

PILOT'S INFORMATION MANUAL
PC-6/B2-H4
applicable from AC S/N 825



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WARNING

- This PC-6 Pilot's Information Manual is published for general and familiarization purposes only.
- This Pilot's Information Manual does NOT meet FAA, FOCA or any other civil aviation authority regulations for operation of ANY Aircraft.
- This Pilot's Information Manual is a reproduction of a PC-6 Airplane Flight Manual, however, it is NOT revised or updated.
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AIRPLANE FLIGHT MANUAL PC-6/B2-H4

REPORT NO. 1820

REGISTRATION

SERIAL NO.

APPLICABLE FROM A/C S/N 825

THIS AIRPLANE IS TO BE OPERATED IN COMPLIANCE
WITH INFORMATION AND LIMITATIONS CONTAINED HEREIN

THIS FLIGHT MANUAL IS TO BE KEPT
IN THE AIRCRAFT AT ALL TIMES

Approved by:
SWISS FEDERAL OFFICE FOR CIVIL AVIATION
Section for Type Certification

Date of Approval: Nov. 20, 1985

PILATUS AIRCRAFT LTD STANS / SWITZERLAND

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AIRPLANE FLIGHT MANUAL

PILATUS PC-6/B2-H4

Report No. 1820

To: Holders of the AFM Report No. 1820 for
PC-6/B2-H4 Aircraft,
applicable from A/C Serial No. 825

REVISION 8 - Dated: April 2017

REVISION INCORPORATION INSTRUCTIONS

Remove and Destroy

Log of Revisions

Section 1

Section 2

Insert New

Log of Revisions

Section 1

Section 2

Make a record of the incorporation in the Log of Revisions

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Make a record of the removal in the Log of Temporary Revisions

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LOG OF REVISIONS

This manual is valid only when all issued revisions have been incorporated. Insert revised pages to replace superseded pages or add new pages. The revised portion of each page is indicated by a revision bar (black line) in the left margin of the page, adjacent to the change.

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5	Jan 2003	SECTIONS 1, 2, 3 & 4	FOCA 06/06/03	Pilatus
6	Sep 2011	ALL	EASA 27/09/11 Approval No.10036664	Pilatus
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LOG OF TEMPORARY REVISIONS

Temporary Revision Number	Insertion Date	Signature	Removal Date	Signature

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AIRPLANE FLIGHT MANUAL

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SECTION 1

CERTIFICATE LIMITATIONS

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SECTION 1

CERTIFICATE LIMITATIONS

A. CERTIFICATE

Basis:	US Civil Air Regulations Part 3 (CAR 3)
Category:	Normal
Swiss Type Certificate:	No. F56-10

B. ENGINE

Manufacturer:	United Aircraft of Canada Ltd.
Model:	PT6A-27 Turboprop
US Type Certificate:	FAA E4EA
Propeller Shaft Gear Ratio:	0.0663:1

C. ENGINE LIMITATIONS

Condition	Operating Limits					
Power Setting	Torque (5) psig	Maximum Observed ITT - °C	Gas Gen. Speed (Ng) (4) %	Prop. Speed (Np) RPM	Oil Press. psig (1)	Oil Temp. °C (2)
Take-off	47.3	725	101.5	2000	80 - 100	10 - 99
Max. Cont./ (4) Enroute Emer.	47.3	725	101.5	2000	80 - 100	10 - 99
Max. Climb Max. Cruise	47.3	695	101.5	2000	80 - 100	0 - 99
Low Idle		660 (6)			40 (Min.)	-40 to 99
Starting		1090 (3)				-40 (Min.)
Acceleration	53 (3)	825 (3)	102.6 (3)	2420		0 - 99
Max. Reverse	47.3 (7)	725	101.5	2000	80 - 100	0 - 99

- (1) Normal oil pressure is 80-100 psi at gas generator speeds above 72% with oil temperature between 60 and 70°C. Oil pressures below 80 psi are undesirable, and should be tolerated only for the duration of the flight, preferably at a reduced power setting. Oil pressures below normal constitute an engine discrepancy and should be corrected before take-off. Oil pressures below 40 psi are unsafe, and require that either the engine be shut down or a landing be made as soon as possible, using the minimum power required to sustain flight.
- (2) For increased oil service life (i.e. time between oil changes) an oil temperature between 74 and 80°C is recommended.

When ambient temperature is less than 0°C and engine is cold soaked, assume OAT equals oil temperature.

When OAT is less than -40°C and engine is cold soaked, engine must be heated prior to starting to raise oil temperature to more than -40°C.
- (3) These values are time-limited to two seconds.
- (4) For every 10°C below -30°C ambient temperature, reduce maximum allowable Ng by 2.2%.
- (5) Maximum permissible sustained torque is 47.3 psi.
- (6) At 51 % Ng minimum. Increase Ng as required to maintain temperature limit.
- (7) Ng must be set so as not to exceed power limitations. Reverse power operation should not exceed one minute duration.

Power Lever Operation

Positioning of the power lever below the idle stop in flight is prohibited. Such positioning may lead to loss of airplane control or may result in an engine overspeed condition and consequent loss of engine power.

D. PROPELLER

Manufacturer: Hartzell Propeller, Inc.
Hub Model: HC-B3TN-3D
Blade Model: T10178CNR, T10178CNRK, T10178CR or T10178CRK
or
T10178C, T10178CK, T10178CH or T10178CK modified according to Pilatus Service Bulletin No.149.

Propeller de-icing must be OFF when the propeller is not operating (rotating).

E. FUEL

Refer to current issue of PRATT AND WHITNEY OF CANADA Service Bulletin No. 1244.

Fuels conforming to CPW 204 specifications:

- ASTM-D-1655 Jet A, Jet A-1 and Jet B
- IATA Kerosene and wide-cut

Emergency use of aviation gasoline MIL-G-5572, all grades, is permitted for a total time period not exceeding 150 hours during any overhaul period. It is not necessary to purge the unused fuel from the system when alternative fuel types are used.

F. OIL

For approved oil grades and oil limitations refer to the current issue of PRATT AND WHITNEY OF CANADA Service Bulletin No. 1001.

G. PLACARDS

(1) Engine Placards

On the instrument panel shelf:
" DO NOT REVERSE IN FLIGHT "

Adjacent to oil cooler control:

" OIL COOLER
PULL - WARM
PUSH - COLD "

(2) Flight Placards

On the instrument console:

(a) Maneuvers

" NO ACROBATIC MANEUVERS INCLUDING SPINS
ARE APPROVED "

(b) Operating Category

" THIS AIRPLANE MUST BE OPERATED AS A NORMAL
CATEGORY AIRPLANE IN COMPLIANCE WITH THE
OPERATING LIMITATIONS STATED IN THE APPROVED
AIRPLANE FLIGHT MANUAL "

(c) Icing Conditions

" FLYING INTO PREDICTED AND ACTUAL ICING
CONDITIONS IS NOT APPROVED. OPERATION IN
FALLING SNOW IS NOT APPROVED UNLESS SNOW
VANES ARE INSTALLED "

(d) Fire

" CAUTION
IN CASE OF FIRE IN ENGINE COMPARTMENT OR FUMES
IN CABIN PULL HERE AND PUSH CABIN HEAT CONTROL "

(e) Airspeeds

" ATTENTION MAX AIRSPEEDS	KNOTS(IAS)	KM/H
FLAPS DOWN	95	176
FLAPS UP	151	280
MANEUVERING	119	220 "

- (f) Landing Flap Control (only if hinged doors are installed) " WARNING
ENSURE HINGED DOORS ARE CLOSED BEFORE
OPERATING FLAPS "
- (g) Stall Warning TEST On left instrument panel:
" STALL
PUSH TO TEST "
- (3) Fuel System Placards**
- (a) Valve Adjacent to the fuel system valve:
" FUEL SYSTEM VALVE "
- (b) Capacity "- CLOSED
FUEL
USABLE CAPACITY
644 LTR
170 US GAL
520 KG
1145 LBS
- OPEN "
- (c) Guard (if installed)
Depends on installation Version 1:
Above fuel system valve:
" PULL AND ROTATE GUARD
TO RELEASE "
- or
- Version 2:
Beside guard:
" PUSH TO RELEASE "
- (4) Doors**
- (a) Doors On cockpit door frames:
" IN AN EMERGENCY OPERATE DOOR HANDLE, AND PULL
LEVER INWARDS. DO NOT OPERATE IN FLIGHT "
- (b) Trapdoor On flap switch bracket:
" TRAP-DOOR RELEASE PULL "
- (c) Sliding Doors (if installed) " PULL TURN SLIDE "
- (5) Parking Brake** " PARKING BRAKE
1. PULL LOCKING CABLE
2. PRESS PEDALS
3. RELEASE PEDALS
4. RELEASE LOCKING CABLE "
- (6) Control Column Switches** On the instrument console
(for aircraft 825-1005 post SB 11-001)
(for aircraft 1006 and up)

H. GENERAL LIMITATIONS

(1)	Flight Instrument Markings	AIRSPEED INDICATOR (IAS)	KNOTS	KM/H
		FLAPS DOWN (WHITE ARC)	52 to 95	96 - 176
		FLAPS UP (GREEN ARC)	58 to 119	108 - 220
		CAUTIONARY (YELLOW ARC)	119 to 151	220 - 280
		MAXIMUM (RED RADIAL)	151	280
(2)	Engine Instrument Markings	TORQUEMETER	PSIG	
		Normal (green arc)	0 to 47.3	
		Maximum, take-off or reverse (red radial)	47.3	
		Maximum, acceleration (red triangle)	53	
		INTER TURBINE TEMP. (ITT)	°C	
		Normal operation (green arc)	300 to 725	
		Maximum, take-off or reverse (red radial)	725	
		Maximum, for starting (red triangle)	1090	
		OIL TEMPERATURE	°C	
		Normal (green arc)	10 to 80	
		Cautionary (yellow arc)	80 to 99	
		Maximum (red radial)	99	
		OIL PRESSURE	PSIG	
		Minimum (red radial)	40	
		Cautionary (yellow arc)	40 to 80	
		Normal (green arc)	80 to 100	
		Maximum (red radial)	100	
		GAS GENERATOR TACHOMETER (Ng)	%	
		Maximum (red radial)	101.5	
		Acceleration (red triangle)	102.6	
		PROPELLER TACHOMETER (Np)	RPM	
		Normal Operating Range (green radial)	2000	
		Maximum (red radial)	2025	
		Acceleration (red triangle)	2420	
		VOLT/AMMETER	VOLTS	
Normal operation (green arc)	24 to 28.5			
Maximum (red radial)	28.5			
	AMPS			
	Battery Supply Limit (yellow radial)	-60		

- (3) **Airspeed Limits** [Refer to flight instrument markings]
- | | | KNOTS | KM/H |
|---------------------|--------------------|--------------|-------------|
| Never exceed | (V _{NE}) | 151 | 280 |
| Structural Cruising | (V _C) | 119 | 220 |
| Maneuvering | (V _A) | 119 | 220 |
| Flaps Extended | (V _{FE}) | 95 | 176 |
- (4) **Types of Operation** Instrumentation must be installed for day, night, VFR, or IFR operation, as specified by the appropriate operating rules.
- (5) **Altitude** Maximum Operating Altitude 25,000 feet
- (6) **Flight Load Factors**
- | | <u>Flaps up</u> | <u>Flaps Extended</u> |
|------------------|-----------------|-----------------------|
| Maximum positive | +3.58 g | +2.00 g |
| Maximum negative | -1.43 g | 0.00 g |
- (7) **Maneuvers** No acrobatic maneuvers (including spins) are approved.
- (8) **Weights (kg)**
- | | |
|-----------------------|---------|
| Max. Ramp Weight | 2810 kg |
| Max. Take-Off Weight | 2800 kg |
| Max. Landing Weight | 2660 kg |
| Max. Zero Fuel Weight | 2400 kg |
- NOTE**
- For loading refer to the "LOADING PROCEDURE" as given in the Appendix "WEIGHT AND BALANCE".
- (9) **Center of Gravity Envelope**
- | | |
|-------|---------------------------------------|
| up to | 1450 kg = 11% to 38% (3209 – 3722 mm) |
| at | 2800 kg = 32% to 38% (3608 – 3722 mm) |
- Straight line variation between points given.
- (10) **Max. Weight in Cabin** 1000 kg.
- (11) **Max. Floor Load** Max. permissible floor load is 488 kg / sq. m.
- (12) **Max. Load on Trap Doors** The load on each door must not exceed 150 kg.
- (13) **Operation with Snow Vanes** Remove snow vanes at ambient temperatures above 15°C (59°F).

(14) Tire Inflation Pressure

Main Wheel

Standard	24 x 7.7 - 8 PR	49 psi
Low Pressure	11 - 12 - 8 PR	20 psi

Tail Wheel

Standard	5.00-4 - 6 PR	47 psi
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(15) Certificated Noise Data (2800 kg MTOW)

(a) In accordance with ICAO Annex 16, Chapter 6, "AIRCRAFT NOISE" (equivalent to FAA FAR 36, Appendix F), the established noise levels are as follows:

- Noise level during overflight
at 1000 ft altitude, at 25°C
outside air temperature: 77.0 dB(A)
- Performance correction at 15°C: -1.7 dB(A)
- Certificated Noise Level: 75.3 dB(A)

(b) In accordance with FAA FAR 36, Appendix G, the established noise level is as follows:

- Certificated Noise Level: 79.4 dB(A)

It has not been determined by the Certifying Authority whether the noise level of this airplane is, or will be acceptable, or unacceptable for operation into, or out of any airport.

(16) Mooring

The aircraft must be moored if it is parked for long periods, or if wind speeds in excess of 15 knots are expected. If wind speeds in excess of 52 knots are expected it is recommended to put the aircraft in a hangar as damage to the aircraft and mooring equipment can occur.

I. HORIZONTAL STABILIZER TRIM

It is mandatory that the dual motor horizontal stabilizer electrical trim system is installed and serviceable (both motors operational).

J. WING TIPS

The color of the composite wing tips must not exceed a solar absorptivity of 0.6 (white and other light colors will be within this limitation).

K. CARGO TRANSPORTATION

For the transportation of cargo the following equipment is required:

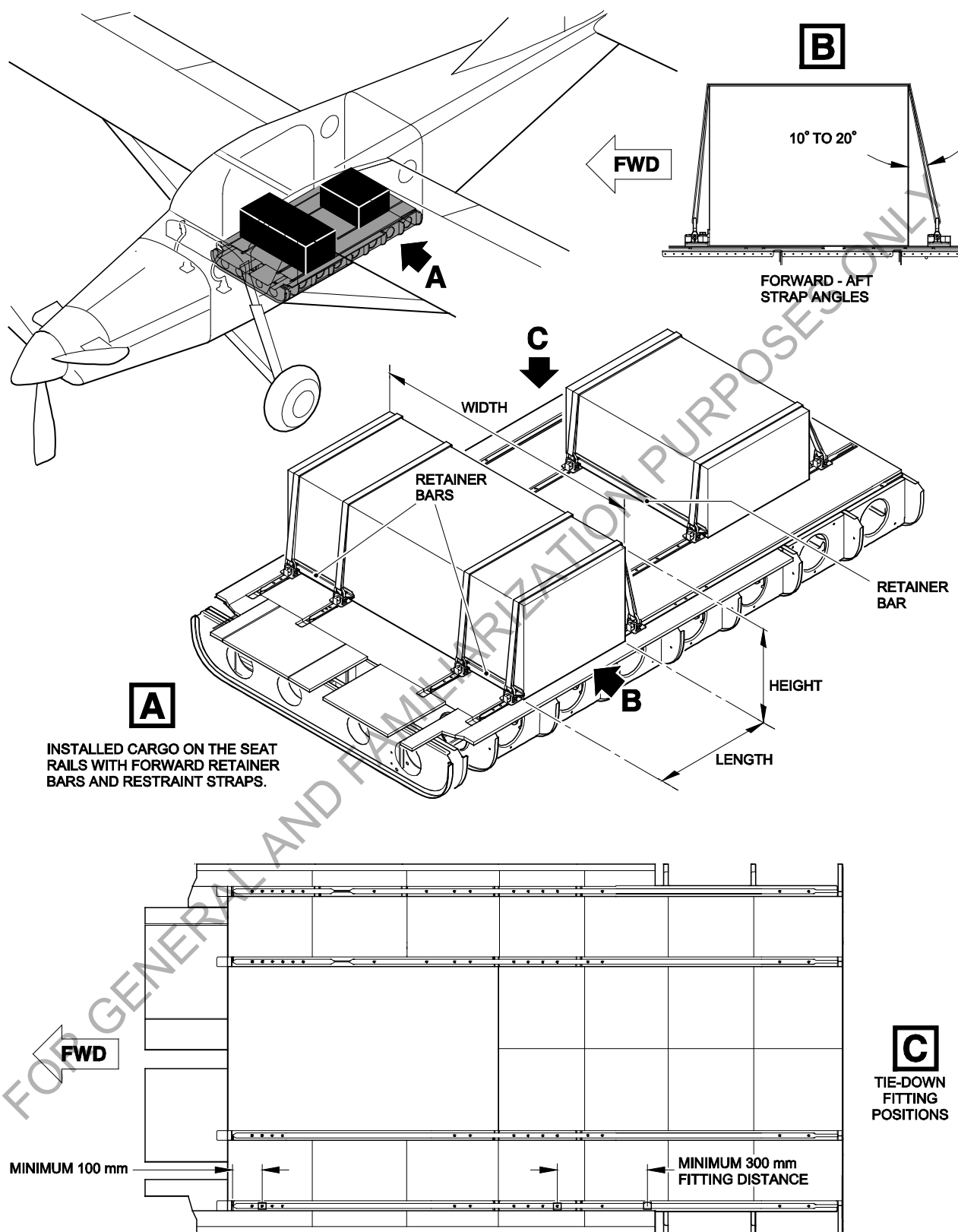
- Tie-down Fittings P/N 119.78.06.083
- Retainer Bars (Short) P/N 119.78.06.086
- Retainer Bars (Long) P/N 119.78.06.087
- Tie-down Straps with a breaking strength of 817 kg minimum per strap

Position and restrain the cargo as follows (Ref. Fig.1):

1. Position the cargo with the longer side on the floor so that the height is less than the length.
2. Position the cargo so that the C of G is at half the height or less.
3. Install the retainer bar(s) in front of the cargo.
4. Position the cargo over the pair of seat rails so that the C of G is central between the seat rails.
5. Make sure the cargo is pushed firmly against the retainer bar(s).
6. Restrain the cargo with straps placed in the fore-aft direction between the ring on the forward tie-down fitting and the ring on the aft tie-down fitting. Do not place the straps diagonally.
7. Install the tie-down fittings a minimum of 100 mm from the end of the seat rail.
8. Install the tie-down fittings a minimum of 300 mm apart on the same seat rail. If the cargo mass is more than 70 kg per pair of seat rails, increase the distance between the tie-down fittings to 600 mm.
9. Position the tie-down fittings to give a strap angle of between 10° and 20°.
10. If necessary, put additional restraining straps laterally on cargo straddling the center seat rails.

Using the procedure above, for each retainer bar, a maximum mass of 140 kg can be secured. For a full cabin width cargo, resting on two pairs of seat rails and secured with two retainer bars in front of the cargo and four tie-down fittings aft of the cargo, a mass of 280 kg can be secured.

Another similar cargo with a mass of 280 kg can be secured at a distance of 600 mm from the adjacent cargo provided the maximum floor loading, and the weight and balance, are within limits.



Cargo Transportation
Figure 1

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SECTION 2

OPERATING PROCEDURES

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SECTION 2

OPERATING PROCEDURES

A. ENGINE DESCRIPTION

GENERAL

The PT6A-27 engine has a three-stage axial, single-stage centrifugal compressor driven by a single-stage reaction turbine. Another single-stage reaction turbine, counter-rotating with the first, drives the output shaft. Fuel is sprayed into the annular combustion chamber by fourteen individually removable fuel nozzles mounted around the gas generator case. An igniter unit and two igniters are used to start combustion. A hydro-pneumatic fuel control schedules fuel flow to maintain the power set by the gas generator power lever. Propeller speed is kept constant by the propeller governor, except in the beta range where the maximum propeller speed is controlled by the pneumatic section of the propeller governor.

Immediately following touchdown, partial or full reverse thrust may be obtained by lifting and retarding the power lever aft of the detent. Reverse thrust can be varied by moving the power lever to any position aft of the lift detent.

BETA RANGE

BETA MODE operation of the propeller is used in flight to effect fast deceleration and high rates of descent. In the beta range, the propeller blades are set at a low positive pitch angle to provide a braking effect for steep controlled descents. When operating in the beta mode, the propeller pitch angle is controlled by power lever movement between the lift detent and the point where constant speed operation becomes effective.

NOTE

BETA MODE is provided in descent at airspeeds below 100 KIAS with the POWER lever near or at the detent. Only small movements of the POWER lever are necessary to change rate of descent or airspeed. Approaches in full BETA MODE (POWER lever at detent) are not permitted at airspeeds below 1.3 Vs.

REVERSE THRUST

Either full or partial reverse thrust is obtained by lifting and moving the power lever to any position aft of the lift detent. The PROP LOW P (propeller low pitch) caption will illuminate. With full reverse thrust a small amount of torque, biased to the left, may be noticeable.

Reverse thrust is for ground operation only and must not be used in flight. In the unlikely event of the propeller moving to reverse pitch in flight, a sudden increase in drag, accompanied by buffeting and the PROP LOW P warning caption in the annunciator panel will illuminate. If corrective action (an advance of the power lever) fails to rectify the reverse pitch condition, the propeller should be feathered.

B. ENGINE RATING

The engine ratings and power lever and propeller control settings are as follows:

Take-Off/Maximum Continuous/Maximum Climb-Cruise

This rating is the maximum power permissible and corresponds to 550 SHP (47.3 psi at 2000 RPM) at sea level up to 43°C ambient temperature. The maximum allowable output torque and/or Inter Turbine Temperature must NOT be exceeded.

C. ENGINE/PROPELLER CONTROLS AND INSTRUMENTATION

POWER LEVER (GAS GENERATOR)

This lever serves to modulate engine power from full reverse thrust to take-off power. The POWER lever assembly incorporates a lift detent which establishes the most rearward position of the lever for flight conditions.

PROPELLER CONTROL

The propeller control provides adjustment of the propeller constant speed unit to maintain propeller speed at 2000 RPM and allows feathering and unfeathering of the propeller. The propeller control lever is installed in the console together with the power lever and the idle control lever. The propeller control range is divided by a detent into the flight position which is forward of the detent and provides a propeller speed of 2000 RPM and a position behind the detent which allows the propeller to be feathered.

CAUTION

DO NOT FEATHER THE PROPELLER WITH TORQUE ABOVE 17 PSI
AS TRANSIENT OVERTORQUE OF THE ENGINE WILL RESULT.

IDLE CONTROL

The Idle Control is a three-position control lever combining two distinct functions. It provides high and low idle settings of the gas generator at speeds of approx. 70% and 52% respectively, and fuel cut-off. The positions are defined as follows: HIGH IDLE - full forward; LOW IDLE - mid-stop, and CUT-OFF - full aft. The engine fuel cut-off position is obtained by lifting the IDLE CONTROL lever, pressing the red locking device against its spring and pulling the IDLE CONTROL lever fully aft. Low idle is obtained by lifting and pushing the control forward to the mid-stop position. The high idle position is obtained by lifting and pushing the control fully forward.

CAUTION

THE ENGINE MUST BE OPERATED IN HIGH IDLE WHEN THE NEED
FOR RAPID ENGINE ACCELERATION IS ANTICIPATED.

HIGH-IDLE (FLIGHT-IDLE)

High-Idle gas generator minimum speed is obtained by positioning the engine Idle Control fully forward. The fuel topping governor will reduce Propeller RPM to less than 2000 RPM in the event of a free turbine (propeller) overspeed condition.

LOW-IDLE (GROUND-IDLE)

Low-idle gas generator minimum speed is obtained by positioning IDLE CONTROL at MID-stop. The power lever can then select gas generator speeds from 52% Ng up to 100% Ng.

ENGINE STARTER SWITCH

This switch energizes the starter mechanism (via the starter relay) which cranks the gas generator for engine starting.

IGNITION SWITCH

This switch energizes the ignition system for ground and air starts.

ANTI ICE SWITCH

This switch energizes heating elements on:

- the pneumatic sense line to the FCU
- the pneumatic servo line connecting the FCU with the propeller governor
- the pitot tube and the static ports

The ANTI ICE switch must be ON when ambient temperature is 4°C or less than 4°C and visible moisture is in the air.

AUXILIARY FUEL PUMP SWITCH

This switch energizes the booster pump in the fuel collector tank and is energized during engine starting, taxiing, take-off, landing phases and engine shut-down phase. An advisory caption on the annunciator panel illuminates whenever the pump is energized.

FUEL SYSTEM VALVE

The fuel system ON/OFF valve is located on the cockpit firewall and is operated by a manual control to the left of the pilot's seat. If a guard is installed it must be operated prior to rotating the valve.

OIL COOLER CONTROL

Operates a hinged flap which controls air flow through the oil cooler to maintain oil temperatures within specified limits.

TORQUEMETER

The torquemeter system determines the shaft output torque. Torque values are obtained by sensing and recording the differential pressure at two outlets on the reduction gear case. The resultant pressure is displayed on the torquemeter as a digital readout and an analog indication.

INTER TURBINE TEMPERATURE INDICATOR

The Inter Turbine Temperature sensing system provides an accurate reference of engine operating temperatures and is taken at a point between the two turbines. Eight parallel-connected chromel/alumel thermocouple probes adjacent to the leading edge of the interstage vanes are employed to sense the temperature which is displayed on the ITT indicator as a digital readout and an analog indication.

PROPELLER TACHOMETER (Np)

The propeller tachometer indicates propeller RPM.

GAS GENERATOR TACHOMETER (GAS GENERATOR Ng)

This tachometer indicates gas generator speed as a percentage of maximum continuous gas generator speed. A gas generator speed of 37,500 RPM represents 100% Ng and is displayed as a digital readout and an analog indication.

OIL PRESSURE INDICATOR

Indicates the oil pressure on the delivery side of the oil pressure pump.

OIL TEMPERATURE INDICATOR

Indicates the temperature of the oil at the oil pressure pump outlet.

D. FLAP SYSTEM DESCRIPTION

The flaps are extended and retracted by an electric motor. Depending on build status, one of the following systems is installed:

PRESELECTABLE FLAP SYSTEM (older versions)

The preselectable flap system has a three position switch labelled UP - TO - LD. The flaps will, after selection, automatically move to the selected position.

A flap position indicator is installed. Depending upon indicator type, either the actual (transient) flap position will be displayed, or a shutter will appear during flap travel until the selected flap position is reached (UP, TO, or LD).

CONTINUOUSLY VARIABLE FLAP SYSTEM (newer versions)

The continuously variable flap system has a switch labeled UP - OFF - DN. Depending on build status, the switch is either one which is spring-loaded to the OFF position or one which is manually selected to the OFF position.

If the spring-loaded switch is installed, the flaps move in the selected direction as long as the switch is held in the UP or DN position. When the switch is released it returns automatically to the OFF position and the flaps stay at the position selected.

If the other type of switch is installed, the flaps move in the selected direction when the switch is set to the UP or DN position (to stop flap movement before full travel is reached, the switch must be manually set to the OFF position).

The flap indicator shows the actual position of the flaps at all times. It must be used to set the flaps to the desired setting (UP, TO or LD) or any intermediate position.

E. TRIM SYSTEM DESCRIPTION

(1) HORIZONTAL STABILIZER ELECTRIC TRIM SYSTEM

The horizontal stabilizer electric trim system consists of:

A dual motor (Main and Alternate Motors) electrically-operated linear actuator, one end attached to a support frame in the rear fuselage and the other end attached to the horizontal stabilizer.

A normal trim control system which incorporates two three-position spring-loaded trim switches and two relays. One switch is located on each of the two control column grips. These switches control the Main actuator, which operates at twice the speed of the Alternate Trim System actuator motor.

An Alternate Trim Control System which incorporates an actuator control switch positioned on the instrument panel and labelled ALTERNATE STAB TRIM, NOSE DN, NOSE UP.

An Interrupt system which incorporates a guarded switch positioned on the instrument panel shelf and labelled TRIM INTERRUPT. When the TRIM INTERRUPT switch is in the 'NORMAL' position, both the Main and Alternate systems are active. When the TRIM INTERRUPT switch is in the 'INTERRUPT' position, both the Main and Alternate systems are inactive.

An electrically-operated trim position indicator located on the upper left side of the instrument panel.

MAIN SYSTEM

Normal longitudinal trim operation is accomplished by operating either the trim control switch on the pilot's control column grip, or, the trim control switch on the co-pilot's control column grip. Both switches are similar and are spring-loaded to neutral. The trim control switch on the pilot's control column has priority. Nose DOWN (DN) trim is accomplished by moving the switch to the

up position and Nose UP trim is accomplished by moving the switch to the down position. Operating either trim switch energizes the actuator which moves the horizontal stabilizer.

In NORMAL operation the stabilizer trim actuator is powered via a circuit breaker marked STAB TRIM.

ALTERNATE SYSTEM

If the normal trim control system fails, an alternate trim system is available. The alternate trim system consists of a switch labelled ALTERNATE STAB TRIM, NOSE DN, NOSE UP.

(2) RUDDER ELECTRICAL TRIM SYSTEM (IF INSTALLED)

The electric rudder trim system consists of:

rudder trim switch
rudder trim circuit breaker
rudder trim actuator
rudder trim indicator

(3) AILERON ELECTRICAL TRIM SYSTEM (IF INSTALLED)

The electric aileron trim system consists of:

aileron trim switch
aileron trim circuit breaker
aileron trim actuator
aileron trim indicator

G. APIBOX DESCRIPTION (IF INSTALLED)

GENERAL

The APIBOX is a flight data and monitoring system, similar to a CVFDR. The acquired data is stored on an SD memory card and on a crash and fire proof memory unit. With the corresponding debriefing software, the data can be read from the SD memory card.

The system comprises:

- A power supply (APIPWR) unit which manages power to all the other units
- A sensor unit (APICAP) installed in the cockpit which collects static and dynamic pressure, inputs from pilot's and co-pilot's event switches, OAT, instrument temperature (behind pilot PFD), GPS data and data from an integrated 3-axis accelerometer and a 2-axis accelerometer which is located in the tail of the aircraft
- A unit which collects turbine parameters (ITT, Ng, Np, Torque, Fuel flow) and sends it to the data collecting unit
- A data retrieval unit (APISD) on the RH side of the cockpit panel. It consists of two annunciator lights (green and red), a numeric display, and a SD memory card reader
- A data collecting unit with a crash and fire resistant memory (APIV2), installed in the avionics rack
- GPS receiver
- Pilot and co-pilot event buttons
- Temperature sensors on the wing (OAT), behind the pilots PFD and in the avionics rack

FRONT PANEL

The front panel of the APIBOX (APISD) has:

- a green LED
- a red LED (reserved for future use and should always be OFF, except at power up test)
- a numeric display (displays status and error codes)
- a pushbutton (used for maintenance purposes)
- a memory card slot (used to insert a removable memory card)

STARTING THE APIBOX

The flight data recorder starts when the Battery Master Switch is set ON.

The green LED on the APIBOX shows that the system has electrical power.

At start-up, the green LED flashes for up to 30 seconds, then stays on.

If the green LED continues to flash after 30 seconds, the APIBOX is unserviceable.

STARTING RECORDING

Flight data recording starts automatically after start-up.

STOPPING RECORDING

Flight data recording stops automatically when all of the following conditions are met:

- Engine RPM is 0
- Indicated airspeed below 40 knots
- Ground speed below 5 knots (if GPS ground speed available)
- Low variations of lateral, longitudinal and vertical aircraft accelerations
- Low variations of static pressure

SYSTEM SHUT DOWN

The APIBOX shuts down when the Battery Master Switch is set OFF if the conditions listed above are met and the recording has stopped.

Pressing the OFF button on the APIPWR unit will shut down the APIBOX even if it is still recording.

F. PILOTS OPERATING INSTRUCTIONS

NORMAL PROCEDURES

PREFLIGHT INSPECTION

- | | | |
|----|---------------------------------|-----------------------|
| 1. | All covers and locks | REMOVE |
| 2. | Wing, Tail and Control surfaces | CHECK CLEAN/UNDAMAGED |

CAUTION

TO PREVENT STALLING OF THE HORIZONTAL STABILIZER WITH FULL FLAPS SELECTED THE HORIZONTAL STABILIZER MUST BE CLEAN.

- | | | |
|-----|--|---|
| 3. | Propeller | CHECK propeller and spinner for nicks and security, and propeller for oil leaks |
| 4. | Air Intake Filters
(if installed) | CHECK for obstructions (clean if required) |
| 5. | Landing Gear/Brakes | CONDITION |
| 6. | Tailwheel | CONDITION |
| 7. | Tailwheel Locking Lever | CHECK security of locking plate |
| 8. | Mainwheel Dirt Scrapers (if installed) | CHECK general condition |
| 9. | Tires | CHECK general condition and inflation |
| 10. | Fuel Tanks | CHECK for required quantity |
| 11. | Windshield and Windows | CHECK for cleanliness and proper condition |
| 12. | Oil Tank Contents
(before first flight of day only) | CHECK oil level.
Max. level is between No. '0' and '1' markings. If engine has remained stationary for 12 hours or more, the level drops by approx. 1/2 unit. Service to 1 quart below maximum only |
| 13. | Engine Drains Collector Tanks | DRAIN accumulated fluid |
| 14. | Main Fuel Filter
(before first flight of day only) | DRAIN accumulated water |
| 15. | Water Sediment Tank
Underwing Tanks (if installed) | DRAIN accumulated water |
| 16. | Lights | CHECK |
| 17. | Pitot/Prop Heater | CHECK |
| 18. | Stall Warning | CHECK |
| 19. | Static Vents | CHECK |
| 20. | Cabin | a) CHECK for required pressure of oxygen system (if installed)
b) CHECK condition of cabin, security of equipment and proper stowage of cargo
c) LOCK seats as desired and fasten seat belts
d) CHECK that cabin doors are securely closed |

21. Passenger Briefing

As appropriate

BEFORE ENGINE STARTING

- | | |
|------------------------|-----------------|
| 1. Doors | CLOSED |
| 2. Seats/Rudder Pedals | ADJUST and LOCK |

WARNING

MAKE SURE FLIGHT CONTROL GUST LOCKS ARE REMOVED BEFORE TAKE-OFF

- | | |
|--------------------|------------------------------|
| 3. Flight Controls | UNLOCK, CHECK correct travel |
| 4. Parking Brake | SET |
| 5. Power Lever | IDLE DETENT |

CAUTION

DO NOT MOVE PCL TO REVERSE WHEN ENGINE IS STOPPED.

- | | |
|-----------------------------|---|
| 6. Idle Control Lever | CUT-OFF |
| 7. Propeller Control Lever | (At OATs, above +10°C - set feather)
(At OATs, below +10°C - set full forward) |
| 8. Starter Switch | OFF |
| 9. Ignition Switch | OFF |
| 10. Generator Switch | OFF |
| 11. Aux Fuel Pump Switch | OFF |
| 12. LDG. Lights | OFF/UP |
| 13. Radio Master: | |
| - Bat Radio | OFF |
| - Gen Radio | OFF |
| 14. Battery Master Switch | ON, CHECK VOLTAGE |
| 15. With Ext. Power Supply: | |
| - Battery Master | ON |
| - GPU | CONNECTED, CHECK VOLTAGE |
| 16. Annunciator Panel | TEST |
| 17. Fuel System Valve | OPEN, GATED |
| 18. Fuel Quantity/Totalizer | CHECK / SET |
| 19. Engine Instruments | CONDITION |
| 20. Oil Temp. | CHECK (above -40°C) |

ENGINE STARTING

- | | |
|-------------------------|--------------|
| 1. Aux Fuel Pump Switch | ON |
| 2. Propeller Area | CLEAR |
| 3. Starter Switch | ON |
| 4. Oil Pressure | CHECK rising |
| 5. Ignition Switch | ON |

When Ng stabilized (Min. 12% Ng):

- | | |
|-----------------------|------------------------------------|
| 6. Idle Control Lever | LOW IDLE |
| 7. ITT | MONITOR (Max 1090°C for 2 seconds) |

When Low-Idle RPM is attained (Min. 46%):

- | | |
|--------------------|-----------------|
| 8. Starter Switch | OFF |
| 9. Ignition Switch | OFF |
| 10. Oil Pressure | CHECK GREEN ARC |

11. ITT

STABILIZED BELOW 660°C

CAUTION

IF ENGINE FAILS TO LIGHT UP WITHIN 10 SECONDS AFTER SELECTING LOW-IDLE, ABORT START. ALLOW A 30-SECOND FUEL DRAINING PERIOD FOLLOWED BY A DRY MOTORING RUN BEFORE ATTEMPTING ANOTHER START.

AFTER ENGINE STARTING

- | | | |
|----|---|---|
| 1. | If engine start with GPU:
- GPU
- Battery Master Switch | DISCONNECT
CONFIRM ON, CHECK VOLTAGE. |
| 2. | Propeller Control Lever | FORWARD.
(Before first flight of day cycle twice to feather) |
| 3. | Generator Switch | ON, CHECK GEN. caption out, volts 28V and positive amps. |

CAUTION

DO NOT SELECT THE GENERATOR TO **ON** WITH THE PROPELLER FEATHERED AND DO NOT FEATHER THE PROPELLER WITH THE GENERATOR ON.

- | | | |
|-----|---|----------------------|
| 4. | Ng | CHECK above 51% |
| 5. | Radio Master:
- Bat Radio
- Gen Radio | ON
ON |
| 6. | Inverter (if installed) | ON |
| 7. | Avionics | ON / SET AS REQUIRED |
| 8. | Compass | SYNCHRONIZED |
| 9. | Artificial Horizon(s) | ERECT |
| 10. | APIBOX (APISD) (if installed) | CHECK Green LED ON |

BEFORE TAXIING

- | | | |
|----|----------------|-------------|
| 1. | Passengers | SECURE |
| 2. | Landing Lights | AS REQUIRED |
| 3. | Nav Lights | ON |

TAXIING

- | | | |
|----|-----------|-------|
| 1. | Tailwheel | STEER |
|----|-----------|-------|

NOTE

The tailwheel is steerable with the rudder through 25° left and right of the neutral position. When the tailwheel is more than 25° from the neutral position the tailwheel is in free swivel.

- | | | |
|----|--------------------|---|
| 2. | Park Brake | RELEASE |
| 3. | Brakes | CHECK functioning. |
| 4. | Flight Instruments | FUNCTIONING
(Horizon steady, compass turn, turn and slip correct indication) |

BEFORE TAKE-OFF

WARNING

AN EXTREMELY OUT-OF-TRIM STABILIZER CAN, IN COMBINATION WITH LOADING, FLAPS POSITION AND POWER INFLUENCE, RESULT IN AN UNCONTROLLABLE AIRCRAFT AFTER THE AIRCRAFT LEAVES THE GROUND.

CAUTION

FAILURE TO SET CORRECT TRIM SETTINGS WILL RESULT IN LARGE CONTROL FORCES AND/OR UNREQUESTED PITCHING/YAWING.

- | | |
|--|---|
| <p>1. Trims:</p> <ul style="list-style-type: none"> - Stabilizer: <li style="padding-left: 40px;">for mid c.g. <li style="padding-left: 40px;">for FWD/AFT c.g - Aileron - Rudder | <p>If Trim Warning System installed, check no light or sound
GREEN MARK (0°).
GREEN ARC (2° Nose Up/2° Nose Down)
GREEN MARK (0°)
GREEN MARK (7° right)</p> |
| <p>2. Flaps</p> | <p>SET TO (28°)</p> |

WARNING

MAKE SURE THAT ALL GROUND CONTROL LOCKS AND/OR GUST LOCKS ARE DISENGAGED / REMOVED BEFORE TAKE-OFF.

- | | |
|--------------------------------------|-------------------------------|
| <p>3. Flight Controls</p> | <p>FULL and FREE MOVEMENT</p> |
| <p>4. Altimeter</p> | <p>SET</p> |
| <p>5. Fuel Quantity</p> | <p>CHECK</p> |
| <p>6. Aux Fuel Pump Switch</p> | <p>ON</p> |
| <p>7. Anti-ice Switch</p> | <p>AS REQUIRED</p> |
| <p>8. Prop de-ice (if installed)</p> | <p>AS REQUIRED</p> |
| <p>9. Strobe Lights</p> | <p>ON</p> |
| <p>10. Oil Temp</p> | <p>GREEN ARC</p> |
| <p>11. Instruments</p> | <p>CHECKED</p> |
| <p>12. Heating Control</p> | <p>OFF</p> |
| <p>13. Doors/Windows</p> | <p>CLOSED</p> |

When Aligned on the Runway:

- | | |
|----------------------------------|--|
| <p>14. Tail Wheel</p> | <p>LOCK</p> |
| <p>15. Rudder Pedals</p> | <p>FREE</p> |
| <p>16. Tail Wheel Lock Check</p> | <p>CONFIRM AIRCRAFT ROLLS STRAIGHT
WHEN ASYMMETRIC BRAKING</p> |
| <p>17. Idle Control Lever</p> | <p>HIGH IDLE</p> |

TAKE-OFF

Engine limitations:

- | | |
|------------------|---|
| <p>1. Torque</p> | <p>47.3 PSI (Max. transient 53 PSI)</p> |
| <p>2. ITT</p> | <p>725°C (Max. transient 825°C for 2 seconds)</p> |
| <p>3. Ng</p> | <p>101.5% (Max transient 102.6%)</p> |
| <p>4. Np</p> | <p>2000 RPM (Max transient 2420 RPM)</p> |

CLIMB

- | | |
|--------------------------------|--|
| <p>1. Flaps</p> | <p>UP</p> |
| <p>2. Aux Fuel Pump Switch</p> | <p>OFF</p> |
| <p>3. Oil Cooler</p> | <p>SET (oil temperature between 74 and 80°C)</p> |
| <p>4. Landing Light(s)</p> | <p>UP/OFF</p> |

5. Heating
6. ITT

AS REQUIRED
Max. 695°C

CRUISE

1. Oil Temperature
2. ITT
3. Engine Instruments
4. Ignition Switch

ADJUST oil cooler control to maintain oil temperature between 74 and 80°C
Max. 695°C
MONITOR
Select ON during heavy rain

BEFORE LANDING

1. Altimeter
2. Fuel quantity
3. Aux Fuel Pump Switch
4. Ignition Switch
5. Idle Control Lever

SET
SUFFICIENT
ON
Select ON
HIGH IDLE

NOTE

In order to reduce noise emission in the approach and landing modes, the Idle Control lever may be selected to LOW IDLE. Refer to AFM Supplement Report No.1887, for procedures and warnings.

WARNING

DEPOSITS OF ICE OR DIRT ON THE HORIZONTAL STABILIZER COULD CAUSE THE HORIZONTAL STABILIZER TO STALL WHEN FULL FLAPS ARE SET.

WHEN AN ICE OR DIRT BUILD-UP ON THE STABILIZER IS SUSPECTED, IT IS RECOMMENDED THAT A FLAPLESS LANDING IS MADE.

6. Flaps
7. Trim

AS REQUIRED
AS REQUIRED. Trim the aircraft for an approach speed of 68 KCAS and sufficient power for a 3° glide slope (approximately 10 PSI power and 3 units of aircraft nose up trim)
OFF
DOWN and ON
CHECKED LOCKED

8. Cabin Heating
9. Landing Light(s)
10. Tailwheel

BALKED LANDING

WARNING

WITH FLAPS IN LANDING POSITION AND HORIZONTAL STABILIZER TRIM FULL NOSE UP, DO NOT SELECT MAX POWER BEFORE HORIZONTAL STABILIZER TRIM IS RESET TO "0".

1. Power Lever
2. Wing Flaps
3. Climb Speed
4. Wing Flaps

ADVANCE for take-off power
RETRACT to TO
65 KCAS
RETRACT after reaching safe altitude and airspeed

AFTER LANDING

1. Stabilizer Trim
2. Idle Control Lever
3. Tailwheel
4. Flaps
5. Anti-ice Switch
6. Ignition Switch

Set to safe position for take-off (within GREEN ARC). If Trim Warning System installed, check no light or sound
LOW-IDLE
STEER
UP
OFF
OFF

- | | | |
|----|----------------------------|-----|
| 7. | Prop de-ice (if installed) | OFF |
| 8. | Strobe Light(s) | OFF |

ENGINE SHUT DOWN

- | | | |
|----|-------------------|--------|
| 1. | Tailwheel Control | LOCK |
| 2. | Power Lever | RETARD |
- (Allow engine to stabilize at idle with minimum ITT for one minute)
- | | | |
|----|-------------------|--------|
| 3. | Parking Brake | SET |
| 4. | RadioMaster: | |
| | - BAT Radio | OFF |
| | - GEN Radio | OFF |
| 5. | Landing lights | UP/OFF |
| 6. | Cockpit/Cabin Fan | OFF |
| 7. | Generator Switch | OFF |

CAUTION

DO NOT SELECT THE GENERATOR TO **ON** WITH THE PROPELLER FEATHERED AND DO NOT FEATHER THE PROPELLER WITH THE GENERATOR ON.

- | | | |
|----|-------------------------|----------------|
| 8. | Propeller Control Lever | SELECT FEATHER |
| 9. | Idle Control Lever | CUT-OFF |

WARNING

IF THERE IS ANY EVIDENCE OF FIRE WITHIN THE ENGINE AFTER SHUT-DOWN INDICATED BY HIGH ITT, PROCEED AS DESCRIBED UNDER "CLEARING THE ENGINE".

NOTE

Ensure that the compressor decelerates freely during run-down.

- | | | |
|-----|-----------------------|------------------------|
| 10. | Aux Fuel Pump Switch | OFF (when Ng below 5%) |
| 11. | Nav Lights | OFF |
| 12. | Battery Master Switch | OFF |

POSTFLIGHT

- | | | |
|----|---------------------------|-------------------------------|
| 1. | Propeller | SECURE to prevent windmilling |
| 2. | External Locks and Covers | INSTALL |

CAUTION

IF MODERATE TO STRONG WINDS ARE EXPECTED, THE AIRCRAFT MUST BE TIED DOWN AND PROPERLY SECURED.

NOTE

Do not use internal and external locks together.

EMERGENCY PROCEDURES

ENGINE FAILURE IN FLIGHT

CAUTION

DO NOT SHUT DOWN AN ENGINE DURING TAKE-OFF OR LANDING BECAUSE OF SUSPECTED ENGINE FAILURE UNLESS AN ENGINE MALFUNCTION IS DEFINITELY DETERMINED.

WARNING

DO NOT ATTEMPT TO RE-START AN ENGINE IF THE ENGINE FAILURE WAS THE RESULT OF A TECHNICAL PROBLEM.

AIR START

An engine flame-out will be noticed by an indicated drop in ITT, torque pressure, Ng and Np.

The recommended air start technique is to initiate the Immediate Relight procedure immediately after the flame-out occurs, always assuming the flame-out was not the result of an engine malfunction and the aircraft's altitude does not allow to perform a Normal Relight Procedure.

If the Ng is less than 46%, a Normal Relight should be initiated.

The relight envelope for successful air starts covers all operational altitudes and airspeeds. Above 20,000 ft starting temperatures may tend to be high.

IMMEDIATE RELIGHT (NG > 46%)

- | | |
|-----------------------------------|------------------|
| 1. Power Lever | RETARD to detent |
| 2. Idle Control Lever | LOW-IDLE |
| 3. Aux Fuel Pump | ON |
| 4. Starter Switch | ON |
| 5. Ignition Switch | ON |
| 6. ITT/Ng/Np/Fuel Flow Indicators | MONITOR |
| 7. Oil Pressure Indicator | MIN. 40 psi |

When engine stabilized in LOW-IDLE:

- | | |
|------------------------------|-------------|
| 8. Starter Switch | OFF |
| 9. Ignition Switch | OFF |
| 10. Idle Control Lever | HIGH-IDLE |
| 11. Power Lever | AS REQUIRED |
| 12. Land as soon as possible | |

NOTE

Immediate relight should only be carried out when height is critical for normal relight. Use only during real emergency, do not practice during training due to possible high ITT.

If the Immediate Relight procedure is unsuccessful or Ng is less than 46%, the Engine Securing procedure should be performed as follows:

ENGINE SECURING

- | | |
|--------------------------------------|---|
| 1. Idle Control Lever | CUT-OFF |
| 2. Propeller Control Lever | FEATHER |
| 3. Power Lever | RETARD to detent |
| 4. Aux Fuel Pump Switch | OFF |
| 5. Fuel System Valve | CLOSE |
| 6. Generator Switch | OFF |
| 7. Anti-ice Switch | OFF – if not required |
| 8. Prop de-ice Switch (if installed) | OFF – if not required |
| 9. Electrical Power | REDUCE all non-essential electrical equipment to a battery discharge current of less than 35A |

NORMAL RELIGHT

- | | |
|-------------------------------------|--------------|
| 1. Propeller Control Lever | FORWARD |
| 2. Power Lever | RETARD |
| 3. Idle Control Lever | CUT-OFF |
| 4. BAT Radio/GEN Radio BUS Switches | OFF |
| 5. Fuel System Valve | OPEN |
| 6. Generator Switch | OFF |
| 7. Aux Fuel Pump Switch | ON |
| 8. Starter Switch | ON |
| 9. Ignition Switch | ON |
| 10. Oil Pressure Indicator | CHECK RISING |

When Ng stabilized above 12%:

- | | |
|------------------------|----------|
| 11. Idle Control Lever | LOW-IDLE |
| 12. ITT | MONITOR |

When Ng 52%:

- | | |
|--------------------------------------|------------------|
| 13. Oil Pressure | CHECK, GREEN ARC |
| 14. Starter Switch | OFF |
| 15. Ignition Switch | OFF |
| 16. Generator Switch | ON |
| 17. Idle Control Lever | HIGH IDLE |
| 18. Power Lever | AS REQUIRED |
| 19. BAT Radio/GEN Radio BUS Switches | ON |
| 20. Land as soon as possible | |

NOTE

For a power off landing establish the best glide speed, which should be not less than 75 knots IAS.

SMOKE AND FIRE

ENGINE FIRE ON THE GROUND (in engine compartment)

The following procedure is used if there is evidence of fire in the engine compartment while the aircraft is on the ground:

- | | |
|-------------------------|------------|
| 1. Idle Control Lever | CUT-OFF |
| 2. Fuel System Valve | CLOSE |
| 3. Ignition Switch | OFF |
| 4. Battery Switch | OFF |
| 5. Generator Switch | OFF |
| 6. Aux Fuel Pump Switch | OFF |
| 7. Aircraft | EVACUATE |
| 8. Fire | EXTINGUISH |
| 9. Ground crew | ALERT |

ENGINE FIRE ON THE GROUND (within the engine)

The following procedure is to be used if there is evidence of a fire within the engine. Air passing through the engine is utilised to purge the fire from the combustion section, gas generator turbine, power turbine and exhaust system.

- | | |
|-------------------------|-----------------------------|
| 1. Idle Control Lever | CUT-OFF |
| 2. Fuel System Valve | CLOSE |
| 3. Ignition Switch | OFF |
| 4. Generator Switch | OFF |
| 5. Aux Fuel Pump Switch | ON (to lubricate fuel pump) |
| 6. Starter Switch | ON |

WARNING

SHOULD THE FIRE PERSIST, INDICATED BY SUSTAINED ITT, CLOSE FUEL SYSTEM VALVE AND CONTINUE MOTORING (STARTER OPERATION).

CAUTION

DO NOT EXCEED STARTER LIMITATION (30 seconds).

- | | |
|-------------------------|------------|
| 7. Starter Switch | OFF |
| 8. AUX FUEL PUMP SWITCH | OFF |
| 9. Battery Switch | OFF |
| 10. Aircraft | EVACUATE |
| 11. Fire | EXTINGUISH |
| 12. Ground crew | ALERT |

CLEARING THE ENGINE ON THE GROUND

The following procedure is used to clear the engine when it is necessary to remove internally trapped fuel and vapor. Air passing through the engine is utilized to purge fuel and fuel vapor from the combustion section, gas generator turbine, power turbine and exhaust system.

- | | |
|-------------------------|-----------------------------|
| 1. Idle Control Lever | CUT-OFF |
| 2. Ignition Switch | OFF |
| 3. Generator Switch | OFF |
| 4. Aux Fuel Pump Switch | ON (to lubricate fuel pump) |
| 5. Starter Switch | ON |

NOTE

Maintain starter operation for 10 seconds then allow starter to cool one minute before re-engaging.

CAUTION

DO NOT EXCEED STARTER LIMITATION (30 SECONDS).

- | | |
|-------------------------|-----|
| 6. Starter Switch | OFF |
| 7. Aux Fuel Pump Switch | OFF |

ENGINE FIRE IN FLIGHT (in engine compartment)

In the event of a fire in the engine compartment while the aircraft is in flight:

- | | |
|--------------------------------------|---|
| 1. Idle Control Lever | CUT-OFF |
| 2. Propeller Control Lever | FEATHER |
| 3. Fuel System Valve | CLOSE |
| 4. Aux Fuel Pump Switch | OFF |
| 5. Cabin Air Emergency Shut-Off | PULL |
| 6. Cabin Heat Control | PUSH |
| 7. Power Lever | RETARD to detent |
| 8. Anti-ice Switch | OFF – if not required |
| 9. Prop de-ice Switch (if installed) | OFF – if not required |
| 10. Electrical Power | REDUCE all non-essential electrical equipment to a battery discharge current of less than 35A |

CAUTION

ENGINE SHUT-DOWN WILL RESULT IN THE LOSS OF SUCTION TO VACUUM DRIVEN GYRO INSTRUMENT.

NOTE

For a power off landing establish the best glide speed, which should be not less than 75 knots IAS.

SMOKE OR FUMES IN-FLIGHT

The following procedure is used if smoke or fumes are detected in the cockpit or passenger compartment.

- | | |
|---------------------------------|------|
| 1. Cabin Air Emergency Shut-Off | PULL |
| 2. Cabin Heat Control | PUSH |
| 3. D/V Window | OPEN |
| 4. Crew entry doors | OPEN |

If crew or passengers occupy cabin:

- | | |
|----------------|------|
| 5. Cabin Doors | OPEN |
|----------------|------|

If no crew or passengers occupy cabin:

- | | |
|-------------|---|
| 6. Trapdoor | OPEN (according to cabin configuration and crew availability) |
|-------------|---|

If specific electrical equipment showing evidence of damage:

- | | |
|-----------------------------|------|
| 7. Electrical Equipment C/B | PULL |
|-----------------------------|------|

- | | |
|-----------------------------|---|
| 8. Electrical Power | REDUCE all non-essential electrical equipment |
| 9. Land as soon as possible | |

If smoke or fumes persist, follow procedure for IN FLIGHT ENGINE FIRE.

NOTE

Once pulled, the cabin air emergency shut-off cannot be reset in flight.

FORCED LANDING (engine inoperative)

- | | |
|---|----------------------------|
| 1. Prop control lever | FEATHER |
| 2. Fuel System Valve | CLOSE |
| 3. Flaps | TO |
| 4. Turn to nearest airfield and glide for range | |
| 5. Speed | 75 KIAS (Best Glide Speed) |
| 6. Harness (Crew and Pax) | TIGHT |
| 7. Radio | EMER-CALL |

When landing assured:

- | | |
|------------|---------|
| 8. Flaps | LD |
| 9. Battery | OFF |
| 10. Speed | 70 KIAS |

COCKPIT DOORS EMERGENCY OPENING

The following procedure is to be used if a cockpit door needs to be jettisoned. A red-painted, safety-wired door jettison lever is located on the upper forward door frame.

- | | |
|------------------------|-----------------------|
| 1. Cockpit Door Handle | UNLOCK POSITION |
| 2. Door Jettison Lever | PULL INBOARD and DOWN |
| 3. Cockpit Door | PUSH OUTWARD |

NOTE

Considerable physical force can be required to jettison a door during cruise, or at descent flight speeds. The pilot should consider reducing airspeed and then inducing light side slip to counteract the airflow along the sides of the cockpit.

TRIM RUNAWAY

HORIZONTAL STABILIZER TRIM

- | | |
|-------------|---|
| 1. Airspeed | REDUCE to obtain acceptable residual control forces |
|-------------|---|

WARNING

MINIMUM SAFE AIRSPEEDS MUST BE OBSERVED.

- | | |
|--------------------------|-------------------------|
| 2. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' UP |
| 3. STAB TRIM CB's | PULL |
| 4. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' DOWN |

- IF TRIM DOES NOT MOVE (IT INDICATES A MAIN SYSTEM TRIM RUNAWAY)

- | | |
|--|----------------------------------|
| 5. ALTERNATE STAB TRIM NOSE DN/UP Switch | OPERATE to achieve required trim |
|--|----------------------------------|

NOTE

If a single trim position indicator is installed, the indicator will move to max nose up position if the STAB TRIM CB is pulled.

- IF TRIM DOES MOVE (IT INDICATES AN ALTERNATE SYSTEM TRIM RUNAWAY)

- | | |
|--------------------------|--------------------------------------|
| 6. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' UP |
| 7. STAB TRIM CB's | PUSH |
| 8. Main Trim Switch | PRESS and HOLD in opposite direction |
| 9. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' DOWN |

NOTE

Both motors (main and alternate) will operate. As the main motor is faster, it will override the alternate.

As soon as trim is in desired position

- | | |
|---|-----------------------|
| 10. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' UP |
| 11. Land without further trim operation | |

RUDDER TRIM

- | | |
|--------------------------|-------------------------|
| 1. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' UP |
| 2. RUDDER TRIM CB | PULL |
| 3. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' DOWN |

NOTE

Rudder Trim is inoperative.

AILERON TRIM

- | | |
|--------------------------|-------------------------|
| 1. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' UP |
| 2. AILERON TRIM CB | PULL |
| 3. TRIM INTERRUPT Switch | SELECT 'INTERRUPT' Down |

NOTE

Aileron trim is inoperative.

JAMMED TRIM ACTUATORS

If an actuator becomes jammed in an extreme position, control forces will increase.

- | | |
|-------------|---|
| 1. Airspeed | REDUCE to obtain acceptable residual control forces |
|-------------|---|

WARNING

MINIMUM SAFE AIRSPEEDS MUST BE OBSERVED.

- | |
|------------------------------|
| 2. Land as soon as practical |
|------------------------------|

In addition, the following has to be performed for a jammed horizontal stabilizer trim actuator, depending on position jammed.

JAMMED IN THE FULLY NOSE UP POSITION

CAUTION

WITH AN AFT CENTER OF GRAVITY DO NOT USE FLAPS FOR LANDING.

JAMMED IN FULLY NOSE DOWN POSITION

In Cruise

- | | |
|----------|--------------------------------|
| 1. Flaps | SET TO position (below 95 kts) |
|----------|--------------------------------|

For Landing

- | | |
|----------|-----------------|
| 1. Flaps | SET LD position |
|----------|-----------------|

LOSS OF ELEVATOR CONTROL

CAUTION

THE PITCH TRIM IS POWERFUL AND LARGE TRIM CHANGES CAN RESULT FROM CHANGES IN AIRSPEED AND POWER. TO AVOID LARGE PITCH EXCURSIONS, AVOID LARGE POWER CHANGES AND ADJUST ELEVATOR TRIM CONSTANTLY.

- | | |
|------------------------------|---|
| 1. PWR | OUT of Beta range |
| 2. Elevator trim | OPERATE to achieve required aircraft attitude |
| 3. Land as soon as practical | |

WARNING

MINIMUM SAFE AIRSPEEDS HAVE TO BE OBSERVED

NOTES

It is recommended to perform a controllability check (simulated approach/ landing attitude) at a safe altitude.

Consider use of FLAPS to assist in maintaining the required aircraft attitude.

INADVERTENT SPIN

Intentional spinning is prohibited (Refer to Section 1, Para. H. (7) 'Maneuvers')

In case of inadvertent spin entry, the recovery procedure is as follows:

1. REDUCE POWER
2. RETRACT FLAPS IMMEDIATELY (IF EXTENDED)
3. CHECK SLIP BALL, THEN APPLY FULL OPPOSITE RUDDER
4. STICK CENTERED

WARNING

ALTITUDE LOSS CAN BE AS MUCH AS 1300 FT
FROM SPIN ENTRY TO RECOVERED LEVEL FLIGHT

FOR GENERAL AND FAMILIARIZATION PURPOSES ONLY

SYSTEM EMERGENCIES

ANNUNCIATOR PANEL WARNING CAPTIONS

PROP LOW P

Selection of POWER lever to REVERSE will cause the PROP LOW P (propeller low pitch) warning caption and the MASTER warning light to illuminate and activate a warning tone.

- | | |
|-------------------------|----------------|
| 1. Power Lever | ADVANCE |
| 2. MASTER Warning Light | PRESS TO RESET |

NOTE

Fast movement of the POWER lever to retard, for BETA operation during steep descent, may cause the PROP LOW P warning caption to momentarily illuminate and the MASTER warning light to illuminate - PRESS TO RESET.

BATT BUS

When power to the battery busbar falls to less than 14 volts and/or the battery busbar is earthed, the BATT BUS warning caption and the MASTER warning light illuminate and the warning tone is activated.

- | | |
|-------------------------|----------------|
| 1. MASTER Warning Light | PRESS TO RESET |
| 2. Battery Switch | OFF |
| 3. Volt/Ammeter | MONITOR |
| 4. Bus Tie CB | PULL |

NOTE

Trims do not operate.

GEN BUS

When the power to the generator busbar falls to less than 14 volts and/or the generator busbar is earthed, the GEN BUS warning caption and the MASTER warning light illuminate and the warning tone is activated.

- | | |
|---------------------------|-----------------|
| 1. MASTER Warning Light | PRESS TO RESET |
| 2. Check Generator Switch | ON |
| 3. GEN Reset Switch | ON then release |
| 4. Volt/Ammeter | CHECK |

If GEN BUS warning caption remains illuminated:

- | | |
|---------------|------|
| 5. Bus Tie CB | PULL |
|---------------|------|

Load shed to conserve power:

- | | |
|--------------------------------------|---|
| 6. Anti-ice Switch | OFF – if not required |
| 7. Prop de-ice Switch (if installed) | OFF – if not required |
| 8. Electrical Power | REDUCE all non-essential electrical equipment to a battery discharge current of less than 35A |
| 9. Land as soon as practical | |

ANNUNCIATOR PANEL CAUTION CAPTIONS (CONT'D)

SUCTION

In the event of failure of the suction system, the SUCTION caution caption and the MASTER caution light illuminate and the warning tone is activated. The suction pressure may be too high, or too low, for satisfactory operation of the vacuum-driven gyro instrument. A LOW IDLE setting with HEATING ON may also create a low SUCTION situation.

- | | |
|--------------------------|----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
| 2. Power Lever | INCREASE |
| and/or | |
| Heating | OFF |
| 3. Vacuum-driven gyro(s) | MONITOR |

CAUTION

WITH SUCTION CAPTION ON, VACUUM-DRIVEN INSTRUMENTS MAY BECOME INACCURATE OR FAIL.

NOTE

Fast movement of the power lever may cause the SUCTION caution caption to momentarily illuminate and the MASTER caution light to illuminate - PRESS TO RESET.

BATT HOT

(Ni-Cd batteries only; not applicable if lead acid batteries installed).

If the battery temperature is more than 65°C, and/or the battery temperature sensor is not properly connected, the BATT HOT caution caption and the MASTER caution light illuminate, and the warning tone is activated.

- | | |
|-------------------------|----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
| 2. Battery Switch | OFF |

If possible, maintain VMC in case of generator failure.

If battery temperature falls to less than 65°C and the BATT HOT caution caption goes out, wait approximately 5 minutes.

- | | |
|-----------------------------|----------------|
| 3. Battery Switch | ON (Once Only) |
| 4. BATT HOT Caution Caption | MONITOR |
| 5. Battery Current | MONITOR |

NOTE:

If BATT HOT caution caption comes on again, switch battery OFF, do not re-engage.

GENERATOR

If the generator fails, the GENERATOR caution caption and the MASTER caution light illuminate and the warning tone is activated.

- | | |
|-------------------------|-----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
| 2. Generator Switch | ON |
| 3. GEN Reset Switch | ON then release |
| 4. Volt/Ammeter | CHECK |

If generator still inoperative:

- | | |
|---------------------|-----|
| 5. Generator Switch | OFF |
|---------------------|-----|

Load shed to conserve power:

- | | |
|--------------------------------------|---|
| 6. Anti-ice Switch | OFF – if not required |
| 7. Prop de-ice Switch (if installed) | OFF – if not required |
| 8. Electrical Power | REDUCE all non-essential electrical equipment to a battery discharge current of less than 35A |
| 9. Land as soon as practical | |

NOTE

With the generator inoperative, a 75% charged battery will last for 30 minutes with a discharge rate of 50 Amps.

F-FILTER

The fuel filter, attached to frame 3 of the fuselage nose section, is equipped with a pressure differential switch. When the filter becomes clogged the fuel outlet pressure is less than the fuel inlet pressure. This difference, detected by the pressure differential switch, causes the F-FILTER caution caption and the MASTER caution light to illuminate, and the warning tone is activated. If the filter becomes fully clogged, unfiltered fuel is fed to the engine via the fuel filter by-pass line.

- | | |
|------------------------------|----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
| 2. Land as soon as practical | |

NOTE

The F-FILTER caution caption remains illuminated until situation is rectified.

FUEL PRESS

If the fuel pressure to the engine falls below 5.5 psi the FUEL PRESS caution caption and the MASTER caution light illuminate, and the warning tone is activated.

- | | |
|-------------------------|----------------|
| 1. Aux Fuel Pump Switch | ON |
| 2. MASTER Caution Light | PRESS TO RESET |

Check FUEL PRESS caution caption out and AUX F PUMP advisory caption illuminated.

INVERTER (if installed)

If the selected inverter fails, the INVERTER caution caption and the MASTER caution light illuminate and the warning tone is activated.

- | | |
|-----------------------------|----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
| 2. Alternate Inverter | SELECT |
| 3. INVERTER Caution Caption | CHECK OFF |
| 4. Flight Instrument Flags | CHECK CLEAR |

OXYGEN (If installed)

When the oxygen system pressure falls to less than 400 psi the OXYGEN caution caption and the MASTER caution light illuminate and the warning tone is activated.

- | | |
|-------------------------|----------------|
| 1. MASTER Caution Light | PRESS TO RESET |
|-------------------------|----------------|

NOTES

1. The OXYGEN caution caption will remain illuminated until the oxygen system is replenished.
2. From the time the OXYGEN caution caption first illuminates, an oxygen duration of 30 minutes can be expected for two pilots with oxygen regulators set to NORMAL.

CHIP

If the chip detector plug becomes contaminated the CHIP detector caution caption and the MASTER caution light illuminate, and the warning tone is activated.

- | | |
|------------------------------|----------------|
| 1. Power Lever | REDUCE POWER |
| 2. MASTER Caution Light | PRESS TO RESET |
| 3. Land as soon as practical | |

CAUTION

IF CHIP DETECTOR CAUTION CAPTION ILLUMINATES DURING
GROUND OPERATION, ENGINE MUST BE SHUT DOWN.

WARNING, CAUTION AND ADVISORY CAPTIONS/LIGHTS

The annunciator panel comprises a set of lighted windows containing warning captions (red), caution captions (amber), and advisory captions (green) as applicable to the aircraft systems.

The captions within the lighted windows are as follows:

RED CAPTIONS

PROP LOW P	Illuminates when propeller goes into minimum pitch in flight.
BATT BUS	Illuminates when battery bus voltage falls to less than 14 volts DC.
GEN BUS	Illuminates when generator bus is off line.

AMBER CAPTIONS

SUCTION	Illuminates when suction system is less than 4.5 psi or more than 5.2 psi.
BATT HOT	Illuminates when battery temperature is more than 65°C, or battery temperature sensor is not properly connected. (Ni-Cd battery only; not applicable if lead acid battery installed).
GENERATOR	Illuminates when generator is off line.
F FILTER	Illuminates when fuel filter is clogged.
FUEL PRESS	Illuminates when fuel pressure falls to less than 5.5 psi.
INVERTER (if installed)	Illuminates when inverter output falls to less than 13 volts AC.
OXYGEN (if installed)	Illuminates when oxygen pressure falls to less than 400 psi.
CHIP	Illuminates when magnetic chip detector detects metallic contamination of the engine oil system.
GPS MSG (if installed)	Illuminates if a GPS message is present.

GREEN CAPTIONS

AUX F PUMP	Illuminates when AUX F PUMP is operating.
ANTI ICE	Illuminates when anti-ice system is energized.
PROP DE-ICE (if installed)	Illuminates when prop de-ice system is operating.

Located on the left side of the instrument panel are the following warning lights and caution light:

RED LIGHTS

STALL Warning PUSH TO TEST	Illuminates at a predetermined speed before stall.
MASTER Warning PUSH TO RESET	Illuminates when a warning caption illuminates on annunciator panel.

WARNING, CAUTION AND ADVISORY CAPTIONS/LIGHTS (CONT'D)**AMBER LIGHT**

MASTER Caution
PUSH TO RESET

Illuminates when a caution caption illuminates on annunciator panel.

The ANNUNCIATOR LIGHT TEST push button, when pressed, causes the annunciator panel captions, the MASTER warning and MASTER caution lights to illuminate and a warning tone to sound in the flight compartment headsets and loudspeakers.

FOR GENERAL AND FAMILIARIZATION PURPOSES ONLY

SECTION 3

PERFORMANCE INFORMATION

CONTENTS

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FOR GENERAL AND FAMILIARIZATION PURPOSES ONLY

SECTION 3

PERFORMANCE INFORMATION

A. GENERAL

The following performance values are based on flight test results and calculations for type certification of the PC-6/B2-H4 airplane and may be obtained under the indicated conditions, with the airplane and powerplant in good condition, and with normal pilot proficiency.

All speeds in this section are calibrated airspeeds, CAS, knots.

NOTE

Additional performance graphs for temperatures up to ISA + 30°C are included in Section G.

B. PERFORMANCE FOR 2800 KG, GROSS WEIGHT, WITH NO WIND, ON LEVEL, PAVED RUNWAY. (Idle Control at High Idle Position)

CONDITIONS		OUTSIDE AIR TEMPERATURE					
		Altitude feet	ISA -30°	ISA -20°C	ISA -10°C	ISA +10°C	ISA +20°C
		SNOW VANES MAY BE INSTALLED				SNOW VANES MUST BE REMOVED	
TAKE-OFF DISTANCE Distance required to take-off and climb to 15 m (50 ft.) Take-off Power Flaps TO 28° Climb speed 69 KCAS	S.L. 2000 4000 6000	m 460 470 475 485	m 465 475 480 490*	m 470 480 485* 495*	m 475 485* 490* 505*	m 480 490 505 570	m 490 505 590 675
LANDING DISTANCE ** At gross landing weight Distance required to land over 15 m obstacle and stop with brakes and reverse thrust Flaps LD 38° Approach at 68 KCAS	S.L. 2000 4000 6000	m 285 300 310 325	m 295 310 320 335	m 305 320 330 345	m 315 330 340 355	m 325 340 350 365	m 335 350 360 375
NORMAL RATE-OF-CLIMB Take-off/Maximum continuous power Flaps up Airspeed 77 KCAS	S.L. 2000 4000 6000	ft/min 1070 1040 1010 980	ft/min 1050 1020 990 960*	ft/min 1030 1000 970* 940*	ft/min 1010 980* 950* 920*	ft/min 990 960 930 895	ft/min 970 930 835 735
BALKED LANDING CLIMB Take-off/Maximum continuous power Flaps LD Airspeed 65 KCAS	S.L. 2000 4000 6000	ft/min 800 770 740 710	ft/min 780 750 720 690*	ft/min 760 730 700* 670*	ft/min 740 710* 680* 650*	ft/min 720 690 660 610	ft/min 700 660 565 460

Figure 3-1 Normal Performance at 2800 kg Gross Weight.

* Take-off Performance and Climb Performance will be reduced with snow vanes or engine air intake filters installed (See AFM Supplement 1904).

** Landing figures are based on approximately 1700 to 1900 fpm sink rate.

C. SHORT TAKE-OFF PERFORMANCE FOR 2800 KG, GROSS WEIGHT, WITH NO WIND, ON LEVEL, PAVED RUNWAY. (Idle Control at High Idle Position)

CONDITIONS STOL TAKE-OFF	Altitude feet	OUTSIDE AIR TEMPERATURE					
		ISA -30°C	ISA -20°C	ISA -10°C	ISA	ISA +10°C	ISA +20°C
		SNOW VANES MAY BE INSTALLED				SNOW VANES MUST BE REMOVED	
TAKE-OFF DISTANCE Distance required to take-off and climb to 15 m (50 ft.) Take-off Power Flaps TO 28° Climb speed 69 KCAS		m	m	m	m	m	m
	S.L.	425	430	435	440	445	455
	2000	435	440	445	450*	455	470
	4000	440	445	450*	455*	470	555
	6000	450	455*	460*	470*	530	635

Figure 3-2 Short Take-off Performance at 2800 kg Gross Weight.

* Take-off Performance will be reduced with snow vanes or engine air intake filters installed (see AFM Supplement 1904).

D. STALLING SPEED

The stalling speeds for gross weight of 2800 kg are given in Figure 3-3 below for various angles of bank, and flap setting.

FLAP SETTING	ANGLE OF BANK		
	0° KCAS	30° KCAS	60° KCAS
Clean 0°	58	62	82
TO 28°	53	57	75
LD 38°	52	56	74

Figure 3-3 Stalling Speed at 2800 kg Gross Weight.

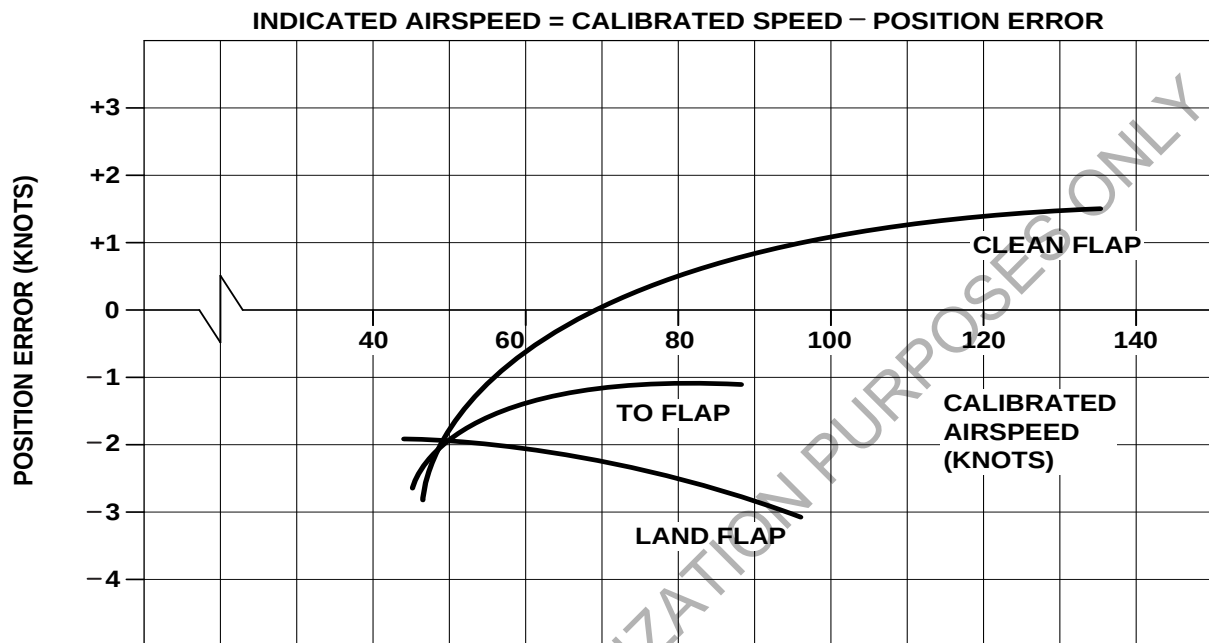
- Speeds given are minimum speeds with power off; with power on, the values decrease.
- The loss in altitude after a stall at maximum weight is approximately 200 ft.

E. MAXIMUM DEMONSTRATED CROSSWIND

Maximum demonstrated crosswind velocity is 20 kts (not a limitation).

F. AIRSPEED POSITION ERROR CORRECTION

The following graph is used to determine indicated airspeed from calibrated airspeed.



6004

To obtain indicated airspeed (IAS), enter the graph at the desired calibrated airspeed (CAS) and follow the speed line vertically until it intersects the desired configuration line. From the intersection, read horizontally to the Position Error correction. Subtract the Position Error from the CAS to obtain IAS.

G. PERFORMANCE INFORMATION UP TO ISA + 30°C

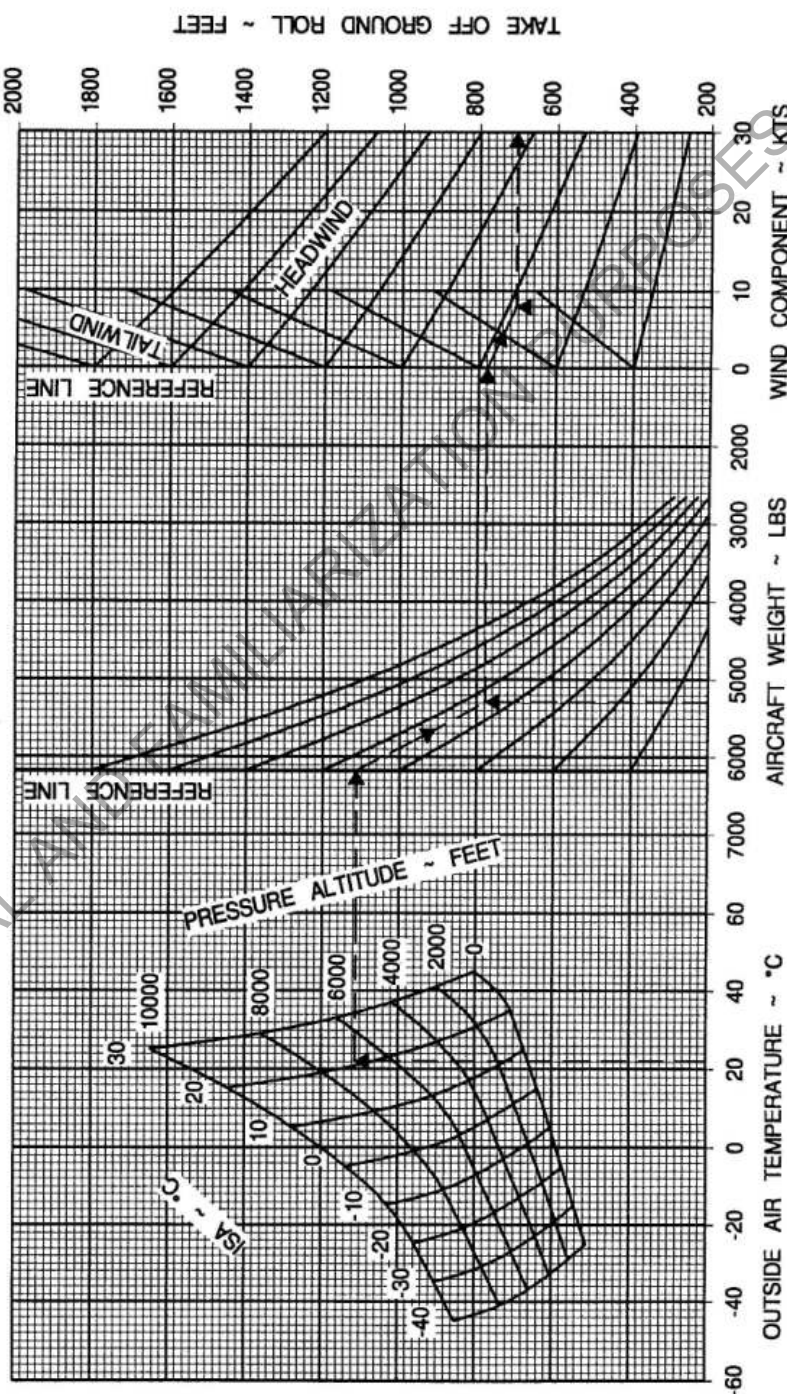
PERFORMANCE CHARTS

TAKE OFF GROUND ROLL – FLAPS 28°

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
TAKE OFF GROUND ROLL 700 FEET

ASSOCIATED CONDITIONS:
LIFTOFF AT 1.1 V_{s1}
PAVED LEVEL DRY RUNWAY SURFACE



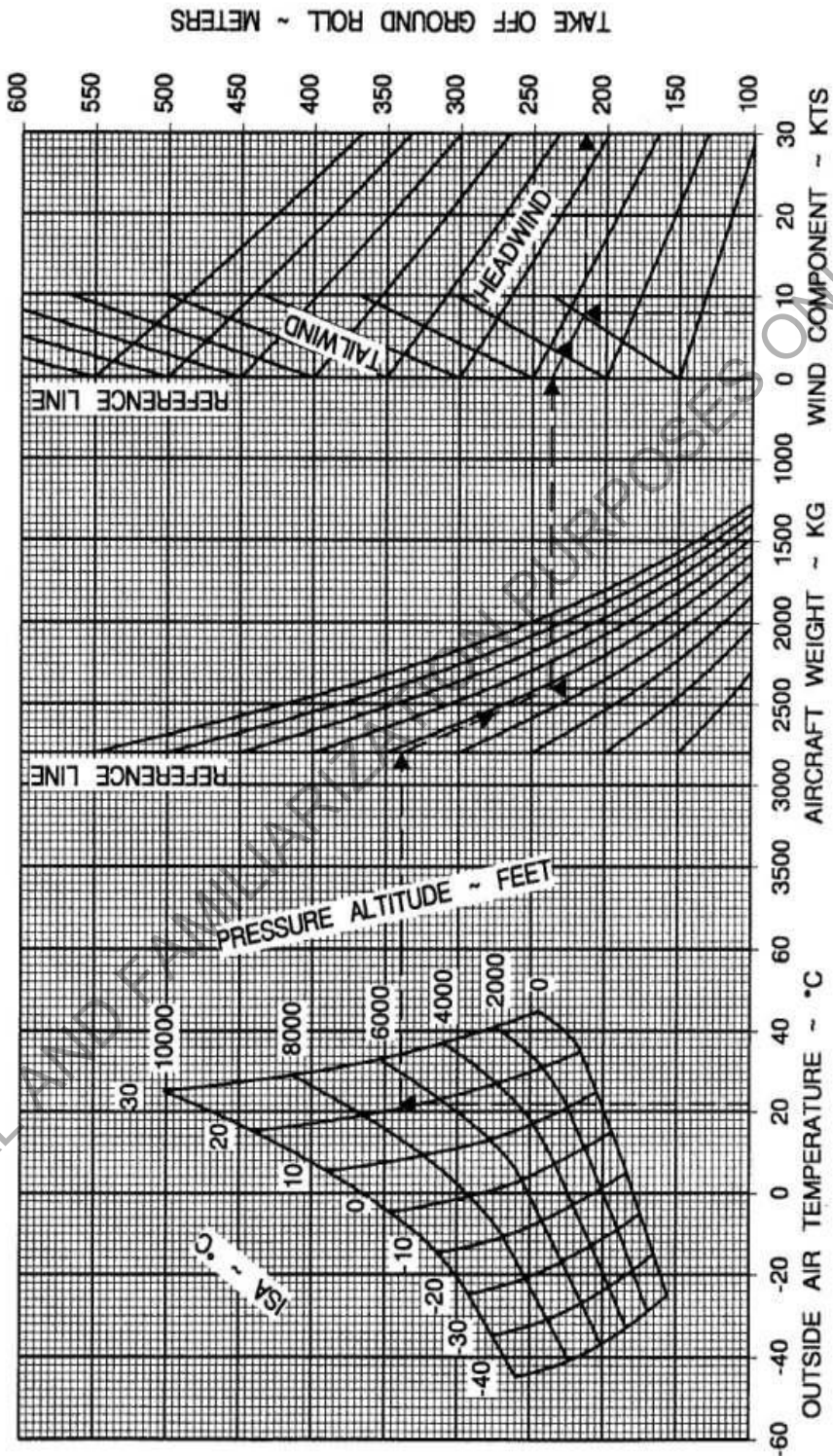
TAKE OFF GROUND ROLL – FLAPS 28°

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
TAKE OFF GROUND ROLL 214 METERS

ASSOCIATED CONDITIONS:

LIFTOFF AT 1.1 V_{s1}
PAVED LEVEL DRY RUNWAY SURFACE



TAKE OFF TOTAL DISTANCES – FLAPS 28°

EXAMPLE:

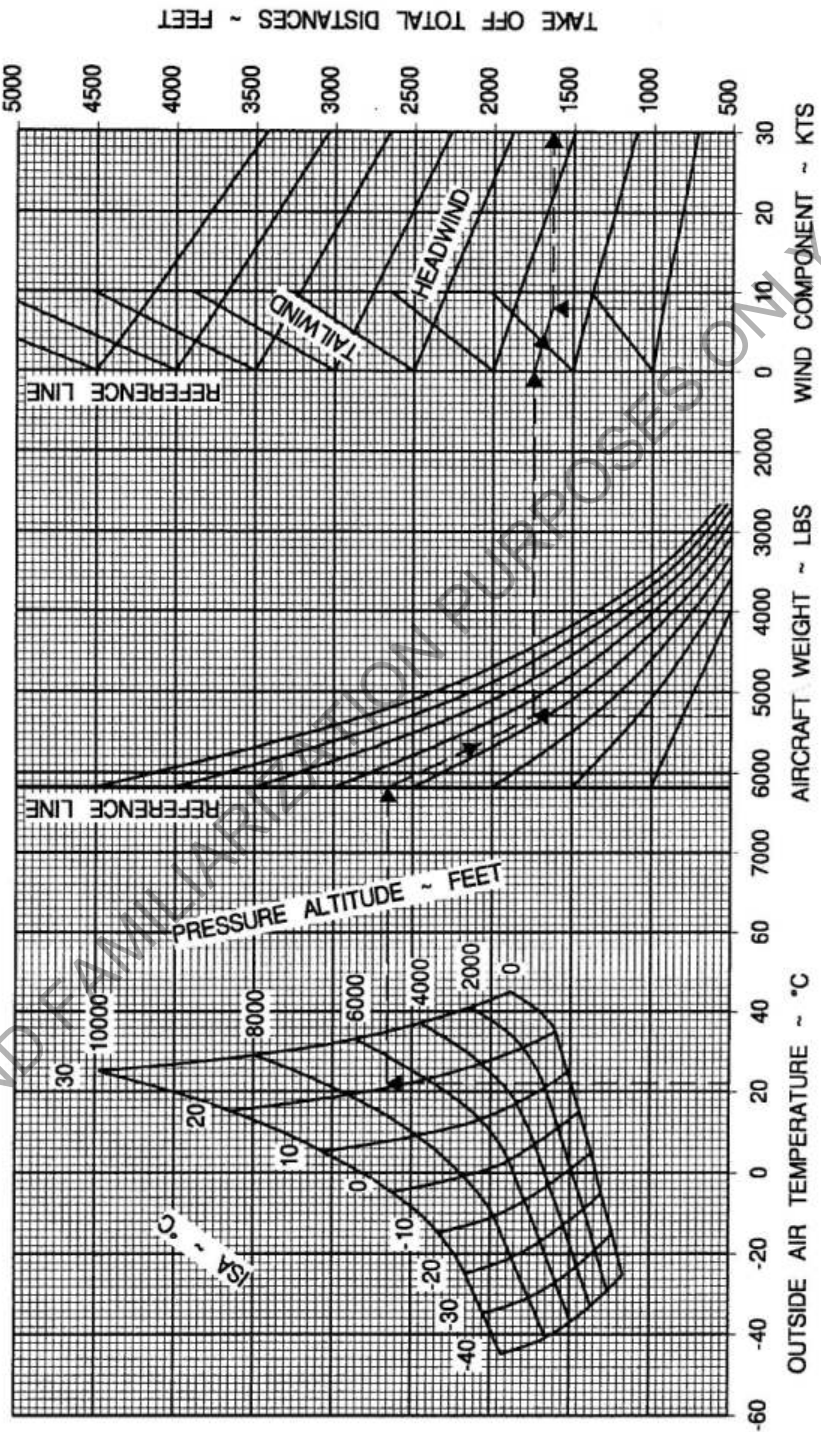
OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
TAKE OFF TOTAL DISTANCES 1630 FEET

ASSOCIATED CONDITIONS:

LIFTOFF AT 1.1 Vs1

BARRIER AT 1.3 Vs1

PAVED LEVEL DRY RUNWAY SURFACE

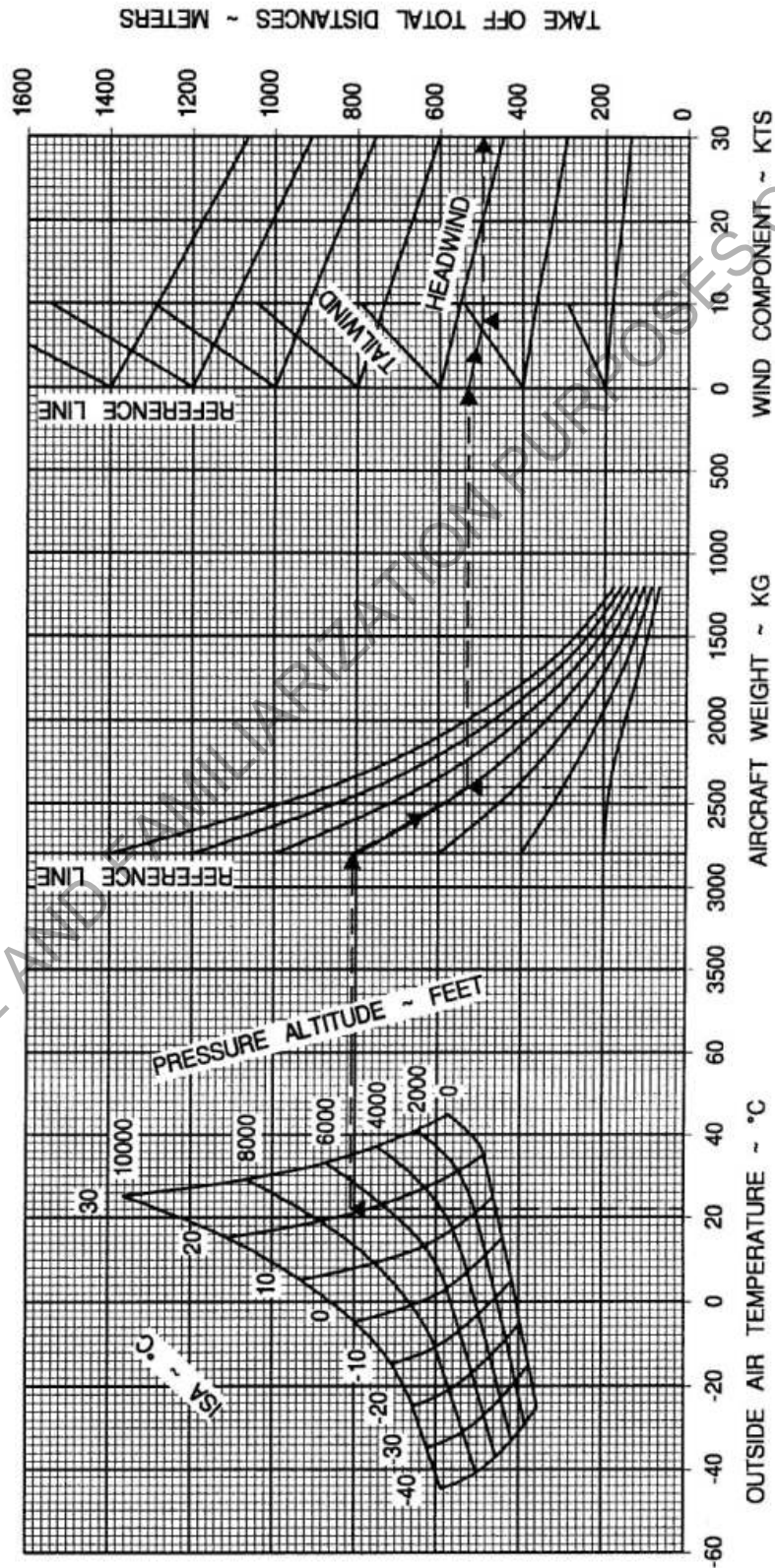


TAKE OFF TOTAL DISTANCES – FLAPS 28°

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
TAKE OFF TOTAL DISTANCES 495 METERS

ASSOCIATED CONDITIONS:
LIFTOFF AT 1.1 Vs1
BARRIER AT 1.3 Vs1
PAVED LEVEL DRY RUNWAY SURFACE



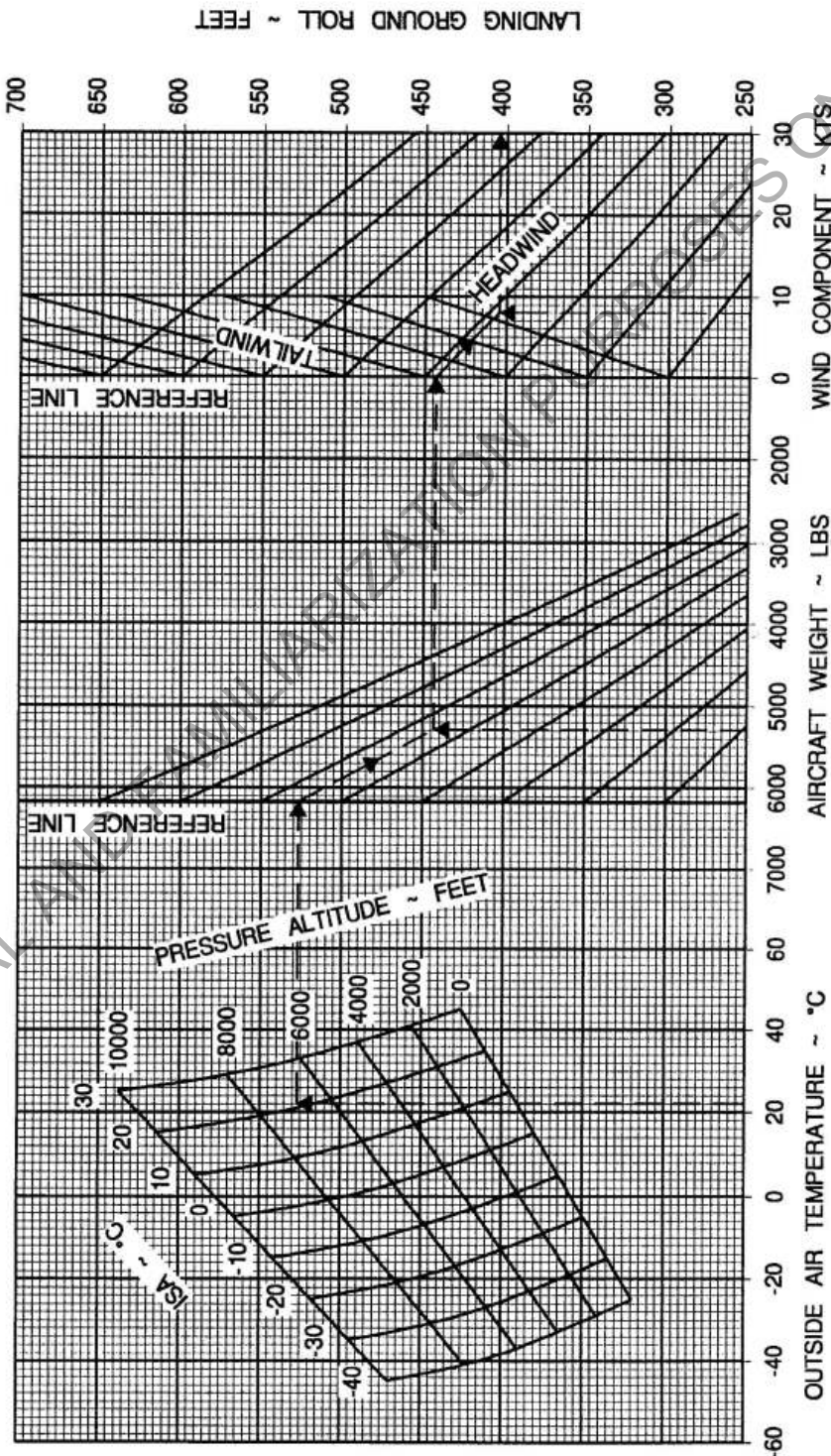
LANDING GROUND ROLL - FLAPS 38°

WITH REVERSE THRUST

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
LANDING GROUND ROLL 400 FEET

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
REVERSE THRUST
PAVED LEVEL DRY RUNWAY SURFACE
CONDITION LEVER AT FLIGHT IDLE



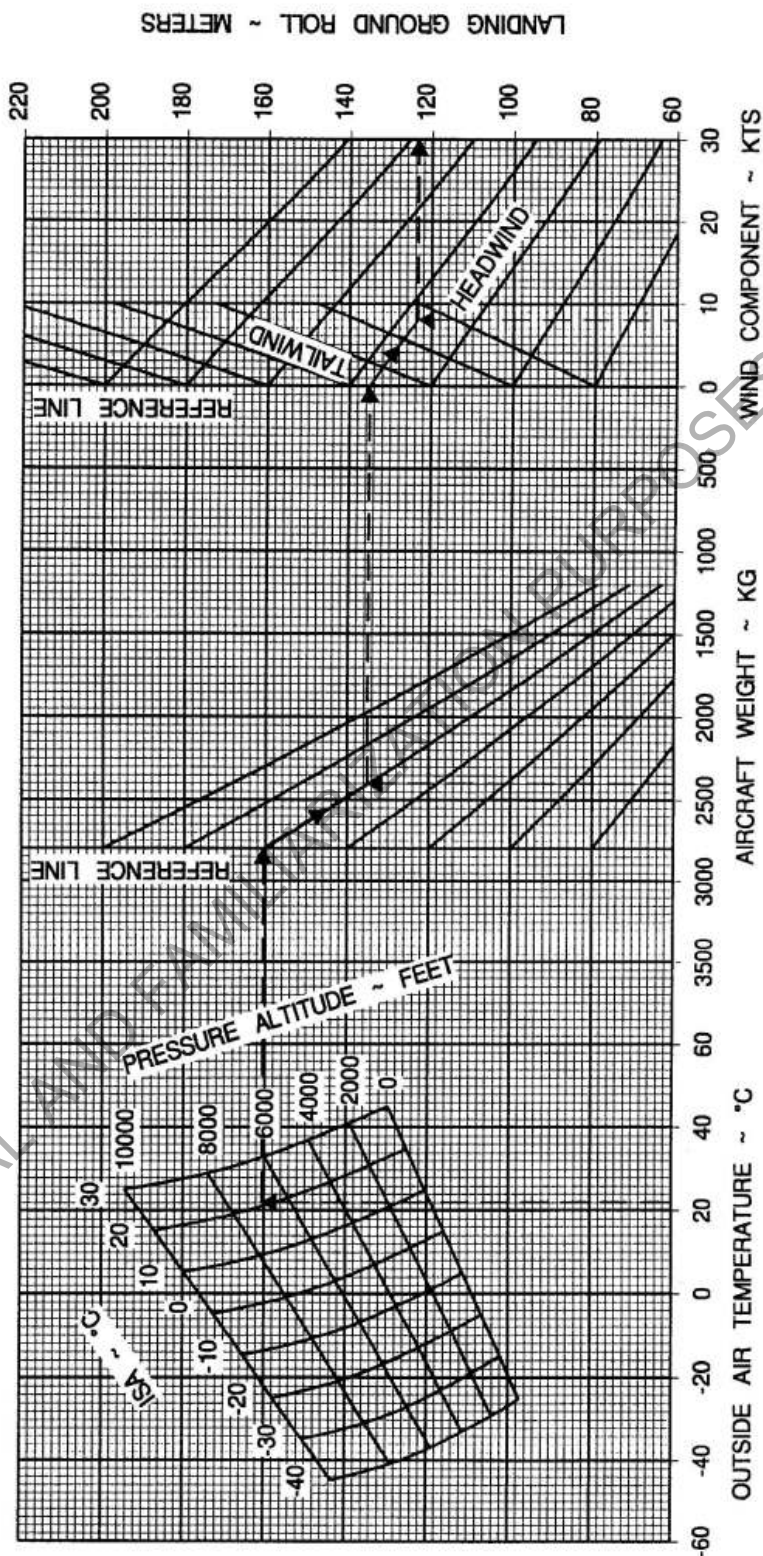
LANDING GROUND ROLL – FLAPS 38°

WITH REVERSE THRUST

EXAMPLE:

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
REVERSE THRUST
PAVED LEVEL DRY RUNWAY SURFACE
CONDITION LEVER AT FLIGHT IDLE

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
LANDING GROUND ROLL 124 METERS

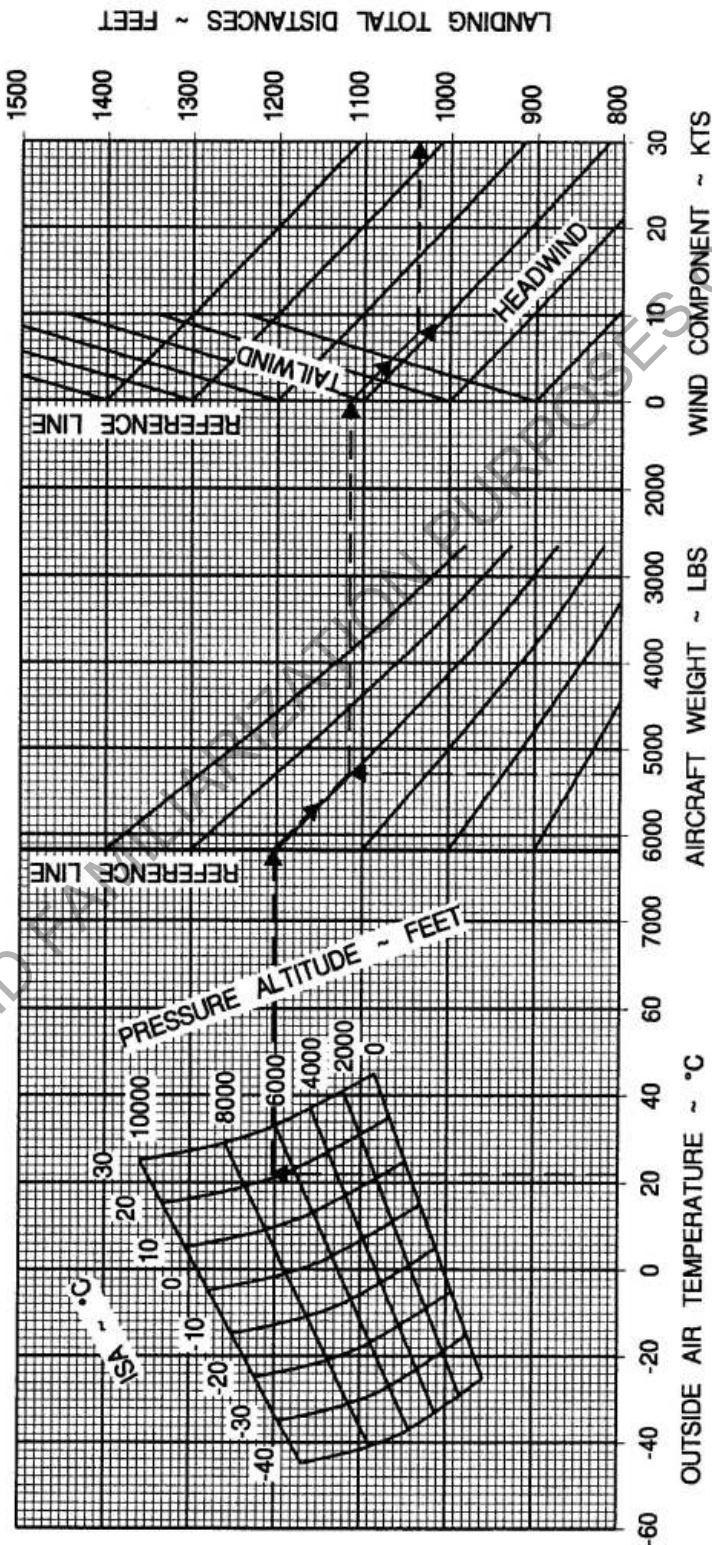


LANDING TOTAL DISTANCES – FLAPS 38° WITH REVERSE THRUST

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
REVERSE THRUST
PAVED LEVEL DRY RUNWAY SURFACE
APPROACH AT 1.3 V_{SO}
STEEP APPROACH (FLIGHT IDLE)

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
LANDING TOTAL DISTANCES 1040 FEET



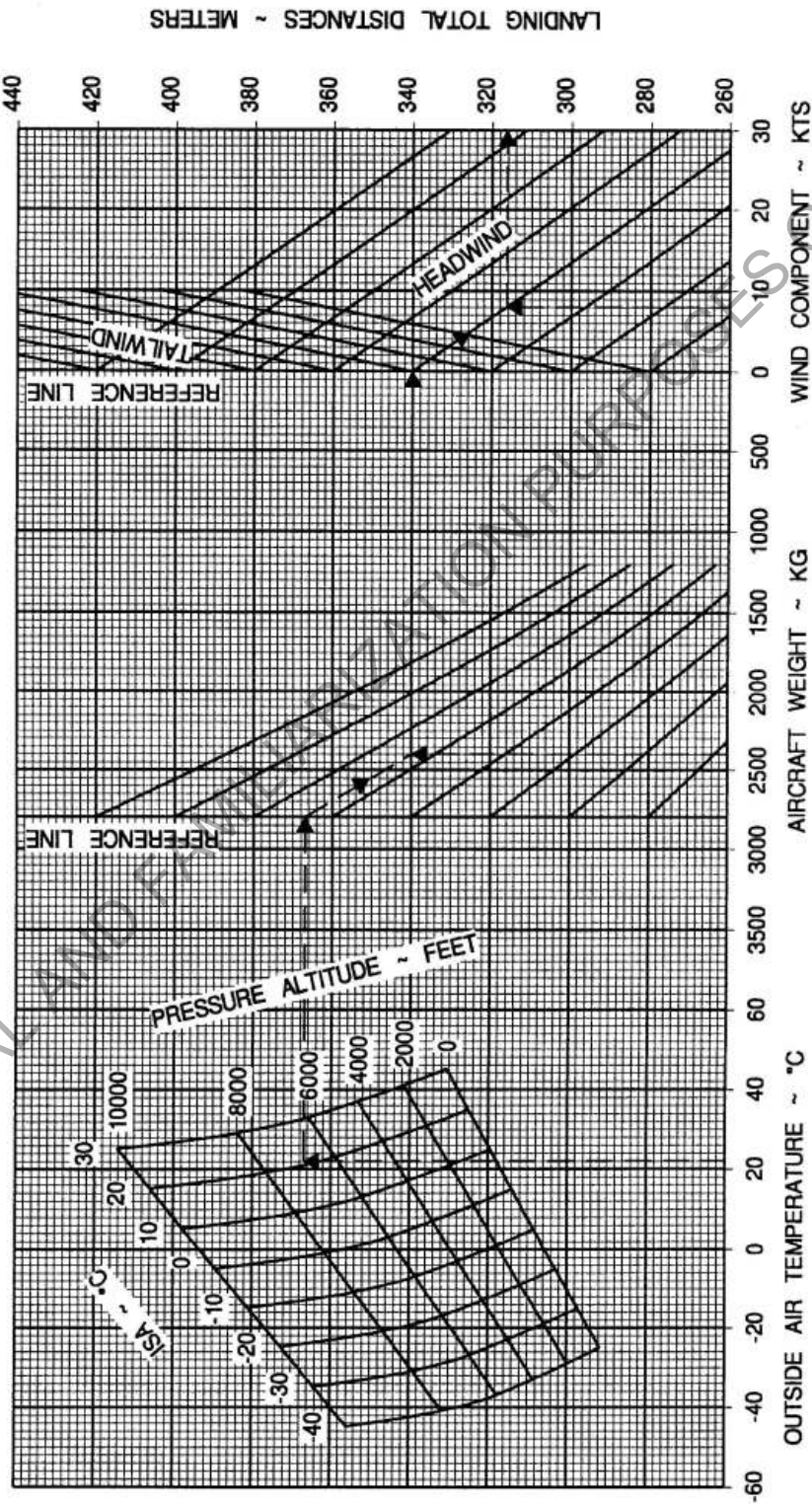
LANDING TOTAL DISTANCES – FLAPS 38°

WITH REVERSE THRUST

EXAMPLE:

ASSOCIATED CONDITIONS:	22 °C
MAX BRAKING TECHNIQUE	7000 FEET
REVERSE THRUST	2400 KG
PAVED LEVEL DRY RUNWAY SURFACE	8 KTS
APPROACH AT 1.3 V _{SO}	315 METERS
STEEP APPROACH (FLIGHT IDLE)	

OUTSIDE AIR TEMPERATURE	22 °C
PRESSURE ALTITUDE	7000 FEET
AIRCRAFT WEIGHT	2400 KG
HEADWIND COMPONENT	8 KTS
LANDING TOTAL DISTANCES	315 METERS



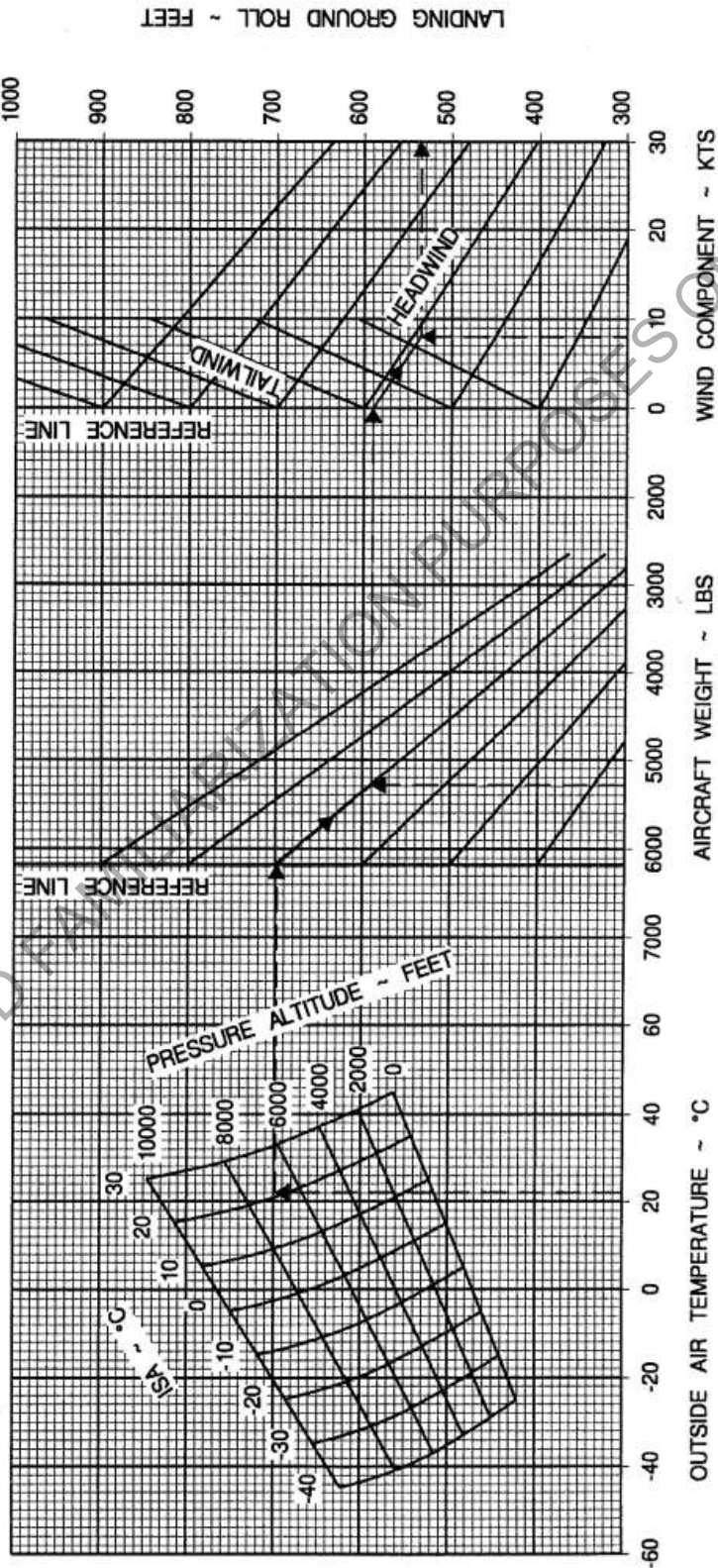
LANDING GROUND ROLL - FLAPS 38°

WITHOUT REVERSE THRUST

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
LANDING GROUND ROLL 540 FEET

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
PAVED LEVEL DRY RUNWAY SURFACE
CONDITION LEVER AT GROUND IDLE



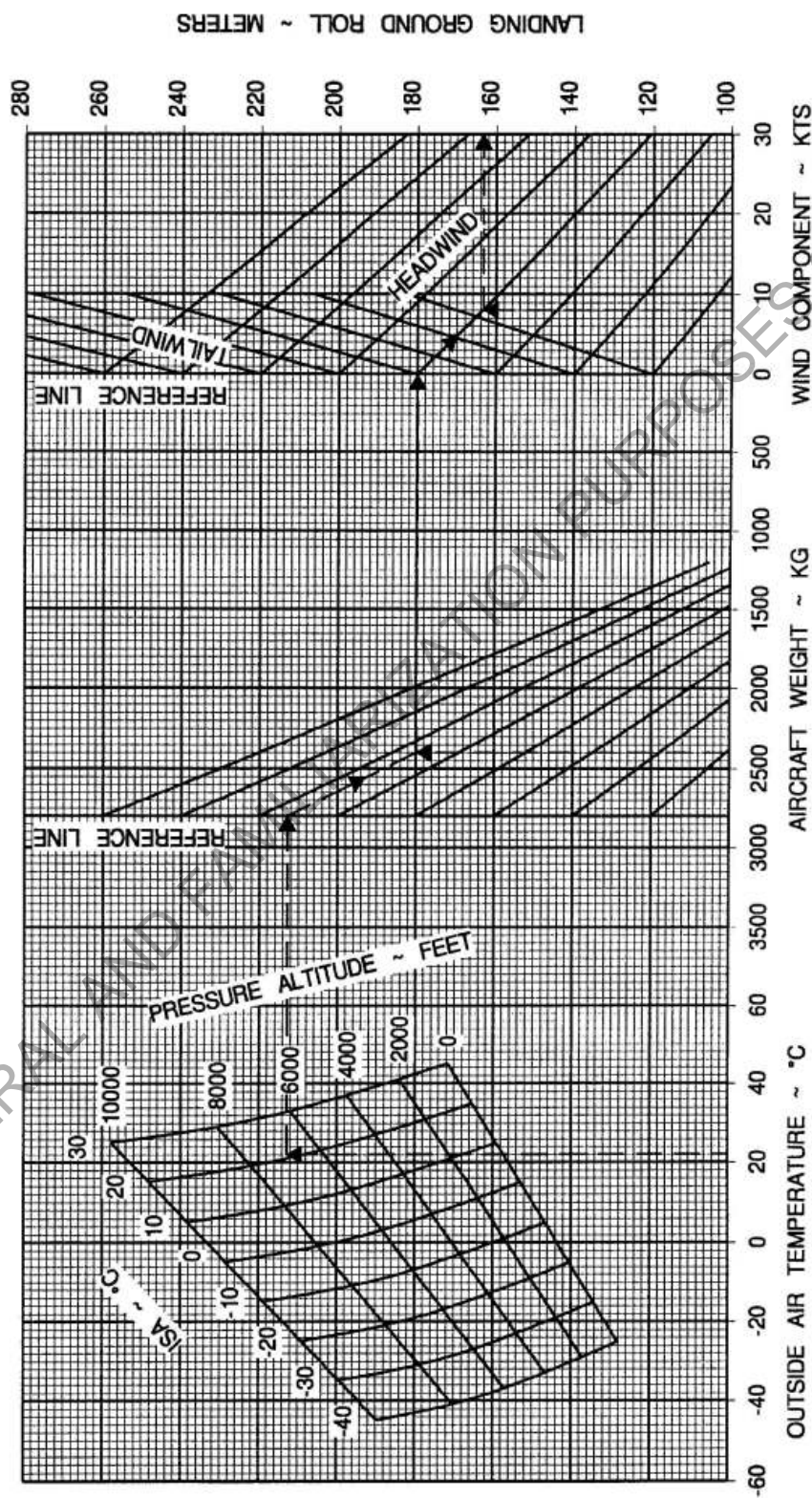
LANDING GROUND ROLL – FLAPS 38°

WITHOUT REVERSE THRUST

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
LANDING GROUND ROLL 164 METERS

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
PAVED LEVEL DRY RUNWAY SURFACE
CONDITION LEVER AT GROUND IDLE



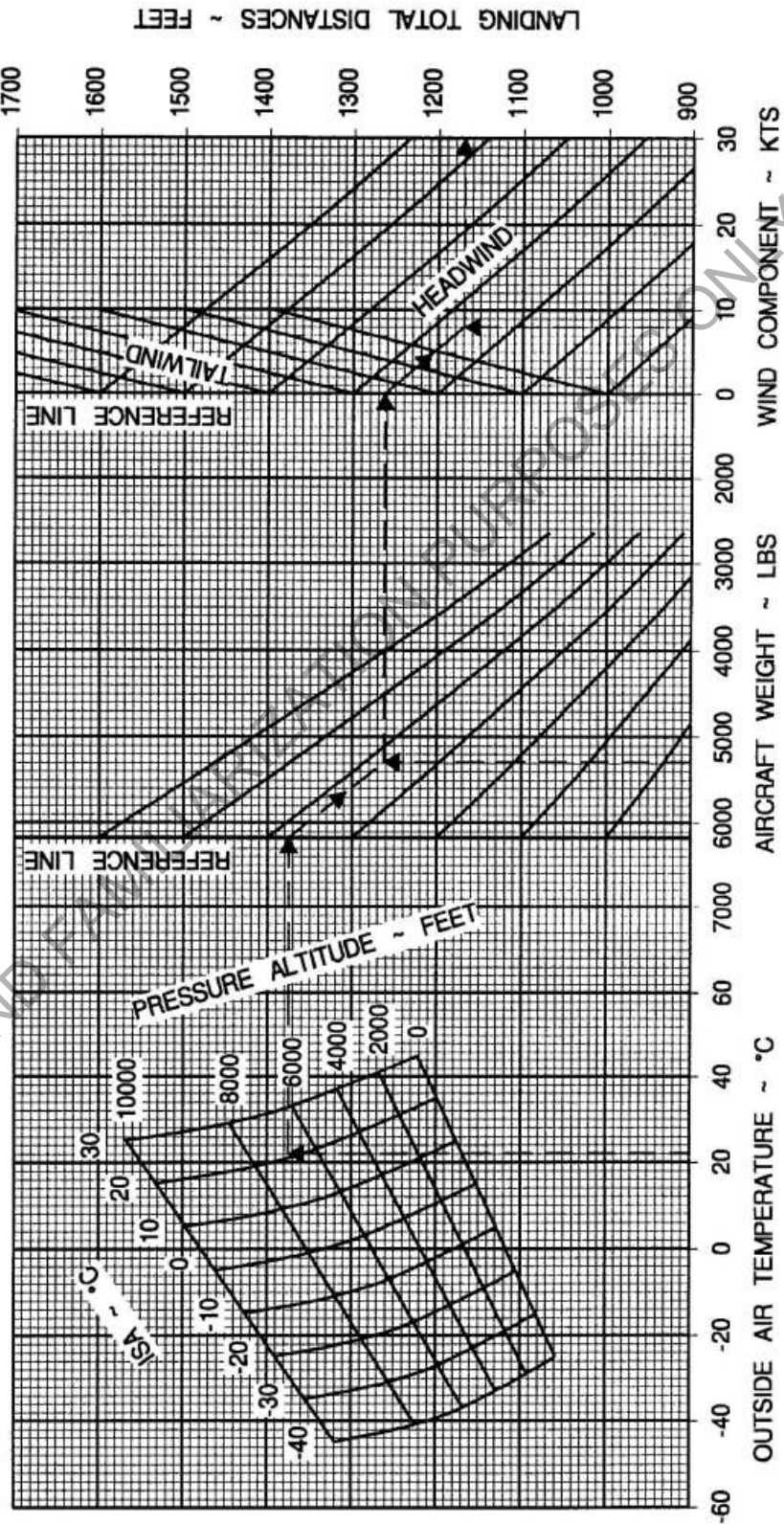
LANDING TOTAL DISTANCES – FLAPS 38°

WITHOUT REVERSE THRUST

EXAMPLE:

OUTSIDE AIR TEMPERATURE	22 °C
PRESSURE ALTITUDE	7000 FEET
AIRCRAFT WEIGHT	5290 LBS
HEADWIND COMPONENT	8 KTS
LANDING TOTAL DISTANCES	1170 FEET

ASSOCIATED CONDITIONS:
MAX BRAKING TECHNIQUE
PAVED LEVEL DRY RUNWAY SURFACE
APPROACH AT 1.3 V_{SO}
STEEP APPROACH (FLIGHT IDLE)

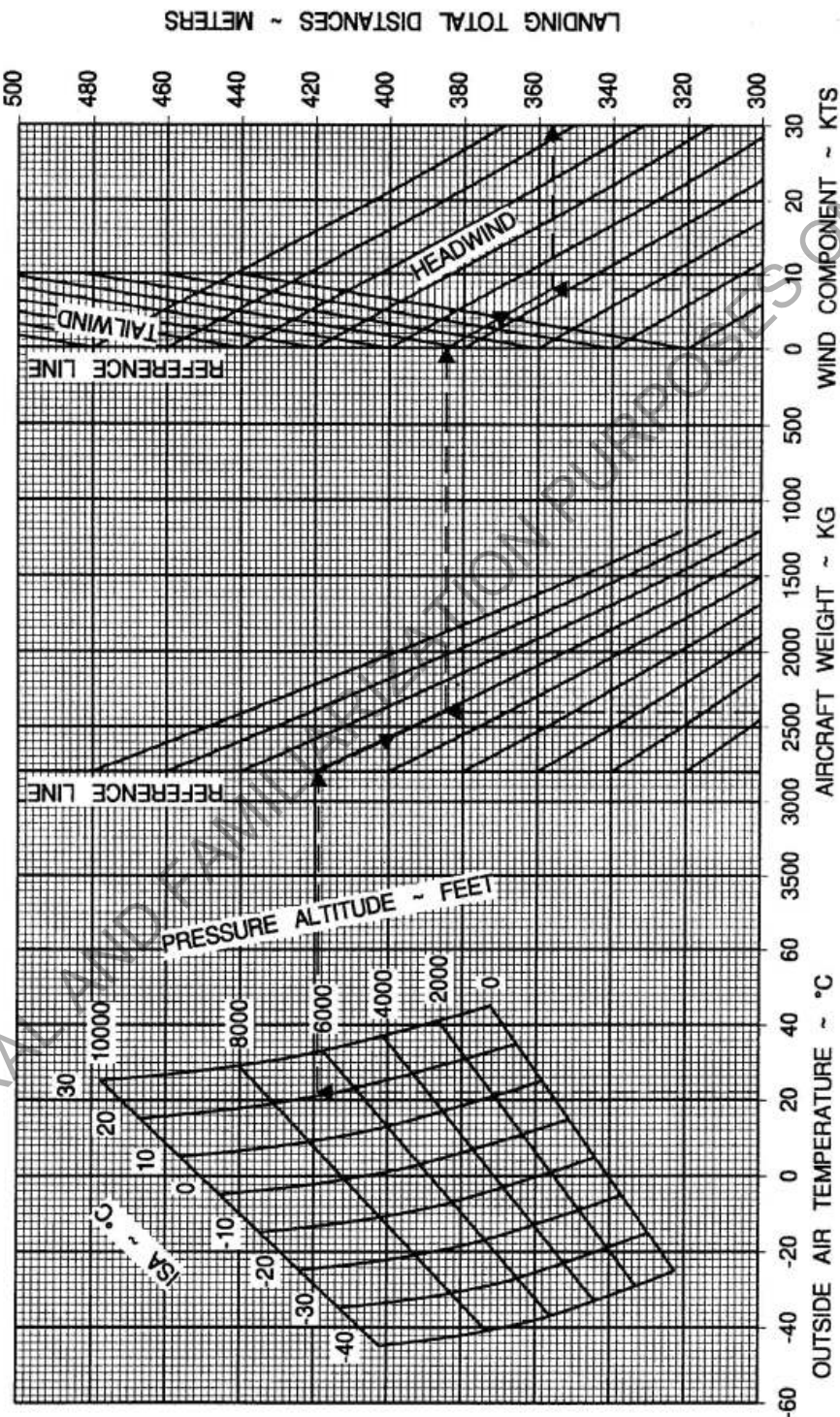


LANDING TOTAL DISTANCES – FLAPS 38°

WITHOUT REVERSE THRUST

EXAMPLE:

ASSOCIATED CONDITIONS:	OUTSIDE AIR TEMPERATURE	22 °C
MAX BRAKING TECHNIQUE	PRESSURE ALTITUDE	7000 FEET
PAVED LEVEL DRY RUNWAY SURFACE	AIRCRAFT WEIGHT	2400 KG
APPROACH AT 1.3 V _{SO}	HEADWIND COMPONENT	8 KTS
STEEP APPROACH (FLIGHT IDLE)	LANDING TOTAL DISTANCES	355 METERS

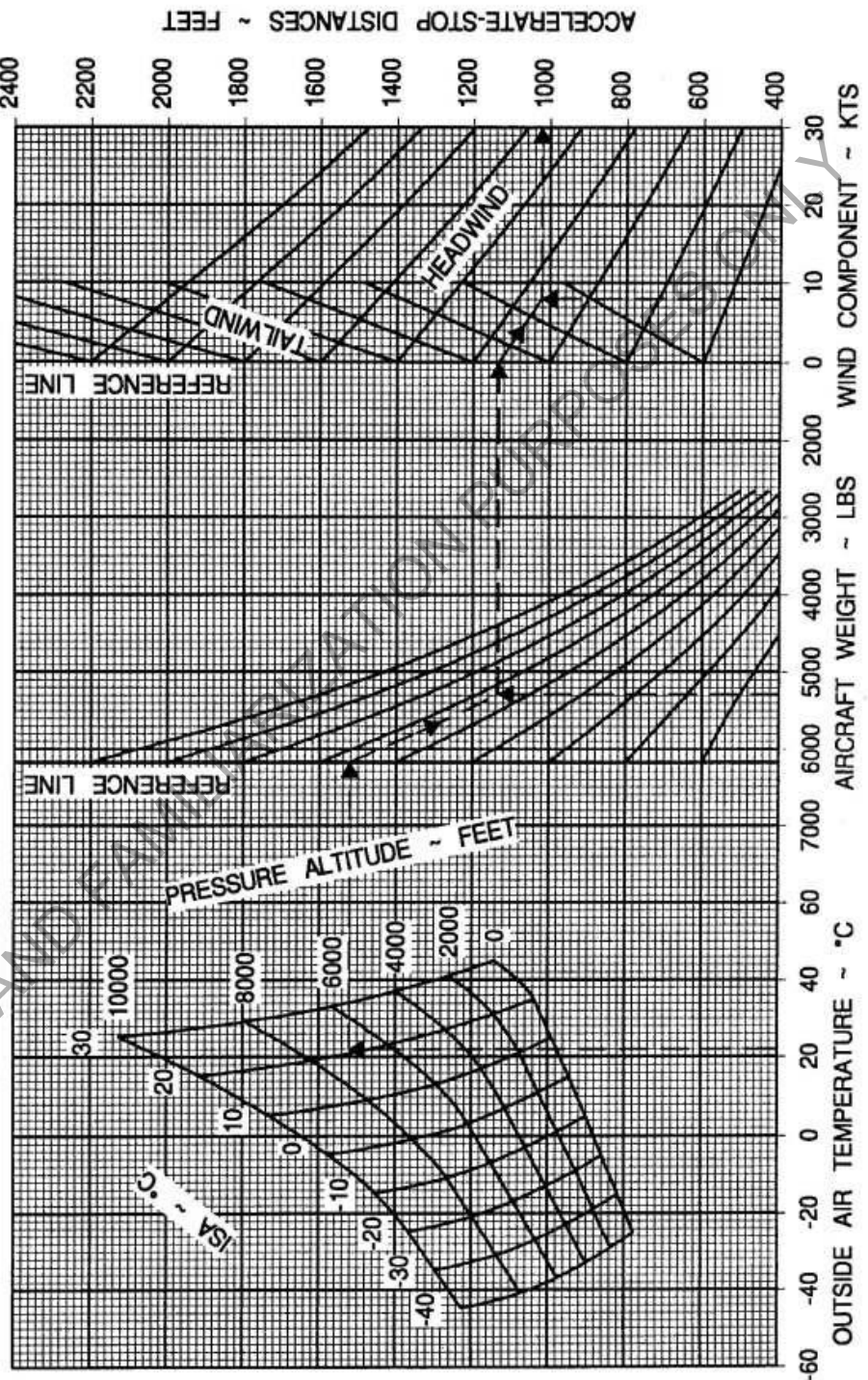


ACCELERATE-STOP DISTANCES – FLAPS 28°

WITH REVERSE THRUST

EXAMPLE:

ASSOCIATED CONDITIONS:	22 °C
POWER CHOP AT 1.1 Vs1	7000 FEET
MAXIMUM BRAKING TECHNIQUE	5290 LBS
REVERSE THRUST	8 KTS
PAVED LEVEL DRY RUNWAY SURFACE	1020 FEET
	ACCELERATE-STOP DISTANCES



ACCELERATE-STOP DISTANCES – FLAPS 28°

WITH REVERSE THRUST

ASSOCIATED CONDITIONS:

POWER CHOP AT 1.1 V_{s1}

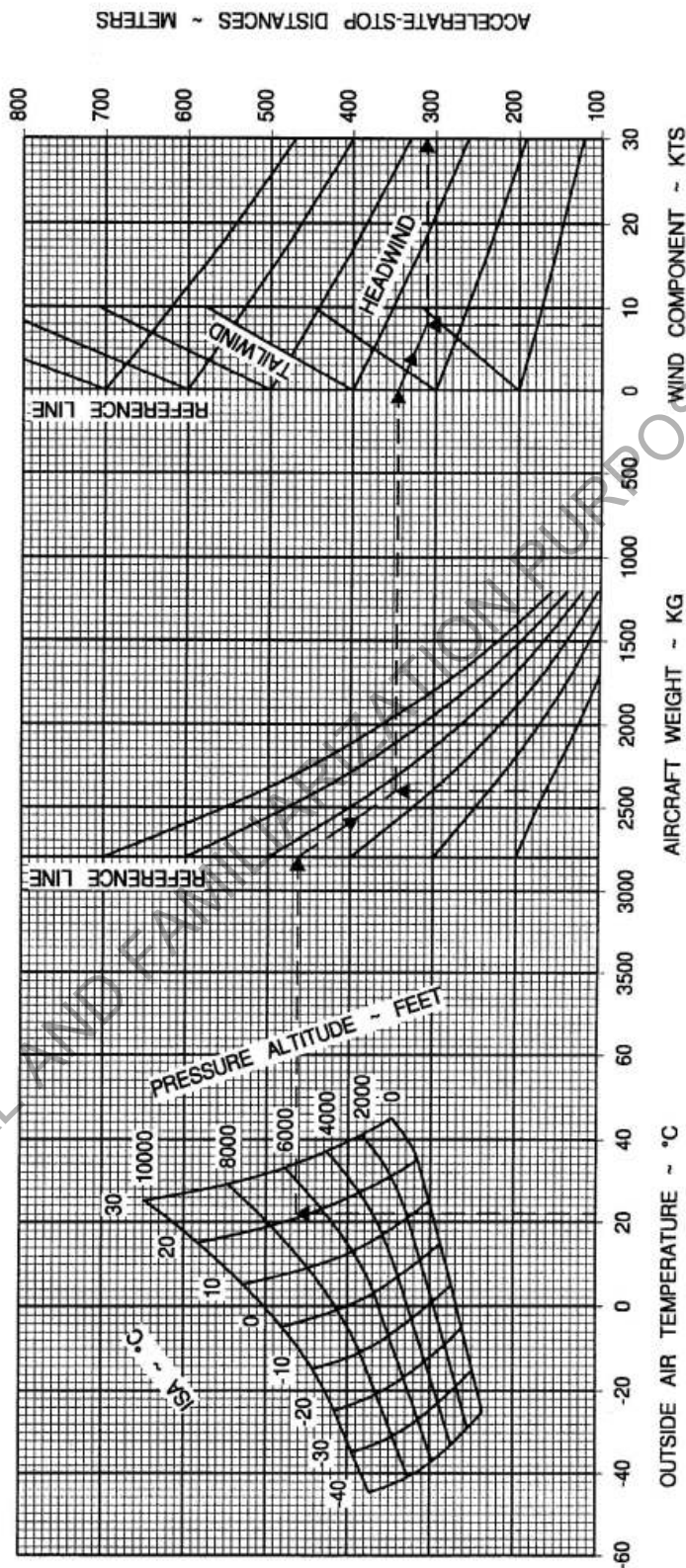
MAXIMUM BRAKING TECHNIQUE

REVERSE THRUST

PAVED LEVEL DRY RUNWAY SURFACE

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
ACCELERATE-STOP DISTANCES 310 METERS



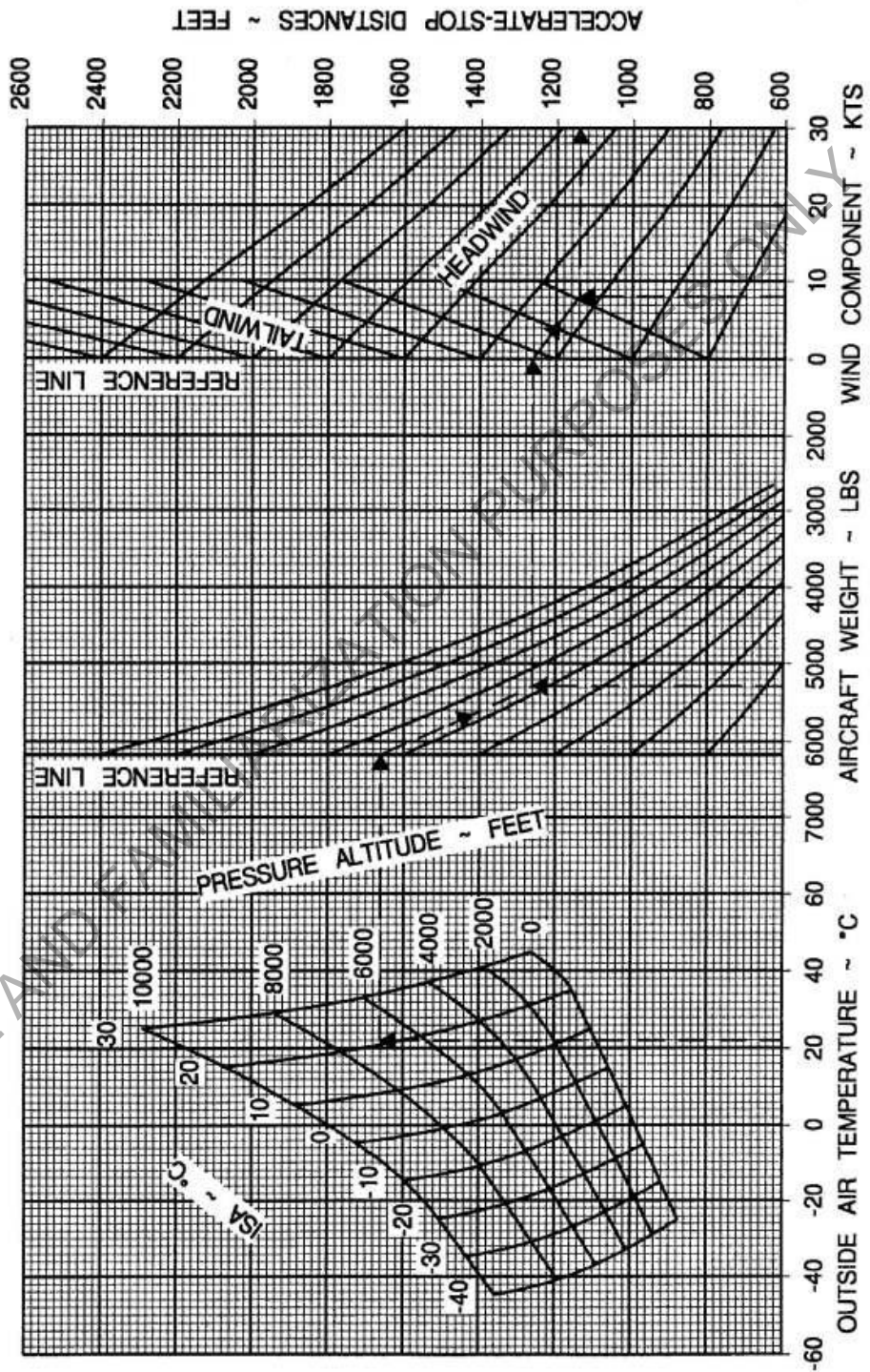
ACCELERATE-STOP DISTANCES – FLAPS 28°

WITHOUT REVERSE THRUST

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
ACCELERATE-STOP DISTANCES 1140 FEET

ASSOCIATED CONDITIONS:
POWER CHOP AT 1.1 V_{s1}
MAXIMUM BRAKING TECHNIQUE
PAVED LEVEL DRY RUNWAY SURFACE



ACCELERATE-STOP DISTANCES – FLAPS 28°

WITHOUT REVERSE THRUST

EXAMPLE:

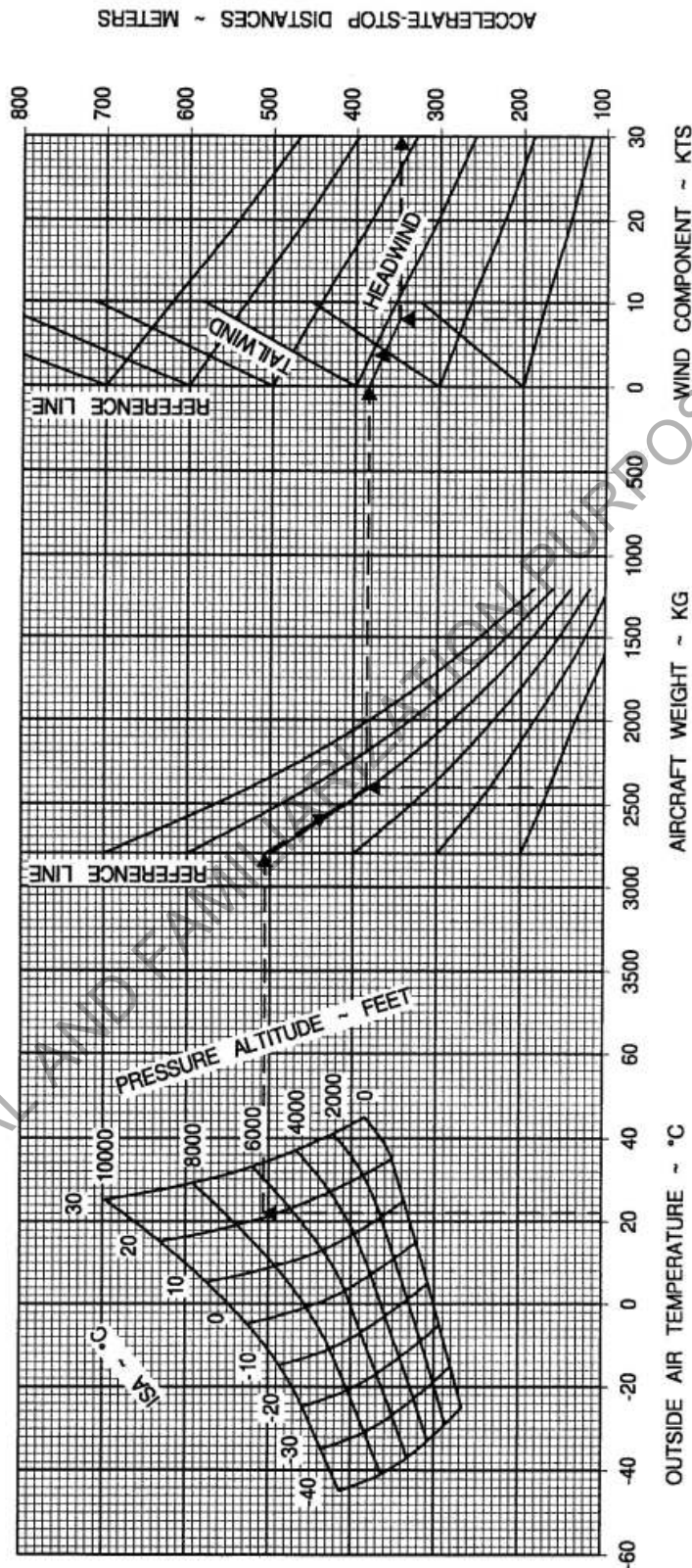
OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
ACCELERATE-STOP DISTANCES 350 METERS

ASSOCIATED CONDITIONS:

POWER CHOP AT 1.1 Vs1

MAXIMUM BRAKING TECHNIQUE

PAVED LEVEL DRY RUNWAY SURFACE

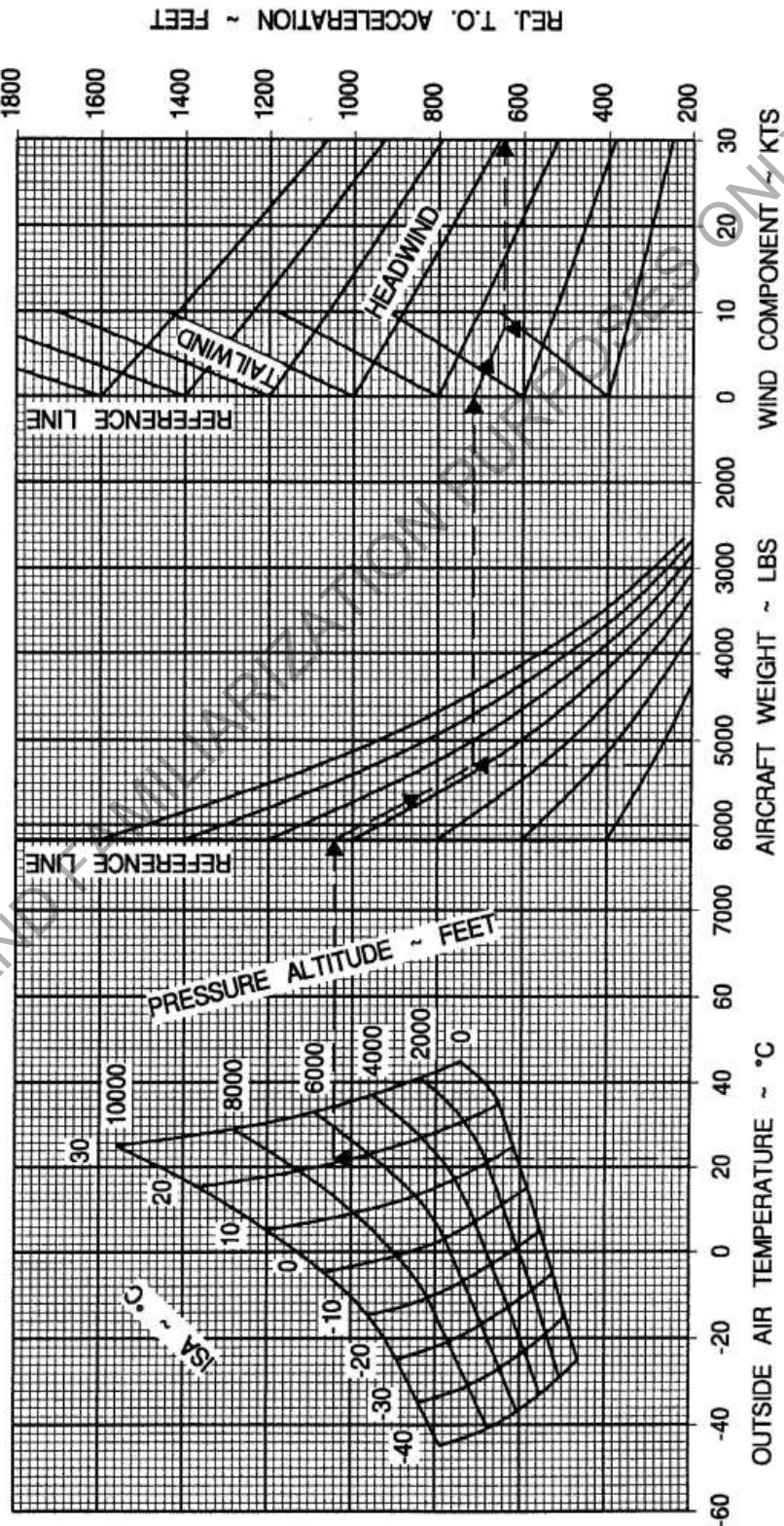


REJECTED T.O. ACCELERATION – FLAPS 28°

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 5290 LBS
HEADWIND COMPONENT 8 KTS
REJ. T.O. ACCELERATION 650 FEET

ASSOCIATED CONDITIONS:
POWER CHOP AT 1.1 V_{s1}
PAVED LEVEL DRY RUNWAY SURFACE

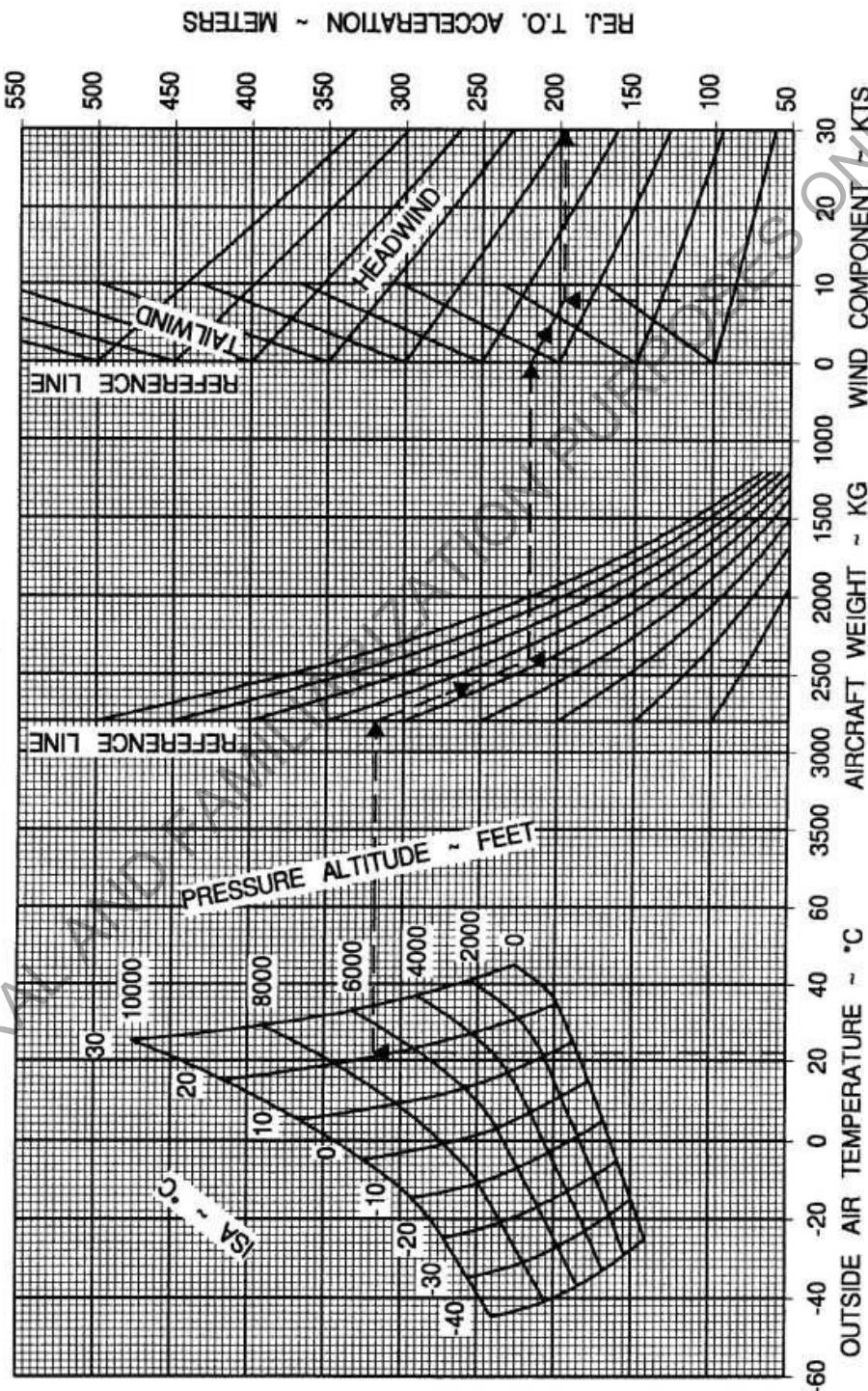


REJECTED T.O. ACCELERATION - FLAPS 28°

EXAMPLE:

OUTSIDE AIR TEMPERATURE 22 °C
PRESSURE ALTITUDE 7000 FEET
AIRCRAFT WEIGHT 2400 KG
HEADWIND COMPONENT 8 KTS
REF. T.O. ACCELERATION 198 METERS

ASSOCIATED CONDITIONS:
POWER CHOP AT 1.1 Vs1
PAVED LEVEL DRY RUNWAY SURFACE



SECTION 4

SUPPLEMENTS

Flight Manual Supplements are issued to provide information associated with optional equipment or modifications. The equipment concerned, if installed, is listed in the Appendix of the basic Airplane Flight Manual.

The information contained in applicable supplements supersedes information of the same nature found in the basic Airplane Flight Manual.

For Supplements which are approved by the Swiss Federal Office for Civil Aviation for the present aircraft model see Type Certificate Data Sheet F56-10.

In the table below, the Operator should insert an X against all Supplements applicable to the airplane in its operational configuration.

Supplement Report No.	Description	Inserted (X)
1804	Operation with King KWS 56 Color Weather Radar System	
1812	Operation with RNAV King KNS 81	
1813	Operation with RNAV and TACAN King KNS 81	
1824	Operation with Cabin Doors Removed and Sliding Door/Hatch Open	
1825	Operation with Skis Installed Note that operation with skis is prohibited when underwing tanks are installed	
1826-1	Operation with Underwing Fuel Tanks (372 / 477 / 487 liters)	
1846	Operation with Bendix RDS 82 Color Weather Radar System	
1848	Operation with Rudder Electrical Trim System	
1849	Operation with Aileron Electrical Trim System	
1850	Operation with Emergency Battery System Installed	
1859	Operation with Ferry Fuel Tank Installation P/N 6266.143 in the cabin	
1860	Operation with Ferry Fuel Tank Installation P/N V-43593 in the cabin	
1861	Operation with Agricultural Equipment Installed	
1862	Operation with Water Tank P/N 119.70.06.712 for Fire-fighting	
1887	Q-operation (Quiet Operation)	

Supplement Report No.	Description	Inserted (X)
1898	Operation with Micronair Underwing Spray Pod System	
1904	Operation with Air Intake Filter Mk.3B Installed	
1905	Operation with Global OMEGA/VLF GNS 500A-4 Navigation System	
1906	Operation with Bendix King RDS 84 Color Weather Radar System	
1913	Operation with Bendix IU-2023B Remote Computer Unit	
1914	Operation with Propeller De icing System (Hot Prop)	
1915	Operation with Camera Assembly Installed	
1948	Reduced Noise Operation (Adjustable Propeller Speed)	
01988	Operation with Trimble TNL-2000 GPS Navigation System Installed	
02043	Operation with Bendix King KLN 90 GPS Navigation System Installed	
02048	Operation with Emergency Fuel Control (Manual Override)	
02057	Operation with Bendix King KLN 90A Navigation System Installed	
02090	Operation with On-board Oxygen System (up to MSN 839)	
02098	Operation with Bendix King RDR 2000 Color Weather Radar System	
02101	Operation with Bendix King KLN90B GPS Navigation System Installed	
02105	Operation with On-board Oxygen System (from MSN 840)	
02174	Operation with De-icing System for FAA STC Four-blade Propeller	
02186	Operation with the B-RNAV (RNP-5) Version of the KLN 90B GPS Navigation System Installed	
02207	Operation with Horizontal Stabilizer Trim Warning System	
02230	Mechanical Flap System	
02264	Garmin GNS 430 VHF Communications Transceiver, VOR and ILS Receiver And GPS Receiver System	
02265	Honeywell Multi-Function Display KMD-850	
02274	Garmin GNS 530 VHF Communications Transceiver, VOR and ILS Receiver and GPS Receiver System	

[illegible]

