 2) DRAG CHUTE ----- **JETTISON (AS REQUIRED)**
- 3) SPEED BRAKES ----- **IN**
- 4) LANDING GEAR ----- **UP**
- 5) CLIMB ----- **260 KIAS GEAR UP or 210 KIAS GEAR DOWN**

3**NO FLAP LANDING**

Landing distance will increase 15% due to higher touchdown speed

- 1) PATTERN ----- **FLY WIDER THAN NORMAL**
- 2) AIRSPEED ----- **INCREASE ALL PHASES BY 10 KIAS**
- 3) AOA INDICATOR ----- **16.4 UNITS ON FINAL APPROACH**

C**4****LANDING WITH TIRE FAILURE**

- **NOSE GEAR**

Expend excess fuel, fire out ammunition, jettison CL store and if practical obtain a more favorable aft cg position before landing. Fly a normal traffic pattern and after landing hold the nose off as long as possible. When nosewheel touches down engage NWS and deploy drag chute.

- **MAIN GEAR**

Expend excess fuel. Jettison external stores but empty pylon fuel tanks should be retained. Fly a normal traffic pattern. After touchdown lower the nosewheel, deploy the drag chute, and use rudder, NWS, and brakes to maintain directional control.

5

DITCHING

Ditch only as a last resort if not able to eject.

- 1) EXTERNAL STORES -----JETTISON
- 2) LANDING GEAR----- UP
- 3) SPEED BRAKES ----- OUT
- 4) FLAP LEVER ----- FULL
- 5) LANDING APPROACH ----- NORMAL
- 6) THROTTLES----- OFF (AT TOUCHDOWN)

6

DRAG CHUTE FAILURE

If the drag chute fails to deploy on landing and a go around is initiated use the following procedure

- 1) DRAG CHUTE-----JETTISON
- 2) Refer to TWO ENGINE GO AROUND; **PAGE 3**

C

1**COMPLETE ELECTRICAL FAILURE**

- 1) BATTERY AND GENERATOR SWITCHES ----- **CHECK**
- 2) CIRCUIT BREAKERS ----- **CHECK**
- 3) THROTTLES ----- **REDUCE AND DESCEND BELOW FL250**
 - THE FOLLOWING EQUIPMENT IS INOPERATIVE
 - a) FLIGHT AND ENGINE INSTRUMENTS (EXCEPT TACHOMETERS, ALTIMETER PNEU MODE, AND STANDBY ATTITUDE INDICATOR (9 MINUTE BATTERY))
 - b) COMMUNICATION AND NAVIGATION EQUIPMENT
 - c) SPEED BRAKES AND FLAPS
 - d) LANDING GEAR NORMAL EXTENSION
 - e) LANDING GEAR INDICATOR LIGHTS
 - f) NOSEWHEEL STEERING
 - g) FUEL BOOST PUMPS
 - h) ENGINE IGNITION SYSTEM
 - i) ALL JETTISON CONTROLS
 - j) ANTI ICE SYSTEMS
 - k) EXTERNAL FUEL UNLESS SELECTED PRIOR TO FAILURE
 - l) STABILITY AUGMENTER SYSTEM
 - m) PITCH AND AILERON TRIM

2**DC OVERLOAD**

Indicates DC system overload.

DC OVERLOAD

- 1) NONESSENTIAL DC EQUIPMENT---- **TURN OFF (INCREMENTALLY)**
- 2) BATTERY SWITCH ----- **CYCLE OFF THEN BATT**
 - **IF LIGHT EXTINGUISHES**
 - 3) PROCEDURE COMPLETE
 - **IF LIGHT REMAINS ON**
 - 3) ESSENTIAL DC EQUIPMENT ----- **AS REQUIRED**
 - 4) LAND AS SOON AS PRACTICAL

D**3****AC FAILURE**

Turn off unnecessary electrical loads. Operate only systems necessary for flight and landing. Conserve battery power.

- 1) THROTTLES ----- **REDUCE RPM IF ABOVE FL250**
- 2) BATTERY SWITCH ----- **BATT**
- 3) GENERATOR SWITCHES ----- **RESET THEN L AND R GEN**
- 4) ALTITUDE ----- **FL250 OR BELOW**
- 5) CROSSFEED ----- **AS REQUIRED**
- 6) LAND AS SOON AS POSSIBLE
 - In the event of single generator failure and failure of the remaining generator to pick up the load refer to the electrical diagram

4

GENERATOR L OR R

Indicates respective generator is offline.

L GENERATOR

R GENERATOR

- 1) AFFECTED GENERATOR-----RESET THEN ON
 - IF LIGHT EXTINGUISHES
 - 2) PROCEDURE COMPLETE
 - IF LIGHT REMAINS ON
 - 2) ELECTRICAL LOAD-----REDUCE
 - 3) LAND AS SOON AS PRACTICAL

5

CONTROLLABILITY CHECK

Minimize flap movement if flap damage is known or suspected

- 1) ALTITUDE -----15,000 FEET (IF PRACTICAL)
- 2) LANDING CONFIGURATION ----- ESTABLISH
- 3) AIRSPEED ----- REDUCE TO APPROACH AND LANDING SPEED
- 4) DO NOT CHANGE AIRCRAFT CONFIGURATION
- 5) LANDING APPROACH ----- STRAIGHT IN

6

ERECT SPIN RECOVERY

Do not change gear or speed brake positions during recovery

- 1) STICK ----- FULL FORWARD
- 2) AILERON ----- FULL IN DIRECTION OF SPIN
- 3) RUDDER----- FULL OPPOSITE DIRECTION OF SPIN
- 4) FLAPS ----- AUTO
- 5) NEUTRALIZE CONTROLS AFTER RECOVERY

7

INVERTED SPIN RECOVERY

- 1) FLAPS ----- UP
- 2) STICK ----- AFT
- 3) AILERON AND RUDDER ----- NEUTRAL

D

1**DUAL HYDRAULIC SYSTEM FAILURE**

Indicates respective system pressure is 1500 PSI or less

UTILITY HYD**FLIGHT HYD**

- IF FLIGHT CONTROL BECOMES IMPOSSIBLE
 - 1) **EJECT**
- IF CONTROLLED FLIGHT CAN BE MAINTAINED
 - 1) LAND ----- **AS SOON AS POSSIBLE**
 - 2) Refer to SINGLE HYDRAULIC SYSTEM LOW PRESSURE; **TAB E2** for inoperative equipment

2**SINGLE HYDRAULIC SYSTEM LOW PRESSURE**

Indicates respective system pressure is 1500 PSI or less

UTILITY HYD**FLIGHT HYD**

- 1) BOTH SYSTEMS ----- **MONITOR**
- 2) PITCH AND YAW DAMPER ----- **OFF (IF UTILITY LOW PRESSURE)**
- 3) LAND AS SOON AS PRACTICAL
 - INOPERATIVE EQUIPMENT WITH UTILITY SYSTEM FAILURE
 - a) Landing Gear Normal Extension
 - b) Nosewheel Steering
 - c) Normal Brakes
 - d) Speed Brakes
 - e) Stability Augmenters
 - f) Gun Gas Deflector and Purge Doors

3**HYDRAULIC SYSTEM HIGH PRESSURE**

- IF CONTROLLED FLIGHT CAN BE MAINTAINED
 - 1) LAND AS SOON AS POSSIBLE
 - 2) THROTTLE (AFFECTED ENGINE) ----- **IDLE**
 - 3) PITCH AND YAW DAMPER -- **OFF (IF UTILITY SYS AFFECTED)**
 - 4) FLIGHT CONTROL MOVEMENT ----- **MINIMIZE**
 - 5) LAND FROM A STRAIGHT IN APPROACH
- IF FLIGHT CONTROLS BECOME SLUGGISH / DIFFICULT
 - 1) THROTTLE (AFFECTED ENGINE) ----- **OFF**
 - 2) FLIGHT CONTROL MOVEMENT ----- **MINIMIZE**
 - 3) LAND AS SOON AS POSSIBLE
 - 4) LAND FROM A STRAIGHT IN APPROACH
 - 5) If left engine is shut down, Refer to SINGLE HYDRAULIC SYSTEM LOW PRESSURE; **TAB E2** for inoperative equipment
 - 6) IF FLIGHT CONTROL BECOMES IMPOSSIBLE ----- **EJECT**

E

4

LANDING GEAR RETRACTION FAILURE

- 1) AIRSPEED ----- **BELOW 260 KIAS**
- 2) ALTERNATE RELEASE HANDLE ----- **VERIFY PROPER POSITION**
- 3) GEAR LEVER ----- **LG DOWN THEN LG UP**
- 4) THROTTLES ----- **MIL**
 - **IF LG WARNING LIGHT EXTINGUISHES**
 - 5) CONTINUE MISSION
 - **IF LG WARNING LIGHT REMAINS ON**
 - 5) GEAR LEVER ----- **DOWN**
 - 6) LAND AS SOON AS PRACTICAL

5

LANDING GEAR WILL NOT EXTEND

If the main gear fails to extend fully, yaw the aircraft, rock the wings, and pull positive G's. Nosewheel steering will not be available after completing this procedure

- 1) AIRSPEED ----- **260 KIAS OR LESS**
- 2) GEAR LEVER ----- **LG DOWN**
- 3) ALTERNATE RELEASE HANDLE ----- **PULL (≥ 10 SECONDS)**
- 4) GEAR INDICATORS ----- **CHECK**
 - **IF ALTERNATE EXTENSION FAILS**
 - 5) LEFT THROTTLE ----- **OFF**
 - 6) GEAR LEVER ----- **LG DOWN**
 - 7) CONTROL STICK -----
--- **RAPID LATERAL MOVEMENTS TO DEplete UTILITY PRES**
 - 8) ALTERNATE RELEASE HANDLE ----- **PULL**
 - 9) GEAR LEVER ----- **LG UP THEN LG DOWN (RAPIDLY)**
 - 10) GEAR INDICATORS ----- **CHECK**
 - 11) LEFT ENGINE ----- **RESTART**
 - **IF GEAR REMAINS UNSAFE**
 - 12) BATTERY AND GEN SWITCHES ----- **OFF**
 - 13) ALTERNATE RELEASE HANDLE ----- **PULL**
 - 14) BATTERY AND GEN SWITCHES ----- **ON**
 - 15) GEAR INDICATORS ----- **CHECK**
 - ◇ **IF GEAR IS EXTENDED**
 - 16) LAND AS SOON AS POSSIBLE
 - ◇ **IF GEAR IS STILL UNSAFE**
 - 16) Refer to LANDING WITH GEAR NOT EXTENDED; **TAB F1**

E

1**LANDING WITH GEAR NOT EXTENDED**

If the main gear fails to extend fully, yaw the aircraft, rock the wings, and pull positive G's. Nosewheel steering will not be available after completing this procedure

- 1) EXCESS FUEL -----EXPEND
 - 2) PYLON FUEL TANKS -----RETAIN
 - 3) ALL OTHER ORDNANCE ----- JETTISON
- **LANDING WITH NOSE GEAR UP OR UNSAFE**
 - 4) LANDING PATTERN -----NORMAL
 - 5) NOSE ----- LOWER GENTLY AT TOUCHDOWN
 - 6) DRAG CHUTE -----DEPLOY
 - 7) WHEEL BRAKES -----ONLY IF NEEDED
 - **LANDING ON BELLY WITHOUT PYLON TANKS**
 - 4) EJECT
 - **LANDING ON BELLY WITH PYLON TANKS**
 - 4) LANDING GEAR -----UP
 - 5) LANDING PATTERN -----NORMAL
 - 6) THROTTLES -----OFF AT TOUCHDOWN
 - 7) DRAG CHUTE ----- DEPLOY (AIRCRAFT ON RUNWAY)
 - **LANDING WITH ONE OR BOTH MAIN GEAR NOT EXTENDED**
 - 4) EJECT

2**TIRE FAILURE ON TAKEOFF**

Blown main tires greatly reduce braking capability. Ensure adequate runway remains if the choice to abort is made.

- IF TAKEOFF IS REFUSED
 - 1) **ABORT** Refer to EMERGENCY DURING TAKEOFF; **TAB A1**
- IF TAKEOFF IS CONTINUED
 - 1) LANDING GEAR -----DO NOT RETRACT
 - 2) AIRSPEED -----BELOW 260 KIAS
 - 3) Refer to LANDING WITH TIRE FAILURE; **TAB C4**

3**AIRFRAME GEARBOX FAILURE**

A gearbox failure is indicated by simultaneous illumination of the generator and hydraulic caution lights for the same engine

- 1) THROTTLE (AFFECTED ENGINE) ---OFF (IF VIBRATION PRESENT)

F

4

AIRFRAME GEARBOX FAILS TO SHIFT

Gearbox failure to shift is indicated when either generator caution light comes on when accelerating thru the 68—72% shift range

- 1) THROTTLE ----- **REDUCE TO ALLOW GEN OPERATION**
- 2) GENERATOR SWITCH-----**RESET THEN ON**
- 3) THROTTLE -----**MAINTAIN GEN OPERATION UNTIL LANDING**

5

LOSS OF CANOPY

Gearbox failure to shift is indicated when either generator caution light comes on when accelerating thru the 68—72% shift range

AIRSPEED **SLOW AIRCRAFT TO 300 KIAS**

6

PITCH TRIM FAILURE

- 1) AIRSPEED ----- **ADJUST AS NECESSARY**
- 2) FLAPS ----- **AS REQUIRED**
- 3) LANDING APPROACH ----- **STRAIGHT IN**

7

PITCH DAMPER FAILURE WITH EXTERNAL TANKS

- 1) AIRSPEED ----- **REDUCE BELOW .75 IMN**

8

CANOPY

Indicates canopy is unlocked

CANOPY

- 1) CANOPY HANDLE ----- **LOCK**

9

OXYGEN

Indicates oxygen remaining ≤ 5 L or ≤ 40 PSI

OXYGEN

- 1) CABIN PRESSURE ALTITUDE -- **MONITOR AND DESCEND AS REQ**

10

ENGINE ANTI-ICE ON

Indicates engine anti-ice system is operating

**ENGINE
ANTI ICE ON**

- 1) ENGINE ANTI-ICE ----- **AS REQUIRED**

F

1**AOA / FLAPS**

Indicates failure of automatic flaps system. Use airspeed rather than AOA during landing. Be aware of flap overspeed or unexpected flap movement.

AOA/FLAPS

- 1) FLAP LEVER-----**POSITION MANUALLY (AS REQUIRED)**

2**AIR DATA COMPUTER**

Indicates CADC failure or degradation. Use airspeed rather than AOA during landing. Be aware of flap overspeed or unexpected flap movement.

**AIR DATA
COMPUTER**

- 1) PITOT HEAT -----**ON**

- **IF LIGHT EXTINGUISHES**

- 2) PROCEDURE COMPLETE

- **IF LIGHT REMAINS ILLUMINATED**

- 2) PITCH DAMPER -----**OFF (IF REQUIRED)**

- 3) ALTIMETER -----**PNEU MODE**

- 4) FLAP LEVER-----**POSITION MANUALLY (AS REQUIRED)**

- 5) AUX DOOR CIRCUIT BREAKERS ----- **PULL (IF DESIRED)**

- ◇ **INOPERATIVE / UNRELIABLE EQUIPMENT**

- a) Altimeter ELEC Mode
- b) Lead Computing Optical Gunsight System
- c) Stability Augmenter Systems
- d) Automatic Flaps and Flap Audible Warning
- e) Engine Aux Intake Doors Control
- f) Landing Gear Warning

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CAUTION PANEL LEGEND

L GENERATOR	CANOPY	R GENERATOR
D4	F8	D4
UTILITY HYD	SPARE	FLIGHT HYD
E1/E2	—	E1/E2
EXT TANKS EMPTY	IFF	OXYGEN
B8	—	F9
L FUEL LOW	ENGINE ANTI ICE ON	R FUEL LOW
B6	F10	B6
L FUEL PRESS	INS	R FUEL PRESS
B7	—	B7
AOA/FLAPS	AIR DATA COMPUTER	DIR GYRO
G1	G2	—
SPARE	DC OVERLOAD	SPARE
—	D2	—



A2