

Runway Checks

- 1 AVTR RUN/HUD
- 2 ICS (TA-4 Dual) ON
- 3 IFF NORM (IF REQD)
- 4 Anti-Icing PITOT OR ALL AS REQUIRED
- 5 Taxi Light ON
- 6 Throttle 85% RPM
- 7 Spoilers CLOSED

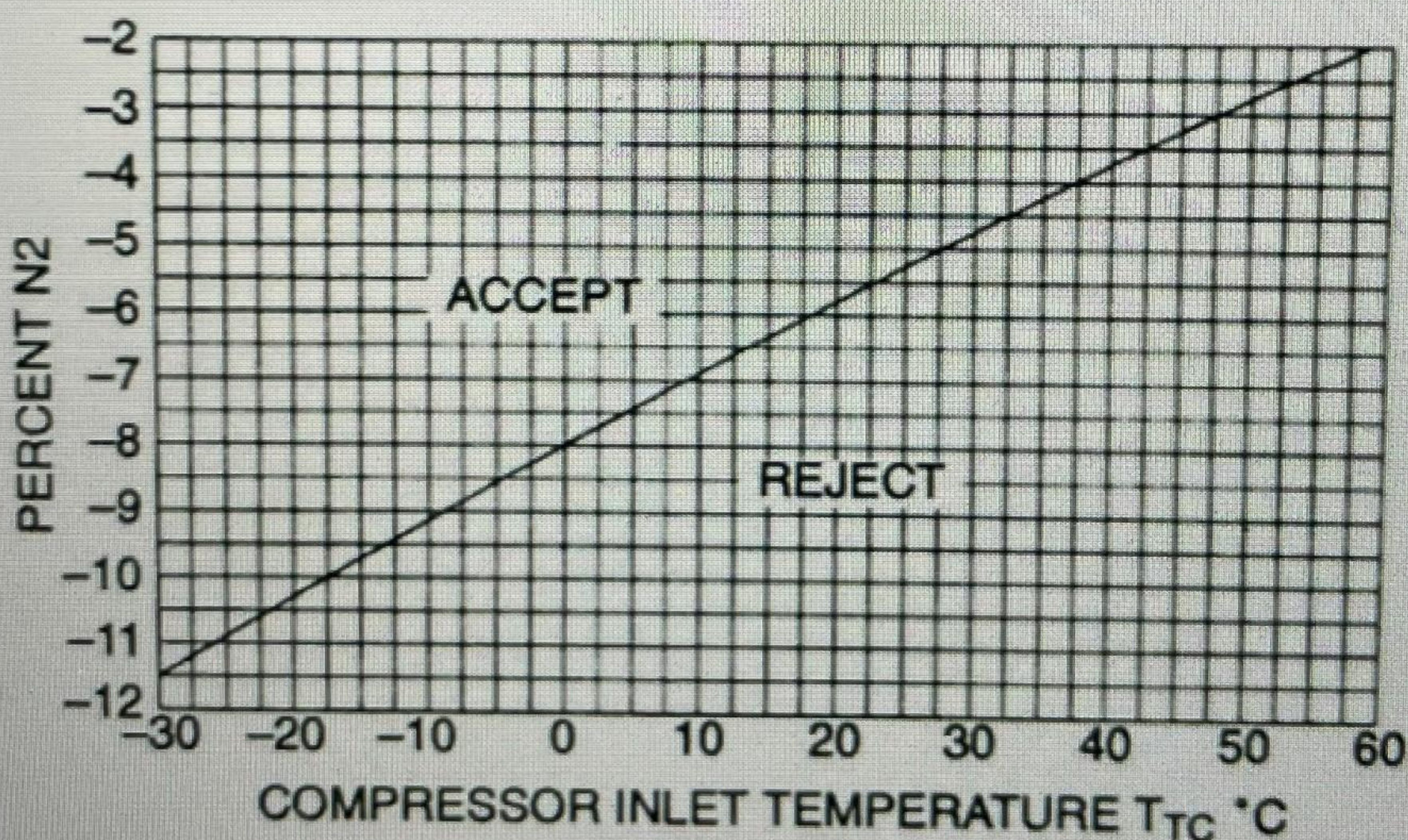


Figure 4-6
 Estimated N2 Change at 85% N2
 at Manual Fuel System Transfer

- 8 Fuel Control. MANUAL
- 9 Fuel Flow/EPR FLUCTUATION

TAKEOFF DISTANCE

OPERATIONAL (8° NOSEUP TRIM)
HALF FLAPS NO JATO

MODEL: A-4E/F
ENGINE: J52-P-8B/C

DATA AS OF: 15 NOVEMBER 1972
DATA BASIS: FLIGHT TEST (NAVY)

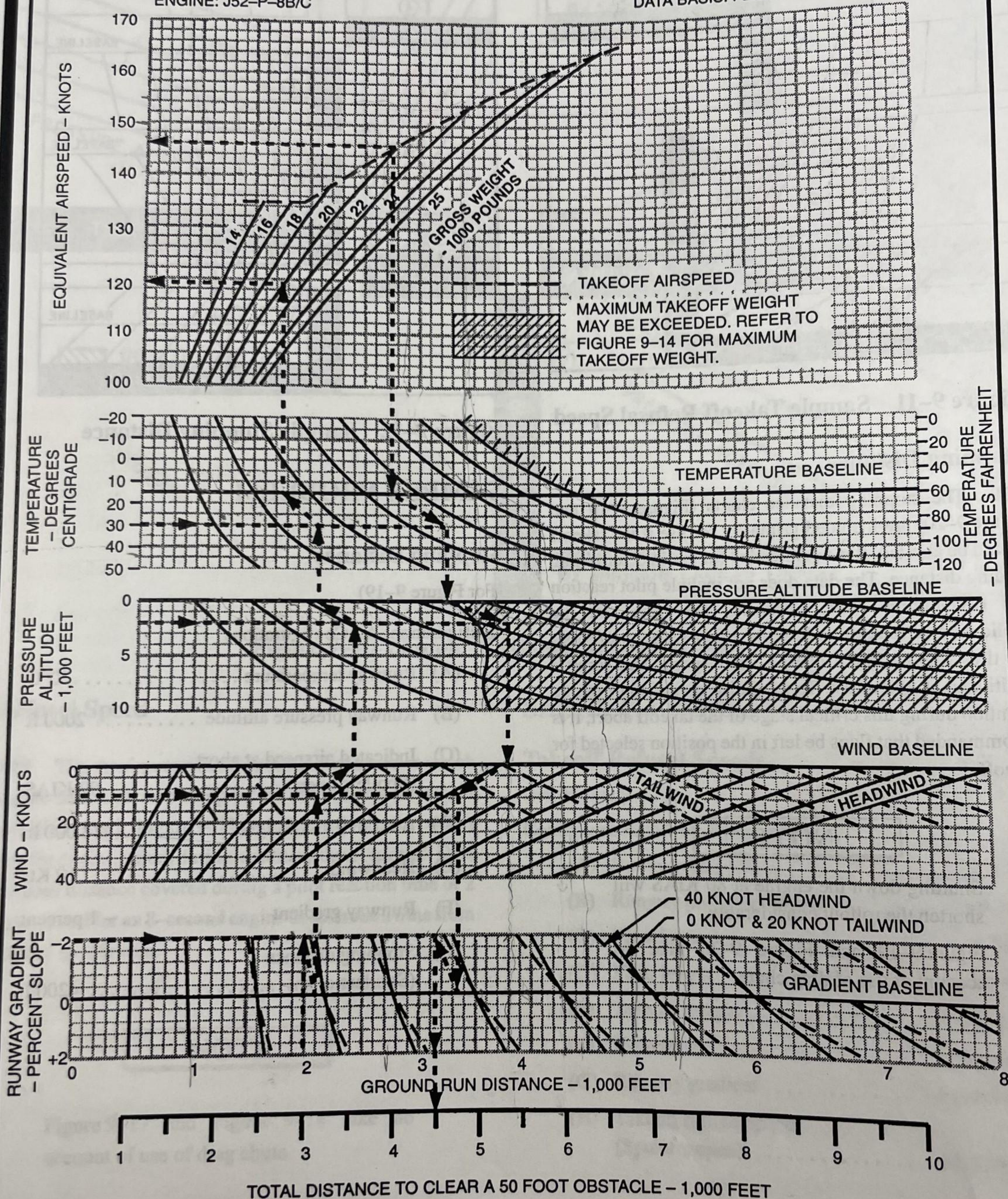


Figure 9-13 Takeoff Distance A-4

Pre Takeoff

- 1 Trims RUDDER CENTRAL,
ELEVATOR 8 DEG NOSE UP
(10 DEG TA-4 > 21,500 LBS)
AILERONS FAIRED
- 2 Harness LOCKED AND TIGHT,
LAPSTRAPS TIGHT, 3 PINS, VISOR,
CHINSTRAP, HEADKNOCKER,
G-SUIT EJECTION SELECTOR
(TA-4 DUAL) SET
- 3 Canopy CLOSED

(TA-4) RIFLE BOLT FORWARD,
LIGHT OUT, 6 LUGS FWD
COCKPIT, 6 LUGS REAR.

(A-4) HANDLE OVERCENTRE,
CANOPY HOOKS ENGAGED
IN ROLLERS
- 4 Flap 1/2
- 5 Speedbrakes IN
- 6 Armament ALL SWITCHES OFF/SAFE.
EMERGENCY JETTISON SELECTOR/
ALL OR AS REQUIRED
- 7 Spoilers ARMED, LADDER LIGHT ON
- 8 Drop tanks PRESSURISED
- 9 Flying Controls FULL AND FREE
- 10 Takeoff/Departure Brief COMPLETE

Taxi

- 1 Brakes RELEASE
- 2 Brakes CHECKED – BOTH COCKPITS
- 3 NWS CHECKED – BOTH COCKPITS
- 4 Turn and Slip INDICATING CORRECTLY
- 5 HUD/HSI/Stby
Compass HEADINGS COMPARE
AND CORRECT
- 6 HUD/ADI Pitch Bars REMAIN LEVEL IN TURN
- 7 NAVAIDS/Steer
To Destination CORRECT INDICATION
- 8 DU SYSTEM Page CHECK
- 9 DU STATUS Page CHECK

- | | | |
|----|-------------------------------------|-----------------------------|
| 10 | Fuel Control Light. | ON |
| 11 | RPM | DROP WITHIN LIMITS |
| 12 | Fuel Control | PRIMARY |
| 13 | RPM | RETURNS TO ORIGINAL SETTING |
| 14 | Fuel Control Light | OUT |
| 15 | All Caution and Ladder Lights | OUT |

Takeoff

- | | | |
|---|-------------------------------------|-----------------|
| 1 | Brakes | RELEASE |
| 2 | Power | MILITARY |
| 3 | EPR | AT OR ABOVE BUG |
| 4 | RPM | 95 – 101% |
| 5 | EGT | 680 MAX |
| 6 | Oil Pressure | 40 – 50 PSI |
| 7 | Horizontal Stabiliser | AS SET |
| 8 | All Caution and Ladder Lights | OUT |
| 9 | Line Speed | CHECK |

WARNING

Nosewheel steering should not be used during takeoff roll unless an emergency dictates otherwise.

- 8. If aborting after exceeding takeoff refusal speed where abort gear is not available or if the hook skips the arrestor gear, decide whether to remain with the aircraft, or EJECT.

NOTE

The decision to eject if the aircraft is leaving the runway or overrun must be made with consideration to speed and the nature of the surface onto which the aircraft will go.

BLOWN TYRE ON TAKEOFF

- 5.20 Abort, if possible. If unable to abort:
 - 1. Leave gear down. (If operational necessity dictates continuation of the mission, leave gear down for 3 minutes prior to raising).
 - 2. Obtain visual check.
 - 3. LASAPRAC.

NOTE

The braking effectiveness of a blown tyre is much reduced. Consequently, to deliberately blow a good tyre to balance another that is blown is not good practice.

- 4. Short Field Arrest is recommended. Refer **LANDING: BLOWN TYRE**, page 5-52.

RETRACTION RELEASE SWITCH: AIRBORNE - MALFUNCTIONS TO GROUND

5.21 Retraction release switch failure prevents the under carriage handle from being moved to the UP position. This may result from a dual converter failure, microswitch malfunction, or failure of the left main oleo to fully extend.

- 1. Leave the gear down.
- 2. Dump/burn down and land.

If operational necessity dictates the requirement to raise the gear with the retraction release switch inoperative:

- 3. Obtain visual check of main landing gear mounts to ensure proper strut extension.

CAUTION

The retraction release switch may fail to function if the left main gear is not fully extended. If an attempt is made to raise landing gear when this occurs, the tyre and wheel assembly may hang up, resulting in a wheels up landing.

- 4. Move downlock release latch aft and simultaneously raise gear handle to full UP position.

5.22 The following equipment will be unavailable:

RRSS-Fail to Ground - Equipment Unavailable

AFCS and Stab Aug	Radar
Chaff/Flare Dispenser	IFF Mode 4
Weapon Release	Elapsed Time
RWR Alt Blanking	AoA Indexers/Transducer Heat

WARNING

Spoilers will open if armed and throttle reduced below 70%. The Park Brakes will hold if selected.

UNSAFE GEAR-UP INDICATION

5.23 Nose or Main Gear Unsafe or down, Gear Handle Up:

- 1. Maintain 225 KIAS or less.
- 2. Obtain visual inspection if possible.

If the gear door is closed:

- 3. Slow aircraft to minimum safe airspeed to increase AOA, and reduce aircraft G loading with a slight bunt if required. (Relative Airflow and reduced G assist the door to lock up). Continue the mission if the gear indicates up.

If unable to get visual check or if visual check indicates that gear is not fully retracted or that wheel door is not fully closed, proceed as follows:

- 4. Lower gear (do not cycle).

NOTE

If gear will not lower, problem may be caused by insufficient oleo extension of left main gear. Check for signs of retraction release failure. Attempt to establish whether gear is sufficiently clear of obstructions in aft wheel well before moving downlock release latch aft and lowering gear handle. If this is unsuccessful, refer Landing With Landing Gear Malfunctions.

- 5. Obtain a locked down indication.
- 6. Dump or burn excess fuel.
- 7. LASAPRAC.

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NOTE

Raising the flaps will change the angle of attack of the wing slightly and increase the probability of achieving enough rotation to become airborne.

6. Refer to **LANDING WITH FULL NOSE DOWN TRIM**, page 5-36.

Inadvertent Flight Control Disconnect

5.17 If a flight control disconnect has occurred, greater than normal stick forces will be required to counter the positive pitching moment at takeoff. Leave flaps down to reduce trim changes and use longitudinal trim, as required, to control the aircraft. Do not let angle of attack get too high. Comply with the procedures for a flight control disconnect.

CAUTION

The flight control hydraulic system must not be disconnected with a hydraulic system functioning if the flight controls appear to be jammed or malfunctioning.

ABORTING TAKEOFF

5.18 There are many circumstances that may require aborting a takeoff. Some examples are as follows:

- Less than normal EPR/EGT/RPM
- Fire warning light
- Runaway nosedown trim
- Slower than normal aircraft acceleration
- Smoke in the cockpit
- Blown tyre
- Loss of canopy
- Hazard on the runway
- Loss of oil pressure
- Dragging brake
- Uncommanded swerving

5.19 The decision to abort or continue the takeoff must be based on the nature of the malfunction, aircraft speed, wind component, runway remaining, arrest facilities, and whether or not the aircraft can become airborne prior to leaving the runway. A takeoff abort shall be accomplished by use of arrestor gear when available, unless it is certain the aircraft will be stopped or slowed to taxi speed by normal braking on the runway remaining. If there is no arrestor gear then the decision to abort must be made prior to exceeding takeoff refusal speed.

- 1.* Throttle IDLE

NOTE

Best deceleration will occur by placing the throttle to IDLE until below 80 KIAS and then by placing the throttle to OFF.

- 2.* Speedbrakes OPEN
 3.* Drag Chute DEPLOY
 4.* Braking AS REQUIRED

NOTE

Do not blow the tyres. Maximum braking is required at takeoff refusal speed. For maximum braking apply full forward stick, with into wind aileron, followed immediately by moderately heavy application of brake pedal pressure. Maintain steady braking throughout the rollout to a stop or desired taxi speed, increasing brake pedal pressure as the rollout speed decreases.

- 5.* Hook down .. 1,000 FT PRIOR TO THE
 ARRESTOR GEAR
 IF REQUIRED.

WARNING

If off centre just prior to engaging arrestor gear, do not attempt to go for centre of runway. Track straight ahead parallel to runway centreline.

Rudder pedals must be centred prior to engaging nosewheel steering to prevent excessive nosewheel steering inputs which could lead to loss of control.

NOTE

Nosewheel steering may be used to keep the aircraft lined up with runway centreline. If aircraft engine is secured, nosewheel steering will immediately become inoperative due to loss of electrical power.

6. Stick forward and into wind.
 7. Simultaneously with the above steps transmit an abort call.

- 8. If aborting after exceeding takeoff refusal speed where abort gear is not available or if the hook skips the arrestor gear, decide whether to remain with the aircraft, or EJECT.

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