HALO 275
CENTEX AEROSPACE GWI STC SERIES

SUPPLEMENTAL TYPE CERTIFICATE NUMBER SA11103SC
HALO 275 COMMUTER CATEGORY CONVERSION OF
BEECHCRAFT KING AIR B200GT AND B200CGT AIRPLANES
IN THE KING AIR 250 CONFIGURATION
WITH HIGH FLOTATION LANDING GEAR
(PRO LINE FUSION AVIONICS)

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT

Airplane Serial No:_____

This supplement must be attached to the appropriate FAA Approved Airplane Flight Manual when the aircraft is modified in accordance with STC SA11103SC. The information contained herein supplements or supersedes the basic Airplane Flight Manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement, consult the basic Beechcraft B200GT or B200CGT Pilot Operating Handbook, BLR Aerospace AFMS-B250-1 AFM Supplement, and BLR Aerospace AFMS-B250-3 AFM Supplement, as applicable.

FAA APPROVED

For Jim Grigg

Jim Grigg
Manager, Fort Worth Aircraft Certification Office
Southwest Region
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Fort Worth, Texas 76177
Dated: March 20, 2017

REFERENCE ONLY

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AIRPLANE FLIGHT MANUAL SUPPLEMENT
FOR KING AIR 250 AIRPLANES WITH
HIGH FLOTATION LANDING GEAR AND
HALO 275 COMMUTER CATEGORY CONVERSION

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INTRODUCTION

This supplement should be read carefully by the owner and the operator in order to become familiar with the operation of the airplane having now been modified by the installation of the CenTex Aerospace Halo 275 Commuter category conversion. With this conversion, a King Air 250 equipped with High Flotation landing gear now has a maximum takeoff weight of 14,000 pounds, a maximum landing weight of 13,500 pounds, and maximum zero fuel weight of 11,500 pounds. These increases in the maximum weight limitations allow the aircraft to carry significantly more payload.

A BE-200 type rating is required for pilots to operate converted King Air 250 airplanes, except for airplanes operating under option 1 of the Supplemental Type Certificate.

NOTE

The BLR Ultimate Performance Package (STC SA02131SE) must be installed on the airplane in order for this supplement to be used.

With the change to Commuter category comes takeoff and discontinued approach flight path profiles up to 1,500 Feet, AGL, and the corresponding airplane performance data to construct these new profiles. Therefore, the takeoff and climb performance data in Section 5 are presented somewhat differently than found in the basic AFM. Takeoff field lengths include the runway length required to stop the airplane on the available runway in the event an engine failure occurs or continue the takeoff with an inoperative engine. Maximum allowed takeoff weight tables and maximum allowed landing weight tables limit the gross weight so that the required minimum climb gradients can be met. Together, the new profiles, takeoff field length data, and maximum allowed takeoff and landing weight limitations serve to increase operational safety by ensuring adequate airplane performance for all contingency situations.

The new systems, likewise, increase the level of safety by providing safety functions that were not previously available. Below is a list of the new systems and associated functions.

- Takeoff trim warning system – aural alert when elevator trim is not set properly for takeoff.
- Stall warning system ice mode – aural alert when stall is imminent due to ice accumulation on wings.
- Engine fire extinguisher system – extinguish fire in engine compartment.
- Emergency cabin lighting system – illumination of cabin during emergency situations
- Escape path markings – show pathway along the cabin floor to main door and emergency exit.

REFERENCE ONLY

It is noted the number of passenger seats in the cabin is now limited to maximum of nine seats due to a single emergency exit.

The terminology used in this supplement matches the terminology used in the basic POH and BLR Aerospace AFM Supplements. This includes the definitions of warnings, cautions, and notes. Also, you will find the format of limitations, procedures, and checklists herein match the POH format for B200GT series airplanes.

DESCRIPTIVE DATA

MAXIMUM CERTIFICATED WEIGHTS

Maximum Ramp Weight .....14,090 pounds
Maximum Take-off Weight .....14,000 pounds
Maximum Zero Fuel Weight .....11,500 pounds
Maximum Landing Weight.....13,500 pounds

SPECIFIC LOADINGS

Wing Loading: 44.6 pounds per square foot
Power Loading: 8.2 pounds per shaft horsepower

COMPATIBLE MODIFICATIONS

The following STC-approved modifications have been found to be compatible with the Halo 275 Commuter category conversion:

1. SA02131SE, BLR Ultimate Performance Package
2. SA02130SE, BLR Hartzell HC-E4N-3A/NC9208K propellers
3. SA01615SE, BLR Winglets
4. SA3366NM, Raisbeck Engineering Ram Air Recovery System
5. SA2698NM-S Raisbeck Engineering Swept Blade Turbofan Propellers
6. SA3831NM, Raisbeck Engineering Inboard Leading Edges
7. SA3591NM, Raisbeck Engineering Aft Body Strakes
8. SA4175NM, Raisbeck Engineering MLG Doors
9. SA3857NM, Raisbeck Engineering Storage Lockers
10. SA3683NM, Raisbeck Engineering Exhaust Stack Fairings
11. SA757GL, Parker Cleveland wheels and brakes
12. SA4157SW, SA02468LA, SA00635WI, Aviation Fabricators cabin seats
13. SA10478SC, Hawker Beechcraft Services FDR & CVR
14. SA02738CH, L-3 Comm ESI-1000 (set airspeeds per AFM 006-4HFG)
15. SA01213CH, Spectrum Aeromed air ambulance conversion
16. SA02235LA, LifePort Patient Loading and Utility System
17. SA03209NY, MT-Propeller MTV-27-1-E-C-F-R(P)/CFR225-55f
18. SA01769WI, Rockwell Collins, Inc. Installation of Pro Line Fusion

REFERENCE ONLY

It is up to the installer to determine whether any other STC-approved modifications are compatible with the Halo 275 Commuter category conversion. When determining compatibility regulatory requirements applicable to Commuter category airplanes must be considered. Note, other modifications affecting the display of flight attitude, airspeed, and altitude; and autopilot functionality must meet the design assurance levels required for Commuter category airplanes.

- Continued on next page -

REFERENCE ONLY

LIST OF EFFECTIVE PAGES

The list of effective pages shown below contains all current pages with the page version date. This list should be used to verify this supplement contains all of the applicable and required pages. When inserting revised pages into this supplement the List of Effective Pages should be updated, as well, to the corresponding new list.

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8-2 ..... March 2017
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REFERENCE ONLY

LOG OF REVISIONS

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REFERENCE ONLY

The limitations shown in this section are approved by the Federal Aviation Administration and must be observed while operating Beechcraft King Air B200GT series airplanes that have been modified with the CenTex Aerospace Halo 275 conversion. This conversion provides an increase in the maximum takeoff weight from 12,500 pounds to 14,000 pounds and changes the airplane from Normal category to Commuter category.

Refer to the Beechcraft B200GT or B200CGT Pilot Operating Handbook and BLR Aerospace AFMS-B250-1 AFM Supplement for limitations not contained in this section.

It is noted that not all of the information presented in this Supplement is changed from the basic Airplane Flight Manual or Pilot Operating Handbook information. This was done to aid the pilot in the retention of the changed limitations by presenting together changed and unchanged limitations that are relational. The changed information or value is identified either by a note or by simple underline.

REFERENCE ONLY

AIRSPEED LIMITATIONS

SPEED	KCAS	KIAS	REMARKS
Operating Maneuvering Speed, V_O	182	181	Do not make full or abrupt control movements above this speed.
Maximum Flap Extension/ Extended Speed, V_{FE} Approach Position – 40% Full Down Position – 100%	 NC NC	 NC NC	Do not extend flaps or operate with flaps in prescribed position above these speeds.
Maximum Landing Gear Operating Speed, V_{LO} Extension Retraction	 NC NC	 NC NC	Do not exceed or retract landing gear above the speeds given.
Maximum Landing Gear Extended Speed, V_{LE}	NC	NC	Do not exceed this speed with landing gear extended.
Air Minimum Control Speed V_{MCA}	NC	NC	This is the lowest airspeed at which the airplane is directionally controllable when one engine suddenly becomes inoperative and the other engine is at takeoff power. (See definition in Section I of the basic AFM or POH)
Maximum Operating Speed V_{MO} M_{MO}	NC NC	NC	Do not exceed this airspeed or Mach number in any operation.

NC-No change to original airspeed limitation. See BLR Aerospace AFMS-B250-1 AFM Supplement.

AIRSPEED INDICATOR DISPLAY

DISPLAY	KIAS VALUE OR RANGE	SIGNIFICANCE
Red Line	Unchanged	Air minimum Control Speed (V_{MCA})
Solid Red Bar (at bottom of airspeed scale)	 77 84 94	ISS LSC* Marker. The top of the marker changes with flap position to reflect the following stall speeds. Stalling speed (V_{S0}) at maximum weight with flaps down and zero thrust. Stalling speed (V_{S1}) at maximum weight with flaps approach and zero thrust. Stalling speed (V_{S1}) at maximum weight with flaps up and zero thrust.
◀ DN (white)	Unchanged	Maximum speed permissible with flaps extended beyond approach.
◀ APP (white)	Unchanged	Maximum speed permissible with flaps in approach position.
Blue Line	Unchanged	One-Engine-Inoperative Best Rate of Climb Speed
Solid Red Bar (at top of airspeed scale)	Unchanged	V_{MO} Marker. The bottom of the marker represents the Maximum Operating Speed. These speeds may not be deliberately exceeded in any flight regime.

REFERENCE ONLY

POWER PLANT LIMITATIONS

Engine Model(s) PT6A-52

Engine Operating Limits:

Takeoff & Max Continuous Power	850 SHP	2230 FT-LBS	2000 RPM

Propeller Limitation: Autofeather must be in operation during takeoff.

FUEL IMBALANCE

The maximum allowable fuel imbalance between wing fuel systems is 300 pounds, except for one engine inoperative operations. The maximum allowable fuel imbalance between wing fuel systems is 1,000 pounds when operating with one engine inoperative.

WEIGHT LIMITS

Maximum Ramp Weight ..... 14,090 pounds

Maximum Take-off Weight is 14,000 pounds or as limited by (see Section 5):

- Maximum Allowed Takeoff Weight tables
- Maximum Allowed Takeoff Weight As Limited By Brake Energy
- Maximum Tire Speed During Takeoff
- Takeoff Speeds and Field Lengths tables

For 14 CFR Part 135 Operations:

- Service Ceiling – One Engine Inoperative

Maximum Landing Weight is 13,500 pounds, or as limited by (see Section 5)

- Maximum Allowed Landing Weight tables
- Landing Distance charts

Maximum Zero Fuel Weight ..... 11,500 pounds

REFERENCE ONLY

CENTER OF GRAVITY LIMITS

Aft Limits

195.4 inches aft of datum at 14,000 pounds gross weight with straight line variation to 196.4 inches aft of datum at 12,500 pounds gross weight.
196.4 inches aft of datum at gross weights less than 12,500 pounds.

Forward Limits

188.3 inches aft of datum at gross weights between 14,000 pounds and 13,500 pounds with straight line variation to 181.0 inches aft of datum at 11,279 pounds gross weight.
181.0 inches aft of datum at gross weights less than 11,279 pounds.

MANEUVER LIMITS

The Beechcraft King Air B200GT and B200CGT with the Halo 275 conversion are Commuter category airplanes. Acrobatic maneuvers, including spins, are prohibited.

FLIGHT LOAD FACTOR LIMITS

FLAPS UP	FLAPS DOWN
3.10 positive g's	2.00 positive g's
1.24 negative g's	0.00 g

MINIMUM FLIGHT CREW .....One Pilot

MAXIMUM OCCUPANCY LIMIT

Flight Crew .....Two (Pilot and Co-pilot)
Passengers .....Nine (9)

ICING LIMITATIONS

The limitations and information presented in this subsection have been changed from the basic Airplane Flight Manual and Pilot Operation Handbook. The changes are considered by the FAA to be essential in ensuring the safe operation of the airplane in icing conditions.

Minimum Ambient Temperature for Operation of Deicing Boots .....-40°C
Minimum Airspeed for Sustained Icing Flight ..... 148 Knots

Sustained flight in icing conditions with flaps extended is prohibited except for approach and landing.

ENGINE ANTI-ICE shall be ON for operations in ambient temperatures of +5°C or below when flight free of visible moisture cannot be assured.

ENGINE ANTI-ICE shall be OFF for all takeoff and flight operations in ambient temperatures above + 15°C.

REFERENCE ONLY

Takeoff is prohibited with any frost, ice, snow, or slush adhering to the wings, horizontal stabilizer, control surfaces, propeller blades, or engine inlet.

In icing conditions the airplane must be operated and its ice protection system used as described in the operating procedures section of this AFM Supplement. Where specific operational speeds and performance information have been established for such conditions, this information must be used.

WARNING

Severe icing may result from environment conditions outside of those for which the airplane is certificated. Flight in freezing rain, freezing drizzle, or mixed icing conditions (supercooled liquid water and ice crystals) may result in ice build-up on protected surfaces exceeding the capacity of the ice protection system, or may result in ice forming aft of the protected surfaces. This ice may not be shed using the ice protection systems, and may seriously degrade the performance and controllability of the airplane and an unsafe situation will likely result. It is the responsibility of the pilot to identify severe icing conditions and to exit such condition to ensure safe flight operations.

1. Severe icing conditions that exceed those for which the airplane is certificated shall be determined by the following visual cues. If one or more of these visual cues exists, immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the icing conditions.
   - Extensive ice accumulation on the airframe and windshield in areas not observed to collect ice during light or moderate icing conditions.
   - Accumulation of ice on the upper surface of the wing, aft of the protected area (i.e., leading-edge boot).
   - Accumulation of ice on the engine nacelles and propeller spinners farther aft than observed during light or moderate icing conditions.
2. DO NOT USE THE AUTOPILOT in severe icing conditions or whenever:
   - Visual cues specified above exist.
   - Unusual aileron trim settings are required.
   - Autopilot trim warnings occur.

   Note: an unsafe condition exists when the autopilot is engaged and the airplane handling characteristics are degrading due to ice accumulating on the airplane. The pilot will not be aware of this unsafe condition, which requires an immediate exit from icing conditions, if he/she is not manually flying the airplane.
3. All icing detection lights must be operative prior to flight into known or forecast icing conditions at night.

REFERENCE ONLY

OTHER LIMITATIONS

STRUCTURAL LIMITATIONS

Refer to Chapter Four of the *Super King Air 200 Series Maintenance Manual* and to the *CenTex Aerospace Halo 250 Commuter Category Conversion Instructions for Continued Airworthiness* for structural limitations.

MAXIMUM TAILWIND COMPONENT LIMITATION

Do not land with a tail wind component greater than 10 knots.
Do not takeoff with a tail wind component greater than 10 knots.

MAXIMUM HEADWIND COMPONENT LIMITATION

Do not extrapolate for a headwind component that exceeds 30 knots.
Assume a 30 knot headwind component when correcting takeoff field length whenever there is a 30 knot or greater headwind.

PLACARDS

On Overhead Panels in Pilot's Compartment:

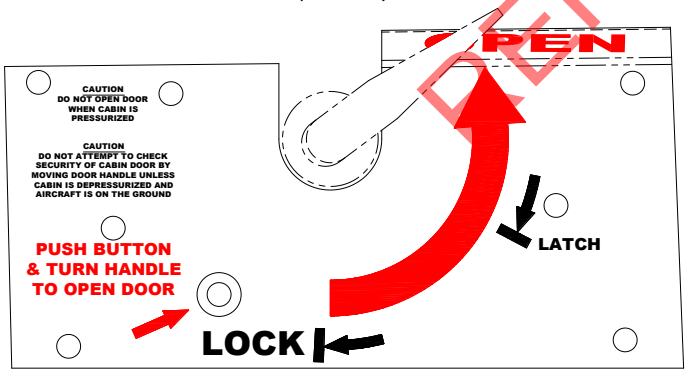
OPERATION LIMITATIONS

THIS AIRPLANE MUST BE OPERATED AS A COMMUTER CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS
NO ACROBATIC MANEUVERS INCLUDING SPINS ARE APPROVED.
THIS AIRPLANE APPROVED FOR VFR, IFR, & DAY & NIGHT OPERATION & IN ICING CONDITIONS.

CAUTION

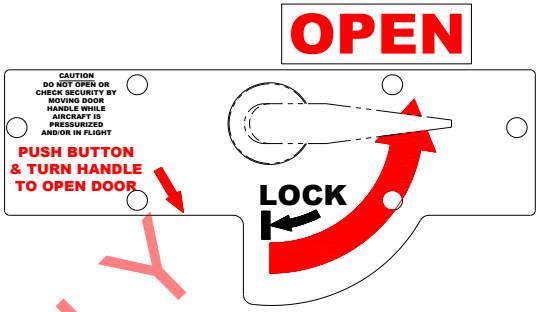
STALL WARNING IS INOPERATIVE WHEN MASTER SWITCH IS OFF
STANDBY COMPASS IS ERRATIC WHEN WINDSHIELD ANTI-ICE AND/OR AIR CONDITIONING IS ON.

Inside Airstair Door Behind Handle (B200GT):



REFERENCE ONLY

Inside Airstair Door Behind Handle (B200CGT):



KINDS OF OPERATIONS

The Beechcraft King Air 200 series airplanes are approved for the following type of operations when the required equipment is installed and operational as defined within the KINDS OF OPERATIONS EQUIPMENT LIST.

VFR Day
VFR Night
IFR Day
IFR Night
Known Icing Conditions

KINDS OF OPERATIONS EQUIPMENT LIST

This airplane may be operated in day or night VFR, or day and night IFR, when the appropriate equipment is installed and operable.

The following equipment list identifies the systems and equipment upon which type certification for each kind of operation was predicated. The systems and items of equipment listed must be installed and operable unless:

1. The airplane is operated in accordance with a current Minimum Equipment List (MEL) issued by the FAA.

   or;

2. An alternate procedure is provided in the Pilot Operating Handbook and FAA Approved Airplane Flight Manual for the inoperative state of the listed equipment.

Numbers on the Kinds of Operations Equipment List refer to quantities required to be operative for a specified condition.

NOTE

The following systems and equipment list does not include all equipment required by the 14 CFR Part 91 and 135 operating requirements. It also does not include components obviously required for the airplane to be airworthy, such as wings, empennage, engine, etc.

REFERENCE ONLY

AIRCRAFT EQUIPPED WITH ROCKWELL COLLINS PRO LINE FUSION AVIONICS

< TABLE OMITTED >

SYSTEM and/or COMPONENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING CONDITIONS	
ELECTRICAL POWER						
1. Battery	1	1	1	1	1	
2. Standby Display Battery	1	1	1	1	1	
3. Battery Ammeter	1	1	1	1	1	
4. DC Generator	2	2	2	2	2	
5. DC Load Meter	2	2	2	2	2	
ENGINE INDICATIONS						
1. Engine Indication System L & R (Oil Pressure, Oil Temperature, Torque, ITT, Prop RPM, N_1)	1	1	1	1	1	
ENGINE OIL						
1. L & R Chip Detector System	2	2	2	2	2	
ENVIRONMENTAL						
1. Bleed Air Shutoff Valve	2	2	2	2	2	
2. Altitude Warning System (Cabin)	1	1	1	1	1	
3. Outflow Valve/Safety Valve	2	2	2	2	2	
4. Pressurization Controller	1	1	1	1	1	
5. Differential Pressure/Cabin Altitude Indicator	1	1	1	1	1	
FIRE PROTECTION						
1. Engine Fire Detector System and Annunciators	2	2	2	2	2	
2. Engine Fire Extinguisher System & Annunciators	2	2	2	2	2	
FLIGHT CONTROLS						
1. Flap Position Indicator	1	1	1	1	1	
2. Flap System	1	1	1	1	1	
3. Stall Warning System	1	1	1	1	1	
4. Stall Warning System Ice Mode	0	0	0	0	1	
5. Trim Tab Position Indicator (Rudder, Aileron, and Elevator)	3	3	3	3	3	
6. Yaw Damp	1	1	1	1	1	
7. Elevator Trim Warning System	1	1	1	1	1	

REFERENCE ONLY

AIRCRAFT EQUIPPED WITH ROCKWELL COLLINS PRO LINE FUSION AVIONICS

< TABLE OMITTED >

SYSTEM and/or COMPONENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING CONDITIONS
FUEL					
1. Engine Driven Boost Pump	2	2	2	2	2
2. Fuel Crossfeed System	1	1	1	1	1
3. Standby Electric Fuel Pump	2	2	2	2	2
4. Fuel Quantity Indicating System incl. Annunciators	2	2	2	2	2
5. Firewall Fuel Shutoff System	2	2	2	2	2
6. Jet Transfer Pump	2	2	2	2	2
7. Motive Flow Valve	2	2	2	2	2
ICE AND RAIN PROTECTION					
1. Alternate Static Air System	0	0	1	1	1
2. Engine Auto Ignition System and Annunciators	2	2	2	2	2
3. Engine Anti-Ice System	2	2	2	2	2
4. Heated Fuel Vent	0	0	0	0	2
5. Heated Windshield (Left)	0	0	0	0	1
6. Pitot Heat System	0	0	2	2	2
7. Pneumatic Pressure Indicator	0	0	1	1	1
8. Propeller Deicer System	0	0	0	0	1
9. Stall Warning Heat (Lift Transducer and Mounting Plate)	0	0	0	0	1
10. Surface Deicer System	0	0	0	0	1
11. Wing Ice Light (Left)	0	0	0	0	1
LANDING GEAR					
1. Landing Gear Position Lights	3	3	3	3	3
2. Landing Gear Handle Light	1	1	1	1	1
3. Landing Gear Aural Warning	1	1	1	1	1
4. Landing Gear Hydraulic Power Pack	1	1	1	1	1
5. Alternate Landing Gear Extension System	1	1	1	1	1
	1	1	1	1	1
LIGHTS					
1. Cockpit and Instrument Lighting system	0	1	0	1	0
2. Landing Lights	0	2	0	2	0
3. Position Lights	0	3	0	3	0
4. Anti-collision Lights System	0	1	0	1	0
5. Cabin Emergency Lighting System and Escape Path Markings	Required when carrying passengers				

REFERENCE ONLY

AIRCRAFT EQUIPPED WITH ROCKWELL COLLINS PRO LINE FUSION AVIONICS

< TABLE OMITTED >

SYSTEM and/or COMPONENT	VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	ICING CONDITIONS	
FLIGHT INSTRUMENTS						
1. Crew Alerting System (CAS)	1	1	1	1	1	
2. Primary Flight Display (PFD)	2	2	2	2	2	
3. Multifunction Display (MFD)	1	1	1	1	1	
4. Magnetic Compass	1	1	1	1	1	
5. Standby Flight Display System (SFDS)	1	1	1	1	1	
6. Attitude Heading System (AHS)	2	2	2	2	2	
7. Air Data System (ADS)	2	2	2	2	2	
8. Outside Air Temperature (Pilot's Side Console)	1	1	1	1	1	
OXYGEN						
1. Oxygen System	1	1	1	1	1	
PROPELLER						
1. Autofeather System including Annunciators	1	1	1	1	1	
2. Propeller Reversing System	2	2	2	2	2	
3. Propeller Governor Test Switch	1	1	1	1	1	
4. Propeller Over-speed Governor	2	2	2	2	2	
5. Propeller Low-Pitch Stop	2	2	2	2	2	
VACUUM SYSTEM						
1. Vacuum Gage	1	1	1	1	1	

REFERENCE ONLY

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REFERENCE ONLY

SECTION 3
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EMERGENCY ESCAPE PATH 3-3

NOTE

See BLR Aerospace AFMS-B250-1 AFM Supplement and Beechcraft B200GT or B200CGT Pilot Operating Handbook for other Emergency Procedures.

REFERENCE ONLY

All airspeeds quoted in this section are indicated airspeeds (IAS) and assume zero instrument error.

EMERGENCY AIRSPEEDS

One-Engine Inoperative Best Angle-of-Climb (V_{XSE}) ..... 107 Knots
One-Engine Inoperative Best Rate-of-Climb (V_{YSE}) ..... 116 Knots
One-Engine-Inoperative Enroute Climb (V_{ENR}):
14,000 pounds ..... 116 Knots
13,500 pounds ..... 114 Knots
13,000 pounds ..... 111 Knots
12,000 pounds ..... 107 Knots
11,000 pounds ..... 104 Knots
10,000 pounds ..... 104 Knots
Air Minimum Control Speed (V_{MCA})..... 92 Knots
Emergency Descent ..... 181 Knots
Maximum Range Glide..... 136 Knots

ENGINE FAILURE DURING TAKEOFF (AT OR BELOW V_1) – TAKEOFF ABORTED

1. Power Levers ..... GROUND FINE
2. Brakes .....AS REQUIRED TO ACHIEVE STOPPING DISTANCE
3. Operative Engine ..... MAXIMUM REVERSE or AS REQUIRED

WARNING

Extreme care must be exercised when using single-engine reversing on surfaces with reduced traction.

REFERENCE ONLY

ENGINE FAILURE DURING TAKEOFF (AT OR ABOVE V_1) – TAKEOFF CONTINUED

1. V_R Speed ..... ROTATE TO APPROX 8° NOSE UP ATTITUDE
2. Landing Gear (when positive climb established) ..... UP
3. Airspeed ..... V_2 (MAINTAIN TO 400 FEET AGL)
4. Propeller Inoperative Engine ..... VERIFY FEATHERED
5. Airspeed at 400 Feet AGL..... V_{ENR}
6. Flaps (if extended) ..... UP AT V_2 + 5 KNOTS
7. Climb to 1,500 Feet AGL

WARNING

Do not retard the failed engine power lever until the Autofeather system has completely feathered the propeller and propeller rotation has stopped. To do so will deactivate the autofeather circuit and prevent automatic feathering.

8. Clean up (Inoperative engine)
   a. Condition Lever - FUEL CUT OFF
   b. Propeller Lever - FEATHER
   c. Firewall Shutoff Valve - CLOSE
   d. Auto Ignition - OFF
   e. Autofeather - OFF
   f. Generator - OFF
9. Electrical Load ..... MONITOR

CABIN EMERGENCY LIGHTING ACTIVATION

An emergency lighting system has been added to provide lighting in key areas of the passenger cabin in case there is an emergency situation, such as a loss of electrical power or when an evacuation of the aircraft is required. To manually activate the system, place the control switch located on the copilot instrument panel in the ON position. The emergency cabin flood lamps will illuminate the cabin areas near the emergency exit and door. Also, the system will automatically activate the emergency cabin flood lamps whenever the control switch is in the ARM position, and the aircraft experiences a horizontal deceleration of 2g's, or more.

EMERGENCY ESCAPE PATH

Photoluminescent markings have been installed on the cabin floor outlining the aisle and the location of the emergency exit door and cabin door. Under conditions of reduced visibility, such as a cabin filled with smoke, occupants can follow this marked escape path to the exit from the aircraft.

REFERENCE ONLY

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REFERENCE ONLY

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ABNORMAL PROCEDURES
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ONE-ENGINE-INOPERATIVE APPROACH AND LANDING 3A-3

ONE-ENGINE-INOPERATIVE GO-AROUND 3A-5

OVERWEIGHT LANDING 3A-5

STALL FAIL 3A-6

NOTE

See BLR Aerospace AFMS-B250-1 AFM Supplement and Beechcraft B200GT or B200CGT Pilot Operating Handbook for other Abnormal Procedures.

REFERENCE ONLY

FLAPS UP LANDING

Refer to Section 5 of Supplement AFM 006-4HFG for Flaps Up Landing Distance.

WEIGHT POUNDS	**V_{REF} (FLAPS UP)** KNOTS
14,000	126
13,000	121
12,500	119
12,000	115
11,000	111
10,000	106
9,000	101

1. Approach Speed, V_{REF} (Flaps Up) ..... CONFIRM
2. Autofeather ..... ARM
3. Pressurization ..... CHECK
4. Cabin Sign ..... NO SMOKE & FSB
5. Flaps ..... UP

CAUTION

Do not silence the landing gear warning horn, since the flap actuated portion of the landing gear warning system will not be actuated during a flap up landing.

6. Flap Override ..... SELECT
7. Landing Gear ..... DOWN
8. Lights ..... AS REQUIRED

NOTE

Under low visibility conditions, landing and taxi lights should be left off due to light reflections.

9. Radar ..... AS REQUIRED
10. Surface Deice ..... CYCLE (as required)

If wings are free of ice:

11. Stall Warning Ice Mode Switch – PRESS (to select Normal Mode)

If residual ice remains on wing boots:

12. Surface Deice ..... CYCLE
13. Stall Warning Ice Mode Annunciator ..... ILLUMINATED
14. Approach Speed and Landing Distance ..... INCREASE V_{REF} BY 15 KNOTS AND INCREASE LANDING DISTANCE BY 25 PER CENT.

See LANDING DISTANCE chart in Section 5 of Supplement AFM 006-4HFG

REFERENCE ONLY

NOTE

Prior to the landing approach, cycle the wing deice boots to shed as much residual ice as possible, regardless of the amount of ice remaining on the boots. Stall speeds can be expected to increase if ice is not shed from the deice boots.

NOTE

If crosswind landing is anticipated, determine Crosswind Component from Section 5, PERFORMANCE. Immediately prior to touchdown, lower upwind wing and align the fuselage with the runway. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes. Use propeller reverse as desired.

When Landing Is Assured:

15. Approach Speed..... V_{REF} – ESTABLISHED (With ice on wings, V_{REF} + 15)
16. Yaw Damp ..... OFF
17. Power Levers..... IDLE
18. Propeller Levers ..... FULL FORWARD

After Touchdown:

19. Power Levers.....LIFT AND SELECT GROUND FINE OR REVERSE (as required)
20. Brakes .....AS REQUIRED

ONE-ENGINE-INOPERATIVE APPROACH AND LANDING

WEIGHT POUNDS	Flaps DOWN V_{REF} Speeds, KNOTS
14,000	106
13,000	104
12,500	103
12,000	102
11,000	99
10,000	96
9,000	93

1. Approach Speed, V_{REF}.....CONFIRM
2. Fuel Balance.....CHECK
3. Pressurization .....CHECK
4. Cabin Sign ..... NO SMOKE & FSB

When it is certain that the field can be reached:

5. Flaps..... APPROACH
6. Landing Gear..... DN
7. Propeller Lever.....FULL FORWARD
8. Airspeed .....V_{REF} + 10

REFERENCE ONLY

9. Interior and Exterior Lights .....AS REQUIRED
10. Radar.....AS REQUIRED
11. Surface Deice .....CYCLE AS REQUIRED

If wings are free of ice:
12. Stall Warning Ice Mode Switch ..... PRESS (to select Normal Mode)

If residual ice remains on wing boots:
13. Surface Deice .....CYCLE
14. Stall Warning Ice Mode Annunciator .....ILLUMINATED
15. Approach Speed and Landing Distance.....INCREASE V_{REF} BY 15 KNOTS AND INCREASE LANDING DISTANCE BY 25 PERCENT

See LANDING DISTANCE chart in Section 5 of Supplement AFM 006-4HFG.

NOTE

Prior to the landing approach, cycle the wing deice boots to shed as much residual ice as possible, regardless of the amount of ice remaining on the boots. Stall speeds can be expected to increase if ice is not shed from the deice boots.

NOTE

If crosswind landing is anticipated, determine Crosswind Component from Section 5, PERFORMANCE. Immediately prior to touchdown, lower upwind wing and align the fuselage with the runway. During rollout, hold aileron control into the wind and maintain directional control with rudder and brakes.

When It is Certain There is No Possibility of a Go-Around
16. Flaps ..... DN
17. Airspeed .....V_{REF} (With ice on wings, V_{REF} + 15)
18. Perform normal landing.

NOTE

Single-engine reverse thrust may be used with caution after touchdown on smooth, dry, paved surfaces.

REFERENCE ONLY

ONE-ENGINE-INOPERATIVE GO-AROUND

1. Power ..... MAXIMUM ALLOWABLE
2. Landing Gear ..... UP
3. Flaps ..... UP AT V_{REF} + 10 KNOTS
4. Airspeed ..... V_{REF} + 20 KNOTS

OVERWEIGHT LANDING

WEIGHT POUNDS	V_{REF} KNOTS
14,000	106
13,500	105

When Landing Is Assured:

1. Flaps ..... DOWN
2. Airspeed ..... V_{REF}
3. Yaw Damp ..... OFF
4. Power Levers ..... IDLE
5. Propeller Levers ..... FULL FORWARD
6. Sink Rate ..... TOUCHDOWN WITH NOMINAL OR LESS SINK RATE

After Touchdown:

7. Power Levers ..... LIFT AND SELECT GROUND FINE
8. Brakes ..... AS REQUIRED

NOTE

An overweight landing is defined as any landing made when the airplane gross weight is greater than 13,500 pounds, which is the maximum landing weight limitation. When the airplane is landed at a gross weight above 13,500 pounds the pilot should request that an inspection in accordance with the King Air 200 Series Maintenance Manual Section 5-50-00 Inspection After Hard Landing be performed before the next flight. Also, an overweight landing where the touchdown sink rate is nominal will not result in damage to the landing gear or airframe structure.

REFERENCE ONLY

STALL FAIL

Stall Fail

This CAS message indicates that the stall computer has failed. Maintain airspeed appropriate for phase of flight.

NOTE

Halo 250/275 equipped aircraft have two stall computer modes, Normal Mode and Icing Mode. The Stall Fail CAS message applies to the mode in use at the time of failure.

REFERENCE ONLY

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NORMAL PROCEDURES
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REFERENCE ONLY

All airspeeds quoted in this section are indicated airspeeds (IAS) and assume zero instrument error.

AIRSPEEDS FOR SAFE OPERATION

Maximum Demonstrated Crosswind Component ..... 25 Knots
Maximum Demonstrated Wind Components for Coupled Approaches
- Crosswind..... 16 Knots
- Tailwind..... 10 Knots

Takeoff (Flaps UP)
- Decision Speed, V_1
- Rotation, V_R
- Safety Speed, V_2
- Enroute Climb, V_{ENR}

Takeoff (Flaps Approach)
- Decision Speed, V_1
- Rotation, V_R
- Safety Speed, V_2
- Enroute Climb, V_{ENR}

See Section 5 Performance for Takeoff Speeds

Two-Engine Best Angle-of-Climb (V_X)..... 100 Knots
Two-Engine Best Rate-of-Climb (V_Y) ..... 125 Knots
Cruise Climb:
- Sea level to 10,000 feet ..... 160 Knots
- 10,000 feet to 20,000 feet ..... 140 Knots
- 20,000 feet to 25,000 feet ..... 130 Knots
- 25,000 feet to 35,000 feet ..... 120 Knots

Maximum Airspeed for Effective Windshield Anti-icing ..... 226 Knots
Operating Maneuvering Speed (V_O)..... 181 Knots
Turbulent Air Penetration ..... 170 Knots

CAUTION

For turbulent air penetration, use an airspeed of 170 knots. Avoid over-action on power levers. Turn off autopilot altitude hold. Keep wings level, maintain attitude and avoid use of trim. Do not chase airspeed and altitude. Penetration should be at an altitude which provides adequate maneuvering margins when severe turbulence is encountered.

Landing Approach:
- Flaps Down..... V_{REF}, see Section 5 Performance

Balked Landing Climb..... V_{REF}, see Section 5 Performance
Intentional One-Engine-Inoperative Speed (V_{SSE}) ..... 104 Knots
Air Minimum Control Speed (V_{MCA}), Flaps Up ..... 92 Knots
Flaps Approach ..... 87 Knots

REFERENCE ONLY

PROCEDURES BY FLIGHT PHASE

NOTE

Refer to all applicable Supplements for flight phase procedures for optional equipment installed in the airplane. The procedures listed below are required for airplanes modified by the installation of the CenTex Aerospace Halo 275 Commuter category conversion.

PREFLIGHT INSPECTION

CABIN/COCKPIT

Add the following steps while Battery Switch is OFF.

Emergency Lighting Cabin Switch ..... ON
Emerg Cabin Lt Control Switch.....ARM
Emergency Cabin Flood Lamps ..... CHECK (illuminated)

Add the following step when Battery Switch is ON

Emergency Cabin Flood Lamps .....CHECK (not illuminated)

Add the following step after the Battery Switch is turned OFF.

Emergency Lighting Cabin Switch ..... OFF
Emergency Escape Path Markings ..... MUST BE UNCOVERED & VISIBLE

LEFT WING AND NACELLE

Change the following:

Propeller ..... CHECK PROPELLER AND DEICE BOOT CONDITION

RIGHT WING AND NACELLE

Change the following:

Propeller ..... CHECK PROPELLER AND DEICE BOOT CONDITION

BEFORE ENGINE STARTING

Add the following step after airstair door is LOCKED.

Emergency Lighting Cabin Switch ..... ON

Add the following steps after the Battery Switch is ON.

Left Power Lever ..... ADVANCE TO AT LEAST 80% POSITION
Autofeather Switch .....ARM
Elevator Trim Warning System .....TEST
Elevator Trim Control.....SET FOR TAKEOFF
Autofeather Switch ..... OFF
Left and Right Power Levers ..... IDLE
Over-speed Aural Warning .....TEST

REFERENCE ONLY

BEFORE TAKEOFF (RUNUP)

Add the following steps after the Surface Deice System check.

Stall Warning Ice Mode Annunciator ..... ILLUMINATED
Stall Warning ..... TEST
Stall Warning Ice Mode Annunciator ..... PRESS (to select Normal Mode)

NOTE

The stall warning system must be in the Normal Mode during takeoff and initial climb-out. If a takeoff is conducting with the stall warning system in the Ice Mode, a misleading stall warning following lift-off will likely occur.

TAKEOFF

1. Brakes ..... HOLD
2. Power ..... SET (ensure minimum takeoff power is available)
3. < Omitted >
   < Omitted >
   < Omitted >
   < Omitted >
   Left AFX and Right AFX ..... CONFIRM DISPLAYED ON EICAS
4. Brakes ..... RELEASED

NOTE

Increasing airspeed will cause torque and ITT to increase.

5. V_R ..... ROTATE TO APPROX. 8° NOSE UP ATTITUDE
6. Landing Gear (when positive climb established) ..... UP
7. Airspeed ..... MAINTAIN V_2 UNTIL CLEAR OF OBSTACLES
8. Flaps (at V_2 + 5 Knots) ..... UP

CLIMB

Add the following after normal climb checklist.

CLIMB IN ICING CONDITIONS

1. Engine Anti-Ice ..... ON
   < Omitted >
   < Omitted >
   < Omitted >
   L-R ENG ANTI-ICE CAS MESSAGE DISPLAYED
2. Auto Ignition ..... ARM
3. Prop Deice ..... AUTO
4. Stall Warning Heat ..... CONFIRM ON
5. Left and Right Fuel Vent Heat ..... CONFIRM ON
6. Left and Right Pitot Heat ..... CONFIRM ON
7. Windshield Anti-Ice ..... CONFIRM NORMAL OR HI

At first sign of ice accretion on aircraft.

8. Surface Deice Switch ..... SINGLE AND RELEASE (repeat as required)
9. Stall Warning Ice Mode Annunciator ..... ILLUMINATED
10. Climb Power ..... SET MAX CONT POWER (to expedite climb)
11. Airspeed ..... 148 KNOTS MINIMUM AIRSPEED

REFERENCE ONLY

CRUISE

Add the following after normal cruise checklist.

CRUISE IN ICING CONDITIONS

At first sign of ice accretion on aircraft.

1. Airspeed – 148 KNOTS MINIMUM
2. Surface Deice Switch – SINGLE AND RELEASE
3. Stall Warning Ice Mode Annunciator – VERIFY ILLUMINATED

OUTSIDE OF ICING CONDITIONS AND WINGS FREE OF ICE

1. Stall Warning Ice Mode Annunciator – PRESS (to select Normal Mode)
2. Stall Warning Ice Mode Annunciator – EXTINGUISHED

ICING CONDITIONS

Replace the warning statement with the following:

WARNING

Due to distortion of the wing airfoil, ice accumulation on the leading edges can cause a significant loss in rate of climb and in cruise speed, as well as increases in stall speed. Even after cycling deicing boots, the ice accumulation remaining on the boots plus ice accumulations on unprotected areas can cause large performance losses. In order to minimize ice accumulation on unprotected surfaces of the wing, maintain a minimum of 148 knots during operations in sustained icing conditions. In the event of windshield icing, reduce airspeed to 226 knots or below. Prior to a landing approach, cycle the deicing boots to shed any accumulated ice. The stall warning system will sound the aural warning at 15 to 20 knots above the normal warning speed when it is in the ice mode, which is appropriate when there is ice on the wings.

Add the following after Surface Deice.

At first sign of ice accretion on aircraft.

a. Airspeed – 148 KNOTS MINIMUM
b. Surface Deice Switch – SINGLE AND RELEASE
c. Stall Warning Ice Mode Annunciator – VERIFY ILLUMINATED
d. Repeat as required

If Single Position of the Surface Deice Switch Fails:

e. Surface Deice Switch – MANUAL AND HOLD
FOR A MINIMUM OF 6 SECONDS, THEN RELEASE
f. Stall Warning Ice Mode Annunciator – VERIFY ILLUMINATED
g. Repeat as required.

Add the following.

OUTSIDE OF ICING CONDITIONS AND WINGS FREE OF ICE

a. Stall Warning Ice Mode Annunciator – PRESS (to select Normal Mode)
b. Stall Warning Ice Mode Annunciator – EXTINGUISHED

REFERENCE ONLY

BEFORE LANDING

1. Landing Approach Speed ..... CONFIRM V_{REF}
2. Autofeather ..... ARM
3. Pressurization ..... CHECK
4. Cabin Sign ..... NO SMOKE & FSB
5. Flaps ..... APPROACH
6. Landing Gear ..... DN
7. Lights ..... AS REQUIRED

NOTE

Under low visibility conditions, landing and taxi lights should be left off due to light reflections.

8. Radar ..... AS REQUIRED
9. Surface Deice ..... CYCLE AS REQUIRED

If wings are free of ice:

10. Stall Warning Ice Mode Switch ..... PRESS (to select Normal Mode)

If ice remains on wing boots and/or unprotected surfaces:

11. Surface Deice ..... CYCLE
12. Stall Warning Ice Mode Annunciator ..... ILLUMINATED
13. Approach Speed and Landing Distance ..... INCREASE V_{REF} BY 15 KNOTS AND INCREASE EXPECTED LANDING DISTANCE BY 25 PERCENT

In the **NOTE** *replace last sentence with "*Stall speeds can be expected to increase as much as 15 knots if ice is present on the wings and/or horizontal tail surfaces."

NORMAL LANDING

1. Flaps ..... DOWN
2. Airspeed ..... V_{REF} (With ice on wings, V_{REF} + 15)
3. Yaw Damper ..... OFF
4. Power Levers ..... IDLE
5. Prop Levers ..... FULL FORWARD

After Touchdown:

6. Power Levers ..... LIFT AND SELECT GROUND FINE
7. Brakes ..... AS REQUIRED

REFERENCE ONLY

MAXIMUM REVERSE THRUST LANDING

Replace step 2:

2. Airspeed ..... V_{REF} (With ice on wings, V_{REF} + 15)

BALKED LANDING

1. Power ..... MAXIMUM ALLOWABLE
2. Airspeed ..... MAINTAIN V_{REF}

When clear of obstacles or 400 feet AGL, establish a normal climb

3. Flaps (at V_{REF} + 10) ..... APPROACH
4. Landing Gear ..... UP
5. Flaps (at 125 knots) ..... UP

SHUT DOWN AND SECURING

Add the following steps.

16. Emerg Cabin Lt Switch ..... OFF
20. Emergency Cabin Light Power Switch ..... OFF

OTHER PROCEDURES

ICING FLIGHT

Refer to Section 2 Limitations of this Supplement for limitations relating to icing flight. See Section 3A for abnormal procedures associated with icing equipment malfunctions and procedures required for severe icing conditions. See the BEFORE TAKEOFF (RUNUP) and CRUISE checklists in this section for normal ground and in-flight procedures pertaining to flight in icing conditions.

At first sign of ice accretion on aircraft:

a. Airspeed ..... 148 KNOTS MINIMUM
b. Surface Deice Switch ..... SINGLE AND RELEASE
c. Stall Warning Ice Mode Annunciator ..... VERIFY ILLUMINATED
d. Repeat as required

TAKEOFF TRIM WARNING TEST

A warning system has been added that provides a constant tone aural alert in the cockpit when the elevator trim tab is not set within the acceptable range for takeoff and engine power is increased above approximately 80% N_1. The system should be tested for proper operation before the first flight of each day while conducting the BEFORE ENGINE STARTING procedure. To perform this test the trim warning system must first be activated by placing the Autofeather switch to ARM. Then the left power lever must be advanced past the 80% N_1 position. The system should now be tested by adjusting the elevator trim tab to a position outside of the takeoff range marked on the tab position indicator in both the nose up and the nose down directions. The aural alert should sound just as the tab position indicator moves outside of the takeoff range. The aural alert should be silent when the tab position is inside of the takeoff range.

When the power levers are advanced to initiate a takeoff and the aural alert sounds, immediately reduce power to idle and abort the takeoff. Do not takeoff when the elevator trim tab position is not set within the takeoff range.

REFERENCE ONLY

< Omitted >
< Omitted >
< Omitted >
< Omitted >
< Omitted >
< Omitted >
< Omitted >

STALL WARNING SYSTEM OPERATION

An ICE MODE feature has been added to the stall warning system. The ice mode is automatically activated when the Surface Deice system is selected by the pilot. Illumination of the STALL WARNING ICE MODE annunciator indicates the stall warning system is operating in the ice mode. After exiting icing conditions and when the aircraft is free of ice, transfer the stall warning system to the normal mode by pressing and releasing the STALL WARNING ICE MODE annunciator.

CABIN EMERGENCY LIGHTING SYSTEM OPERATION

An emergency lighting system has been added to provide supplemental lighting in the passenger cabin around the emergency exit door and cabin door. Two switches – a cabin switch located in the ceiling and a control switch located in the copilot instrument panel – control operation of the system.

When entering the cabin during the preflight inspection the charge level of the emergency lighting system battery pack should be verified. To do this, place the cabin switch to ON with the aircraft battery switch OFF. The emergency cabin flood lamps should illuminate. If the lamps do not illuminate, the emergency lighting system batteries have been discharged or there is a malfunction in the system. Discharged batteries must be removed and recharged or replaced. The *Halo 250 Commuter Category Conversion Instructions for Continued Airworthiness* (also applicable to airplanes with the Halo 275 conversion) describes the proper procedures for removing and recharging or replacing the cabin emergency lighting system batteries.

Before taxiing, place the cabin switch to ON and the control switch to ARMED. This is the switch configuration for normal taxiing and flight operations.

When shutting down and exiting the airplane, place both the control switch and the cabin switch to OFF.

It is acceptable to utilize the flood lamps to illuminate the cabin whenever needed, such as for boarding or to charge the photoluminescent escape path markings. Limit the time the flood lamps are being powered by the emergency lighting system battery to no more than 20 minutes to ensure the battery will have remaining capacity in case of an emergency.

REFERENCE ONLY

CHARGING EMERGENCY ESCAPE PATH MARKINGS

Photoluminescent markings have been installed on the cabin floor outlining the aisle and the paths to the emergency exit door and cabin door. The markings must be charged during preflight operations by illuminating the cabin with either or a combination of sunlight through the cabin windows, the cabin lights, or the emergency cabin flood lamps when any part of that flight will be conducted in darkness. The table below lists the minimum charging time to ensure the markings will perform as intended throughout the respective flight.

Required Charging of Emergency Escape Path Markings

Charging Time	Duration of Acceptable Luminance
5 minutes	1.5 hours
10 minutes	2.5 hours
20 minutes	4 hours
30 minutes	5 hours

OVERWEIGHT LANDING

An overweight landing is defined as any landing made when the airplane gross weight is greater than 13,500 pounds, which is the maximum landing weight limitation. If it becomes necessary to land the airplane at a gross weight above 13,500 pounds the pilot should request that an inspection in accordance with the King Air 200 Series Maintenance Manual Section 5-50-00 Inspection After Hard Landing be performed before the next flight. Note that components in the standard landing gear have less overall strength margin than the corresponding components in the high flotation landing gear. Also, an overweight landing where the touchdown sink rate is nominal will not result in damage to the landing gear or airframe structure.

NOISE CHARACTERISTICS

The takeoff noise level of the King Air B200GT and B200CGT with the Halo 275 conversion established in compliance with 14 CFR Part 36, Appendix G and ICAO Annex 16, Chapter 10 is 85.3 dB(A). The limit is 88.0 dB(A).

No determination has been made by the Federal Aviation Administration that the noise level of this airplane is, or should be, acceptable or unacceptable for operation at, into, or out of any airport.

REFERENCE ONLY

OPERATIONS AT AIRPORTS ABOVE 10,000 FEET PRESSURE ALTITUDE

BEFORE ENGINE STARTING

Prior to turning battery on:

Oxygen Controls ..... DO NOT PULL ON

WARNING

With the Oxygen Controls not pulled on, crew oxygen and automatic deployment of the passenger oxygen masks is not available.

After turning battery on:

< Omitted >

< Omitted >

Cabin Alt High CAS MESSAGE DISPLAYED (above approximately 12,000 feet)

BEFORE TAKEOFF (FINAL ITEMS)

Envir Bleed Air ..... LOW

CLIMB

1. Envir Bleed Air ..... AUTO
2. Cabin Controller ..... SET AT PLANNED CRUISE ALTITUDE PLUS 500 FEET (if desired)
3. Pressurization ..... CHECK
4. Oxygen Controls (after cabin altitude descends through 11,000 feet) ..... PULL ON SYSTEM READY

DESCENT

When landing at field elevations above 11,000 feet pressure altitude:

1. Oxygen Controls (prior to cabin altitude climbing through 11,000 feet) ..... PUSH OFF
2. Envir Bleed Air ..... LOW
3. < Omitted >

   < Omitted >

   < Omitted >

Cabin Alt High CAS MESSAGE DISPLAYED (above approximately 12,000 feet)

WARNING

With the Oxygen Controls not pulled on, crew oxygen and automatic deployment of the passenger oxygen masks is not available.

REFERENCE ONLY

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PERFORMANCE
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REFERENCE ONLY

INTRODUCTION TO COMMUTER CATEGORY PERFORMANCE AND FLIGHT PLANNING

REGULATORY COMPLIANCE

Information in this section is provided for the purpose of maintaining compliance with the applicable certification requirements of 14 CFR Part 23, which imposes specific performance based limitations. The airplane will not meet these performance limitations under all atmospheric conditions for which it is approved at the maximum takeoff weight of 14,000 pounds and at the maximum landing weight of 13,500 pounds. Therefore, the operating weight must be reduced under some atmospheric conditions. The maximum operating weights are limited by the following performance data and compliance therewith is mandatory.

For all 14 CFR Part 91 and Part 135 operations:

1. Maximum Allowed Takeoff Weight (to meet takeoff climb requirements and to not exceed brake energy rating)
2. Maximum Tire Speed During Takeoff (to not exceed maximum tire speed rating)
3. Takeoff Field Length
4. Maximum Allowed Landing Weight (to meet landing climb requirements)
5. Landing Distance

For 14 CFR Part 135 operations only:

6. Service Ceiling – One Engine Inoperative

FLIGHT TEST PERFORMANCE CONDITIONS

All performance data presented in this section is based on FAA-approved performance data taken from the King Air B200GT series Airplane Flight Manual (POH) and applicable AFM Supplements, and verified by FAA flight testing.

1. Power ratings include the installation, bleed air, and accessory losses.
2. Full temperature accountability within the operational limits for which the airplane is certified.

   NOTE

   Should ambient air temperature or altitude be below the lowest temperature or altitude shown on the performance charts, use the performance at the lowest value shown.

3. All takeoff and landing performance is based on paved, dry runway.
4. Runway or takeoff and landing performance was obtained using the following procedures and conditions:

REFERENCE ONLY

ONE ENGINE INOPERATIVE TAKEOFF (ACCELERATE-GO)

- Static takeoff power was set.
- The critical engine was shutdown with the condition lever just prior to V_1. The Autofeather system was allowed to feather the inoperative engine propeller.
- The acceleration was continued to V_R and the airplane was rotated to an attitude of approximately 8° nose up.
- The landing gear was retracted when a positive rate of climb was established.
- V_2 was attained by 35 feet AGL and maintained until 400 feet AGL.

REJECTED TAKEOFF (ACCELERATE STOP)

- Static takeoff power was set.
- The critical engine was shut down with the condition lever just prior to V_1.
- Both power levers were rapidly moved to the idle position in one continuous motion at V_1.
- Maximum braking was immediately initiated and maintained until the airplane came to a complete stop.

ALL ENGINES TAKEOFF

- Static takeoff power was set.
- The airplane was accelerated to V_R and the airplane was rotated to an attitude of approximately 8° nose up.
- The landing gear was retracted when a positive rate of climb was established.
- V_2 was attained by 35 feet AGL and maintained until 400 feet AGL.

LANDING

- Power was set to maintain a 3° approach angle with the airspeed stabilized at V_{REF}.
- Both power levers were moved to the idle position when the airplane reached 50 feet AGL.
- Maximum braking was immediately initiated and maintained until the airplane came to a complete stop.

REFERENCE ONLY

PERFORMANCE CONFIGURATIONS

	No. of Oper-ating Engines	Power	Flap Setting	Landing Gear
1st Segment Takeoff Climb	1	Takeoff	Up or Approach	Down
2nd Segment Takeoff Climb	1	Takeoff	Up or Approach	Up
Horizontal Acceleration	1	Takeoff	Up	Up
Enroute Climb	1	Max Continuous	Up	Up
Approach Climb	1	Max Continuous	Approach	Up
Balked Landing Climb	2	Takeoff	Landing	Down

REFERENCE ONLY

FLIGHT PLANNING

Flight planning is an essential part of operating this airplane. Proper flight planning ensures that the pilot is complying with the applicable 14 CFR Part 23 regulatory requirements, which are intended to increase the level of safety. The regulations applicable to Commuter category airplanes impose performance minimums that must be met in order for the airplane to takeoff and land using a specified departure and destination runway. These additional performance minimums make sure, in the event there is an engine failure during takeoff, the airplane can be stopped on the available runway or the airplane's climb performance is adequate to clear obstacles within the takeoff flight path. It is the pilot's responsibility to do the proper flight planning and thereby make certain the airplane's performance will meet the required minimums under the actual conditions. When the actual conditions are such that the performance minimums cannot be met, the pilot must elect to lower the gross weight of the airplane, select a longer runway, or wait until outside air temperatures cool sufficiently so the performance minimums will be met.

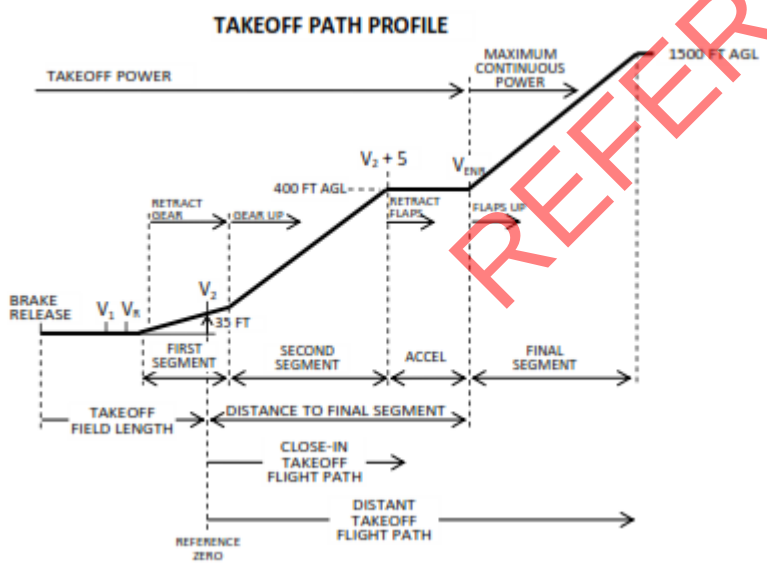
Furthermore, the takeoff flight path profile that the pilot must fly is defined in this section. The subsequent paragraph TAKEOFF PATH PROFILE shows and explains the new takeoff flight path profile, which is typical for commuter and transport category airplanes. The profile has multiple segments where the takeoff speeds and airplane configurations are applicable from the beginning of the takeoff run until the airplane reaches 1,500 feet above ground level.

The performance data in this section are presented in a familiar format, similar to the Beechcraft performance charts, tables, and graphs in the basic AFM/POH. However, the tabular presentations of takeoff field lengths and of maximum allowed takeoff and landing weight to meet minimum climb requirements are new to the operators and pilots of the King Air 200 series airplanes. These tables should prove to be straightforward and easy to use. It is noted interpolation of the tabulated data can be utilized when needed.

The following example shows how to properly plan for a typical flight. The departure airport and destination airport conditions were selected for the following example so that there is similarity with the flight planning example found in the BLR AFMS-B250-3 AFM Supplement and Beechcraft King Air B200(C)GT AFM/POH. Please note the airport, weather, and route information presented in this example are not to be considered accurate or reliable and should not be used for any actual flight plan. It is presented here only as an example of how to properly plan a flight and how to correctly utilize the performance data in this section.

TAKEOFF PATH PROFILE

For the King Air B200GT series airplanes with the Halo 275 Commuter category conversion, the takeoff path is defined as shown below. The performance data presented in this section provide the parameters that are needed to construct such a takeoff path for a given departure runway and location. The variable the pilot must consider and restrict, if necessary, is the takeoff weight. This is required to ensure the takeoff path of the airplane will not require more runway than is available and will clear all obstacles.



REFERENCE ONLY

MAXIMUM ALLOWED TAKEOFF WEIGHT

The maximum takeoff weight limit from Section 2 Limitations is 14,000 pounds. However, the maximum allowed takeoff weight may be less than the maximum takeoff weight limit depending on the available runway length and an obstacle in the takeoff path, the engine inoperative climb performance of the airplane, the braking energy that would be needed to abort a takeoff at decision speed (V_1), and the tire speed rating. Below is a list of the performance data tables and charts contained in the section that establish the maximum allowed takeoff weight.

- MAXIMUM ALLOWED TAKEOFF WEIGHT – FLAPS UP / APPROACH TO MEET FIRST, SECOND AND FINAL SEGMENT CLIMB REQUIREMENTS
- MAXIMUM ALLOWED TAKEOFF WEIGHT LIMITED BY BRAKE ENERGY – FLAPS UP/APPROACH
- MAXIMUM TIRE SPEED DURING TAKEOFF– FLAPS UP/APPROACH
- SERVICE CEILING – ONE ENGINE INOPERATIVE (14 CFR PART 135 OPERATIONS)
- TAKEOFF SPEEDS & FIELD LENGTHS – FLAPS UP/APPROACH

MAXIMUM ALLOWED LANDING WEIGHT

The maximum landing weight limit from Section 2 Limitations is 13,500 pounds. However, the maximum allowed landing weight may be less if a reduction in weight is required so that the engine inoperative climb performance during a discontinued/missed approach meets the minimum requirement. The following chart(s) should be used to determine the maximum allowed landing weight:

- MAXIMUM ALLOWED LANDING WEIGHT - TO ACHIEVE LANDING CLIMB REQUIREMENTS
- MAXIMUM ALLOWED LANDING WEIGHT - TO ACHIEVE LANDING CLIMB REQUIREMENT WITH ICE ACCUMULATIONS PRESENT
- LANDING DISTANCE (WITHOUT/WITH) PROPELLER REVERSE
- CLIMB -BALKED LANDING (Note-requirement met at all weights)

PERFORMANCE EXAMPLE

CONDITIONS

At Departure:

Outside Air Temperature ..... 28°C
Field Elevation ..... 5,333 feet
Altimeter Setting ..... 29.82 Inches Hg
Wind ..... 330° at 10 knots
Runway 35 length ..... 11,500 feet
Runway 35 gradient ..... 0.4% Down
Pressure Altitude .....5,333 ft + (29.92-29.82) x 1,000 ft = 5,433 feet
Airplane is equipped with Beechcraft High Flotation landing gear.

REFERENCE ONLY

Route Segment	Course	Dist. NM	Wind, Temp. at FL 260	Temp. FL 180
LEG A	265° M 252° T	143	350°/40ks, -10°C	-6°C
LEG B	321° M 255° T	192	350°/40ks, -10°C	-6°C
LEG C	270° M 233° T	81	340°/35ks, -20°C	0°C
LEG D	250° M 234° T	145	340°/35ks, -20°C	0°C
LEG E	227° M 210° T	146	290°/45ks, -20°C	-4°C

At Destination:
Outside Air Temperature ..... 32°C
Field Elevation..... 4,412 feet
Altimeter Setting..... 29.60 Inches Hg
Wind ..... 270° at 5 knots
Runway 25 length ..... 6,101 feet
Pressure Altitude .....4,412 ft + (29.92-29.60) x 1,000 ft = 4,732 feet

MAXIMUM ALLOWED TAKEOFF WEIGHT TABLES

TO MEET FIRST, SECOND AND FINAL SEGMENT CLIMB REQUIREMENTS

The maximum allowed takeoff weight must be established for the takeoff configuration (i.e, flaps up or flaps approach) and the departure conditions (i.e., pressure altitude and outside air temperature). These two tables list the maximum allowed takeoff weight for the corresponding configuration at which the airplane will meet the first, second, and final segment climb requirements.

An interpolation of the appropriate values from the table for flaps up finds the maximum allowed takeoff weight to be 13,949 pounds.

NOTE: Similarly, the maximum allowed landing weight should be established for the arrival conditions during preflight planning. The landing weight (i.e., takeoff weight minus the fuel consumed enroute to the destination) must not be greater than the maximum allowed landing weight.

MAXIMUM ALLOWED TAKEOFF WEIGHT LIMITED BY BRAKE ENERGY CHART

Determine with the applicable chart whether a reduction in takeoff weight is necessary to not exceed the brake energy rating during a rejected/aborted takeoff run. For this example, no reduction in takeoff weight is required.

REFERENCE ONLY

MAXIMUM TIRE SPEED DURING TAKEOFF CHARTS

Determine with the applcable chart whether the takeoff conditions will cause the tire speed rating(s) to be exceeded. The lowest tire speed rating approved for airplanes with this conversion is 160 MPH. Do not attempt a takeoff if the tire speed rating will be exceeded. Change runway to reduce a tail wind or increase a headwind component, or wait until conditions are acceptable. Also, tires with a speed rating of 170 MPH or greater can be installed. For this example, the maximum tire speed will be less than 160 mph.

SERVICE CEILING – ONE ENGINE INOPERATIVE CHART

This chart establishes the maximum weight at which the airplane will climb at least 50 feet per minute with one engine inoperative and the associated propeller feathered. It also serves to provide the altitudes necessary to comply with 14 CFR Part 135.181 performance requirements for Part 135 operations.

A check of the example shown on the Service Ceiling – One Engine Inoperative chart shows for an outside temperature of -6°C, the service ceiling is 19,300 feet pressure altitude at a gross weight of 13,000 pounds.

Note, to determine the maximum takeoff weight that results in a service ceiling equal to the highest Maximum Enroute Altitude (MEA), add the weight of the fuel used to reach a MEA to the weight from this chart that provides the required service ceiling.

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS TABLES

There are two sets of takeoff speeds and field length tables - one set for flaps up and the other set for flaps approach. The pilot can choose either of these two flap settings for takeoff, but the corresponding maximum allowed takeoff weight, accelerate stop distance, and net gradient of climb data must be applied. Takeoff speeds are the takeoff decision speed (V_1), rotation speed (V_R), safety speed (V_2), and final segment climb speed (V_{ENR}) that apply to the takeoff condition. The field lengths presented in these charts allow the airplane to be stopped within the distance shown when an engine fails at a speed below V_1 and the pilot immediately aborts the takeoff with maximum braking. Also, the field lengths are sufficient to allow a takeoff to be continued and to reach a height of 35 feet above the point of liftoff within the distance shown when an engine failure occurs at or just below V_1, the airplane is rotated at V_R, and V_2 is obtained and maintained before or upon reaching the 35 feet height. Please note a takeoff with flaps set to approach is only advantageous at heavy gross weights when there is a relatively short runway with minimal obstacles in the second segment of the takeoff path.

A preliminary look at the takeoff field length required for a flaps-up takeoff at the performance example departure conditions and at a gross weight of 13,949 pounds shows the required field length to be between 8768 feet and 11,547 feet. As you can see, interpolation is required to determine whether the takeoff field length is greater than the available runway. When determining takeoff field length, it is acceptable to use a higher weight and pressure altitude to reduce the interpolation effort. This will result in a conservatively longer takeoff field length than is actually required by the conditons. Below is an example of how to interpolate takeoff field length for temperatures that are in-between values shown in the table.

<u>For Flaps Up</u>: TOW of 14,000 lbs,
Pressure Altitude 6,000 ft, OAT of 25°C & 35°C; TFL is 8768 ft & 11,547 ft.
Interpolate to find TFL at Pressure Altitude of 6,000 ft and OAT of 28°C;
For 6,000 ft PA, OAT 28°C, TFL = 8768 + (11,547-8768) x 3/10 = 9602 feet,
Takeoff speeds, V_1, V_r, V_2, and V_{ENR}, are 106, 106, 116, and 116 knots.

TAKEOFF FIELD LENGTH CORRECTION CHARTS

Use these charts to correct the takeoff field length for runway slope/gradient and for headwind and tail wind components. When the runway surface is not flat, the takeoff field length should be corrected to account for the effect of a sloping takeoff surface. A downward slope will aid in accelerating the airplane and thus reduces the field length. However, if the accelerate-stop distance is

REFERENCE ONLY

the deciding field length, a downward slope will result in a longer field length. This effect can be seen for field lengths less than approximately 5,000 feet.The uncorrected TFL distance of 9602 feet can now be corrected for the runway 35 downward gradient of 0.4% and effect of wind (330° at 10 knots) using this chart. For determining headwind or tail wind component see the WIND COMPONENTS graph in the basic AFM/POH. The example on the chart shows the corrected TFL to be 8,670 feet, which is less than the available length of runway 35 at the departure airport.

CLEARWAYS

If the runway to be used for takeoff has a clearway, up to 20% of the field length required for takeoff can be over the clearway. Check the runway declared distance information, which is published in the Airport/Facility Directory, to determine whether the runway has a clearway. This information will include the following lengths if a clearway exists:

- TORA (takeoff run available)
- TODA (takeoff distance available)
- ASDA (accelerate-stop distance available)

Note - The length of a clearway is TODA minus TORA.

To utilize a clearway all of the following conditions must be met:

1. The TORA must be at least 80% of the required takeoff field length.
2. The TODA must be at least equal to the required takeoff field length.
3. The ASDA must be equal to or greater than the required accelerate-stop distance (see the ACCELERATE-STOP DISTANCE chart in this section).

CLOSE IN and DISTANT TAKEOFF FLIGHT PATH CHARTS

The Close-In Takeoff Flight Path and Distant Takeoff Flight Path charts are used to determine the minimum climb gradient required from the zero reference point in the takeoff path to clear any obstacles in the takeoff path. To demonstrate how to use the charts assume there is a 175 feet high ridge located 7170 feet from the end of departure runway 35 in the performance example.

The corrected takeoff field length from the example is 8,670 feet. Since the departure runway is 11,500 feet long, from reference zero to the end of the runway is 2,830 feet. This distance is added to 7170 feet to place the 175 feet high ridge 10,000 feet from reference zero. A check of the Close-In Takeoff Flight Path chart example shows the minimum climb gradient must be 1.4%.

Next, check the Net Gradient of Climb chart to see whether the climb gradient produced by the airplane will meet the minimum climb gradient. The example on this chart shows the airplane will deliver a climb gradient of 1.4%, which will allow the airplane to just clear the ridge.

REFERENCE ONLY

Note, when a takeoff is made with flaps set to approach there is a period upon reaching 400 feet AGL where the pilot momentarily levels off and accelerates to V_2 + 5, and then retracts the flaps before climbing again at V_{ENR}. The airplane travels approximately 3,000 feet horizontally during this period. This 3,000 feet should be subtracted from the distance to the obstacle when determining the minimum climb gradient. The reduction in the distance to the obstacle is a means to account for the distance the aircraft travels while it is accelerating and not climbing.

MAXIMUM ALLOWED LANDING WEIGHT TABLES

The maximum landing weight limitation from Section 2 Limitations is 13,500 pounds. However, the maximum allowed landing weight may be less than the maximum landing weight limit depending on the airplane's climb performance. In the event of a discontinued approach with one engine inoperative the climb gradient must not be less than 2.1%. Following the data in the maximum allowed landing weight table ensures the airplane will be at a weight allowing the climb requirements to be met.

The fuel required to reach the destination should be subtracted from the takeoff weight to determine the predicted landing weight. If the predicted landing weight is greater than the maximum allowed landing weight, then the takeoff weight must be reduced so that the maximum allowed landing weight is not exceeded at the destination. A check of the example shown on the MAXIMUM ALLOWED LANDING WEIGHT table, which corresponds to the example trip, shows the maximum allowed landing weight to be 12,856 pounds. The following charts contained in this section are provided to aid in determining the fuel required to reach the destination. See the BLR AFMS-B250-3 AFM Supplement for more detailed information regarding cruise performance and the associated fuel consumption.

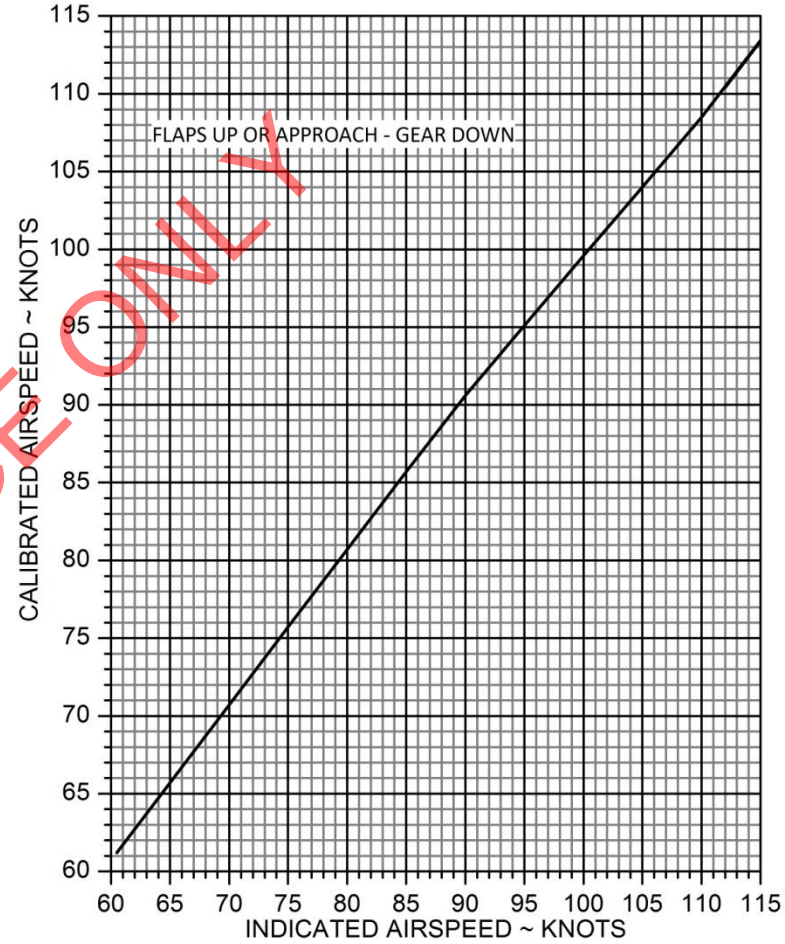
- TIME, FUEL, AND DISTANCE TO CLIMB
- MAXIMUM CRUISE POWER 1800 RPM (ISA and ISA+20°C tables)
- MAXIMUM CRUISE POWER 1700 RPM (ISA and ISA+20°C tables)
- MAXIMUM RANGE POWER 1700 RPM (ISA and ISA+20°C tables)
- TIME, FUEL, AND DISTANCE TO DESCEND

Note when icing is expected during the landing approach, the MAXIMUM ALLOWED LANDING WEIGHT - TO ACHIEVE LANDING CLIMB REQUIREMENTS WITH ICE ACCUMULATIONS PRESENT table must be used to determine the maximum allowed landing weight. The data presented in this table takes into account the increased drag and loss of propeller efficiency caused by ice accumulations on the airplane.

REFERENCE ONLY

AIRSPEED CALIBRATION - NORMAL SYSTEM

TAKE-OFF GROUND ROLL



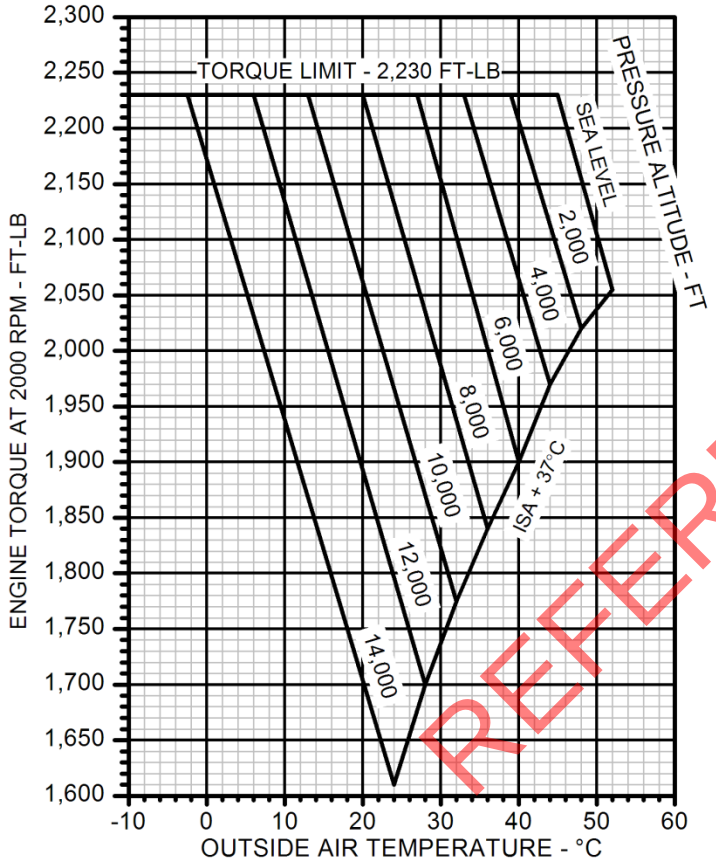
REFERENCE ONLY

MINIMUM TAKE-OFF POWER AT 2000 RPM

WITH ICE VANES RETRACTED
(65 KNOTS)

NOTES

1. Torque increases approximately 30 Ft-LB from zero to 65 knots.
2. The power (Torque) indicated is the minimum value at 65 knots for which takeoff performance in this section can be obtained. Torque will continue to increase above 65 knots.



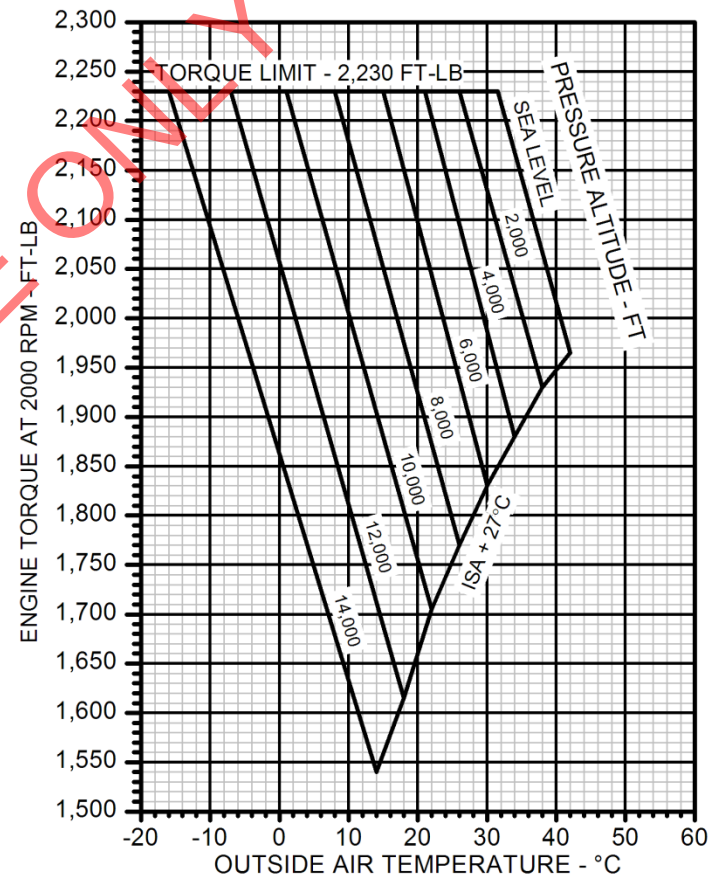
REFERENCE ONLY

MINIMUM TAKE-OFF POWER AT 2000 RPM

WITH ICE VANES EXTENDED
(65 KNOTS)

NOTES

1. Torque increases approximately 20 Ft-LB from zero to 65 knots.
2. The power (Torque) indicated is the minimum value at 65 knots for which takeoff performance in this section can be obtained. Torque will continue to increase above 65 knots.
3. Takeoff with vanes extended is prohibited above ISA+27°C.



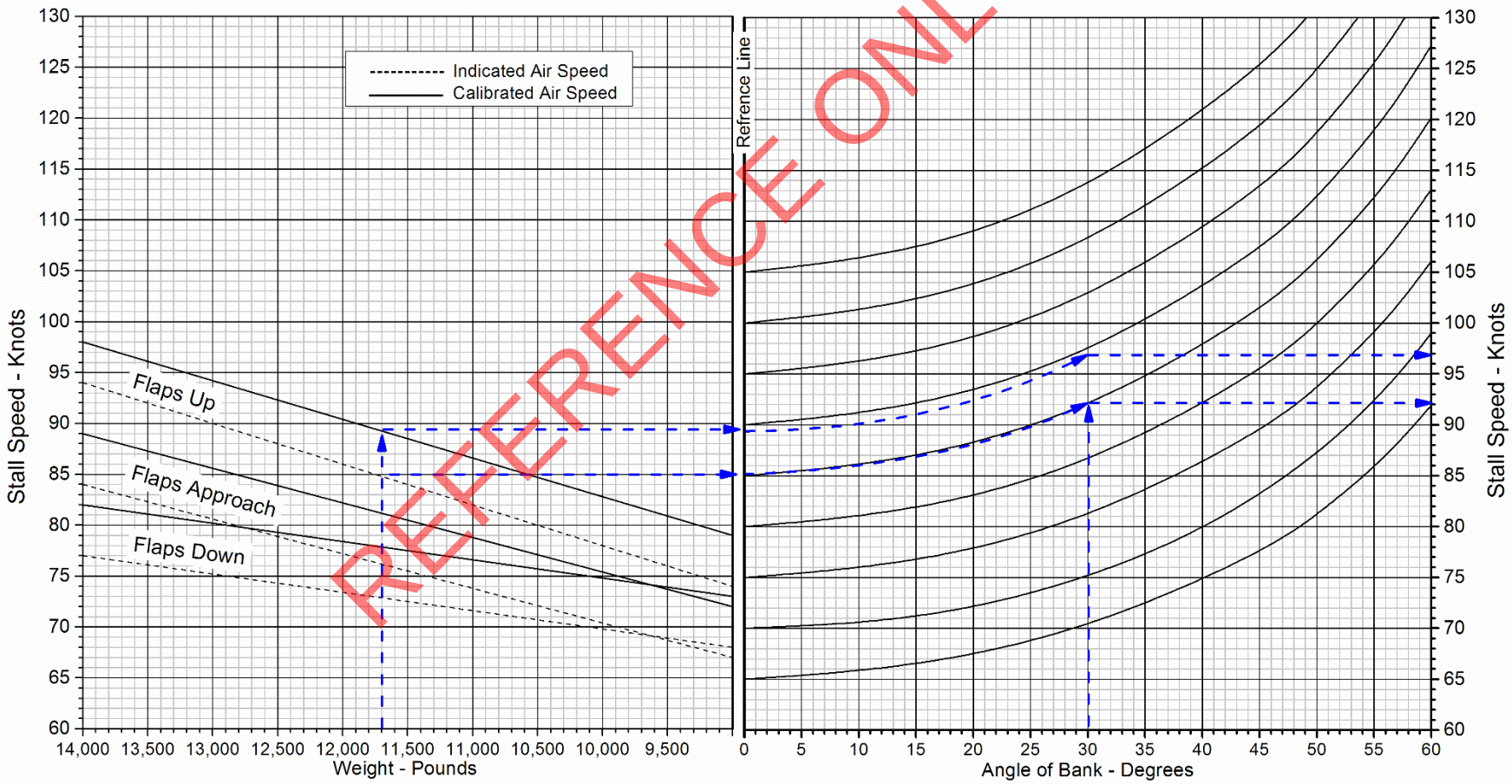
REFERENCE ONLY

Stall Speeds - Zero Thrust

Notes:

1. Maximum altitude loss during normal stall recovery is approximately 800 feet.
2. Maximum nose down pitch attitude and altitude loss durring recovery from one engine inoperative stalls per FAR 23.205 are approximately 8 degrees and 300 feet respectively.
3. The pilot should respond to a stall warning by pitching the aircraft nose down until the stall warning ceases, leveling the wings to orient lift vector for recovery, and adding power to assist in the recovery. Level the airplane after the stall warning has ceased and airspeed has increased at least 25 knots.
4. For operations with ice accumulations present, stall speeds may increase 15 knots.

Example
Weight..... 11,700 pounds
Flaps ..... Up
Angle of Bank..... 30 degrees
Stall Speed ..... 97 Knots CAS
92 Knots IAS



REFERENCE ONLY

MAXIMUM ALLOWED TAKEOFF WEIGHT – FLAPS UP

TO MEET FIRST, SECOND, AND FINAL SEGMENT CLIMB REQUIREMENTS

NOTES:

1. Airplanes with High Flotation landing gear
2. The gross weight of the airplane at takeoff must not exceed the Maximum Allowed Takeoff Weight at the corresponding pressure altitude and temperature shown in this table. This ensures compliance to the regulatory requirement for a minimum climb gradient in the event of an engine failure. For temperatures of -24°C, and below, up to 14,000 feet, the Maximum Allowed Takeoff Weight is 14,000 ponds.
3. For operations with ice vanes extended, add 6°C to the actual Outside Air Temperature and use this adjusted temperature in the table.
4. Blue background indicates under the respective conditions the Maximum Allowed Takeoff Weight is less than 14,000 pounds.

Pressure Altitude -Feet-	Outside Air Temperature Maximum Allowed Takeoff Weight - Pounds																
14,000	**-24°C** 14,000	**-20°C** 13,890	**-15°C** 13,748	**-10°C** 13,603	**-5°C** 13,455	**0°C** 13,221	**5°C** 12,650	**10°C** 12,045	**15°C** 11,408	**20°C** 10,744	24°C 10,205						
13,000	14,000	14,000	13,956	13,816	13,672	13,531	13,222	12,639	12,017	11,362	**25°C** 10,686	26°C 10,551					
12,000	14,000	14,000	14,000	14,000	13,888	13,750	13,606	13,211	12,613	11,979	11,303	28°C 10,886					
11,000	14,000	14,000	14,000	14,000	14,000	13,957	13,818	13,639	13,123	12,542	11,922	**30°C** 11,263					
10,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,886	13,597	13,060	12,495	11,891	32°C 11,641				
9,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,945	13,544	12,997	12,420	34°C 11,928				
8,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,490	12,924	**35°C** 12,337	36°C 12,210			
7,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,904	13,378	12,810	38°C 12,456			
6,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,802	13,265	**40°C** 12,690			
5,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,688	13,153	42°C 12,932		
4,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,584	44°C 13,054		
3,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,995	**45°C** 13,478	46°C 13,371	
2,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,889	48°C 13,571	
1,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	**50°C** 13,726	
Sea Level	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	52°C 13,883

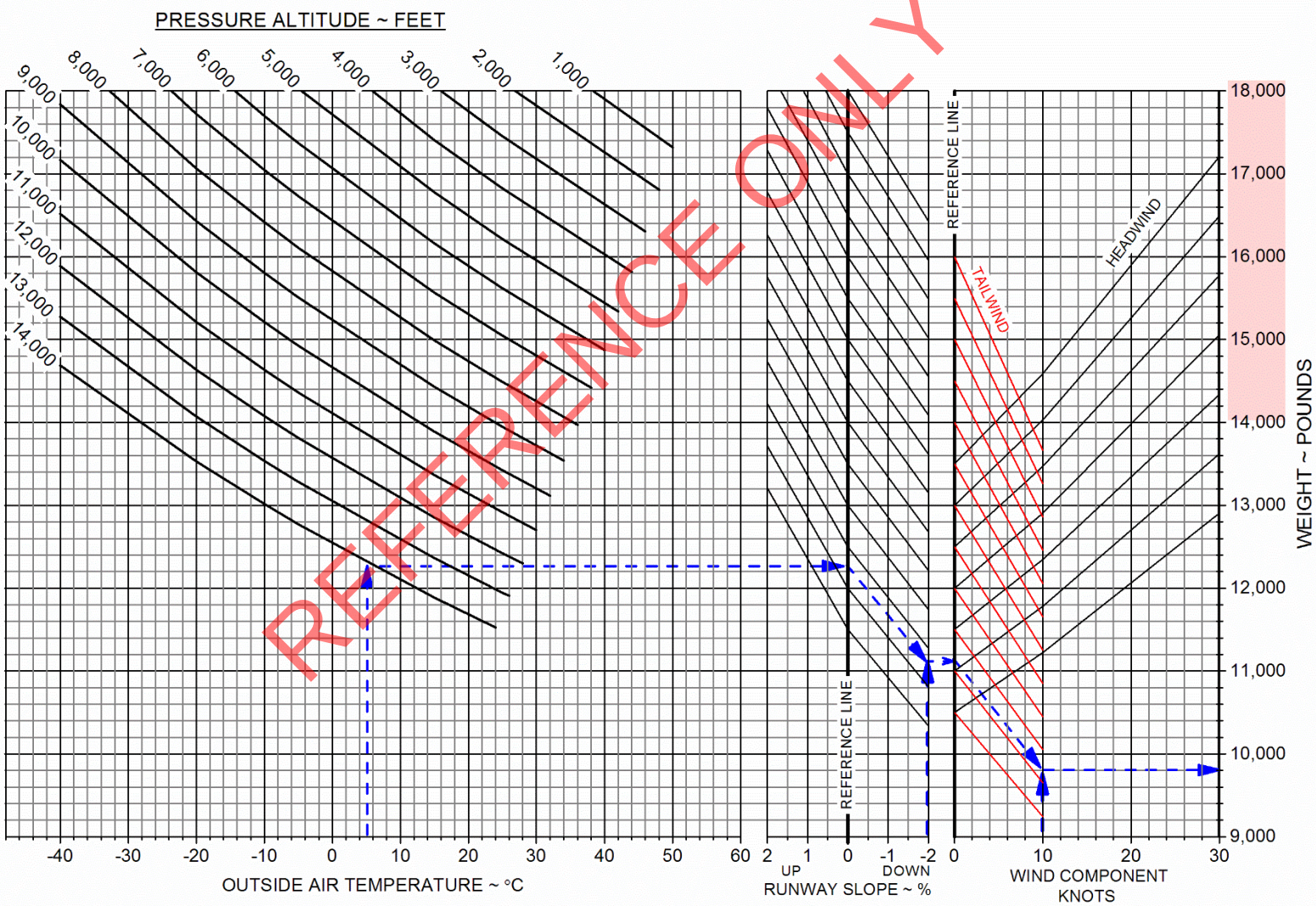
REFERENCE ONLY

MAXIMUM ALLOWED TAKEOFF WEIGHT - FLAPS UP

LIMITED BY BRAKE ENERGY

Example
Outside Air Temperature ..... 5°C
Pressure Altitude ..... 14,000 Feet
Runway Slope ..... 2% Down
Tailwind Component ..... 10 Knots
Maximum Takeoff Weight
Limited By Brake Energy ..... 9,800 Lbs

NOTE: Red shading identifies the Maximum Takeoff Weight structural limitation is exceeded.



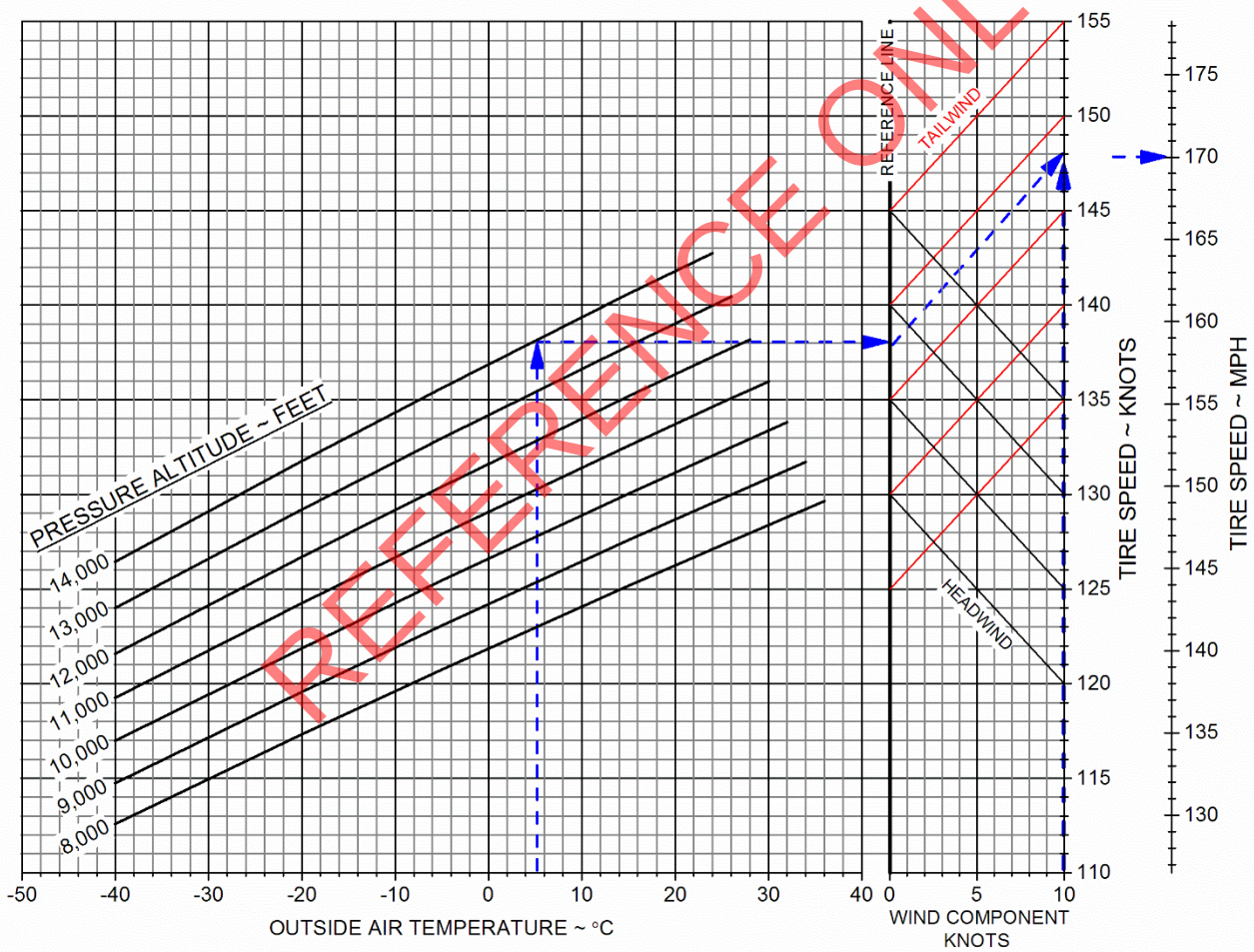
REFERENCE ONLY

MAXIMUM TIRE SPEED DURING TAKEOFF - FLAPS UP

Associated Conditions:
- Pitch rotation occurs at V_R.

Notes:
- The lowest tire speed rating approved for airplanes with this coversion is 160 mph.
- Do not takeoff if the tire speed rating will be exceeded for any tire installed on airplane.

Example
Outside Air Temperature..... 5°C
Pressure Altitude..... 14,000 Feet
Tailwind Component..... 10 Knots
Tire Speed ..... 148 Knots
(170 MPH)



REFERENCE ONLY

MAXIMUM ALLOWED TAKEOFF WEIGHT – FLAPS APPROACH

TO MEET FIRST, SECOND, AND FINAL SEGMENT CLIMB REQUIREMENTS

NOTES

1. Airplanes with High Flotation landing gear.
2. The gross weight of the airplane at takeoff must not exceed the Maximum Allowed Takeoff Weight at the corresponding pressure altitude and temperature shown in this table. This ensures compliance to the regulatory requirement for a minimum climb gradient in the event of an engine failure.
3. For operations with ice vanes extended, add 6°C to the actual Outside Air Temperature and use this adjusted temperature in the table.
4. Blue background indicates under the respective conditions the Maximum Allowed Takeoff Weight is less than 14,000 pounds.

Pressure Altitude -Feet-	Outside Air Temperature Maximum Allowed Takeoff Weight - Pounds																
14,000	**-40°C** 12,879	**-30°C** 12,623	**-20°C** 12,369	**-10°C** 12,129	**-5°C** 12,002	**0°C** 11,609	**5°C** 11,002	**10°C** 10,416	**15°C** 9,752	**20°C** 9,500							
13,000	13,104	12,862	12,607	12,361	12,240	12,080	11,610	11,003	10,425	9,767	**25°C** 9,500						
12,000	13,329	13,095	12,852	12,597	12,469	12,352	12,157	11,611	11,021	10,442	9,789	28°C 9,500					
11,000	13,554	13,312	13,078	12,842	12,714	12,586	12,467	12,156	11,610	11,020	10,440	**30°C** 9,788					
10,000	13,779	13,516	13,302	13,075	12,951	12,831	12,712	12,584	12,154	11,617	11,018	10,439	32°C 10,190				
9,000	14,000	13,718	13,506	13,286	13,178	13,064	12,948	12,829	12,626	12,152	11,605	11,006	34°C 10,548				
8,000	14,000	13,905	13,701	13,495	13,385	13,280	13,169	13,061	12,944	12,662	12,148	11,602	**35°C** 10,993	36°C 10,885			
7,000	14,000	14,000	13,879	13,680	13,578	13,474	13,371	13,263	13,157	13,049	12,601	12,094	11,552	38°C 11,196			
6,000	14,000	14,000	14,000	13,860	13,762	13,661	13,558	13,454	13,359	13,255	13,072	12,559	12,054	**40°C** 11,511			
5,000	14,000	14,000	14,000	14,000	13,934	13,841	13,743	13,648	13,544	13,449	13,345	13,058	12,515	11,987	42°C 11,764		
4,000	14,000	14,000	14,000	14,000	14,000	14,000	13,920	13,829	13,736	13,642	13,539	13,444	13,007	12,447	44°C 11,892		
3,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,987	13,898	13,806	13,714	13,620	13,403	12,890	**45°C** 12,354	46°C 12,251	
2,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,966	13,876	13,785	13,692	13,298	12,796	48°C 12,485	
1,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,944	13,855	13,693	13,210	**50°C** 12,693	
Sea Level	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	14,000	13,926	13,608	13,105	52°C 12,891

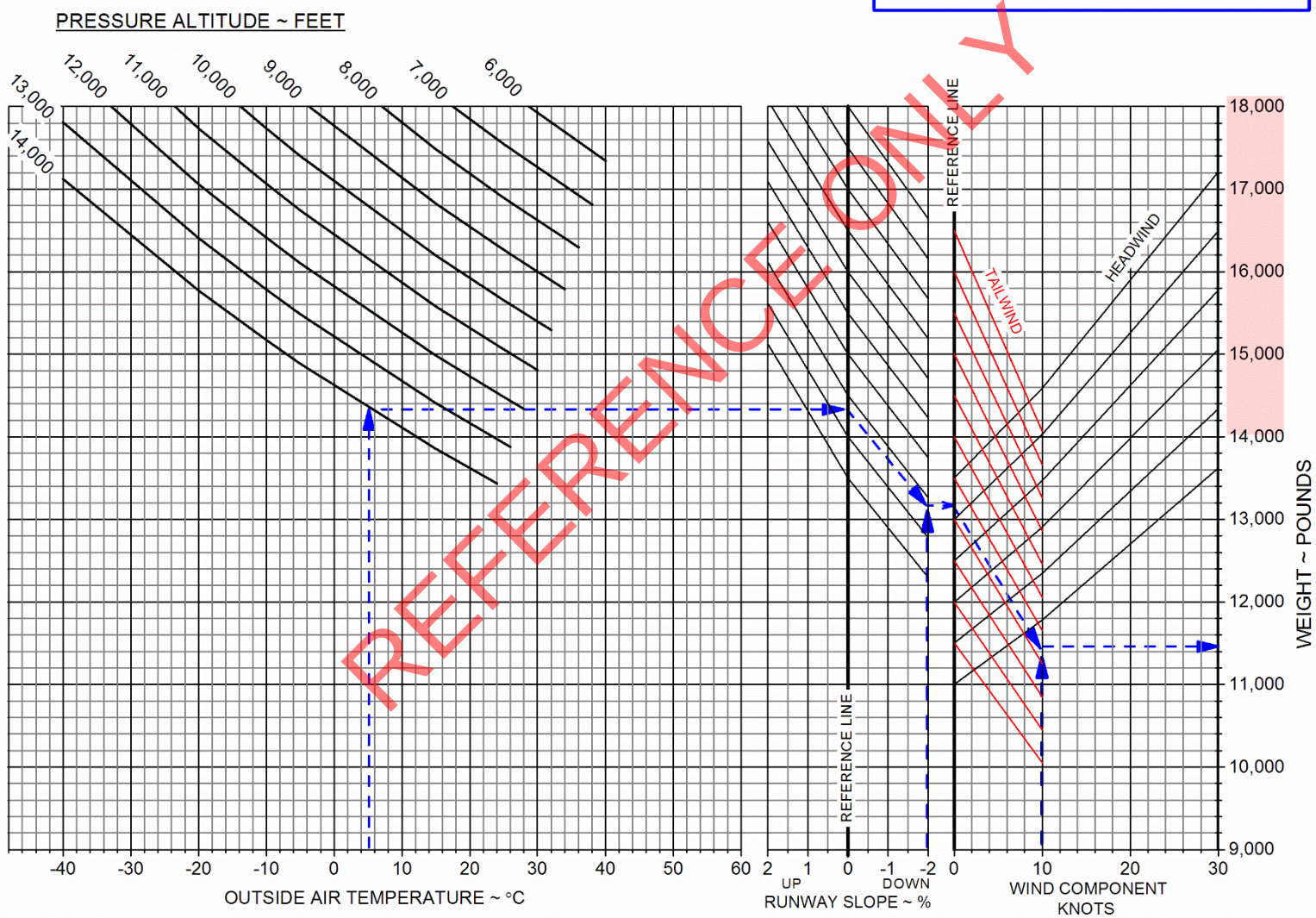
REFERENCE ONLY

MAXIMUM ALLOWED TAKEOFF WEIGHT - FLAPS APPROACH

LIMITED BY BRAKE ENERGY

Example
Outside Air Temperature ..... 5°C
Pressure Altitude ..... 14,000 Feet
Runway Slope ..... 2% Down
Tailwind Component ..... 10 Knots
Maximum Takeoff Weight
Limited By Brake Energy ..... 11,450 Lbs

NOTE: Red shading identifies the Maximum Takeoff Weight structural limitation is exceeded.



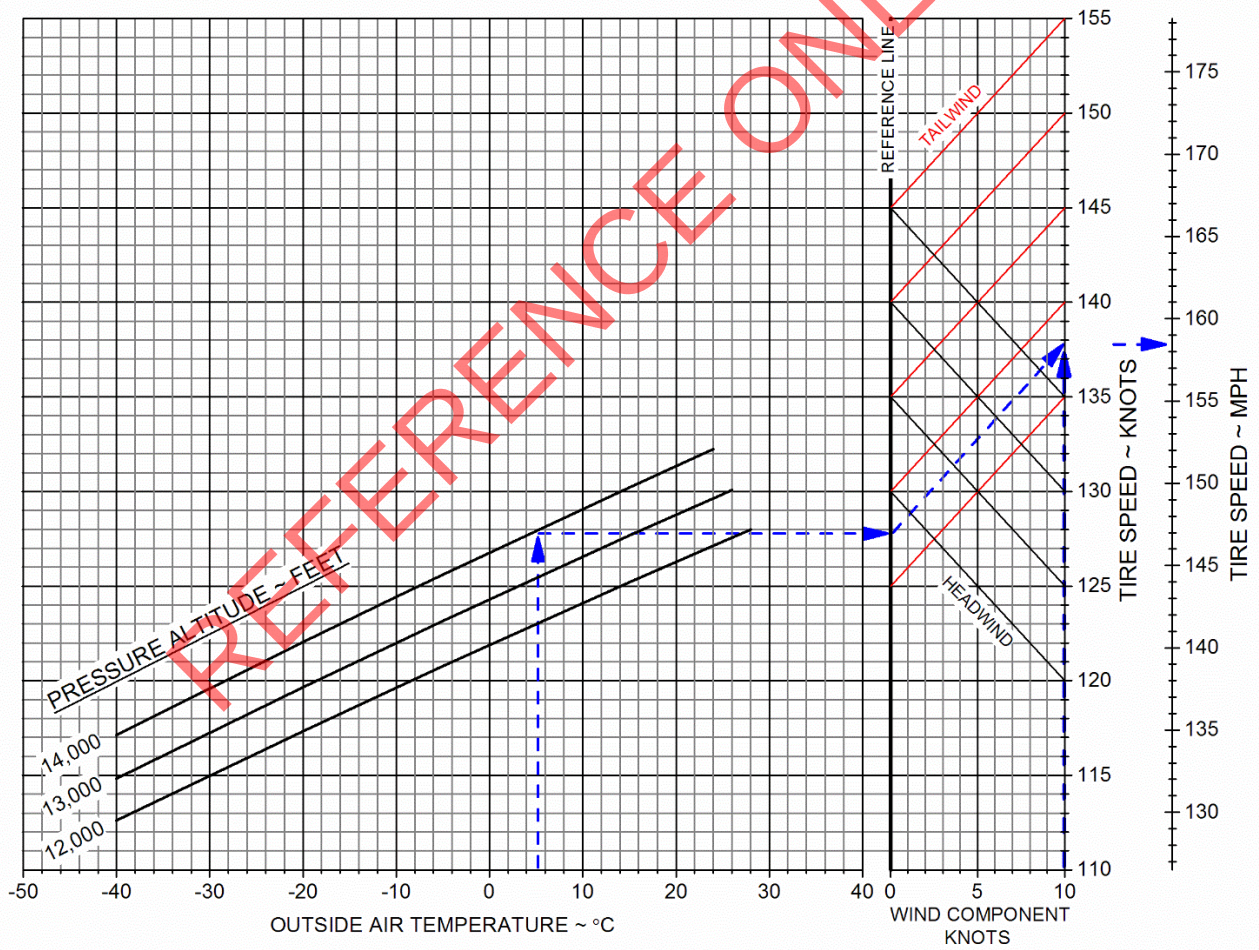
REFERENCE ONLY

MAXIMUM TIRE SPEED DURING TAKEOFF - FLAPS APPROACH

Associated Conditions:
- Pitch rotation occurs at V_R.

Notes:
- The lowest tire speed rating approved for airplanes with this coversion is 160 mph.
- Do not takeoff if the tire speed rating will be exceeded for any tire installed on airplane.

Example
Outside Air Temperature..... 5°C
Pressure Altitude..... 14,000 Feet
Tailwind Component..... 10 Knots
Tire Speed ..... 138 Knots
(159 MPH)



REFERENCE ONLY

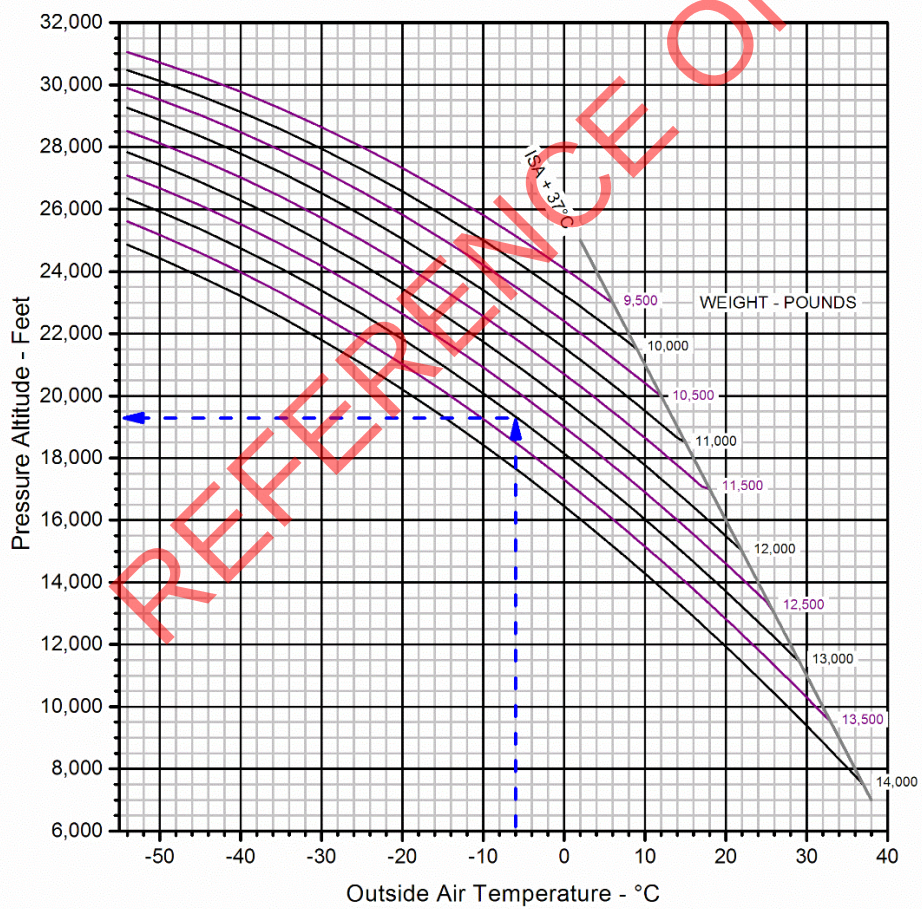
SERVICE CEILING - ONE ENGINE INOPERATIVE

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated Conditions
Power .....Max Continuous
Landing Gear .....Up
Inoperative Prop ...Feathered
Flaps .....Up

Example
OAT ..... -6°C
Weight ..... 13,000 LBS
Climb Speed ..... 111 KIAS
Service Ceiling ... 19,300 Feet

Notes
1. Service ceiling is the maximum pressure altitude at which the airplane is capable of climbing 50 FPM with one propeller feathered.
2. For operations with ice vanes entended, decrease the service ceiling obtained from this graph by 3,000 feet.



REFERENCE ONLY

USING TAKEOFF SPEEDS & FIELD LENGTHS TABLES

The first group of tables applies to aircraft operating with flaps in the approach setting for takeoff and the second group for airplanes with flaps up. In each group, tables are provided in increments of 1,000 feet pressure altitude starting with a pressure altitude of 1,000 feet below sea level up to 14,000 feet. Each table is arranged by aircraft weight and ambient outside air temperature. Starting with the maximum takeoff weight of 14,000 pounds in the top row, subsequent rows provide takeoff data for airplane gross weights to 9,500 pounds in 500 pound increments. Outside air temperatures in degrees Celsius are listed at the top of each column. The cells contain the corresponding takeoff speeds in knots indicated airspeed (KIAS) and takeoff field length (TOFL) in feet. The V_{ENR} speed, which does not vary with temperature, is listed below the weight. It is noted V_2 and V_{ENR} are the same speed when the takeoff is conducted with the flaps up.

The table below lists the temperatures at each altitude relative to an "ISA" day temperature. It is provided as a convenience and is not required when utilizing the graphs and tables in this section during flight planning.

Pres. Alt. Feet	OUTSIDE AIR TEMPERATURE (°C)							
	ISA-30	ISA-20	ISA-10	ISA	ISA+10	ISA+20	ISA+30	ISA+37
Sea level	-15	-5	5	15	25	35	45	52
1,000	-17	-7	3	13	23	33	43	50
2,000	-19	-9	1	11	21	31	41	48
3,000	-21	-11	-1	9	19	29	39	46
4,000	-23	-13	-3	7	17	27	37	44
5,000	-25	-15	-5	5	15	25	35	42
6,000	-27	-17	-7	3	13	23	33	40
7,000	-29	-19	-9	1	11	21	31	38
8,000	-31	-21	-11	-1	9	19	29	36
9,000	-33	-23	-13	-3	7	17	27	34
10,000	-35	-25	-15	-5	5	15	25	32
11,000	-37	-27	-17	-7	3	13	23	30
12,000	-39	-29	-19	-9	1	11	21	28
13,000	-41	-31	-21	-11	-1	9	19	26
14,000	-43	-33	-23	-13	-3	7	17	24

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
-1,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	54
14,000 LB	V_1	98	98	98	98	98	98	98	98
6350 KG	V_R	98	98	98	98	98	98	98	98
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 116	TOFL-FT	3110	3842	4086	4330	4618	4917	5216	5949
13,500 LB	V_1	98	98	98	98	98	98	98	98
6124 KG	V_R	98	98	98	98	98	98	98	98
	V_2	102	102	102	102	102	102	102	102
V_{ENR} = 114	TOFL-FT	2898	3579	3805	4031	4297	4574	4850	5525
13,000 LB	V_1	98	98	98	98	98	98	98	98
5897 KG	V_R	98	98	98	98	98	98	98	98
	V_2	100	100	100	100	100	100	100	100
V_{ENR} = 111	TOFL-FT	2857	3358	3570	3782	4033	4292	4549	5178
12,500 LB	V_1	98	98	98	98	98	98	98	98
5670 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 109	TOFL-FT	2825	3269	3417	3564	3796	4040	4281	4870
12,000 LB	V_1	98	98	98	98	98	98	98	98
5443 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 107	TOFL-FT	2792	3224	3368	3511	3655	3811	4039	4598
11,500 LB	V_1	98	98	98	98	98	98	98	98
5216 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 105	TOFL-FT	2759	3180	3319	3458	3598	3737	3876	4327
11,000 LB	V_1	98	98	98	98	98	98	98	98
4990 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2727	3135	3270	3406	3541	3676	3810	4056
10,500 LB	V_1	98	98	98	98	98	98	98	98
4763 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2694	3090	3222	3353	3484	3614	3745	3888
10,000 LB	V_1	98	98	98	98	98	98	98	98
4536 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2661	3046	3173	3300	3427	3553	3679	3818
9,500 LB	V_1	98	98	98	98	98	98	98	98
4309 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2628	3001	3124	3247	3370	3492	3614	3747

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
SEA LEVEL PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	52
14,000 LB	V_1	98	98	98	98	98	98	98	98
6350 KG	V_R	98	98	98	98	98	98	98	98
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 116	TOFL-FT	3321	4102	4363	4623	4921	5219	5830	7011
13,500 LB	V_1	98	98	98	98	98	98	98	98
6124 KG	V_R	98	98	98	98	98	98	98	98
	V_2	102	102	102	102	102	102	102	102
V_{ENR} = 114	TOFL-FT	3094	3819	4061	4302	4578	4852	5415	6499
13,000 LB	V_1	98	98	98	98	98	98	98	98
5897 KG	V_R	98	98	98	98	98	98	98	98
	V_2	100	100	100	100	100	100	100	100
V_{ENR} = 111	TOFL-FT	2967	3584	3811	4037	4295	4551	5076	6081
12,500 LB	V_1	98	98	98	98	98	98	98	98
5670 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 109	TOFL-FT	2932	3408	3586	3800	4043	4282	4774	5710
12,000 LB	V_1	98	98	98	98	98	98	98	98
5443 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 107	TOFL-FT	2896	3360	3515	3668	3822	4041	4508	5394
11,500 LB	V_1	98	98	98	98	98	98	98	98
5216 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 105	TOFL-FT	2861	3311	3462	3611	3760	3909	4241	5077
11,000 LB	V_1	98	98	98	98	98	98	98	98
4990 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2825	3263	3409	3553	3698	3843	3986	4761
10,500 LB	V_1	98	98	98	98	98	98	98	98
4763 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2790	3214	3356	3496	3636	3776	3914	4444
10,000 LB	V_1	98	98	98	98	98	98	98	98
4536 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2754	3166	3303	3438	3574	3710	3843	4128
9,500 LB	V_1	98	98	98	98	98	98	98	98
4309 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2719	3118	3250	3381	3512	3643	3772	3944

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
1,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	50
14,000 LB	V_1	98	98	98	98	98	98	98	
6350 KG	V_R	98	98	98	98	98	98	98	
	V_2	104	104	104	104	104	104	104	
V_{ENR} = 116	TOFL-FT	3522	4360	4640	4929	5260	5591	6636	
13,500 LB	V_1	98	98	98	98	98	98	98	98
6124 KG	V_R	98	98	98	98	98	98	98	98
	V_2	102	102	102	102	102	102	102	102
V_{ENR} = 114	TOFL-FT	3282	4058	4318	4585	4890	5195	6155	7146
13,000 LB	V_1	98	98	98	98	98	98	98	98
5897 KG	V_R	98	98	98	98	98	98	98	98
	V_2	100	100	100	100	100	100	100	100
V_{ENR} = 111	TOFL-FT	3100	3809	4052	4303	4587	4871	5762	6678
12,500 LB	V_1	98	98	98	98	98	98	98	98
5670 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 109	TOFL-FT	3061	3585	3814	4051	4316	4582	5414	6263
12,000 LB	V_1	98	98	98	98	98	98	98	98
5443 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 107	TOFL-FT	3022	3510	3672	3834	4073	4326	5113	5916
11,500 LB	V_1	98	98	98	98	98	98	98	98
5216 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 105	TOFL-FT	2983	3458	3614	3772	3929	4085	4813	5569
11,000 LB	V_1	98	98	98	98	98	98	98	98
4990 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2944	3405	3557	3709	3862	4013	4513	5222
10,500 LB	V_1	98	98	98	98	98	98	98	98
4763 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2905	3352	3499	3647	3794	3940	4212	4874
10,000 LB	V_1	98	98	98	98	98	98	98	98
4536 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2866	3299	3442	3585	3727	3868	4048	4527
9,500 LB	V_1	98	98	98	98	98	98	98	98
4309 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2827	3246	3384	3522	3660	3796	3970	4179

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
2,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	48
14,000 LB	V_1	98	98	98	98	98	98	98	
6350 KG	V_R	98	98	98	98	98	98	98	
	V_2	104	104	104	104	104	104	104	
V_{ENR} = 116	TOFL-FT	3731	4626	4924	5249	5612	5976	7649	
13,500 LB	V_1	98	98	98	98	98	98	98	
6124 KG	V_R	98	98	98	98	98	98	98	
	V_2	102	102	102	102	102	102	102	
V_{ENR} = 114	TOFL-FT	3476	4305	4581	4880	5214	5550	7082	
13,000 LB	V_1	98	98	98	98	98	98	98	98
5897 KG	V_R	98	98	98	98	98	98	98	98
	V_2	100	100	100	100	100	100	100	100
V_{ENR} = 111	TOFL-FT	3262	4040	4299	4577	4889	5202	6620	7271
12,500 LB	V_1	98	98	98	98	98	98	98	98
5670 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 109	TOFL-FT	3188	3803	4047	4307	4600	4892	6209	6810
12,000 LB	V_1	98	98	98	98	98	98	98	98
5443 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 107	TOFL-FT	3146	3667	3841	4065	4342	4620	5865	6432
11,500 LB	V_1	98	98	98	98	98	98	98	98
5216 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 105	TOFL-FT	3103	3610	3779	3946	4113	4347	5521	6053
11,000 LB	V_1	98	98	98	98	98	98	98	98
4990 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3061	3553	3716	3878	4040	4201	5177	5675
10,500 LB	V_1	98	98	98	98	98	98	98	98
4763 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3019	3495	3653	3810	3967	4123	4832	5295
10,000 LB	V_1	98	98	98	98	98	98	98	98
4536 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2976	3438	3591	3742	3893	4044	4488	4917
9,500 LB	V_1	98	98	98	98	98	98	98	98
4309 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	2934	3380	3528	3675	3820	3966	4180	4538

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
3,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	46
14,000 LB	V_1	98	98	98	98	98	98		
6350 KG	V_R	98	98	98	98	98	98		
	V_2	104	104	104	104	104	104		
V_{ENR} = 116	TOFL-FT	3956	4942	5271	5657	6082	6643		
13,500 LB	V_1	98	98	98	98	98	98	98	
6124 KG	V_R	98	98	98	98	98	98	98	
	V_2	102	102	102	102	102	102	102	
V_{ENR} = 114	TOFL-FT	3684	4597	4900	5256	5647	6162	8510	
13,000 LB	V_1	98	98	98	98	98	98	98	
5897 KG	V_R	98	98	98	98	98	98	98	
	V_2	100	100	100	100	100	100	100	
V_{ENR} = 111	TOFL-FT	3458	4314	4596	4928	5292	5769	7931	
12,500 LB	V_1	98	98	98	98	98	98	98	98
5670 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 109	TOFL-FT	3339	4061	4325	4635	4977	5420	7416	7651
12,000 LB	V_1	98	98	98	98	98	98	98	98
5443 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 107	TOFL-FT	3292	3837	4081	4376	4700	5120	7002	7223
11,500 LB	V_1	98	98	98	98	98	98	98	98
5216 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 105	TOFL-FT	3246	3774	3949	4124	4423	4819	6587	6793
11,000 LB	V_1	98	98	98	98	98	98	98	98
4990 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3199	3712	3881	4050	4219	4518	6172	6365
10,500 LB	V_1	98	98	98	98	98	98	98	98
4763 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3152	3649	3813	3977	4140	4302	5758	5936
10,000 LB	V_1	98	98	98	98	98	98	98	98
4536 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3106	3587	3745	3903	4061	4217	5343	5508
9,500 LB	V_1	98	98	98	98	98	98	98	98
4309 KG	V_R	98	98	98	98	98	98	98	98
	V_2	99	99	99	99	99	99	99	99
V_{ENR} = 104	TOFL-FT	3059	3525	3678	3830	3982	4132	4929	5079

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
4,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	44	
14,000 LB	V_1	98	98	98	98	98	98		
6350 KG	V_R	98	98	98	98	98	98		
	V_2	104	104	104	104	104	104		
V_{ENR} = 116	TOFL-FT	4192	5269	5628	6031	6446	7573		
13,500 LB	V_1	98	98	98	98	98	98	98	
6124 KG	V_R	98	98	98	98	98	98	98	
	V_2	102	102	102	102	102	102	102	
V_{ENR} = 114	TOFL-FT	3903	4898	5229	5600	5981	7013	9789	
13,000 LB	V_1	98	98	98	98	98	98	98	
5897 KG	V_R	98	98	98	98	98	98	98	
	V_2	100	100	100	100	100	100	100	
V_{ENR} = 111	TOFL-FT	3662	4595	4903	5250	5602	6556	9097	
12,500 LB	V_1	98	98	98	98	98	98	98	
5670 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 109	TOFL-FT	3487	4324	4612	4937	5265	6150	8480	
12,000 LB	V_1	98	98	98	98	98	98	98	
5443 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 107	TOFL-FT	3437	4080	4354	4662	4972	5810	8000	
11,500 LB	V_1	98	98	98	98	98	98	98	
5216 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 105	TOFL-FT	3386	3946	4131	4387	4680	5469	7519	
11,000 LB	V_1	98	98	98	98	98	98	98	
4990 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3335	3878	4058	4237	4414	5128	7039	
10,500 LB	V_1	98	98	98	98	98	98	98	
4763 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3285	3810	3984	4157	4329	4787	6559	
10,000 LB	V_1	98	98	98	98	98	98	98	
4536 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3234	3742	3910	4077	4243	4446	6078	
9,500 LB	V_1	98	98	98	98	98	98	98	
4309 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3183	3675	3836	3997	4157	4344	5598	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
5,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	42	
14,000 LB	V_1	98	98	98	98	98			
6350 KG	V_R	98	98	98	98	98			
	V_2	104	104	104	104	104			
V_{ENR} = 116	TOFL-FT	4478	5653	6045	6518	6992			
13,500 LB	V_1	98	98	98	98	98	98		
6124 KG	V_R	98	98	98	98	98	98		
	V_2	102	102	102	102	102	102		
V_{ENR} = 114	TOFL-FT	4168	5252	5613	6047	6481	8246		
13,000 LB	V_1	98	98	98	98	98	98	98	
5897 KG	V_R	98	98	98	98	98	98	98	
	V_2	100	100	100	100	100	100	100	
V_{ENR} = 111	TOFL-FT	3911	4925	5261	5663	6065	7689	11,220	
12,500 LB	V_1	98	98	98	98	98	98	98	
5670 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 109	TOFL-FT	3681	4633	4948	5322	5695	7194	10,397	
12,000 LB	V_1	98	98	98	98	98	98	98	
5443 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 107	TOFL-FT	3594	4374	4672	5026	5380	6794	9789	
11,500 LB	V_1	98	98	98	98	98	98	98	
5216 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 105	TOFL-FT	3538	4127	4397	4731	5064	6392	9181	
11,000 LB	V_1	98	98	98	98	98	98	98	
4990 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3483	4054	4242	4436	4749	5991	8574	
10,500 LB	V_1	98	98	98	98	98	98	98	
4763 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3428	3980	4162	4344	4525	5590	7965	
10,000 LB	V_1	98	98	98	98	98	98	98	
4536 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3373	3906	4083	4258	4432	5189	7357	
9,500 LB	V_1	98	98	98	98	98	98	98	
4309 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3317	3833	4003	4171	4339	4787	6750	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
6,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	40	
14,000 LB	V_1	98	98	98	98				
6350 KG	V_R	98	98	98	98				
	V_2	104	104	104	104				
V_{ENR} = 116	TOFL-FT	4776	6050	6498	7035				
13,500 LB	V_1	98	98	98	98	98	98		
6124 KG	V_R	98	98	98	98	98	98		
	V_2	102	102	102	102	102	102		
V_{ENR} = 114	TOFL-FT	4444	5618	6029	6521	7013	10009		
13,000 LB	V_1	98	98	98	98	98	98		
5897 KG	V_R	98	98	98	98	98	98		
	V_2	100	100	100	100	100	100		
V_{ENR} = 111	TOFL-FT	4170	5265	5645	6101	6556	9297		
12,500 LB	V_1	98	98	98	98	98	98	98	
5670 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 109	TOFL-FT	3925	4951	5305	5729	6150	8662	12,250	
12,000 LB	V_1	98	98	98	98	98	98	98	
5443 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 107	TOFL-FT	3754	4675	5010	5411	5810	8170	11,508	
11,500 LB	V_1	98	98	98	98	98	98	98	
5216 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 105	TOFL-FT	3694	4400	4716	5094	5469	7678	10,766	
11,000 LB	V_1	98	98	98	98	98	98	98	
4990 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3634	4233	4431	4777	5128	7186	10,024	
10,500 LB	V_1	98	98	98	98	98	98	98	
4763 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3574	4154	4345	4536	4787	6694	9282	
10,000 LB	V_1	98	98	98	98	98	98	98	
4536 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3514	4074	4259	4443	4625	6202	8540	
9,500 LB	V_1	98	98	98	98	98	98	98	
4309 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3454	3995	4172	4350	4525	5710	7798	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
7,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	38	
14,000 LB	V_1	98	98	98					
6350 KG	V_R	98	98	98					
	V_2	104	104	104					
V_{ENR} = 116	TOFL-FT	5142	6536	7058					
13,500 LB	V_1	98	98	98	98	98			
6124 KG	V_R	98	98	98	98	98			
	V_2	102	102	102	102	102			
V_{ENR} = 114	TOFL-FT	4781	6063	6542	7097	8180			
13,000 LB	V_1	98	98	98	98	98	98		
5897 KG	V_R	98	98	98	98	98	98		
	V_2	100	100	100	100	100	100		
V_{ENR} = 111	TOFL-FT	4485	5678	6120	6633	7629	13,023		
12,500 LB	V_1	98	98	98	98	98	98		
5670 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 109	TOFL-FT	4221	5336	5747	6221	7139	12,005		
12,000 LB	V_1	98	98	98	98	98	98	98	
5443 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 107	TOFL-FT	3983	5039	5428	5877	6742	11,282	14,027	
11,500 LB	V_1	98	98	98	98	98	98	98	
5216 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 105	TOFL-FT	3876	4743	5110	5532	6344	10,558	13,057	
11,000 LB	V_1	98	98	98	98	98	98	98	
4990 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3810	4447	4792	5187	5946	9835	12,087	
10,500 LB	V_1	98	98	98	98	98	98	98	
4763 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3745	4356	4558	4842	5548	9111	11,116	
10,000 LB	V_1	98	98	98	98	98	98	98	
4536 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3679	4269	4464	4658	5150	8388	10,147	
9,500 LB	V_1	98	98	98	98	98	98	98	
4309 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3614	4182	4370	4557	4779	7665	9176	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
8,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	36	
14,000 LB	V_1	98	98						
6350 KG	V_R	98	98						
	V_2	104	104						
V_{ENR} = 116	TOFL-FT	5523	7038						
13,500 LB	V_1	98	98	98	98				
6124 KG	V_R	98	98	98	98				
	V_2	102	102	102	102				
V_{ENR} = 114	TOFL-FT	5132	6524	7083	7706				
13,000 LB	V_1	98	98	98	98	98			
5897 KG	V_R	98	98	98	98	98			
	V_2	100	100	100	100	100			
V_{ENR} = 111	TOFL-FT	4813	6104	6620	7193	9179			
12,500 LB	V_1	98	98	98	98	98	98		
5670 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 109	TOFL-FT	4528	5731	6209	6738	8555	16,896		
12,000 LB	V_1	98	98	98	98	98	98		
5443 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 107	TOFL-FT	4274	5414	5865	6364	8070	15,752		
11,500 LB	V_1	98	98	98	98	98	98		
5216 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 105	TOFL-FT	4060	5096	5521	5989	7584	14,607		
11,000 LB	V_1	98	98	98	98	98	98	98	
4990 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3989	4779	5177	5615	7099	13,463	14,149	
10,500 LB	V_1	98	98	98	98	98	98	98	
4763 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3918	4553	4832	5240	6614	12,318	12,917	
10,000 LB	V_1	98	98	98	98	98	98	98	
4536 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3846	4459	4661	4866	6129	11,174	11,686	
9,500 LB	V_1	98	98	98	98	98	98	98	
4309 KG	V_R	98	98	98	98	98	98	98	
	V_2	99	99	99	99	99	99	99	
V_{ENR} = 104	TOFL-FT	3775	4365	4560	4753	5644	10,029	10,454	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
9,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	34		
14,000 LB 6350 KG	V_1	98	98						
	V_R	98	98						
	V_2	104	104						
V_{ENR} = 116	TOFL-FT	5963	7667						
13,500 LB 6124 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	102	102	102					
V_{ENR} = 114	TOFL-FT	5538	7099	7763					
13,000 LB 5897 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	100	100	100	100	100			
V_{ENR} = 111	TOFL-FT	5190	6635	7247	7886	12,269			
12,500 LB 5670 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 109	TOFL-FT	4881	6224	6788	7375	11,335			
12,000 LB 5443 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 107	TOFL-FT	4609	5879	6411	6963	10,660	21,420		
11,500 LB 5216 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 105	TOFL-FT	4337	5534	6033	6550	9986	19,637		
11,000 LB 4990 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4184	5189	5656	6138	9311	17,855		
10,500 LB 4763 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4106	4843	5278	5726	8637	16,072		
10,000 LB 4536 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4028	4677	4901	5314	7962	14,290		
9,500 LB 4309 KG	V_1	98	98	98	98	98	98		
	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	3950	4575	4780	4984	7288	12,507		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
10,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	32		
14,000 LB	V_1	98	98						
6350 KG	V_R	98	98						
	V_2	104	104						
V_{ENR} = 116	TOFL-FT	6428	8322						
13,500 LB	V_1	98	98						
6124 KG	V_R	98	98						
	V_2	102	102						
V_{ENR} = 114	TOFL-FT	5965	7696						
13,000 LB	V_1	98	98	98	98				
5897 KG	V_R	98	98	98	98				
	V_2	100	100	100	100				
V_{ENR} = 111	TOFL-FT	5586	7184	7904	9399				
12,500 LB	V_1	98	98	98	98	98			
5670 KG	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 109	TOFL-FT	5250	6730	7391	8755	18,710			
12,000 LB	V_1	98	98	98	98	98			
5443 KG	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 107	TOFL-FT	4959	6356	6978	8257	17,399			
11,500 LB	V_1	98	98	98	98	98	98		
5216 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 105	TOFL-FT	4667	5982	6565	7759	16,088	24,465		
11,000 LB	V_1	98	98	98	98	98	98		
4990 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4385	5608	6152	7261	14,777	21,932		
10,500 LB	V_1	98	98	98	98	98	98		
4763 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4300	5234	5739	6763	13,465	19,398		
10,000 LB	V_1	98	98	98	98	98	98		
4536 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4216	4900	5326	6266	12,155	16,866		
9,500 LB	V_1	98	98	98	98	98	98		
4309 KG	V_R	98	98	98	98	98	98		
	V_2	99	99	99	99	99	99		
V_{ENR} = 104	TOFL-FT	4131	4789	5005	5767	10,843	14,333		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
11,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	17			
14,000 LB 6350 KG	V_1	98	98						
	V_R	98	98						
	V_2	104	104						
V_{ENR} = 116	TOFL-FT	7217	10260						
13,500 LB 6124 KG	V_1	98	98						
	V_R	98	98						
	V_2	102	102						
V_{ENR} = 114	TOFL-FT	6688	9455						
13,000 LB 5897 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	100	100	100					
V_{ENR} = 111	TOFL-FT	6262	8794	9910					
12,500 LB 5670 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 109	TOFL-FT	5878	8205	9218	12,836				
12,000 LB 5443 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 107	TOFL-FT	5552	7742	8690	12,049	15,517			
11,500 LB 5216 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 105	TOFL-FT	5227	7279	8162	11,263	14,396			
11,000 LB 4990 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 104	TOFL-FT	4902	6816	7634	10,476	13,275			
10,500 LB 4763 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 104	TOFL-FT	4575	6353	7105	9689	12,154			
10,000 LB 4536 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 104	TOFL-FT	4416	5891	6578	8902	11,034			
9,500 LB 4309 KG	V_1	98	98	98	98	98			
	V_R	98	98	98	98	98			
	V_2	99	99	99	99	99			
V_{ENR} = 104	TOFL-FT	4324	5427	6050	8116	9913			

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
12,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	12				
14,000 LB 6350 KG	V_1								
	V_R								
	V_2								
V_{ENR} = 116	TOFL-FT								
13,500 LB 6124 KG	V_1	98	98						
	V_R	98	98						
	V_2	102	102						
V_{ENR} = 114	TOFL-FT	7549	11,541						
13,000 LB 5897 KG	V_1	98	98						
	V_R	98	98						
	V_2	100	100						
V_{ENR} = 111	TOFL-FT	7050	10,684						
12,500 LB 5670 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 109	TOFL-FT	6606	9916	12,066	20,000				
12,000 LB 5443 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 107	TOFL-FT	6240	9342	11,338	18,571				
11,500 LB 5216 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 105	TOFL-FT	5873	8767	10,610	17,141				
11,000 LB 4990 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	5506	8193	9882	15,712				
10,500 LB 4763 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	5138	7618	9154	14,281				
10,000 LB 4536 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	4772	7043	8426	12,852				
9,500 LB 4309 KG	V_1	98	98	98	98				
	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	4523	6469	7698	11,422				

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
13,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	6				
14,000 LB	V_1								
6350 KG	V_R								
	V_2								
V_{ENR} = 116	TOFL-FT								
13,500 LB	V_1								
6124 KG	V_R								
	V_2								
V_{ENR} = 114	TOFL-FT								
13,000 LB	V_1	98	98						
5897 KG	V_R	98	98						
	V_2	100	100						
V_{ENR} = 111	TOFL-FT	8076	13,085						
12,500 LB	V_1	98	98	98					
5670 KG	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 109	TOFL-FT	7549	12,060	18,685					
12,000 LB	V_1	98	98	98	98				
5443 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 107	TOFL-FT	7126	11,333	17,376	19,972				
11,500 LB	V_1	98	98	98	98				
5216 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 105	TOFL-FT	6703	10,605	16,067	18,384				
11,000 LB	V_1	98	98	98	98				
4990 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	6281	9877	14,759	16,796				
10,500 LB	V_1	98	98	98	98				
4763 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	5858	9150	13,449	15,208				
10,000 LB	V_1	98	98	98	98				
4536 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	5436	8422	12,141	13,621				
9,500 LB	V_1	98	98	98	98				
4309 KG	V_R	98	98	98	98				
	V_2	99	99	99	99				
V_{ENR} = 104	TOFL-FT	5013	7695	10,832	12,032				

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS APPROACH
14,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	0					
14,000 LB 6350 KG	V_1								
	V_R								
	V_2								
V_{ENR} = 116	TOFL-FT								
13,500 LB 6124 KG	V_1								
	V_R								
	V_2								
V_{ENR} = 114	TOFL-FT								
13,000 LB 5897 KG	V_1	98	98						
	V_R	98	98						
	V_2	100	100						
V_{ENR} = 111	TOFL-FT	9286	15,959						
12,500 LB 5670 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 109	TOFL-FT	8652	14,572	23,000					
12,000 LB 5443 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 107	TOFL-FT	8160	13641	21,242					
11,500 LB 5216 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 105	TOFL-FT	7669	12710	19,483					
11,000 LB 4990 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 104	TOFL-FT	7178	11,779	17,725					
10,500 LB 4763 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 104	TOFL-FT	6686	10,848	15,965					
10,000 LB 4536 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 104	TOFL-FT	6195	9917	14,207					
9,500 LB 4309 KG	V_1	98	98	98					
	V_R	98	98	98					
	V_2	99	99	99					
V_{ENR} = 104	TOFL-FT	5704	8986	12,448					

REFERENCE ONLY

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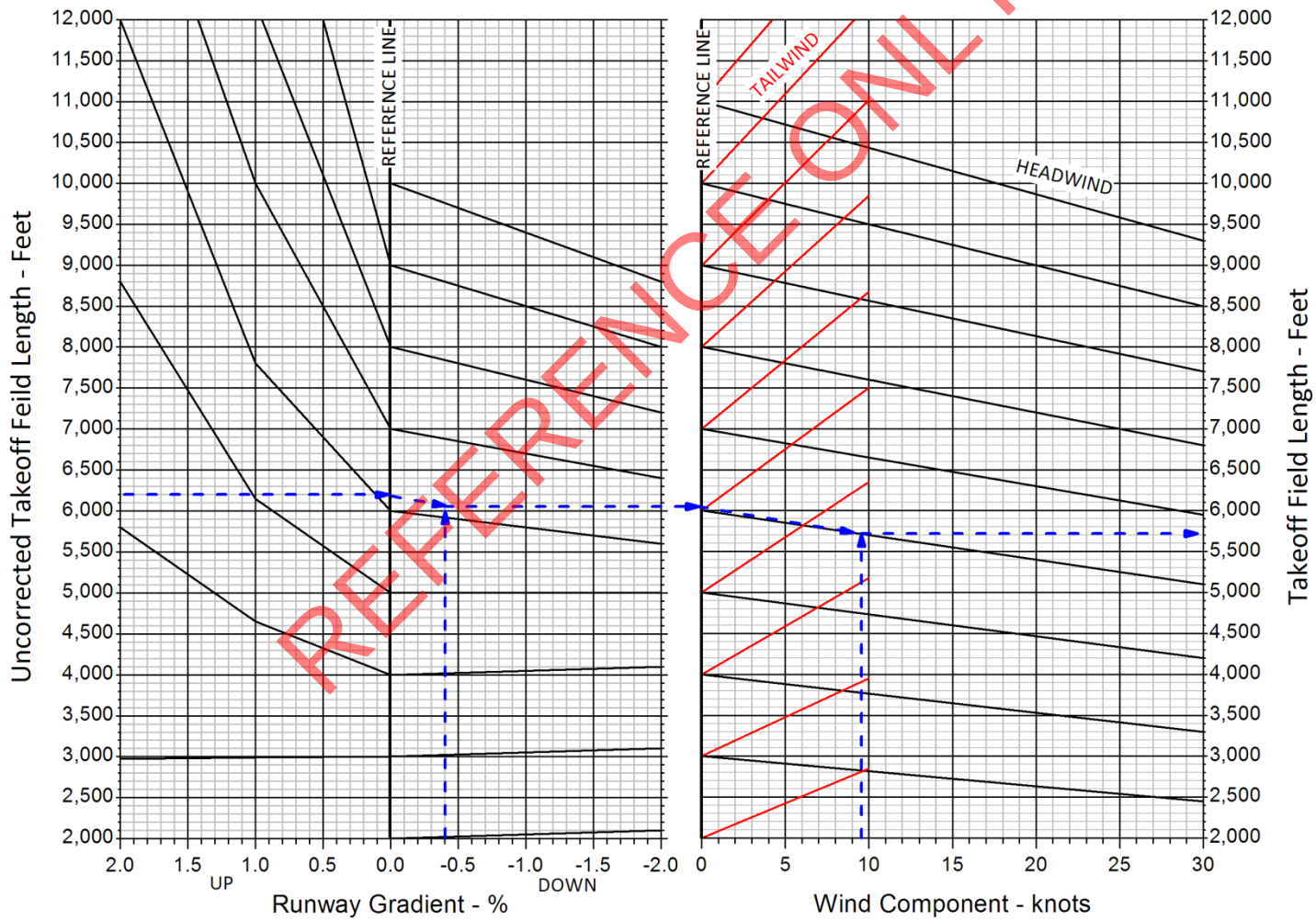
TAKEOFF FIELD LENGTH CORRECTION - FLAPS APPROACH

FOR RUNWAY GRADIENT AND WIND COMPONENT

Notes:

1. Obtain take-off field length from the appropriate Take-Off Speeds and Field Lengths table and enter the graph below with that value to determine the field length corrected for runway gradient and wind component.
2. The wind grid includes factors of 50% for headwinds and 150% for tailwinds. Components of reported winds may be used directly in the graph.
3. Do not extrapolate for headwind components greater than 30 knots. Use a 30 knot headwind component for correcting Takeoff Field Length when headwind component is 30 knots or greater.
4. Do not take-off with more than a 10 knot tail wind component.

Example:
Uncorrected Takeoff Field Length.. 6,205 ft
Runway gradient..... 0.4% Down
Headwind component..... 9.5 knots
Corrected take-off field length..... 5,725 feet



REFERENCE ONLY

ACCELERATE - STOP DISTANCE - FLAPS APPROACH

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

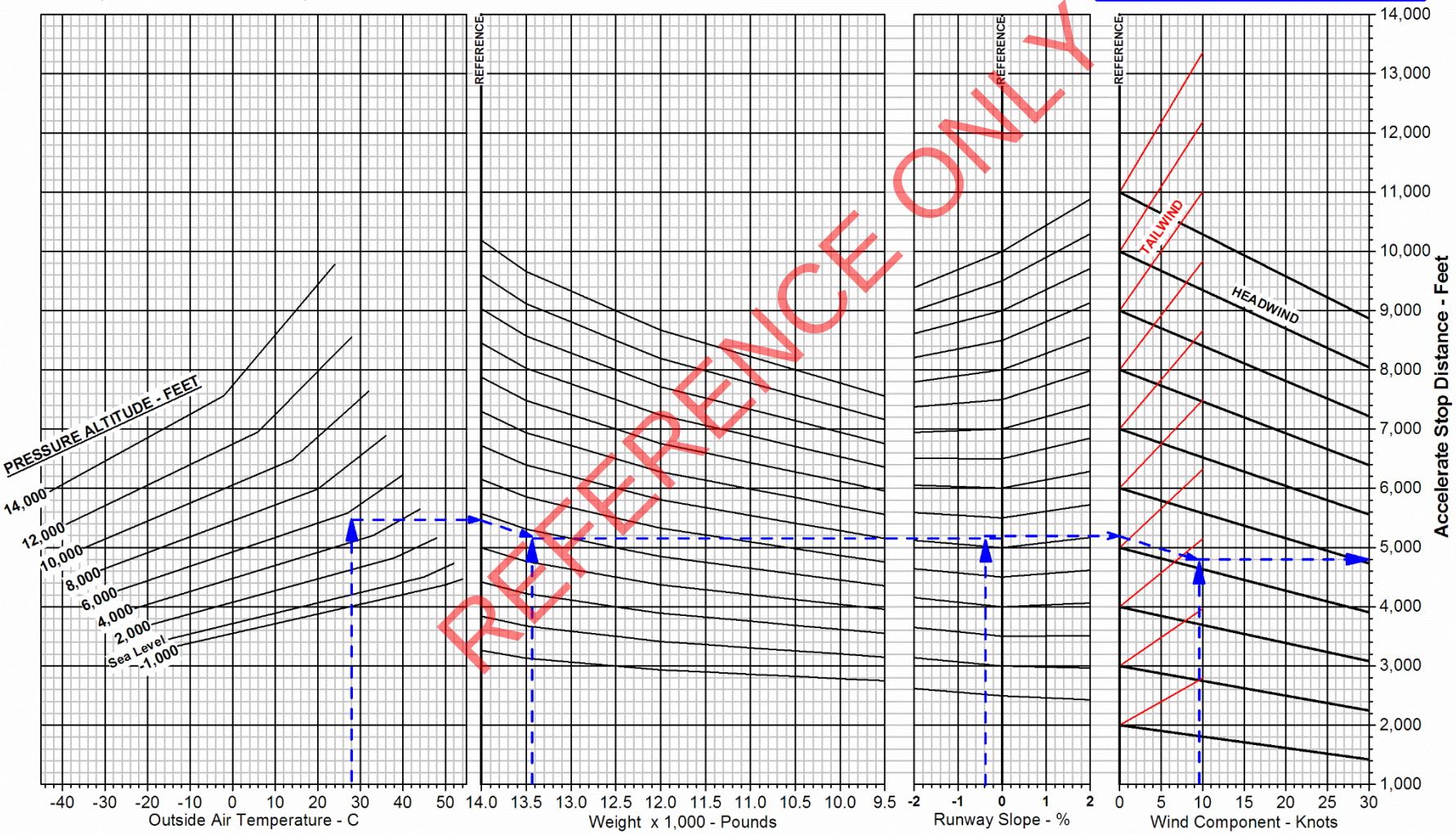
Associated conditions

Power.... 1. Take-off power set before brake release.
2. Both engines idle at V_1 speed and reverse on operating engine.

Flaps..... Approach
Autofeather..... Armed
Braking..... Maximum
Runway..... Paved, Level, Dry Surface

Weight - LBS	Speed, V_1 - Kts
14,000	98
9,500	98

Example
OAT..... 28 °C
Pressure Altitude..... 5,430 feet
Weight..... 13,420 pounds
Runway Slope..... -0.4%
Headwind Component..... 9.5 knots
Field Length ..... 4,800 feet



REFERENCE ONLY

NET GRADIENT OF CLIMB - FLAPS APPROACH

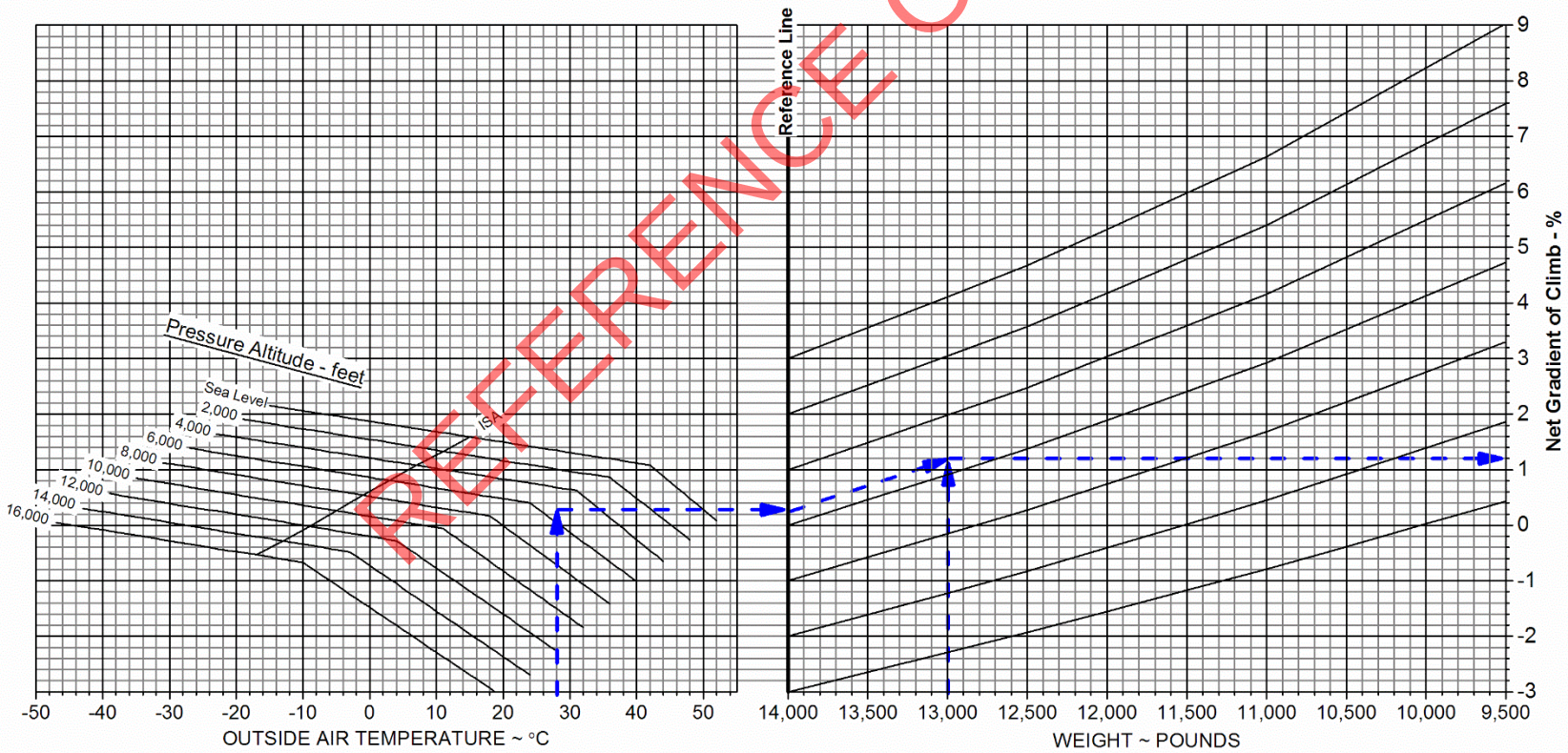
AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated Conditions
Power..... Take-Off
Flaps..... Approach
Landing Gear..... Up
Inoperative Propeller... Feathered

Weight - LBS	Speed - Kts
14,000	104
13,000	100
12,500	99
11,000	99
10,000	99

Example
OAT.....28°C
Pressure Altitude.....5,430 Feet
Takeoff Weight .....12,996 LBS
Net Gradient 1.2%
Speed .....100 Knots

Notes:
1. This chart is applicable to the second segment when the takeoff is executed with flaps up. Use the pressure altitude of the top of the second segment.
2. A distance of 3,000 feet is required for acceleration during flap retraction and transition from V_2 to V_{ENR}. When V_{ENR} is 148 knots, the required distance is 8,500 feet.
3. For operations with engine ice vanes extended reduce the Net Gradient of Climb from this chart by 0.9 percentage points.
4. When the takeoff flight path requires turns, do not exceed 15° of bank and reduce Net Gradient of Climb from this chart by 1 percentage point.



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TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
-1,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	54
14,000 LB	V_1	106	106	106	106	106	106	106	106
6350 KG	V_R	106	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	3825	4740	5045	5350	5654	5959	6264	7314
13,500 LB	V_1	104	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	3480	4301	4575	4849	5122	5395	5669	6611
13,000 LB	V_1	103	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	3210	3956	4204	4452	4700	4948	5197	6052
12,500 LB	V_1	103	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3084	3610	3833	4056	4278	4502	4725	5493
12,000 LB	V_1	103	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3014	3475	3629	3783	3936	4090	4253	4934
11,500 LB	V_1	103	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	2975	3421	3570	3719	3867	4016	4164	4548
11,000 LB	V_1	103	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2936	3367	3511	3655	3798	3942	4085	4456
10,500 LB	V_1	103	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2897	3313	3452	3591	3729	3868	4006	4364
10,000 LB	V_1	103	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2858	3259	3393	3527	3660	3794	3927	4272
9,500 LB	V_1	103	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2819	3205	3334	3463	3591	3720	3848	4181

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
SEA LEVEL PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	52
14,000 LB	V_1	106	106	106	106	106	106	106	106
6350 KG	V_R	106	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	3958	4974	5312	5651	5989	6328	6880	7615
13,500 LB	V_1	104	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	3599	4511	4815	5119	5422	5726	6222	6882
13,000 LB	V_1	103	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	3319	4146	4421	4698	4973	5249	5699	6297
12,500 LB	V_1	103	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3181	3781	4028	4276	4524	4772	5175	5713
12,000 LB	V_1	103	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3107	3625	3798	3970	4142	4315	4652	5129
11,500 LB	V_1	103	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3065	3566	3733	3900	4066	4234	4400	4666
11,000 LB	V_1	103	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3023	3507	3669	3830	3991	4153	4314	4571
10,500 LB	V_1	103	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2981	3448	3604	3760	3915	4071	4227	4475
10,000 LB	V_1	103	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	2939	3389	3540	3689	3839	3990	4140	4379
9,500 LB	V_1	103	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	2897	3330	3475	3619	3764	3909	4053	4283

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
1,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	50
14,000 LB	V_1	106	106	106	106	106	106	106	106
6350 KG	V_R	106	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	4169	5254	5616	5977	6339	6700	7566	8167
13,500 LB	V_1	104	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	3789	4763	5087	5411	5736	6060	6838	7377
13,000 LB	V_1	103	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	3490	4374	4669	4963	5258	5552	6257	6747
12,500 LB	V_1	103	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3321	3986	4251	4515	4780	5044	5677	6117
12,000 LB	V_1	103	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3241	3782	3962	4142	4323	4535	5097	5487
11,500 LB	V_1	103	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3195	3718	3893	4066	4241	4416	4644	4857
11,000 LB	V_1	103	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3148	3654	3823	3991	4159	4328	4549	4721
10,500 LB	V_1	103	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3102	3590	3753	3915	4078	4241	4454	4620
10,000 LB	V_1	103	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3055	3526	3683	3839	3996	4154	4359	4519
9,500 LB	V_1	103	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3009	3462	3613	3764	3915	4066	4264	4418

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
2,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	48
14,000 LB	V_1	106	106	106	106	106	106	106	106
6350 KG	V_R	106	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	4398	5534	5913	6291	6670	7048	8284	8719
13,500 LB	V_1	104	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	3994	5014	5354	5693	6033	6373	7482	7872
13,000 LB	V_1	103	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	3677	4602	4911	5219	5528	5836	6842	7197
12,500 LB	V_1	103	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3458	4191	4468	4745	5022	5298	6203	6521
12,000 LB	V_1	103	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3372	3947	4138	4329	4520	4761	5563	5845
11,500 LB	V_1	103	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3321	3877	4062	4247	4432	4618	4923	5170
11,000 LB	V_1	103	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3271	3808	3987	4166	4345	4524	4783	4871
10,500 LB	V_1	103	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3220	3739	3911	4084	4257	4430	4680	4765
10,000 LB	V_1	103	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3169	3669	3836	4002	4169	4336	4576	4659
9,500 LB	V_1	103	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3119	3600	3760	3920	4081	4242	4473	4552

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
3,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	45	46
14,000 LB	V_1	106	106	106	106	106	106	106	
6350 KG	V_R	106	106	106	106	106	106	106	
	V_2	116	116	116	116	116	116	116	
V_{ENR} = 116	TOFL-FT	4673	5905	6316	6727	7138	7683	9431	
13,500 LB	V_1	104	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	4241	5347	5716	6085	6453	6943	8511	8668
13,000 LB	V_1	103	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	3901	4904	5239	5574	5909	6353	7777	7919
12,500 LB	V_1	103	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3639	4462	4763	5064	5364	5763	7042	7170
12,000 LB	V_1	103	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3545	4112	4302	4553	4820	5173	6307	6421
11,500 LB	V_1	103	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3489	4038	4221	4404	4587	4770	5572	5671
11,000 LB	V_1	103	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3432	3963	4140	4317	4494	4670	5031	5069
10,500 LB	V_1	103	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3376	3888	4059	4230	4401	4571	4920	4956
10,000 LB	V_1	103	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3320	3813	3978	4143	4308	4472	4808	4843
9,500 LB	V_1	103	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3263	3739	3898	4056	4215	4373	4696	4730

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
4,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)						
		-35	-5	5	15	25	35	44
14,000 LB 6350 KG	V_1	106	106	106	106	106	106	106
	V_R	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	4959	6292	6736	7181	7625	8692	10,493
13,500 LB 6124 KG	V_1	104	104	104	104	104	104	104
	V_R	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	4498	5694	6093	6492	6890	7848	9464
13,000 LB 5897 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	4134	5220	5581	5944	6306	7175	8642
12,500 LB 5670 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	3814	4745	5070	5396	5721	6501	7819
12,000 LB 5443 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3712	4283	4559	4847	5136	5828	6996
11,500 LB 5216 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3651	4203	4387	4571	4755	5154	6173
11,000 LB 4990 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3589	4122	4300	4478	4656	4883	5350
10,500 LB 4763 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3527	4042	4214	4386	4557	4777	5148
10,000 LB 4536 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3465	3962	4128	4293	4458	4670	5028
9,500 LB 4309 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3404	3882	4041	4201	4360	4564	4908

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
5,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)						
		-35	-5	5	15	25	35	42
14,000 LB	V_1	106	106	106	106	106	106	106
6350 KG	V_R	106	106	106	106	106	106	106
	V_2	116	116	116	116	116	116	116
V_{ENR} = 116	TOFL-FT	5319	6753	7231	7709	8187	10,023	11,715
13,500 LB	V_1	104	104	104	104	104	104	104
6124 KG	V_R	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	4821	6108	6537	6966	7395	9043	10,561
13,000 LB	V_1	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	4427	5595	5985	6374	6763	8259	9637
12,500 LB	V_1	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	4033	5083	5432	5782	6132	7475	8713
12,000 LB	V_1	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	3894	4570	4880	5190	5500	6691	7789
11,500 LB	V_1	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	3827	4395	4584	4773	4963	5907	6865
11,000 LB	V_1	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3759	4308	4491	4674	4857	5185	5941
10,500 LB	V_1	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3692	4221	4398	4574	4751	5068	5582
10,000 LB	V_1	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3624	4135	4305	4475	4646	4950	5258
9,500 LB	V_1	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3556	4048	4212	4376	4540	4833	5130

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
6,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)						
		-35	-5	5	15	25	35	40
14,000 LB 6350 KG	V_1	106	106	106	106	106	106	
	V_R	106	106	106	106	106	106	
	V_2	116	116	116	116	116	116	
V_{ENR} = 116	TOFL-FT	5692	7230	7743	8255	8768	11,547	
13,500 LB 6124 KG	V_1	104	104	104	104	104	104	104
	V_R	104	104	104	104	104	104	104
	V_2	114	114	114	114	114	114	114
V_{ENR} = 114	TOFL-FT	5156	6536	6996	7456	7916	10,410	11,657
13,000 LB 5897 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	4731	5984	6402	6819	7237	9500	10,632
12,500 LB 5670 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	4306	5432	5807	6181	6557	8590	9606
12,000 LB 5443 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	4077	4879	5212	5544	5877	7680	8581
11,500 LB 5216 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	4003	4589	4783	4979	5197	6770	7555
11,000 LB 4990 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3930	4496	4684	4873	5061	5859	6530
10,500 LB 4763 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3856	4402	4584	4766	4948	5506	6136
10,000 LB 4536 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3782	4309	4484	4660	4835	5251	5742
9,500 LB 4309 KG	V_1	103	103	103	103	103	103	103
	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3709	4216	4385	4554	4722	5123	5352

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
7,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)						
		-35	-5	5	15	25	35	38
14,000 LB	V_1	106	106	106	106	106	106	
6350 KG	V_R	106	106	106	106	106	106	
	V_2	116	116	116	116	116	116	
V_{ENR} = 116	TOFL-FT	6137	7781	8329	8877	10,241	13,511	
13,500 LB	V_1	104	104	104	104	104	104	
6124 KG	V_R	104	104	104	104	104	104	
	V_2	114	114	114	114	114	114	
V_{ENR} = 114	TOFL-FT	5555	7031	7522	8014	9238	12,173	
13,000 LB	V_1	103	103	103	103	103	103	103
5897 KG	V_R	103	103	103	103	103	103	103
	V_2	111	111	111	111	111	111	111
V_{ENR} = 111	TOFL-FT	5093	6433	6879	7325	8436	11,100	11,899
12,500 LB	V_1	103	103	103	103	103	103	103
5670 KG	V_R	103	103	103	103	103	103	103
	V_2	109	109	109	109	109	109	109
V_{ENR} = 109	TOFL-FT	4632	5835	6236	6637	7634	10,027	10,745
12,000 LB	V_1	103	103	103	103	103	103	103
5443 KG	V_R	103	103	103	103	103	103	103
	V_2	107	107	107	107	107	107	107
V_{ENR} = 107	TOFL-FT	4274	5237	5592	5948	6833	8954	9590
11,500 LB	V_1	103	103	103	103	103	103	103
5216 KG	V_R	103	103	103	103	103	103	103
	V_2	105	105	105	105	105	105	105
V_{ENR} = 105	TOFL-FT	4194	4827	5039	5259	6031	7881	8436
11,000 LB	V_1	103	103	103	103	103	103	103
4990 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	4114	4726	4931	5135	5400	6808	7281
10,500 LB	V_1	103	103	103	103	103	103	103
4763 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	4034	4625	4822	5020	5275	6397	6842
10,000 LB	V_1	103	103	103	103	103	103	103
4536 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} =104	TOFL-FT	3954	4524	4714	4904	5151	5986	6402
9,500 LB	V_1	103	103	103	103	103	103	103
4309 KG	V_R	103	103	103	103	103	103	103
	V_2	104	104	104	104	104	104	104
V_{ENR} = 104	TOFL-FT	3874	4423	4606	4789	5026	5575	5962

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
8,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	35	36	
14,000 LB 6350 KG	V_1	106	106	106	106	106			
	V_R	106	106	106	106	106			
	V_2	116	116	116	116	116			
V_{ENR} = 116	TOFL-FT	6596	8349	8933	9517	11,973			
13,500 LB 6124 KG	V_1	104	104	104	104	104	104		
	V_R	104	104	104	104	104	104		
	V_2	114	114	114	114	114	114		
V_{ENR} = 114	TOFL-FT	5967	7540	8064	8589	10,793	14,118		
13,000 LB 5897 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	111	111	111	111	111	111		
V_{ENR} = 111	TOFL-FT	5467	6895	7371	7847	9847	12,865		
12,500 LB 5670 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	109	109	109	109	109	109	109	
V_{ENR} = 109	TOFL-FT	4968	6250	6677	7105	8902	11,612	11,883	
12,000 LB 5443 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	107	107	107	107	107	107	107	
V_{ENR} = 107	TOFL-FT	4478	5605	5984	6363	7956	10,360	10,600	
11,500 LB 5216 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	105	105	105	105	105	105	105	
V_{ENR} = 105	TOFL-FT	4392	5065	5291	5621	7011	9107	9316	
11,000 LB 4990 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	104	104	104	104	104	104	104	
V_{ENR} = 104	TOFL-FT	4305	4956	5173	5390	6065	7854	8033	
10,500 LB 4763 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	104	104	104	104	104	104	104	
V_{ENR} = 104	TOFL-FT	4218	4847	5056	5266	5699	7380	7548	
10,000 LB 4536 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	104	104	104	104	104	104	104	
V_{ENR} =104	TOFL-FT	4132	4738	4940	5141	5492	6905	7062	
9,500 LB 4309 KG	V_1	103	103	103	103	103	103	103	
	V_R	103	103	103	103	103	103	103	
	V_2	104	104	104	104	104	104	104	
V_{ENR} = 104	TOFL-FT	4045	4629	4823	5017	5354	6431	6577	

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
9,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	34		
14,000 LB	V_1	106	106	106	106	106			
6350 KG	V_R	106	106	106	106	106			
	V_2	116	116	116	116	116			
V_{ENR} = 116	TOFL-FT	7124	9085	9738	10,392	14,364			
13,500 LB	V_1	104	104	104	104	104			
6124 KG	V_R	104	104	104	104	104			
	V_2	114	114	114	114	114			
V_{ENR} = 114	TOFL-FT	6441	8201	8787	9374	12,939			
13,000 LB	V_1	103	103	103	103	103	103		
5897 KG	V_R	103	103	103	103	103	103		
	V_2	111	111	111	111	111	111		
V_{ENR} = 111	TOFL-FT	5897	7495	8027	8559	11,795	14,706		
12,500 LB	V_1	103	103	103	103	103	103		
5670 KG	V_R	103	103	103	103	103	103		
	V_2	109	109	109	109	109	109		
V_{ENR} = 109	TOFL-FT	5354	6789	7266	7745	10651	13,266		
12,000 LB	V_1	103	103	103	103	103	103		
5443 KG	V_R	103	103	103	103	103	103		
	V_2	107	107	107	107	107	107		
V_{ENR} = 107	TOFL-FT	4811	6083	6506	6931	9507	11,826		
11,500 LB	V_1	103	103	103	103	103	103		
5216 KG	V_R	103	103	103	103	103	103		
	V_2	105	105	105	105	105	105		
V_{ENR} = 105	TOFL-FT	4612	5377	5746	6116	8363	10,386		
11,000 LB	V_1	103	103	103	103	103	103		
4990 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4518	5195	5420	5646	7220	8945		
10,500 LB	V_1	103	103	103	103	103	103		
4763 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4424	5077	5295	5513	6784	8405		
10,000 LB	V_1	103	103	103	103	103	103		
4536 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} =104	TOFL-FT	4330	4960	5170	5380	6348	7864		
9,500 LB	V_1	103	103	103	103	103	103		
4309 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4236	4842	5044	5247	5912	7324		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
10,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	32		
14,000 LB 6350 KG	V_1	106	106	106	106	106			
	V_R	106	106	106	106	106			
	V_2	116	116	116	116	116			
V_{ENR} = 116	TOFL-FT	7679	9820	10,533	12,352	16,750			
13,500 LB 6124 KG	V_1	104	104	104	104	104			
	V_R	104	104	104	104	104			
	V_2	114	114	114	114	114			
V_{ENR} = 114	TOFL-FT	6939	8860	9500	11,133	15,080			
13,000 LB 5897 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	111	111	111	111	111			
V_{ENR} = 111	TOFL-FT	6349	8093	8674	10,156	13,738			
12,500 LB 5670 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	109	109	109	109	109	109		
V_{ENR} = 109	TOFL-FT	5760	7326	7848	9179	12,397	14,649		
12,000 LB 5443 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	107	107	107	107	107	107		
V_{ENR} = 107	TOFL-FT	5171	6559	7022	8202	11,055	13,052		
11,500 LB 5216 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	105	105	105	105	105	105		
V_{ENR} = 105	TOFL-FT	4835	5792	6196	7225	9713	11,455		
11,000 LB 4990 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4734	5438	5672	6248	8372	9858		
10,500 LB 4763 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4633	5312	5538	5871	7866	9262		
10,000 LB 4536 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} =104	TOFL-FT	4531	5186	5404	5660	7360	8666		
9,500 LB 4309 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4430	5060	5270	5517	6854	8070		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
11,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	30		
14,000 LB	V_1	106	106	106	106				
6350 KG	V_R	106	106	106	106				
	V_2	116	116	116	116				
V_{ENR} = 116	TOFL-FT	8328	10,789	11,609	15,100				
13,500 LB	V_1	104	104	104	104	104			
6124 KG	V_R	104	104	104	104	104			
	V_2	114	114	114	114	114			
V_{ENR} = 114	TOFL-FT	7521	9730	10,466	13,599	17,760			
13,000 LB	V_1	103	103	103	103	103			
5897 KG	V_R	103	103	103	103	103			
	V_2	111	111	111	111	111			
V_{ENR} = 111	TOFL-FT	6878	8883	9551	12,394	16,171			
12,500 LB	V_1	103	103	103	103	103			
5670 KG	V_R	103	103	103	103	103			
	V_2	109	109	109	109	109			
V_{ENR} = 109	TOFL-FT	6235	8035	8635	11,189	14,581			
12,000 LB	V_1	103	103	103	103	103	103		
5443 KG	V_R	103	103	103	103	103	103		
	V_2	107	107	107	107	107	107		
V_{ENR} = 107	TOFL-FT	5592	7188	7720	9985	12,992	14,496		
11,500 LB	V_1	103	103	103	103	103	103		
5216 KG	V_R	103	103	103	103	103	103		
	V_2	105	105	105	105	105	105		
V_{ENR} = 105	TOFL-FT	5085	6341	6805	8780	11,403	12,714		
11,000 LB	V_1	103	103	103	103	103	103		
4990 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4976	5772	6037	7575	9814	10,933		
10,500 LB	V_1	103	103	103	103	103	103		
4763 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4866	5634	5890	7117	9220	10,272		
10,000 LB	V_1	103	103	103	103	103	103		
4536 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} =104	TOFL-FT	4756	5497	5744	6660	8627	9611		
9,500 LB	V_1	103	103	103	103	103	103		
4309 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4646	5359	5597	6202	8034	8950		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
12,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	28		
14,000 LB 6350 KG	V_1	106	106	106					
	V_R	106	106	106					
	V_2	116	116	116					
V_{ENR} = 116	TOFL-FT	9023	11,833	13,159					
13,500 LB 6124 KG	V_1	104	104	104	104				
	V_R	104	104	104	104				
	V_2	114	114	114	114				
V_{ENR} = 114	TOFL-FT	8145	10,667	11,857	16,196				
13,000 LB 5897 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	111	111	111	111	111			
V_{ENR} = 111	TOFL-FT	7444	9733	10,813	14,752	18,690			
12,500 LB 5670 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	109	109	109	109	109			
V_{ENR} = 109	TOFL-FT	6743	8799	9769	13,307	16,844			
12,000 LB 5443 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	107	107	107	107	107			
V_{ENR} = 107	TOFL-FT	6042	7865	8726	11,862	14,999			
11,500 LB 5216 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	105	105	105	105	105	105		
V_{ENR} = 105	TOFL-FT	5348	6931	7682	10,417	13,153	13,973		
11,000 LB 4990 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	5230	6126	6638	8973	11,307	12,007		
10,500 LB 4763 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	5111	5976	6265	8430	10,623	11,281		
10,000 LB 4536 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} =104	TOFL-FT	4992	5827	6105	7888	9940	10,555		
9,500 LB 4309 KG	V_1	103	103	103	103	103	103		
	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	4874	5677	5945	7346	9256	9829		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
13,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	25	26		
14,000 LB	V_1	106	106	106					
6350 KG	V_R	106	106	106					
	V_2	116	116	116					
V_{ENR} = 116	TOFL-FT	9788	12,760	15,512					
13,500 LB	V_1	104	104	104	104				
6124 KG	V_R	104	104	104	104				
	V_2	114	114	114	114				
V_{ENR} = 114	TOFL-FT	8832	11,499	13,969	18,810				
13,000 LB	V_1	103	103	103	103				
5897 KG	V_R	103	103	103	103				
	V_2	111	111	111	111				
V_{ENR} = 111	TOFL-FT	8067	10,488	12,730	17,124				
12,500 LB	V_1	103	103	103	103	103			
5670 KG	V_R	103	103	103	103	103			
	V_2	109	109	109	109	109			
V_{ENR} = 109	TOFL-FT	7303	9477	11,491	15,437	19,384			
12,000 LB	V_1	103	103	103	103	103			
5443 KG	V_R	103	103	103	103	103			
	V_2	107	107	107	107	107			
V_{ENR} = 107	TOFL-FT	6539	8467	10,252	13,751	17,250			
11,500 LB	V_1	103	103	103	103	103			
5216 KG	V_R	103	103	103	103	103			
	V_2	105	105	105	105	105			
V_{ENR} = 105	TOFL-FT	5774	7456	9013	12,065	15,117			
11,000 LB	V_1	103	103	103	103	103	103		
4990 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	5518	6537	7774	10,379	12,983	13,244		
10,500 LB	V_1	103	103	103	103	103	103		
4763 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	5390	6373	7304	9751	12,198	12,442		
10,000 LB	V_1	103	103	103	103	103	103		
4536 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} =104	TOFL-FT	5261	6209	6835	9124	11,413	11,641		
9,500 LB	V_1	103	103	103	103	103	103		
4309 KG	V_R	103	103	103	103	103	103		
	V_2	104	104	104	104	104	104		
V_{ENR} = 104	TOFL-FT	5132	6045	6426	8496	10,627	10,840		

REFERENCE ONLY

TAKEOFF SPEEDS & FIELD LENGTHS - FLAPS UP
14,000 FEET PRESSURE ALTITUDE

Notes: Airplanes with High Flotation landing gear. For operations with ice vanes extended, add 6°C to actual Outside Air Temperature. Red shading indicates performance requirements are not met.

T.O. WEIGHT	ITEM	OUTSIDE AIR TEMPERATURE (°C)							
		-35	-5	5	15	24			
14,000 LB 6350 KG	V_1	106	106						
	V_R	106	106						
	V_2	116	116						
V_{ENR} = 116	TOFL-FT	10,575	13,719						
13,500 LB 6124 KG	V_1	104	104	104					
	V_R	104	104	104					
	V_2	114	114	114					
V_{ENR} = 114	TOFL-FT	9538	12,360	16,354					
13,000 LB 5897 KG	V_1	103	103	103	103				
	V_R	103	103	103	103				
	V_2	111	111	111	111				
V_{ENR} = 111	TOFL-FT	8708	11,269	14,895	19,709				
12,500 LB 5670 KG	V_1	103	103	103	103				
	V_R	103	103	103	103				
	V_2	109	109	109	109				
V_{ENR} = 109	TOFL-FT	7879	10,179	13,436	17,760				
12,000 LB 5443 KG	V_1	103	103	103	103				
	V_R	103	103	103	103				
	V_2	107	107	107	107				
V_{ENR} = 107	TOFL-FT	7049	9089	11,976	15,810				
11,500 LB 5216 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	105	105	105	105	105			
V_{ENR} = 105	TOFL-FT	6220	7999	10,517	13,861	16,870			
11,000 LB 4990 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	104	104	104	104	104			
V_{ENR} = 104	TOFL-FT	5826	6979	9058	11,911	14,480			
10,500 LB 4763 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	104	104	104	104	104			
V_{ENR} = 104	TOFL-FT	5687	6800	8510	11,191	13,604			
10,000 LB 4536 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	104	104	104	104	104			
V_{ENR} =104	TOFL-FT	5548	6621	7963	10,471	12,728			
9,500 LB 4309 KG	V_1	103	103	103	103	103			
	V_R	103	103	103	103	103			
	V_2	104	104	104	104	104			
V_{ENR} = 104	TOFL-FT	5408	6441	7415	9750	11,852			

REFERENCE ONLY

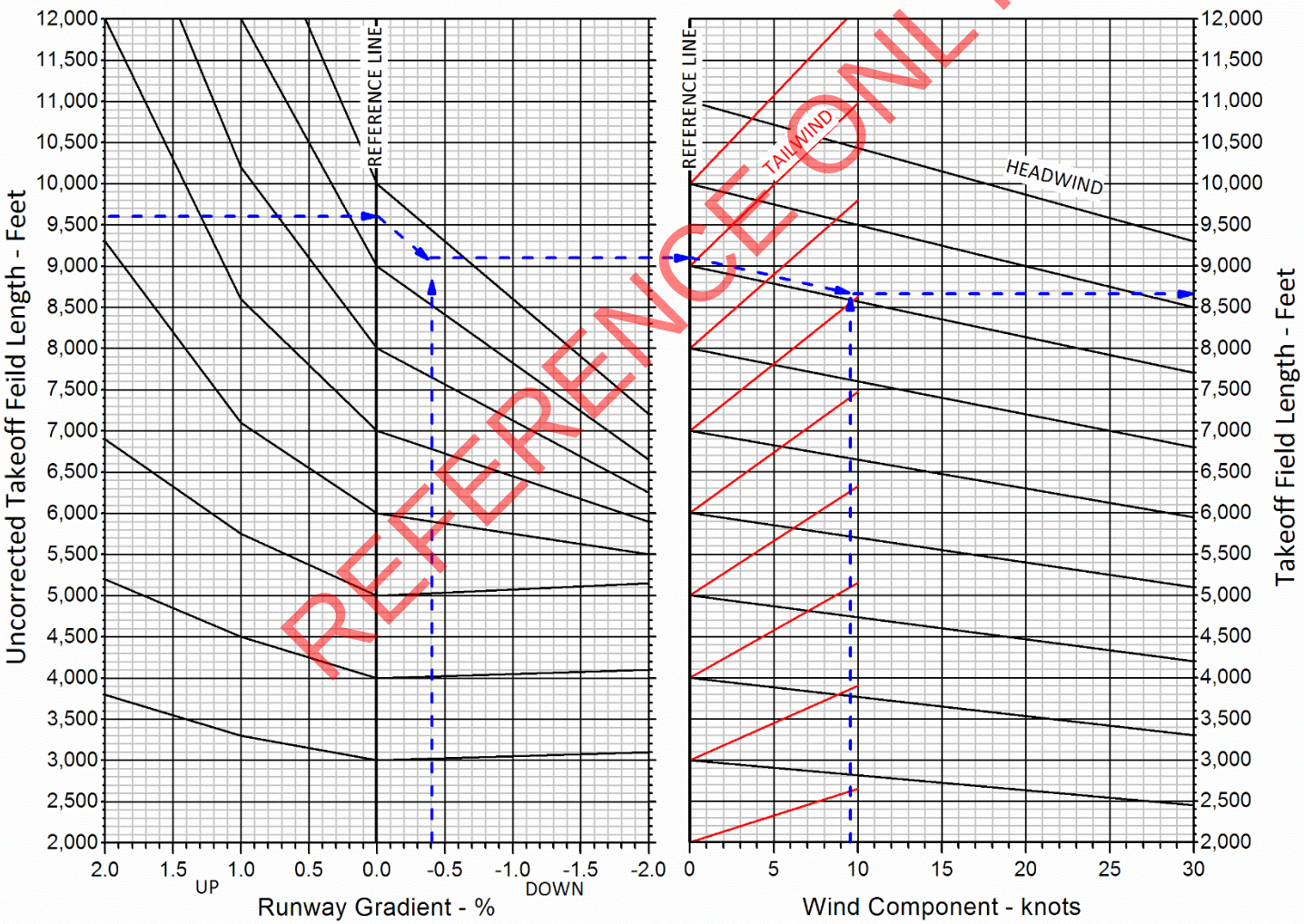
TAKEOFF FIELD LENGTH CORRECTION - FLAPS UP

FOR RUNWAY GRADIENT AND WIND COMPONENT

Notes:

1. Obtain take-off field length from the appropriate Take-Off Speeds and Field Lengths table and enter the graph below with that value to determine the field length corrected for runway gradient and wind component.
2. The wind grid includes factors of 50% for headwinds and 150% for tailwinds. Components of reported winds may be used directly in the graph.
3. Do not extrapolate for headwind components greater than 30 knots. Use a 30 knot headwind component for correcting Takeoff Field Length when headwind component is 30 knots or greater.
4. Do not take-off with more than a 10 knot tail wind component.

Example:
Uncorrected Takeoff Field Length.. 9,602 ft
Runway gradient..... 0.4% Down
Headwind component..... 9.5 knots
Corrected take-off field length..... 8,670 feet



REFERENCE ONLY

ACCELERATE - STOP DISTANCE - FLAPS UP

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

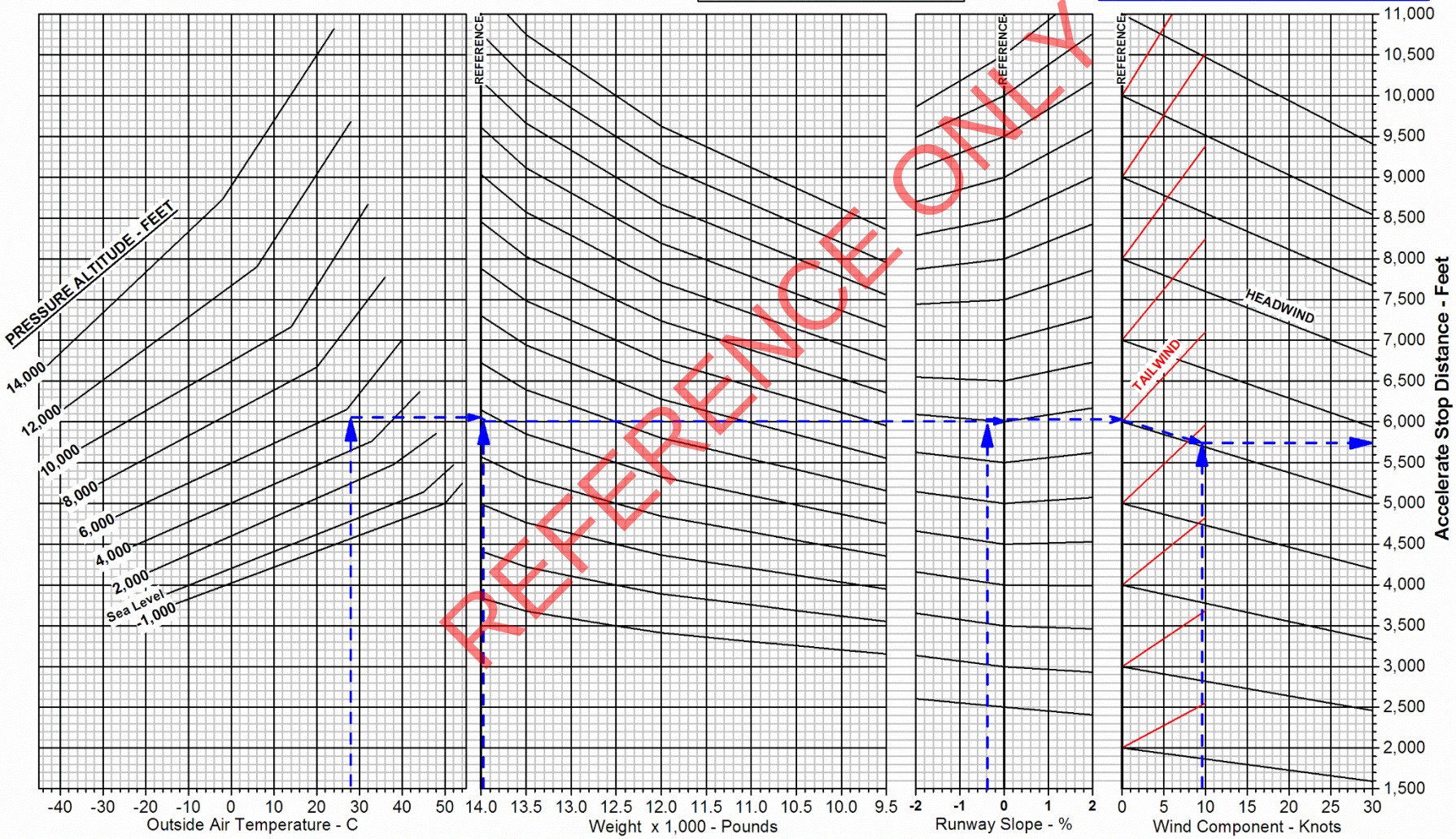
Associated conditions

Power.... 1. Take-off power set before brake release.
2. Both engines idle at V_1 speed and reverse on operating engine.

Flaps..... Up
Autofeather..... Armed
Braking..... Maximum
Runway..... Paved, Level, Dry Surface

Weight - LBS	Speed, V_1 - Kts
14,000	106
13,500	104
13,000	103
9,500	103

Example
OAT..... 28 °C
Pressure Altitude..... 5,430 feet
Weight..... 13,949 pounds
Runway Slope..... -0.4%
Headwind Component..... 9.5 knots
Field Length ..... 5,730 feet



REFERENCE ONLY

NET GRADIENT OF CLIMB - FLAPS UP

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

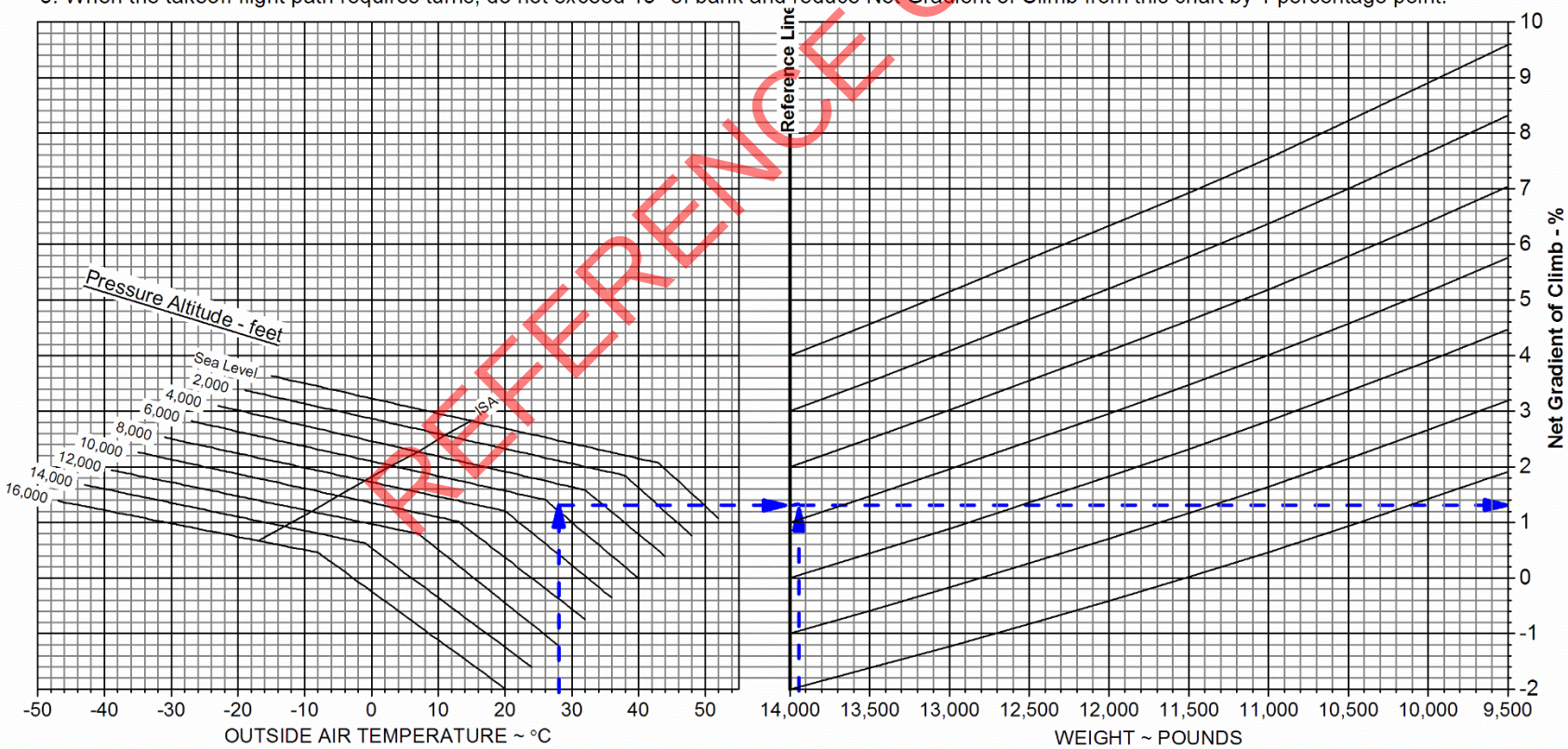
Associated Conditions

Power..... Take-Off
Flaps..... Up
Landing Gear..... Up
Inoperative Propeller... Feathered

Weight - LBS	Speed - Kts
14,000	116
13,000	111
12,000	107
11,000	104
10,000	104

Example
OAT.....28°C
Pressure Altitude.....5,433 Feet
Takeoff Weight .....13,949 LBS
Net Gradient 1.3%
Speed .....116 Knots

Notes:
1. This chart is applicable to the second segment (when the takeoff is executed with flaps up) and final segment of the takeoff flight path. Use the pressure altitude of the top of the climb segment.
2. V_{ENR} is 148 when operating in icing conditions.
3. Reduce Net Gradient of Climb from this chart by 0.5 percentage points when V_{ENR} is 148 knots.
4. For operations with engine ice vanes extended reduce the Net Gradient of Climb from this chart by 0.9 percentage points.
5. When the takeoff flight path requires turns, do not exceed 15° of bank and reduce Net Gradient of Climb from this chart by 1 percentage point.



REFERENCE ONLY

CLIMB - ONE ENGINE INOPERATIVE

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

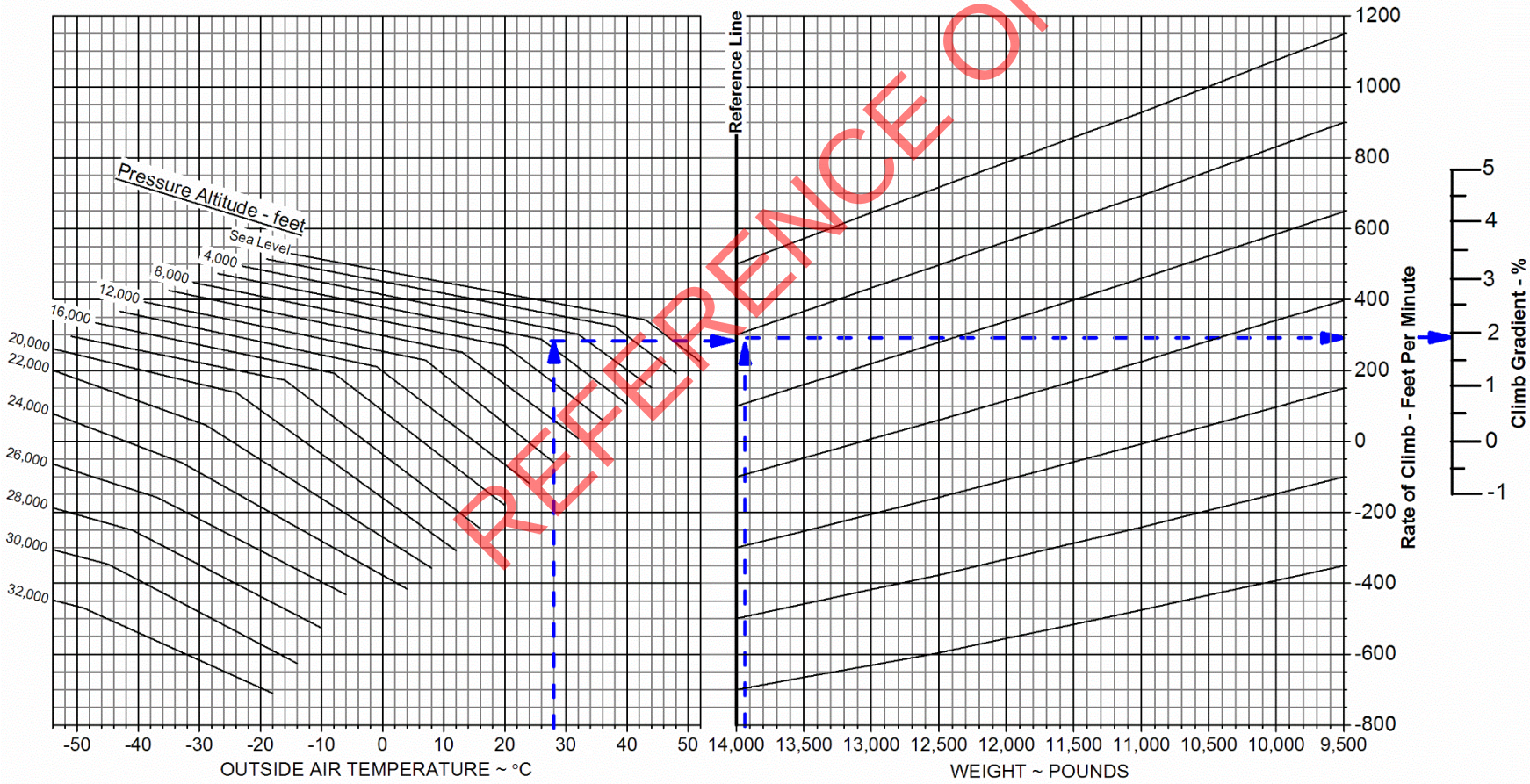
Associated Conditions

Power..... Maximum Continuous
Flaps..... Up
Landing Gear..... Up
Inoperative Propeller... Feathered

Weight - LBS	Speed - Kts
14,000	116
13,000	111
12,000	107
11,000	104
10,000	104

Example
OAT.....28°C
Pressure Altitude.....5,433 Feet
Takeoff Weight .....13,949 LBS
Rate of Climb.....290
Climb Gradient 1.95%
Speed .....116 Knots

Notes:
1. When V_{ENR} is 148 knots reduce Rate of Climb from this chart by 75 FPM.
2. When operating with engine ice vanes extended reduce Rate of Climb from this chart by 100 FPM.



REFERENCE ONLY

CLIMB - TWO ENGINES - FLAPS UP

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated Conditions

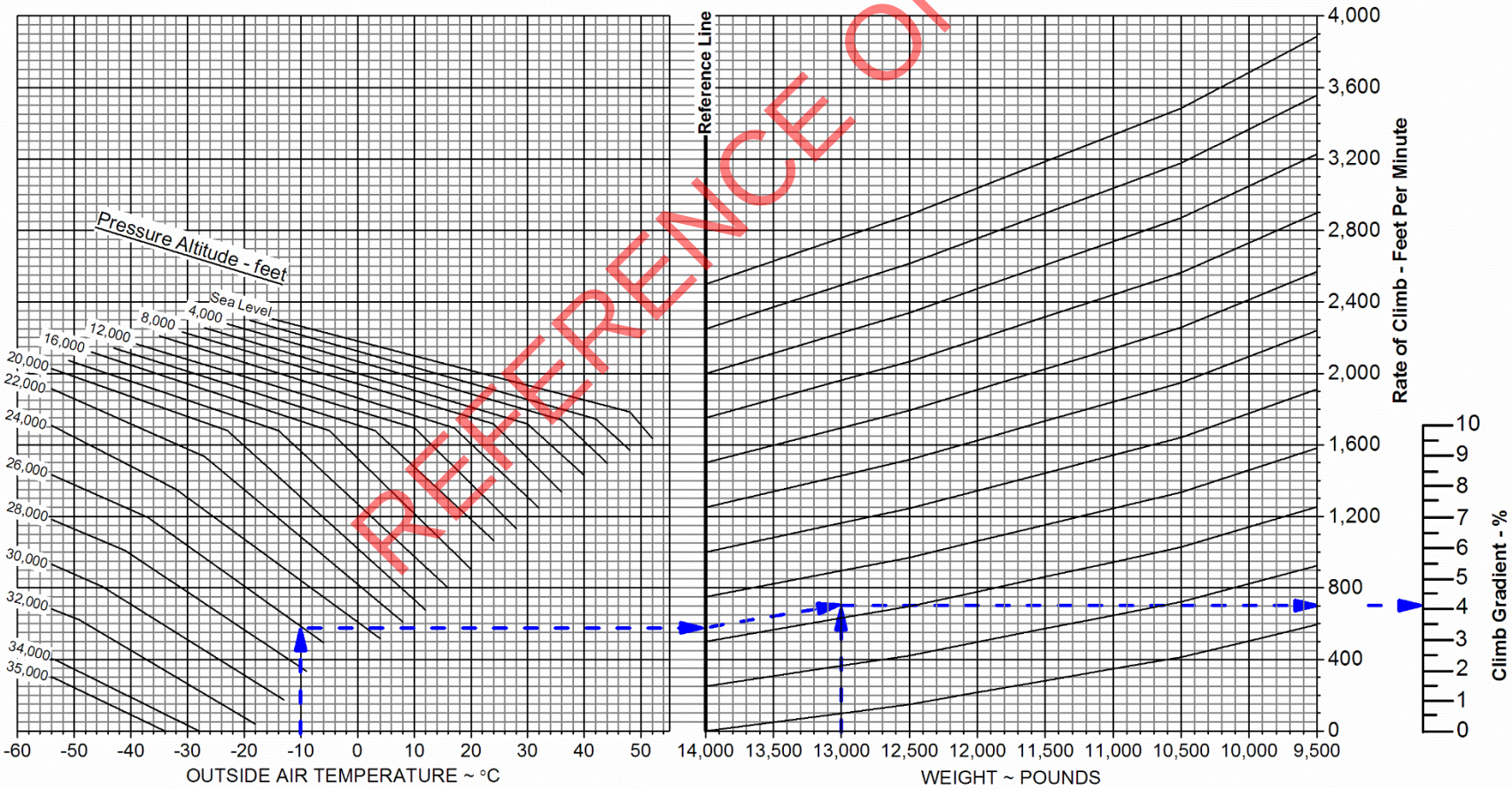
Power..... Maximum Continuous
Flaps..... Up
Landing Gear..... Up

Weight - LBS	Speed - Kts
14,000	128
13,000	126
12,000	124
11,000	122
10,000	120

Example
OAT.....-10°C
Pressure Altitude.....26,000 Feet
Takeoff Weight .....13,000 LBS
Rate of Climb.....700
Climb Gradient 4.1%
Speed .....126 Knots

Notes:
1. When climb speed is 148 knots reduce Rate of Climb from this chart by 100 FPM.
2. When operating with engine ice vanes extended reduce Rate of Climb from this chart by 250 FPM.

REFERENCE ONLY



TIME, FUEL, AND DISTANCE TO CLIMB

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

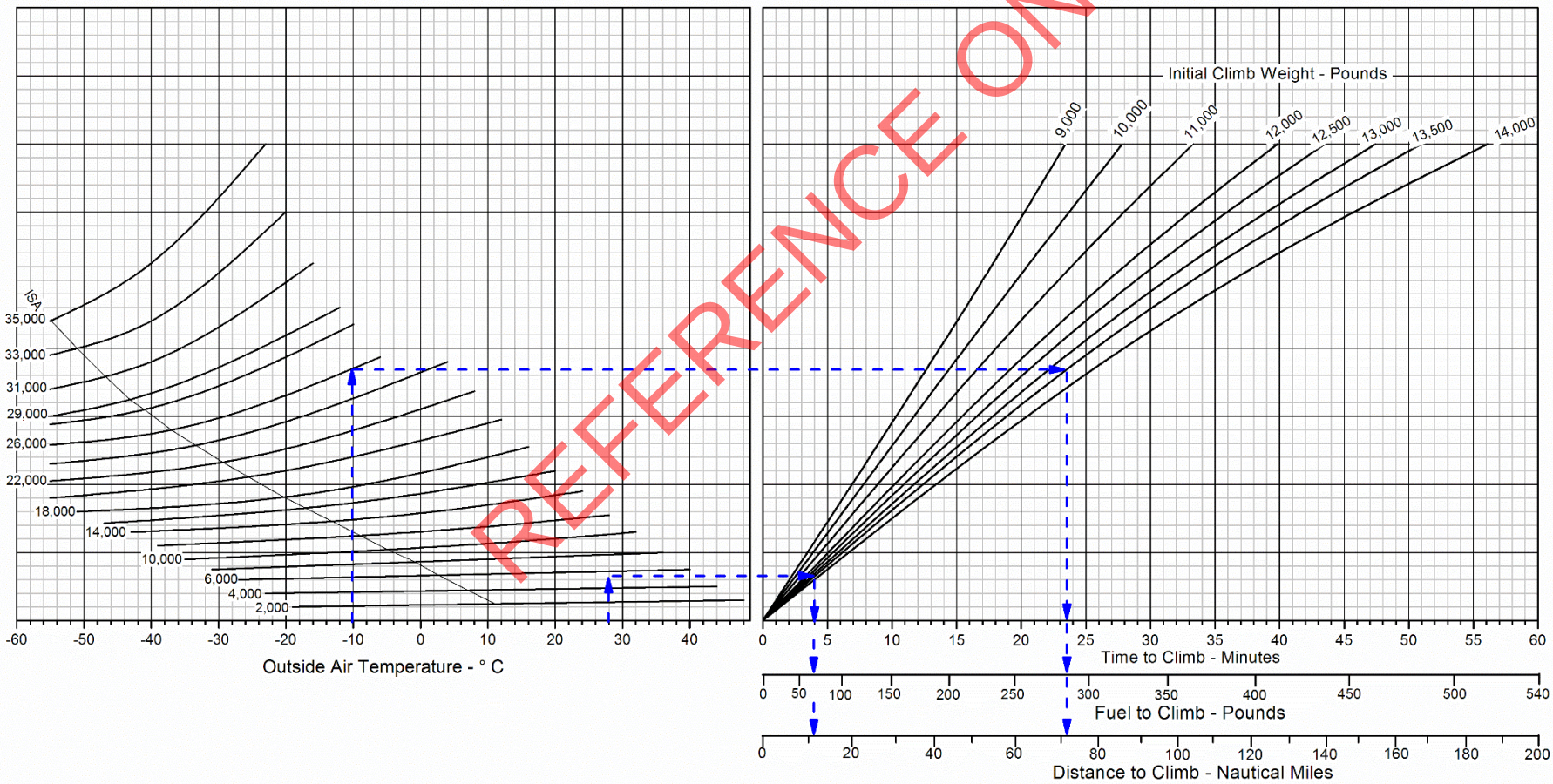
Associated conditions

Propeller speed..... 1,800 RPM
Torque..... 2230 FT-LB (as available)
ITT..... 820 °C

Altitude - Feet	Climb Speed - Knots
Sea Level to 10,000	160
10,000 to 20,000	140
20,000 to 25,000	130
25,000 to 35,000	120

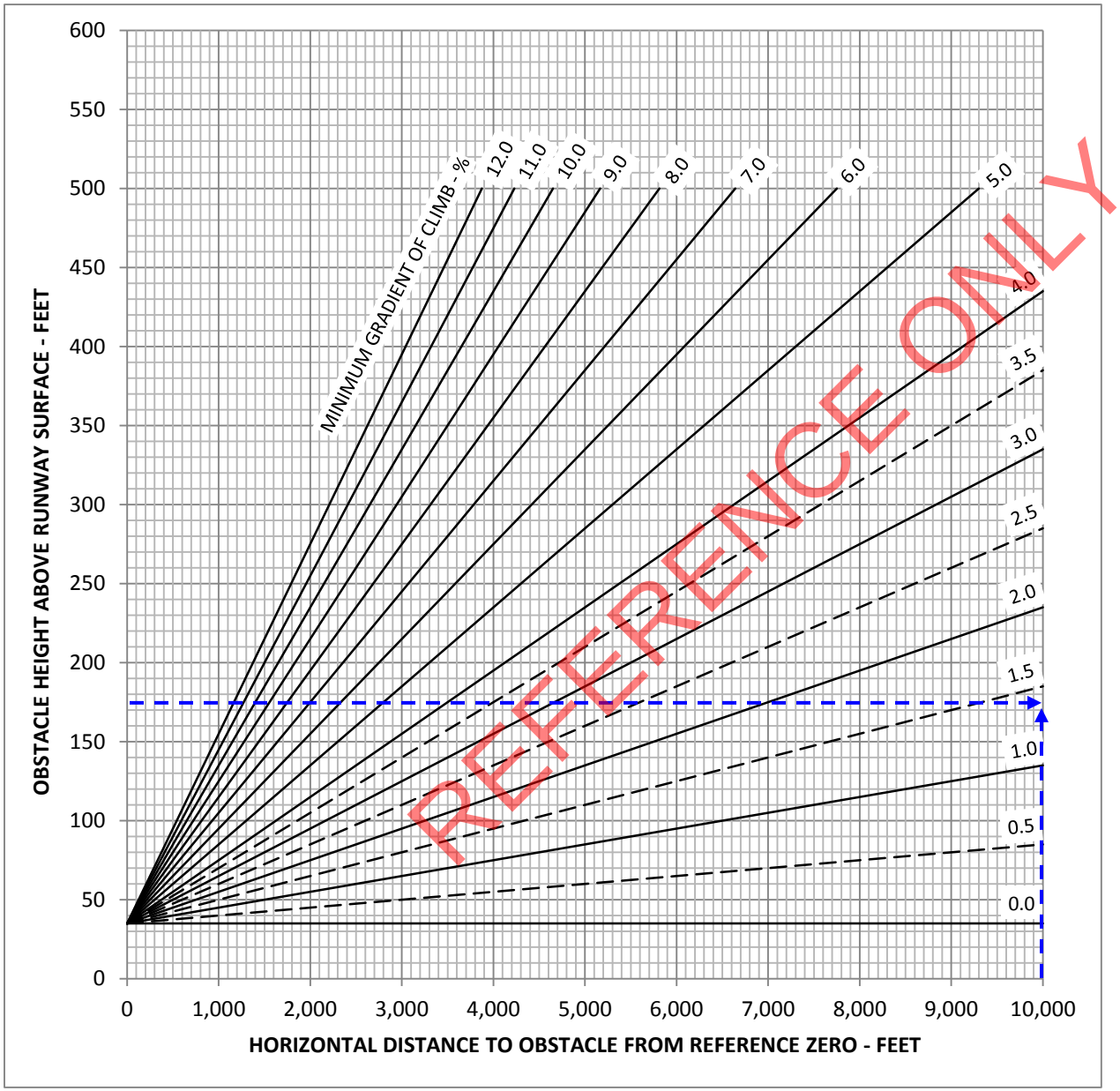
Notes: 1. Add 90 pounds of fuel for start, taxi, and takeoff.
2. For operation with ice vanes extended add 25°C to the actual OAT before entering this chart.

Example
OAT at takeoff..... 28 °C
OAT at cruise..... -10 °C
Airport altitude..... 5,333 feet
Cruise altitude..... 26,000 feet
Weight..... 13,500 pounds
Time to climb (23.5-4.0)..... 19.5 minutes
Fuel to climb (285-70)..... 215 pounds
Distance to Climb (72-12)..... 60 nautical miles



REFERENCE ONLY

CLOSE-IN
TAKEOFF FLIGHT PATH

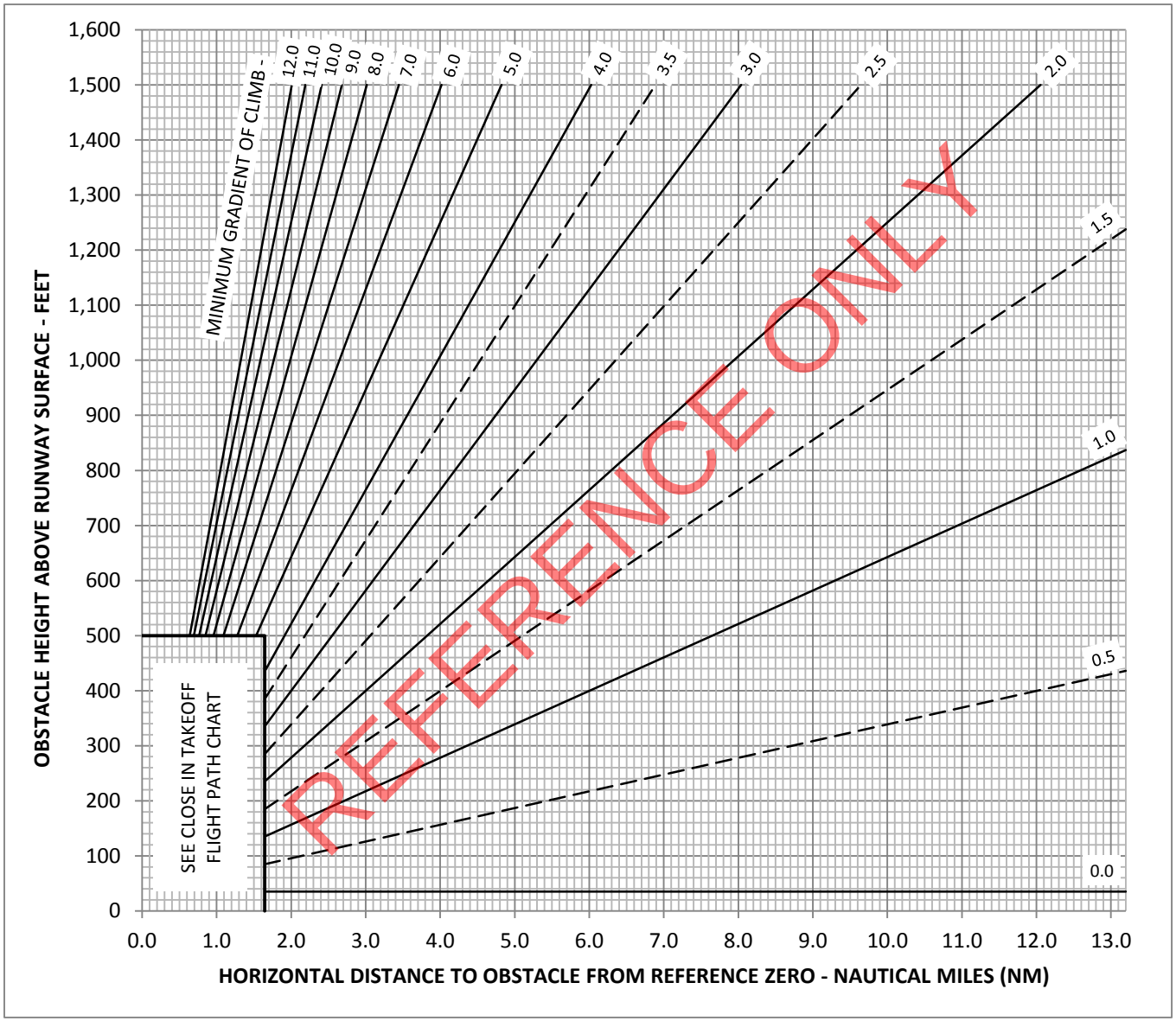


REFERENCE ZERO: THE POINT AT THE END OF THE TAKEOFF RUN AT WHICH THE AIRPLANE IS 35 FEET ABOVE THE RUNWAY SURFACE.

EXAMPLE:
OBSTACLE HEIGHT. . . . . 175 FEET

HORIZONTAL DISTANCE FROM REFERENCE ZERO FEET	MINIMUM GRADIENT OF CLIMB %
10,000	1.4

DISTANT
TAKEOFF FLIGHT PATH



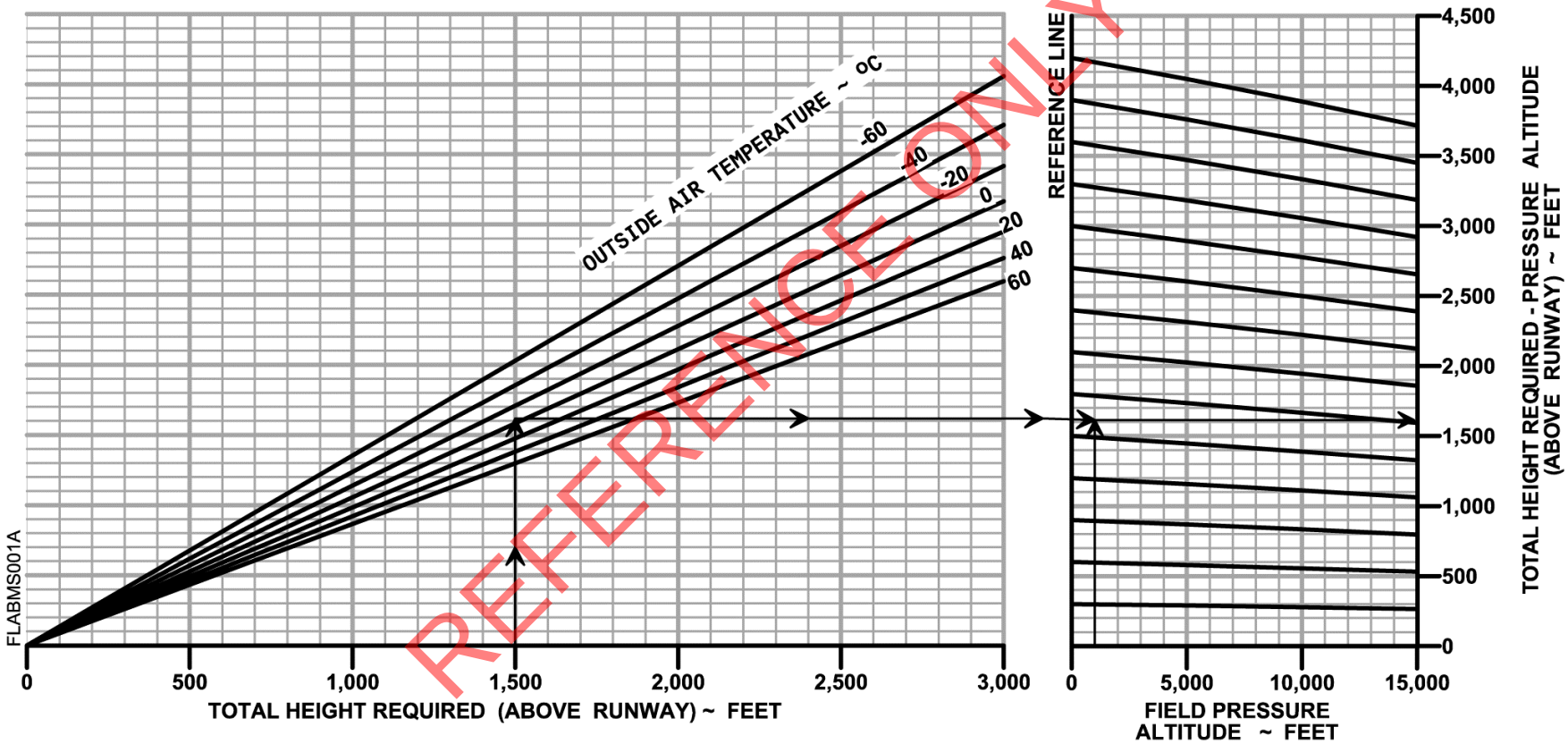
TOTAL HEIGHT REQUIRED - PRESSURE ALTITUDE CONVERSION

NOTES:

1. ASSUMES ZERO ALTIMETER ERROR (FOR PRESSURE ALTITUDE).
2. TO USE CHART, ENTER WITH TOTAL HEIGHT REQUIRED (ABOVE RUNWAY). USING FIELD CONDITIONS OF OUTSIDE AIR TEMPERATURE AND PRESSURE ALTITUDE, CONVERT THE TOTAL HEIGHT REQUIRED TO AN EQUIVALENT INCREMENT OF PRESSURE ALTITUDE (ABOVE RUNWAY).

EXAMPLE:

TOTAL HEIGHT REQUIRED (ABOVE RUNWAY).....1,500 FT
OUTSIDE AIR TEMPERATURE (FIELD LEVEL).....-6°C
FIELD PRESSURE ALTITUDE.....1,000 FT
TOTAL HEIGHT REQUIRED IN PRESSURE ALTITUDE (ABOVE RUNWAY).....1,607 FT



REFERENCE ONLY

MAXIMUM CRUISE POWER
1800 RPM
ISA

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and with ice accumulations present, torque will decrease approx 14% if handbook power is not or cannot be reset, true airspeed will decrease approx 75 knots, and fuel flow will decrease approx 50 lb/hr/engine. If handbook power is reset true airspeed will decrease approx 55 knots and fuel flow will increase approx 25 lb/hr/engine.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
Sea Level	20	15	2230	974	230	231	231	232
2,000	17	11	2230	946	229	236	230	237
4,000	13	7	2230	918	226	240	227	241
6,000	9	3	2230	894	224	245	225	246
8,000	5	-1	2230	872	222	250	223	251
10,000	2	-5	2230	852	219	255	220	256
12,000	-2	-9	2230	832	217	260	218	261
14,000	-6	-13	2230	816	214	264	215	266
16,000	-10	-17	2230	800	211	269	213	271
18,000	-13	-21	2230	786	209	275	210	277
20,000	-17	-25	2230	776	207	281	208	282
22,000	-21	-29	2230	768	204	285	205	287
24,000	-24	-33	2230	764	200	290	202	292
26,000	-28	-37	2179	744	194	291	196	294
28,000	-32	-41	2038	696	186	290	188	292
29,000	-34	-43	1969	674	182	287	184	290
31,000	-39	-46	1809	622	172	282	174	286
33,000	-43	-50	1636	568	161	274	164	279
35,000	-47	-54	1473	516	149	264	153	270

MAXIMUM CRUISE POWER
1800 RPM
ISA+20°C

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and with ice accumulations present, torque will decrease approx 14% if handbook power is not or cannot be reset, true airspeed will decrease approx 75 knots, and fuel flow will decrease approx 50 lb/hr/engine. If handbook power is reset true airspeed will decrease approx 55 knots and fuel flow will increase approx 25 lb/hr/engine.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
Sea Level	41	35	2230	996	228	236	228	237
2000	37	31	2230	968	226	241	227	242
4000	33	27	2230	940	224	246	225	247
6000	29	23	2230	914	220	250	221	251
8000	26	19	2230	890	218	255	219	256
10,000	22	15	2230	868	215	259	217	261
12,000	18	11	2230	850	213	264	214	266
14,000	15	7	2230	832	211	270	212	272
16,000	11	3	2230	818	208	275	209	277
18,000	7	-1	2230	802	205	281	207	282
20,000	3	-5	2230	760	198	280	200	282
22,000	-1	-9	2127	720	190	278	192	281
24,000	-5	-13	2003	680	183	277	185	279
26,000	-9	-17	1864	636	174	273	177	277
28,000	-13	-21	1717	590	165	268	167	272
29,000	-16	-23	1644	566	160	265	163	270
31,000	-20	-26	1511	524	149	257	153	264
33,000	-24	-30	1389	486	138	247	143	256
35,000	-29	-34	1273	448	125	233	133	246

REFERENCE ONLY

NORMAL CRUISE POWER
1800 RPM
ISA

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and with ice accumulations present, torque will decrease approx 14% if handbook power is not or cannot be reset, true airspeed will decrease approx 75 knots, and fuel flow will decrease approx 50 lb/hr/engine. If handbook power is reset true airspeed will decrease approx 55 knots and fuel flow will increase approx 25 lb/hr/engine.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
Sea Level	20	15	2230	974	230	231	231	232
2,000	17	11	2230	946	229	236	230	237
4,000	13	7	2230	918	226	240	227	241
6,000	9	3	2230	894	224	245	225	246
8,000	5	-1	2230	872	222	250	223	251
10,000	2	-5	2230	852	219	255	220	256
12,000	-2	-9	2230	832	217	260	218	261
14,000	-6	-13	2230	816	214	264	215	266
16,000	-10	-17	2230	800	211	269	213	271
18,000	-13	-21	2230	786	209	275	210	277
20,000	-17	-25	2230	776	207	281	208	282
22,000	-21	-29	2230	768	204	285	205	287
24,000	-24	-33	2198	754	199	288	200	290
26,000	-28	-37	2051	706	190	285	192	288
28,000	-33	-41	1919	662	181	282	184	285
29,000	-35	-43	1854	640	177	281	179	284
31,000	-39	-46	1703	592	167	275	170	279
33,000	-43	-50	1537	538	156	267	160	272
35,000	-48	-54	1384	490	144	256	149	264

NORMAL CRUISE POWER
1800 RPM
ISA+20°C

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and with ice accumulations present, torque will decrease approx 14% if handbook power is not or cannot be reset, true airspeed will decrease approx 75 knots, and fuel flow will decrease approx 50 lb/hr/engine. If handbook power is reset true airspeed will decrease approx 55 knots and fuel flow will increase approx 25 lb/hr/engine.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
Sea Level	41	35	2230	996	228	236	228	237
2000	37	31	2230	968	226	241	227	242
4000	33	27	2230	940	224	246	225	247
6000	29	23	2230	914	220	250	221	251
8000	26	19	2230	890	218	255	219	256
10,000	22	15	2230	868	215	259	217	261
12,000	18	11	2230	850	213	264	214	266
14,000	15	7	2230	832	211	270	212	272
16,000	11	3	2153	798	205	271	206	272
18,000	7	-1	2055	756	198	271	200	273
20,000	3	-5	1957	716	191	271	193	273
22,000	-1	-9	1856	680	185	270	186	273
24,000	-5	-13	1750	642	177	268	179	271
26,000	-10	-17	1628	600	168	264	171	268
28,000	-14	-21	1497	556	158	258	161	263
29,000	-16	-23	1434	534	153	255	157	260
31,000	-20	-26	1318	494	142	245	147	253
33,000	-25	-30	1210	458	131	234	137	245
35,000	-30	-34	1108	422	114	213	125	232

REFERENCE ONLY

MAXIMUM RANGE POWER
1700 RPM
ISA

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended, torque will decrease. In order to maintain maximum range configuration, do not reset power to original setting. Fuel flow will remain about the same, but true airspeed will decrease approx 10 knots.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots @13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS
Sea Level	19	15	1430	736	190	191
2,000	15	11	1398	700	187	193
4,000	11	7	1373	666	183	195
6,000	7	3	1333	636	178	195
8,000	3	-1	1300	604	174	197
10,000	-1	-5	1278	578	171	199
12,000	-5	-9	1267	554	168	202
14,000	-9	-13	1260	534	165	205
16,000	-12	-17	1264	516	163	209
18,000	-16	-21	1253	496	160	212
20,000	-20	-25	1235	480	157	214
22,000	-24	-29	1202	462	152	215
24,000	-28	-33	1180	446	148	216
26,000	-32	-37	1178	432	144	218
28,000	-36	-41	1168	418	142	222
29,000	-37	-43	1177	414	141	225
31,000	-41	-46	1167	404	137	226
33,000	-45	-50	1175	396	134	230
35,000	-49	-54	1183	390	132	235

MAXIMUM RANGE POWER
1700 RPM
ISA + 20°C

NOTES:
3. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
4. During operation with ice vanes extended, torque will decrease. In order to maintain maximum range configuration, do not reset power to original setting. Fuel flow will remain about the same, but true airspeed will decrease approx 10 knots.

Pressure Altitude	IOAT	OAT	Torque per Engine	Total Fuel Flow	Airspeed ~ Knots @13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS
Sea Level	39	35	1429	748	187	195
2,000	35	31	1425	716	186	199
4,000	31	27	1386	684	181	199
6,000	27	23	1348	652	177	201
8,000	23	19	1313	620	172	202
10,000	19	15	1289	592	169	204
12,000	16	11	1293	570	166	207
14,000	12	7	1295	550	164	212
16,000	8	3	1290	532	161	214
18,000	4	-1	1269	514	158	217
20,000	0	-5	1237	492	153	218
22,000	-4	-9	1223	478	150	220
24,000	-8	-13	1210	462	146	222
26,000	-11	-17	1205	448	143	226
28,000	-15	-21	1198	438	140	229
29,000	-17	-23	1196	432	138	230
31,000	-21	-26	1197	424	135	233
33,000	-25	-30	1209	420	133	239
35,000	-29	-34	1220	414	129	241

REFERENCE ONLY

ONE ENGINE INOPERATIVE
MAXIMUM CRUISE POWER
1900 RPM
ISA

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and ice accumulations present, torque will decrease approx 10%. If original power is not or cannot be reset, true airspeed will decrease approximately 65 knots and fuel flow will decrease approximately 7%. If original power is reset, true airspeed will decrease approx 45 knots and fuel flow will increase approximately 30 pounds per hour per engine.
3. Shaded cell(s) indicates one engine inoperative service ceiling is exceeded.

Pressure Altitude	IOAT	OAT	Operative Engine Torque	Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
Sea Level	18	15	2230	510	167	168	168	169
2000	14	11	2230	496	165	171	166	172
4000	10	7	2230	482	163	174	164	175
6000	6	3	2230	465	161	177	162	178
8000	2	-1	2230	456	159	180	160	181
10,000	-1	-5	2230	445	157	184	158	185
12,000	-5	-9	2230	436	155	186	156	188
14,000	-9	-13	2230	427	152	189	154	191
16,000	-13	-17	2230	421	150	192	151	194
18,000	-17	-21	2230	416	147	195	148	196
20,000	-21	-25	2230	410	144	197	146	199
22,000	-25	-29	2230	407	140	199	142	201
24,000	-29	-33	2087	383	131	192	133	194

ONE ENGINE INOPERATIVE
MAXIMUM CRUISE POWER
1900 RPM
ISA+20°C

NOTES:
1. See BLR AFMS-B250-3 AFM Supplement for other weights and temperatures.
2. During operation with ice vanes extended and ice accumulations present, torque will decrease approx 10%. If original power is not or cannot be reset, true airspeed will decrease approximately 65 knots and fuel flow will decrease approximately 7%. If original power is reset, true airspeed will decrease approx 45 knots and fuel flow will increase approximately 30 pounds per hour per engine.
3. Shaded cell(s) indicates one engine inoperative service ceiling is exceeded.

Pressure Altitude	IOAT	OAT	Operative Engine Torque	Fuel Flow	Airspeed ~ Knots			
					@14,000 LBS		@13,000 LBS	
Feet	°C	°C	FT-LBS	LBS/HR	IAS	TAS	IAS	TAS
0	38	35	2230	522	165	171	166	172
2000	34	31	2230	507	163	175	164	176
4000	30	27	2230	492	161	178	162	179
6000	26	23	2230	479	159	181	160	182
8000	23	19	2230	468	157	184	158	185
10,000	19	15	2230	456	154	186	155	188
12,000	15	11	2230	447	151	189	153	191
14,000	11	7	2188	432	147	190	148	191
16,000	7	3	2111	412	141	188	143	190
18,000	3	-1	2005	390	134	184	136	187

REFERENCE ONLY

TIME, FUEL, AND DISTANCE TO DESCEND

ASSOCIATED CONDITIONS:

POWER.....AS REQUIRED TO DESCEND AT 1500 FPM

GEAR.....UP

FLAPS.....UP

NOTE: Descent speed - M_{MO} or 250 knots, whichever is less.

EXAMPLE:

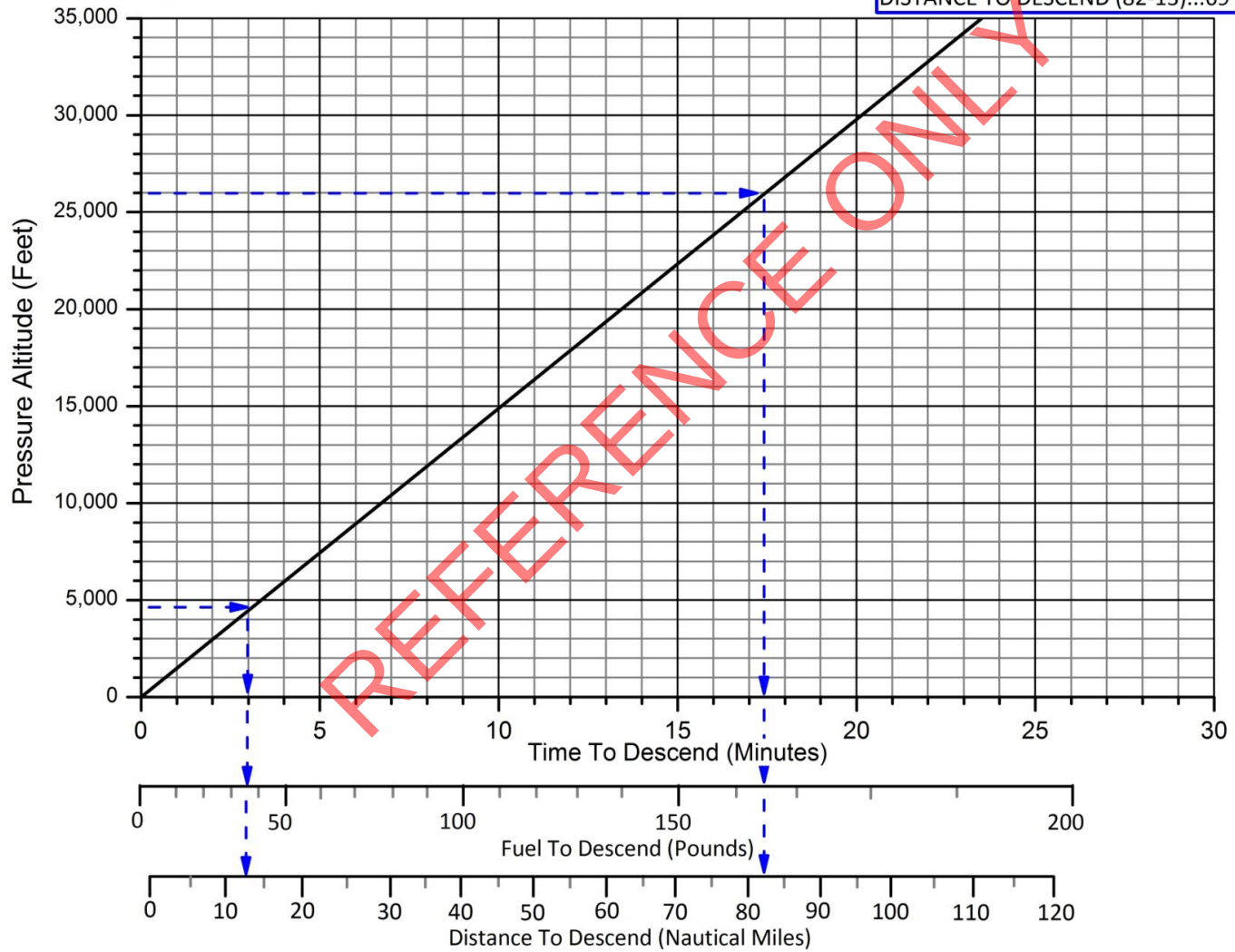
INITIAL ALTITUDE.....26,000 FT

FINAL ALTITUDE.....4732 FT

TIME TO DESCEND (17-3).....14 MINUTES

FUEL TO DESCEND (164-36).....128 LBS

DISTANCE TO DESCEND (82-13)...69 NM



REFERENCE ONLY

MAXIMUM ALLOWED LANDING WEIGHT

TO ACHIEVE LANDING CLIMB REQUIREMENTS

NOTES:
1. Airplanes with High Flotation landing gear.
2. Enter the table at the pressure altitude and temperature from which a go-around would be initiated at the destination.
3. The predicted landing weight at the destination must not exceed the corresponding Maximum Allowed Landing Weight shown in this table.

EXAMPLE:
Destination OAT…32°C Pressure Altitude…4,732 feet
Maximum Allowed Landing Weight – 12,856 lbs

Pressure Altitude -Feet-	Outside Air Temperature Maximum Allowed Landing Weight - Pounds															
16,000	**-40°C** 12,297	**-30°C** 12,048	**-20°C** 11,782	**-10°C** 11,506	**0°C** 10,299	**5°C** 9,617	6°C 9,500									
15,000	12,520	12,276	12,027	11,764	10,896	10,294	**10°C** 9,622	11°C 9,500								
14000	12,762	12,504	12,262	12,021	11,495	10,899	10,306	**15°C** 9,634	16°C 9,500							
13000	12,992	12,746	12,489	12,256	11,972	11,497	10,901	10,317	**20°C** 9,648	21°C 9,507						
12000	13,220	12,985	12,738	12,483	12,249	12,051	11,499	10,917	10,335	**25°C** 9,675	26°C 9,536					
11000	13,429	13,204	12,968	12,730	12,475	12,364	12,051	11,499	10,917	10,333	**30°C** 9,675					
10000	13,500	13,412	13,196	12,967	12,720	12,601	12,474	12,051	11,508	10,917	10,335	32°C 10,081				
9000	13,500	13,500	13,402	13,183	12,958	12,839	12,719	12,516	12,050	11,498	10,908	34°C 10,446				
8000	13,500	13,500	13,500	13,392	13,177	13,064	12,956	12,837	12,552	12,048	11,496	**35°C** 10,898	36°C 10,788			
7000	13,500	13,500	13,500	13,500	13,374	13,270	13,160	13,053	12,944	12,494	11,994	11,447	38°C 11,087			
6000	13,500	13,500	13,500	13,500	13,500	13,457	13,356	13,259	13,154	12,969	12,457	11,954	**40°C** 11,406			
5000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,446	13,351	13,247	12,956	12,419	11,888	42°C 11,665		
4000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,442	13,347	12,905	12,353	44°C 11,910		
3000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,308	12,790	**45°C** 12,261	46°C 12,158	
2000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,201	12,695	48°C 12,393	
1000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,115	**50°C** 12,594	
Sea Level	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,009	52°C 12,794

REFERENCE ONLY

MAXIMUM ALLOWED LANDING WEIGHT

TO ACHIEVE LANDING CLIMB REQUIREMENTS WITH ICE ACCUMULATIONS PRESENT

NOTES

1. Airplanes with High Flotation landing gear.
2. Use of this table is required when icing is expected during the landing approach at the destination airport.
3. Enter the table at the pressure altitude and temperature from which a go-around would be initiated at the destination. The predicted landing weight at the destination must not exceed the corresponding Maximum Allowed Landing Weight shown in this table.

Pressure Altitude -Feet-	Outside Air Temperature Maximum Allowed Landing Weight - Pounds									
16,000	**-40°C** 9,795	**-35°C** 9,659	**-30°C** 9,525	-29°C 9,500						
15,000	10,070	9,946	9,814	**-25°C** 9,685	**-20°C** 9,552	-18°C 9,500				
14000	10,309	10,188	10,067	9,943	9,815	**-15°C** 9,684	**-10°C** 9,549	-8°C 9,500		
13000	10,547	10,434	10,321	10,203	10,083	9,959	9,832	**-5°C** 9,701	**-0°C** 9,530	1°C 9,500
12000	10,781	10,670	10,560	10,448	10,339	10,220	10,099	9,980	9,853	**5°C** 9,639
11000	10,995	10,891	10,786	10,682	10,574	10,467	10,352	10,240	10,119	10,000
10000	11,225	11,121	11,006	10,907	10,804	10,702	10,597	10,485	10,375	10,262
9000	11,471	11,358	11,244	11,131	11,017	10,917	10,817	10,715	10,610	10,508
8000	11,693	11,585	11,474	11,368	11,254	11,148	11,035	10,932	10,835	10,737
7000	11,891	11,787	11,683	11,578	11,475	11,369	11,263	11,151	11,044	10,939
6000	12,073	11,974	11,877	11,777	11,681	11,579	11,482	11,376	11,274	11,166
5000	12,242	12,150	12,057	11,966	11,872	11,782	11,682	11,585	11,488	11,388
4000	12,419	12,329	12,238	12,149	12,058	11,970	11,877	11,787	11,694	11,598
3000	12,561	12,477	12,393	12,309	12,224	12,141	12,055	11,967	11,878	11,787
2000	12,733	12,649	12,565	12,480	12,397	12,312	12,230	12,143	12,057	11,968
1000	12,860	12,781	12,701	12,622	12,543	12,464	12,384	12,306	12,223	12,138
Sea Level	13,039	12,957	12,875	12,793	12,710	12,629	12,540	12,463	12,383	12,303

REFERENCE ONLY

DISCONTINUED APPROACH CLIMB GRADIENT

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

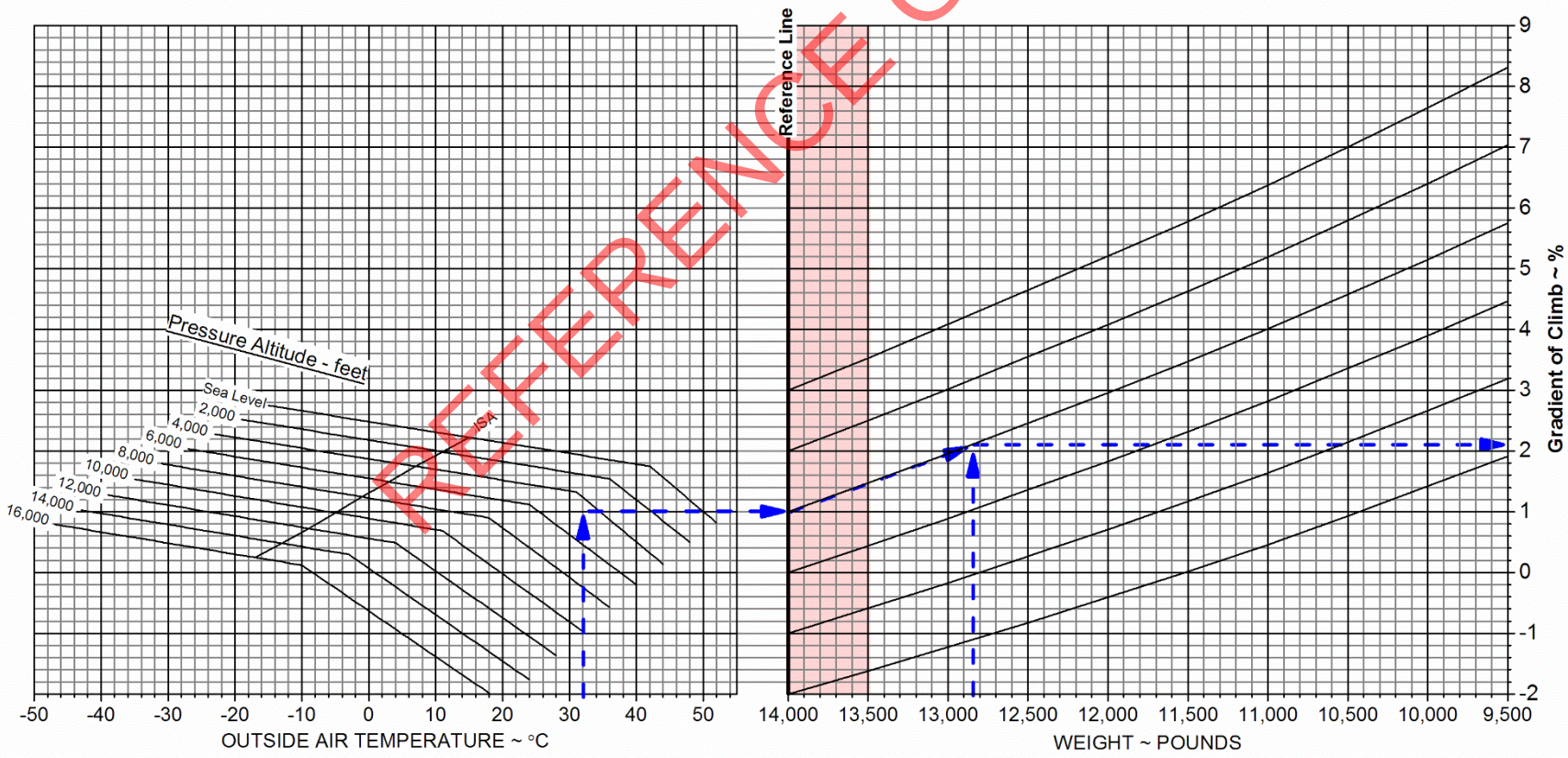
Associated Conditions

Power..... Take-Off
Flaps..... Approach
Landing Gear..... Up
Inoperative Propeller... Feathered

Weight - LBS	V_{REF}+10 - Kts
14,000	116
13,000	114
12,000	112
11,000	109
10,000	106
9,000	103

Example
OAT.....32°C
Pressure Altitude.....4,730 Feet
Weight .....12,856 LBS
Net Gradient 2.1%
Speed .....113 Knots

Notes:
1. Decrease the percent gradient from this chart by 0.9 points when engine ice vanes are extended.
2. Decrease the percent gradient from this chart by 5.0 points when icing conditions are present. Minimum airspeed in sustained icing conditions is 148 knots.
3. When the discontinued approach climb path requires turns, do not exceed 15° of bank and reduce Gradient of Climb from this chart by 1 percentage point.
4. Red shaded area is above maximum landing weight.
5. When the missing approach flight path requires turns, do not exceed 15° of bank and reduce Gradient of Climb from this chart by 1 percentage point.



REFERENCE ONLY

CLIMB - BALKED LANDING

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

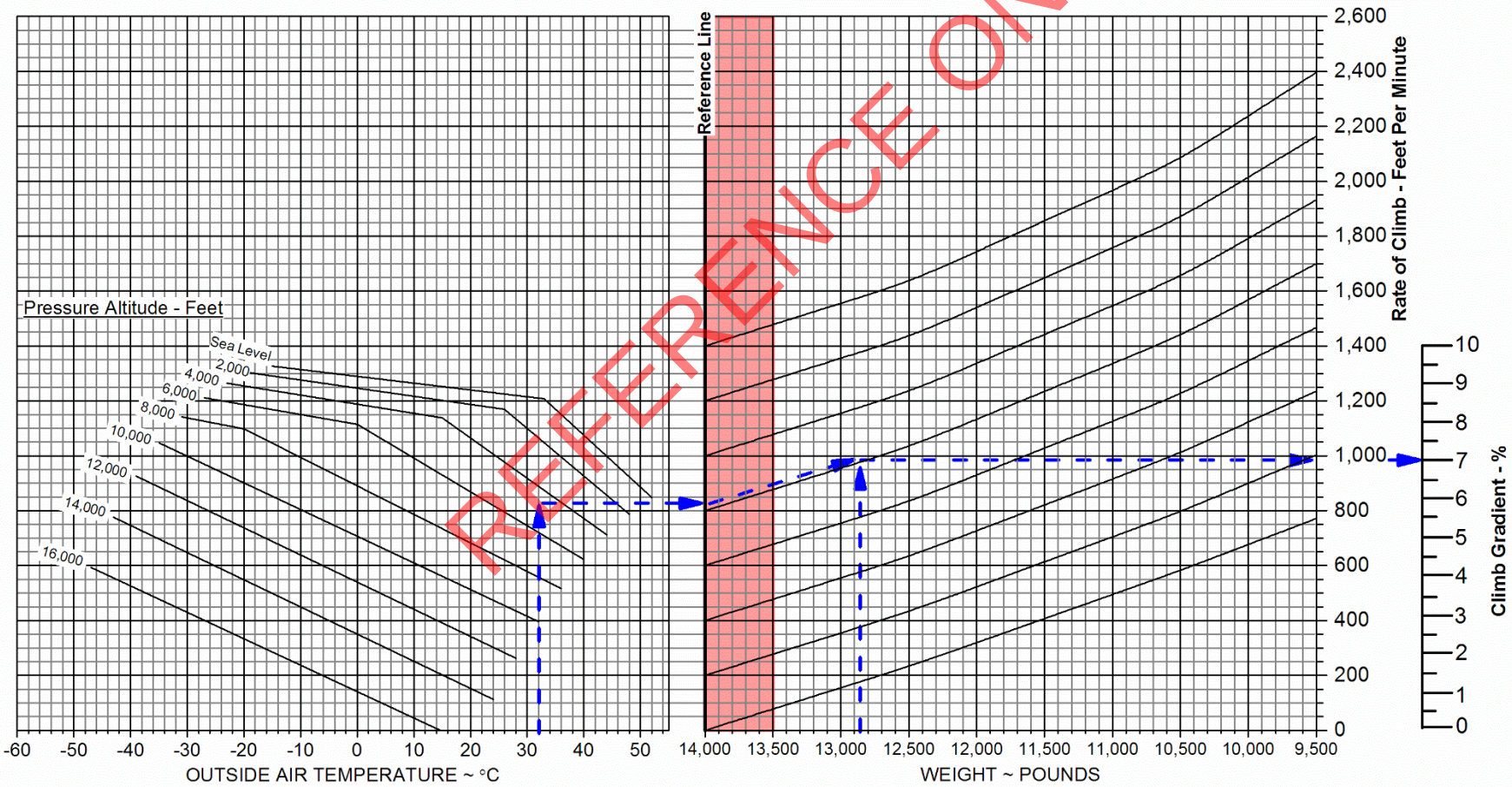
Associated Conditions

Power..... Takeoff
Flaps..... Down
Landing Gear..... Down

Weight - LBS	Climb Speed (V_{REF}) - Kts
14,000	106
13,000	104
12,000	102
11,000	99
10,000	96
9,000	93

Example
OAT..... 32°C
Pressure Altitude..... 4,732 Feet
Weight .....12,856 LBS
Rate of Climb..... 970 FPM
Climb Gradient ..... 7.0 %
Speed ..... 104 Knots

Notes:
1. When ice accumulations are present and engine anti-ice is operative, reduce the Rate-of-Climb from this chart by 400 FPM.
2. Red shaded area are weights above the Max Landing Weight.



REFERENCE ONLY

LANDING DISTANCE WITHOUT PROPELLER REVERSING

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated conditions

Power..... Retard for 500 to 680 fpm on final approach.
Flaps..... Down
Runway..... Paved, Dry, Level Surface
Braking..... Maximum

Weight	V_{REF} Speeds - Knots	
Pounds	Flaps Dwn	Flaps Up
14,000	106	126
13,000	104	121
12,000	102	115
11,000	99	111
10,000	96	106
9,000	93	101

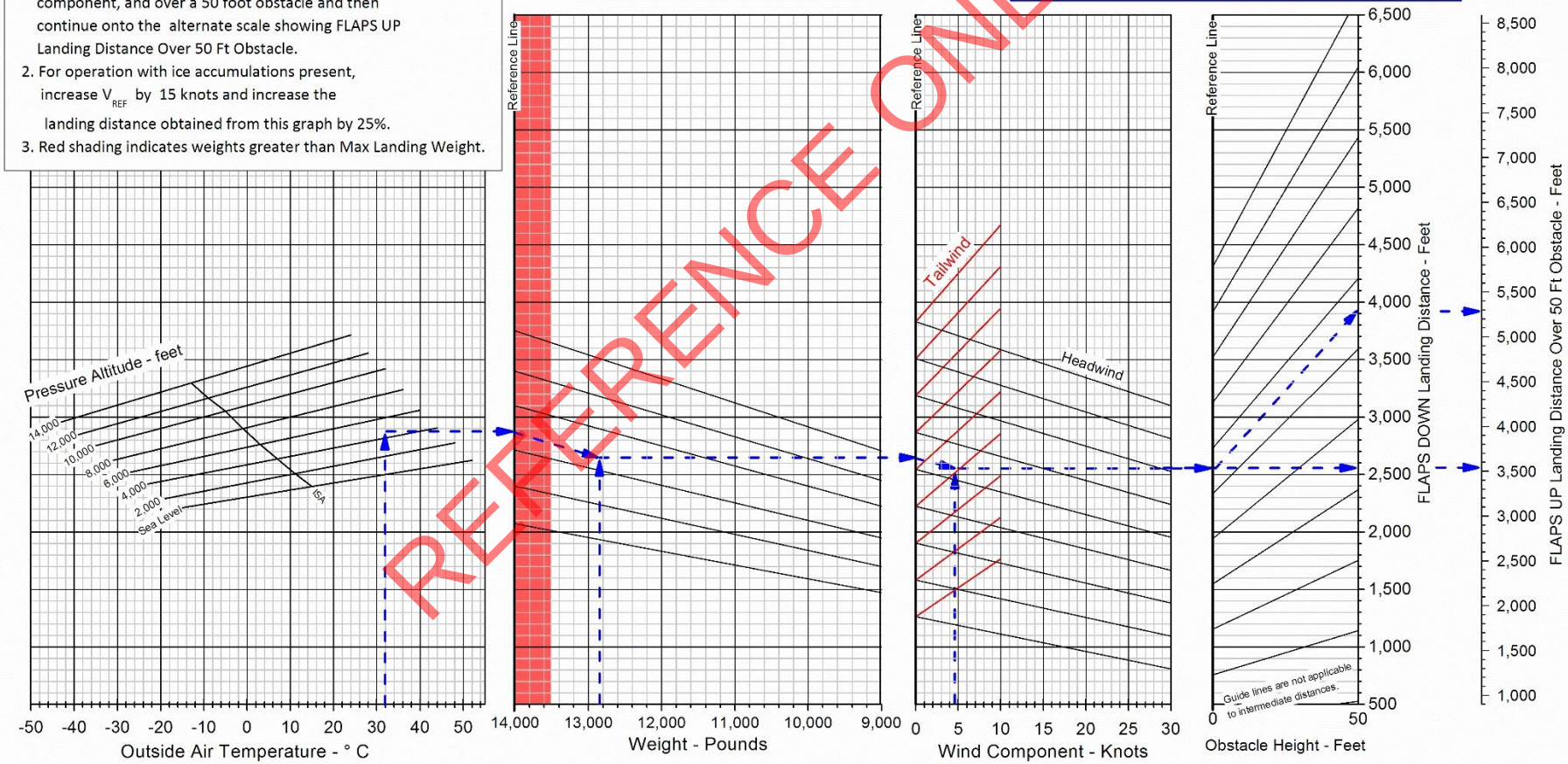
Example

OAT..... 32 °C
Pressure Altitude..... 4,732 feet
Weight..... 12,856 lbs
Headwind Component..... 4.7 knots
Ground Roll ..... 2,560 feet
Distance over 50 ft Obstacle Flaps Down..3,917 feet
Approach Speed Flaps Down..... 103 knots

Ground Roll - Flaps Up ..... 3,538 feet
Distance over 50 ft Obstacle Flaps Up..... 5,277 feet
Approach Speed Flaps Up..... 120 knots

NOTES:

1. Landing with flaps full down is the normal procedure, if it is necessary to land with flaps up, find the landing distance for the appropriate OAT, weight, wind component, and over a 50 foot obstacle and then continue onto the alternate scale showing FLAPS UP Landing Distance Over 50 Ft Obstacle.
2. For operation with ice accumulations present, increase V_{REF} by 15 knots and increase the landing distance obtained from this graph by 25%.
3. Red shading indicates weights greater than Max Landing Weight.



REFERENCE ONLY

LANDING DISTANCE WITH PROPELLER REVERSING

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated conditions

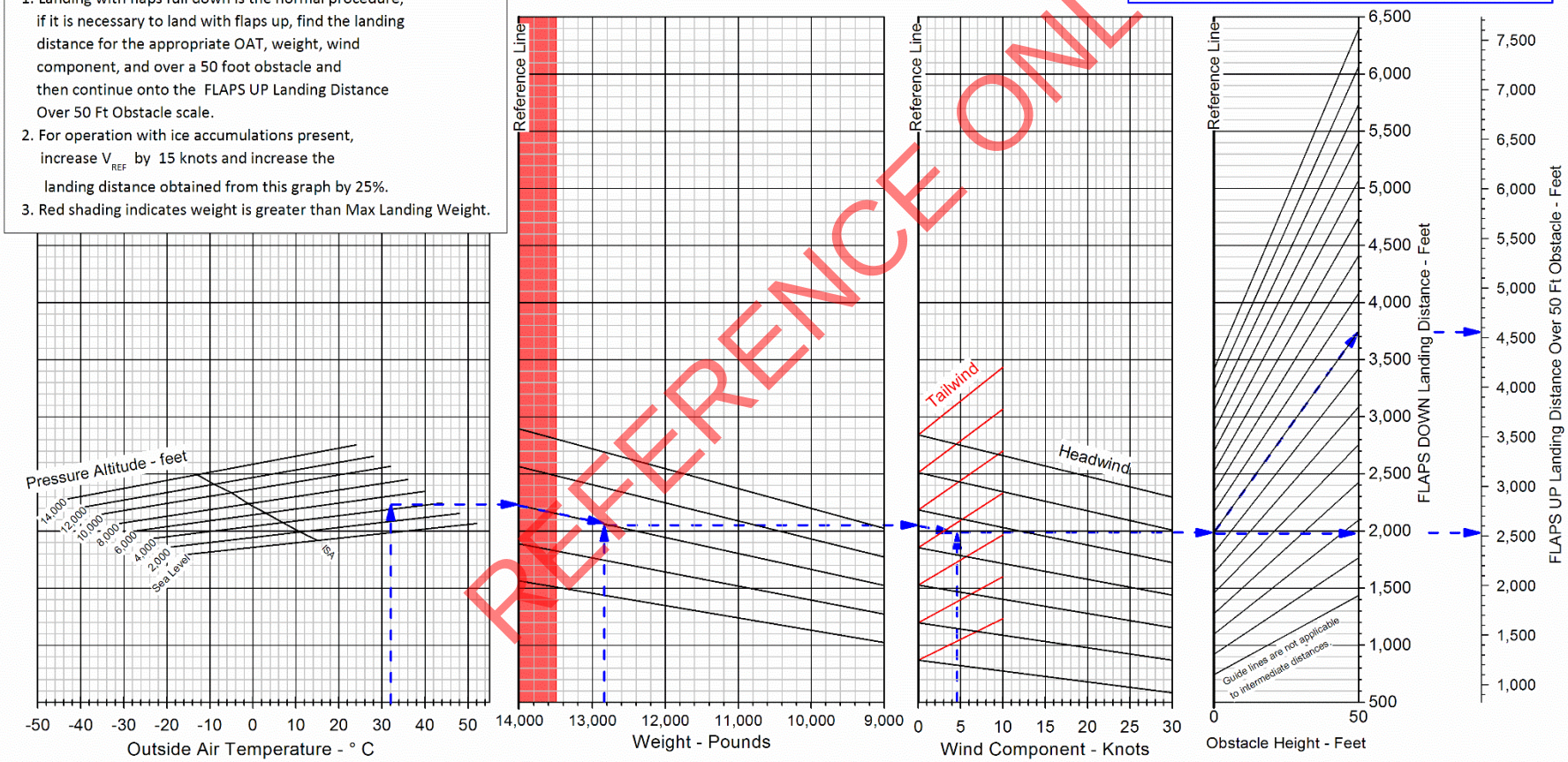
Power..... Retard for 500 to 680 fpm on final approach.
Flaps..... Down
Runway..... Paved, Dry, Level Surface
Braking..... Maximum
Condition Levers..... High Idle
Propeller Controls..... Full Forward
Power Levers..... Maximum reverse after touchdown.

Weight	V_{REF} Speeds - Knots	
Pounds	Flaps Dwn	Flaps Up
14,000	106	126
13,000	104	121
12,000	102	115
11,000	99	111
10,000	96	106
9,000	93	101

Example
OAT..... 32 °C
Pressure Altitude..... 4,732 feet
Weight..... 12,856 lbs
Headwind Component..... 4.7 knots
Ground Roll ..... 1,988 feet
Distance over 50 ft Obstacle Flaps Down.. 3,750 feet
Approach Speed Flaps Down..... 103 knots

Ground Roll (Flaps Up)..... 2,534 feet
Distance over 50 ft Obstacle Flaps Up..... 4,564 feet
Approach Speed Flaps Up..... 120 knots

NOTES:
1. Landing with flaps full down is the normal procedure, if it is necessary to land with flaps up, find the landing distance for the appropriate OAT, weight, wind component, and over a 50 foot obstacle and then continue onto the FLAPS UP Landing Distance Over 50 Ft Obstacle scale.
2. For operation with ice accumulations present, increase V_{REF} by 15 knots and increase the landing distance obtained from this graph by 25%.
3. Red shading indicates weight is greater than Max Landing Weight.



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WEIGHT AND BALANCE

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REFERENCE ONLY

INTRODUCTION

The CenTex Aerospace Halo 250/275 Commuter category STC approves operating the King Air B200GT series airplanes equipped with high flotation landing gear at a new, increased maximum takeoff weight of 14,000 pounds and increased maximum landing weight of 13,500 pounds. Also, the maximum zero fuel weight limitation is increased from 11,000 pounds to 11,500 pounds. The forward and aft center-of-gravity limits change above 12,500 pounds, but, at 12,500 pounds and below, the center-of-gravity limits are unchanged.

Other changes include a move from Normal category to Commuter category and the addition of several safety systems, which are required by 14 CFR Part 23 requirements for Commuter category airplanes. Another change is a new limitation that restricts each airplane modified by this STC to have no more than nine passenger seats. The restriction in the number of passenger seats is applicable to all airplanes certificated in the Commuter category that have a single emergency exit (such as the King Air 200 series airplanes).

There are no changes to weighing instructions, computing basic empty weight and balance, dimensional and loading data, cabin arrangements (other than a limitation of nine passenger seats), and the procedure for computing weight and balance. See BLR Aerospace AFMS-B250-1 AFM Supplement and the Beechcraft B200GT or B200CGT Pilot Operating Handbook for weight and balance information and procedures not contained in this section.

Two new weight and balance diagrams are in this section that incorporate the new maximum takeoff weight and center-of-gravity limitations. The first diagram is useful for verifying the loaded airplane is within the approved center-of-gravity limits when weight computations are made in pounds gross weight. The second diagram should be used when weight and balance computations are made in kilograms.

REFERENCE ONLY

WEIGHT AND CENTER-OF-GRAVITY LIMITS

The following weight and center-of-gravity limits are taken from Section 2 Limitations of this AFM Supplement and repeated here for convenience to the airplane operator.

WEIGHT LIMITS

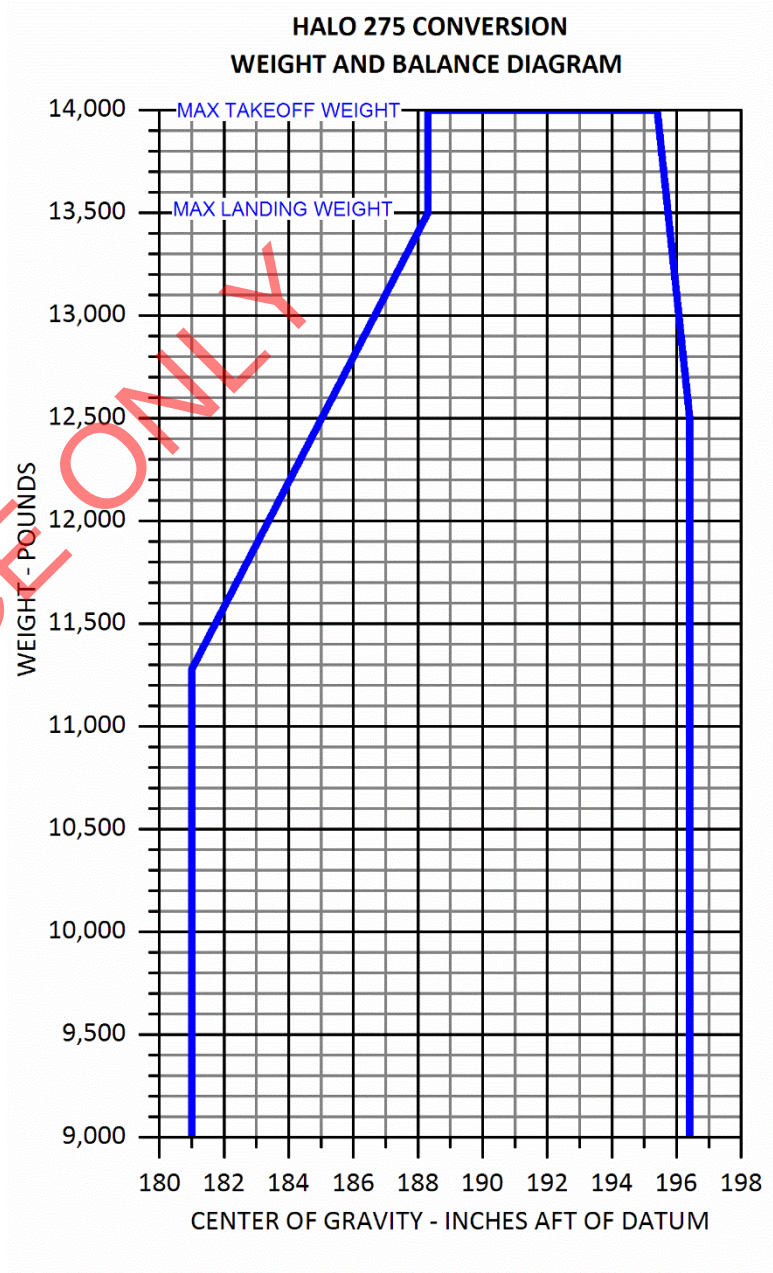
Maximum Ramp Weight .....14,090 pounds
Maximum Take-off Weight: .....14,000 pounds
Maximum Landing Weight.....13,500 pounds
Maximum Zero Fuel Weight .....11,500 pounds

CENTER OF GRAVITY LIMITS

AFT LIMITS
195.4 inches aft of datum at 14,000 pounds gross weight with straight line variation to 196.4 inches aft of datum at 12,500 pounds gross weight.
196.4 inches aft of datum at gross weights less than 12,500 pounds.

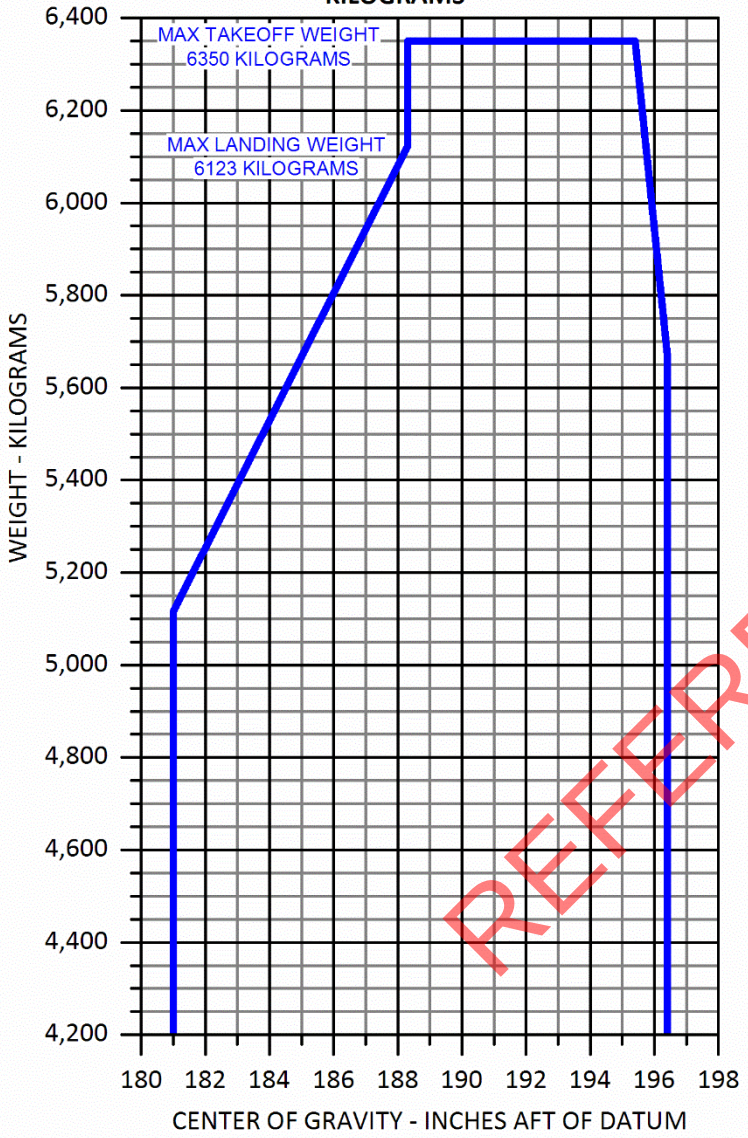
FORWARD LIMITS
188.3 inches aft of datum at gross weights between 14,000 pounds and 13,500 pounds with straight line variation to 181.0 inches aft of datum at 11,279 pounds gross weight.
181.0 inches aft of datum at gross weights less than 11,279 pounds.

REFERENCE ONLY



REFERENCE ONLY

HALO 275 CONVERSION
WEIGHT AND BALANCE DIAGRAM
KILOGRAMS



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SYSTEMS DESCRIPTION
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REFERENCE ONLY

INTRODUCTION

The Halo 275 Commuter category conversion features new airplane safety systems. These new systems provide safety functions that are required for airplanes certificated in the Commuter category. Also, the stall warning system has been modified and will now provide accurate and reliable warning when the airplane is operated in icing conditions. The result is a King Air 250 series airplane that operates at a higher level of safety.

Below is a list of the added functions:

- Takeoff Trim Warning
- < Omitted >
- Engine Fire Extinguisher
- Stall Warning Ice Mode
- Emergency Cabin Lighting
- Escape Path Markings

This section describes the functionality of these systems and the pertinent design details. It is imperative that the pilot be knowledgeable of this information so he/she can fully utilize these new features and thereby realize the added safety they provide. For information on systems other than those described in this section see the BLR Aerospace AFMS-B250-1 AFM Supplement and the Beechcraft B200GT or B200CGT Pilot Operating Handbook.

REFERENCE ONLY

TAKEOFF TRIM WARNING

The Halo 275 conversion adds a takeoff trim warning system. The system detects if the elevator trim tab has not been properly set before takeoff and sounds a warning when the pilot initiates a takeoff. The pilot should respond to the warning by immediately aborting the takeoff run.

The trim warning system utilizes the existing elevator tab position indicator to determine tab position. A micro switch actuated by the tab position indicator activates the warning horn when the tab position is outside of the approved range for takeoff. The horn emits a constant, mid-frequency tone. It is located beneath the lower edge of the pilot's instrument panel next to the console. The micro switch is mounted to the console beneath the elevator trim wheel.

The Autofeather/takeoff trim warning system is powered from Dual Fed Bus No. 2 (See FIGURE 7-6 and FIGURE 7-8). Power to the elevator trim warning system comes through the Autofeather system switch when it is in the ARMED position. Power must also pass through the weight-on-wheels switch and the 90% N_1 switch associated with the left engine power lever. The system becomes fully operational once the Autofeather system is ARMED and the left power lever is advance to the 90% N_1, or higher, position. The takeoff trim warning system is deactivated through the weight-on-wheels switch after liftoff so no misleading warnings occur during flight. Note the Autofeather system must be operative for takeoff.

The warning system should be tested before the first flight of each day, as specified in Section 4 Normal Procedures.

REFERENCE ONLY

OVER-SPEED WARNING

The Rockwell Collins Pro Line Fusion integrated avionics provides an aural over-speed warning, which is required for commuter category airplanes. The aural warning automatically alerts the pilot whenever airspeed is greater than V_{MO} or Mach number is greater than M_{MO}. This system provides a backup to the function provided by the airspeed tape on the Primary Flight Displays. The pilot should respond to a warning by immediately taking the necessary action to reduce airspeed.

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SEATING ARRANGEMENTS

Various configurations of passenger chairs and one-place couch installations may be installed on the continuous tracks mounted to the cabin floor. Seating for up to nine (9) persons, excluding crew, may be installed. This is a new limitation imposed by the Commuter category requirements.

EMERGENCY ESCAPE PATH MARKINGS

The Halo 275 conversion adds photoluminescent markings that highlight the escape path along the floor to the emergency exit door and cabin door. The photoluminescent markings must be visible (not covered by floor mats or any other coverings) and adequately charged before conducting any part of a flight in darkness. Charging can be accomplished with sunlight or with the interior lights or with the emergency flood lamps. See Section 4 Normal Procedures for the required charging time.

ENGINE FIRE EXTINGUISHER

The Halo 275 conversion adds an engine fire extinguisher system if one is not

REFERENCE ONLY

already installed. Either the Halo 275 conversion engine fire extinguisher system or the optional Beechcraft engine fire extinguisher system is installed on the airplane. Both systems function and operate in the same manner. Information regarding the engine fire extinguisher system is contained in the basic Airplane Flight Manual or Pilot Operating Handbook.

STALL WARNING ICE MODE

The King Air 200 series stall warning system does not have the capability to adjust for the effect that icing has on stall speed. Ice accretion causes the wing to stall at a lower angle-of-attack and can result in a 15% to 20% increase in stall speed. The Halo 275 conversion provides additional capability so a reliable and accurate stall warning is available in icing conditions. This new stall warning functionality is called the “ice mode”.

The stall warning system will activate the warning horn when the output of the lift transducer reaches a preset voltage. The system has three different voltage settings, one for each flap position; which enables it to provide accurate warning at each flap setting. The Halo 275 conversion adds components to the stall warning system that allow three different preset voltages to become active when it is in the ice mode. These voltage settings are uniquely selected so that the effect of ice on the wings is considered. With wing flaps up, the stall warning activates at approximately 20 knots higher airspeed in the ice mode.

The pilot should respond to the warning by pitching the aircraft nose down until the warning ceases, leveling the wings to orient lift vector for recovery, and adding power to assist in the recovery. The pilot’s failure to respond to a stall warning can result in a stall and subsequent loss of control of the airplane.

Switching to the ice mode occurs automatically when the pilot selects either SINGLE or MANUAL on the Surface Deice switch. The STALL WARNING ICE MODE annunciator, which is located in the glareshield in front of the pilot, will illuminate whenever the ice mode is active (See FIGURE 7-2). The ice mode will stay active until it is manually deactivated by the pilot pressing the illuminated annunciator. This should be done when the airplane is outside of icing conditions and is free of ice. Pressing the annunciator when it is extinguished has no effect. Note the stall warning heat must be operating when flying in icing conditions to keep the lift transducer free of ice.

When testing the stall warning system, the mode in operation when the test is performed is the mode that is tested. A constant tone will be heard if the system is functioning properly. The new system components are located inside the aft end of the console.

REFERENCE ONLY

FIGURE 7-2
STALL WARNING ICE MODE ANNUNCIATOR

REFERENCE ONLY

CABIN EMERGENCY LIGHTING

The Halo 275 conversion adds a cabin emergency lighting system. It provides supplemental lighting in the cabin around the emergency exit door and cabin door. The system has two LED flood lamps located in the cabin ceiling that are powered by a dedicated battery pack, which contains two 12-volt, sealed lead-acid batteries connected in series, installed under the cabin floor.

The system automatically turns on the flood lamps in the event of a 2-g, or greater, deceleration or a loss of power on the main electrical bus. This keeps the cabin from becoming unlighted during such critical events. Additionally, the lamps can be used for lighting the cabin when boarding or to charge the photoluminescent escape path markings.

Two switches operate the system and provide required functionality. A cabin switch located next to the aft flood lamp connects the battery pack to the system (See FIGURE 7-3). A control switch located in the pilot's sub-panel arms automatic operation or provides manual operation of the flood lamps from the cockpit (See FIGURE 7-4). Power to charge the battery pack is fed from the main electrical bus through a five (5) amp circuit breaker labeled EMERG LIGHT in the copilot circuit breaker panel (See FIGURE 7-5 thru FIGURE 7-8).

Two amber indicator lights located adjacent to the control switch (See FIGURE 7-4) warn the pilot when the system switches are not set as required for taxi and takeoff operations. The amber indicator lights will be extinguished when the cockpit control switch is ARMED and the cabin switch is ON. Note these are the required positions for taxi and flight operations.

When exiting the airplane both the control switch and the cabin switch should be placed in the OFF position. If left on, a timer prevents the battery from becoming totally discharged by disconnecting the battery pack from the system after 10 minutes. Selecting OFF on the cabin switch reconnects the battery pack and resets the timer. Note recharging of the battery pack occurs automatically whenever the airplane battery switch is ON and the main electrical bus is powered by either the generators or an external power source.

The level of charge of the emergency lighting system battery pack should be checked before the first flight of each day as described in Section 4 NORMAL PROCEDURES. The system must be operational when carrying passengers. If the lamps do not illuminate, the emergency lighting system batteries have been discharged or there is a malfunction in the system. A discharged battery pack must be removed and the batteries recharged or replaced. The *Halo 250 Commuter Category Conversion Instructions for Continued Airworthiness* (CTA manual no. 006-30), which is applicable to airplanes with the Halo 275 conversion, describes the proper procedures for removing and recharging or replacing the cabin emergency lighting system battery pack.

The battery pack and relays are located beneath the cabin floor at fuselage station 207. Also, the battery pack should be inspected at each maintenance phase inspection interval for general condition and the time-in-service for the batteries. The batteries must be replaced after 36 calendar months from the time they were installed.

FIGURE 7-3
EMERGENCY CABIN LIGHTING SYSTEM
CABIN SWITCH & FLOOD LAMP

REFERENCE ONLY

FIGURE 7-4
EMERGENCY CABIN LIGHTING SYSTEM
COCKPIT CONTROL SWITCH and WARNING LIGHTS

REFERENCE ONLY

CREW ALERTING SYSTEM (CAS)

Only For Aircraft with Rockwell Collins Pro Line Fusion:

CAUTION (AMBER) CAS MESSAGES

CAS Message	Description
Stall Fail	The stall computer has failed.

NOTE

Halo 275 equipped aircraft have two stall computer modes, Normal Mode and Icing Mode. The Stall Fail CAS message applies to the mode in use at the time of failure.

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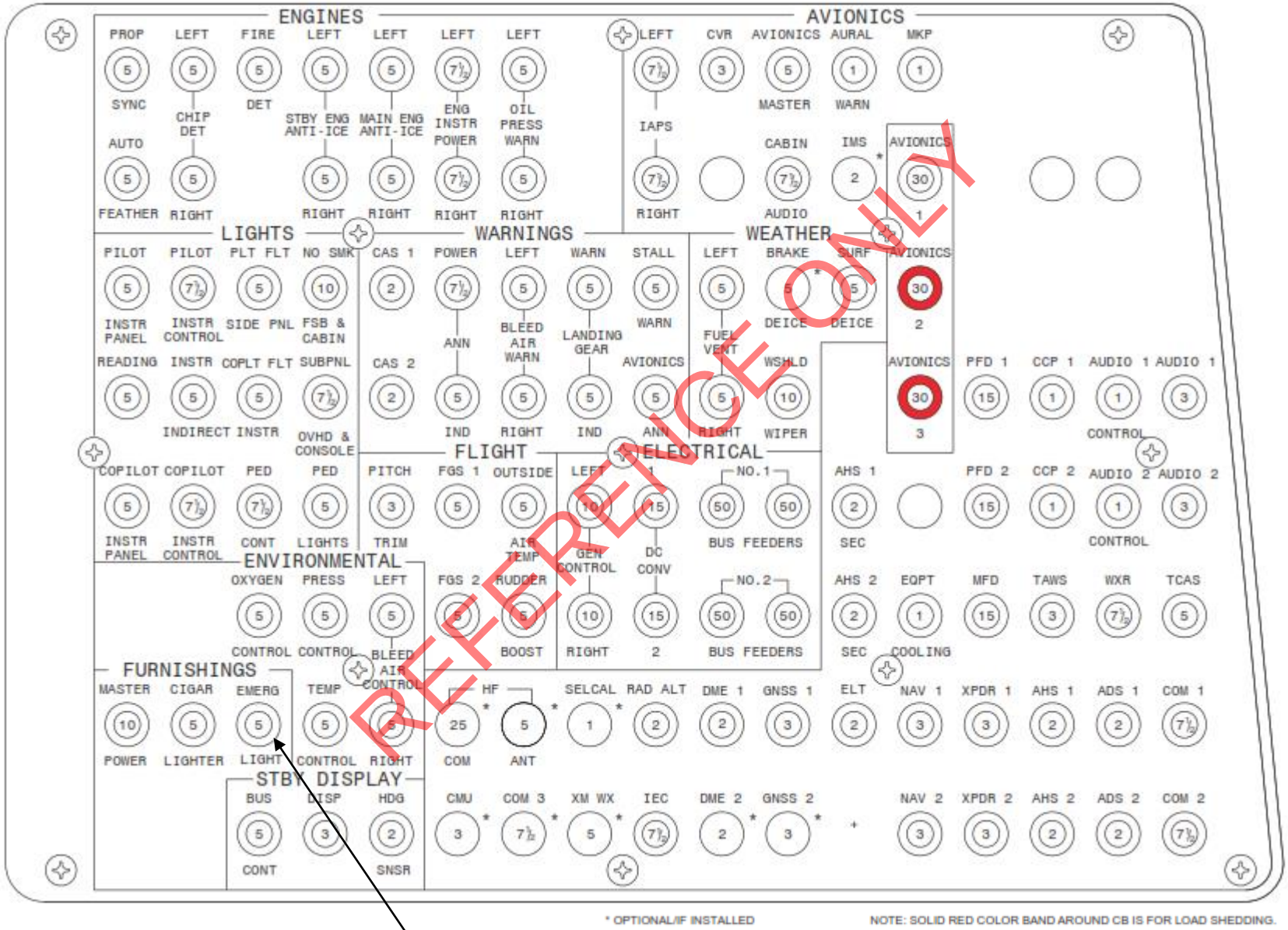
REFERENCE ONLY

FIGURE 7-7
RIGHT CIRCUIT BREAKER PANEL (PRO LINE FUSION)



REFERENCE ONLY

FIGURE 7-8
AVIONICS/ELECTRICAL EQUIPMENT BUS CONNECTION (PRO LINE FUSION)

System	Dual Fed Bus No. 1	Dual Fed Bus No. 2	Dual Fed Bus No. 3	Dual Fed Bus No. 4	Avionics Bus No. 1 (L Gen Bus)	Avionics Bus No. 2 (R Gen Bus)	Avionics Bus No. 3 (L Gen Bus)	Subpanel Feeder No. 1 (L Gen Bus)	Subpanel Feeder No. 2 (R Gen Bus)	Hot Bat Bus (Battery) (RW)
Engines (including Engine Instruments and Propellers)	L-Chip Detector	R-Chip Detector	L-Start Control (FP)	R-Start Control (FP)						L-Engine Fire Extinguisher
	L-Engine Instrument	R-Engine Instrument	EDC 1 (FP)	EDC 2 (FP)						R-Engine Fire Extinguisher
	Fire Detector		DCU 1 (FP)	DCU 2 (FP)						
	L-Main Engine Anti Ice	R-Main Engine Anti Ice	L-Ignitor Power (FP)	R-Ignitor Power (FP)						
	L-Oil Press Warn	R-Oil Press Warn								
	Prop Sync	Auto Feather and Trim Warn		Propeller Governor (FP)						
	L-Standby Engine Anti Ice	R-Standby Engine Anti Ice								
Environmental	L-Bleed Air Control	R-Bleed Air Control								Ground Heat
	Auto Oxygen Control	Cabin Temp Control								
	Cabin Pressure Control									
Flight	Pitch Trim	Rudder Boost Control	Flap Motor (FP)							
	OAT		Flap Control and Indicator (FP)							
	FGS 1	FGS 2								
Furnishings		Cigar Lighter								Window Shades
		Furnishings Master Power								
		Emerg Light								

EMERG LIGHTING SYSTEM

TRIM WARN SYSTEM

REFERENCE ONLY

SECTION 8
HANDLING, SERVICING, & MAINTENANCE

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CABIN EMERGENCY LIGHTING SYSTEM 8-2

NOTE

See BLR Aerospace AFMS-B250-1 AFM Supplement and the Beechcraft B200GT or B200CGT Pilot Operating Handbook for Handling, Servicing. And Maintenance items not contained in this section.

REFERENCE ONLY

TIRE PRESSURES

Keep the tires inflated at the following pressures:

Nose Wheel Tire

Tire Size	Inflation Pressure
22 X 6.75-10, 8-ply	55 to 60 psi

Main Wheel Tires

Tire Size	Inflation Pressure
22 X 6.75-10, 8-ply	70 ± 2 psi

Note: All tires on main and nose wheels must have a speed rating of 160 mph (139 knots) or greater. Replace any tire not meeting this speed rating.

CABIN EMERGENCY LIGHTING SYSTEM

The battery pack that powers the cabin emergency lighting system must be replaced every 36 calendar months.

REFERENCE ONLY

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SUPPLEMENTS

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REFERENCE ONLY

TAKEOFF DISTANCE FOR SPECIAL AND CANADIAN OPERATORS

The takeoff distance charts shown on pages 9-3 and 9-4 are provided as supplemental performance planning data for special mission operators with approved regulatory exemptions and Canadian operations under Transport Canada Civil Aviation Operating and Flight Rules. These two charts show the takeoff ground roll distance and the takeoff distance to clear a 50-foot obstacle with two engines operating.

REFERENCE ONLY

TAKE-OFF DISTANCE - FLAPS UP

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated conditions

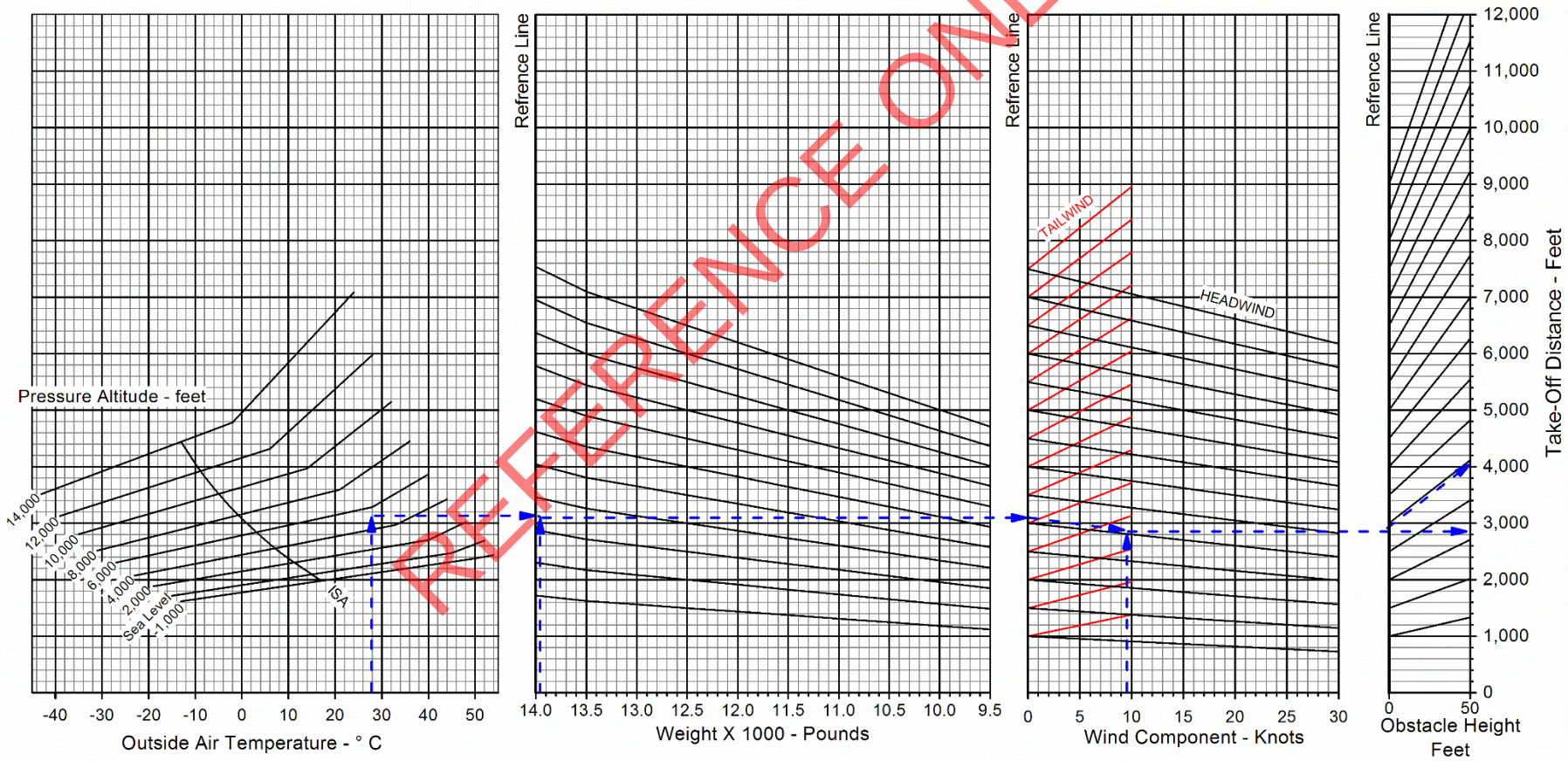
Power..... Takeoff power set before brake release.
Flaps..... Up
Landing Gear..... Retract after lift off.
Runway..... Paved, Dry, Level Surface

Note:
Obstacle clearance guide lines are not applicable to intermediate obstacle heights.

Weight Pounds	Take-Off Speed - Knots	
	V_R	V_2
14,000	106	116
13,000	103	111
12,500	103	109
12,000	103	107
11,000	103	104
9,000	103	104

Example

OAT..... 28 °C
Pressure Altitude..... 5,433 feet
Weight..... 13,949 pounds
Headwind Component..... 9.5 knots
Ground Roll .....2,850 feet
Distance over 50 ft obstacle....4,020 feet
Take-off Speeds
Rotation..... 106 knots
50 feet..... 116 knots



REFERENCE ONLY

TAKE-OFF DISTANCE - FLAPS APPROACH

AIRPLANES WITH HIGH FLOTATION LANDING GEAR

Associated conditions

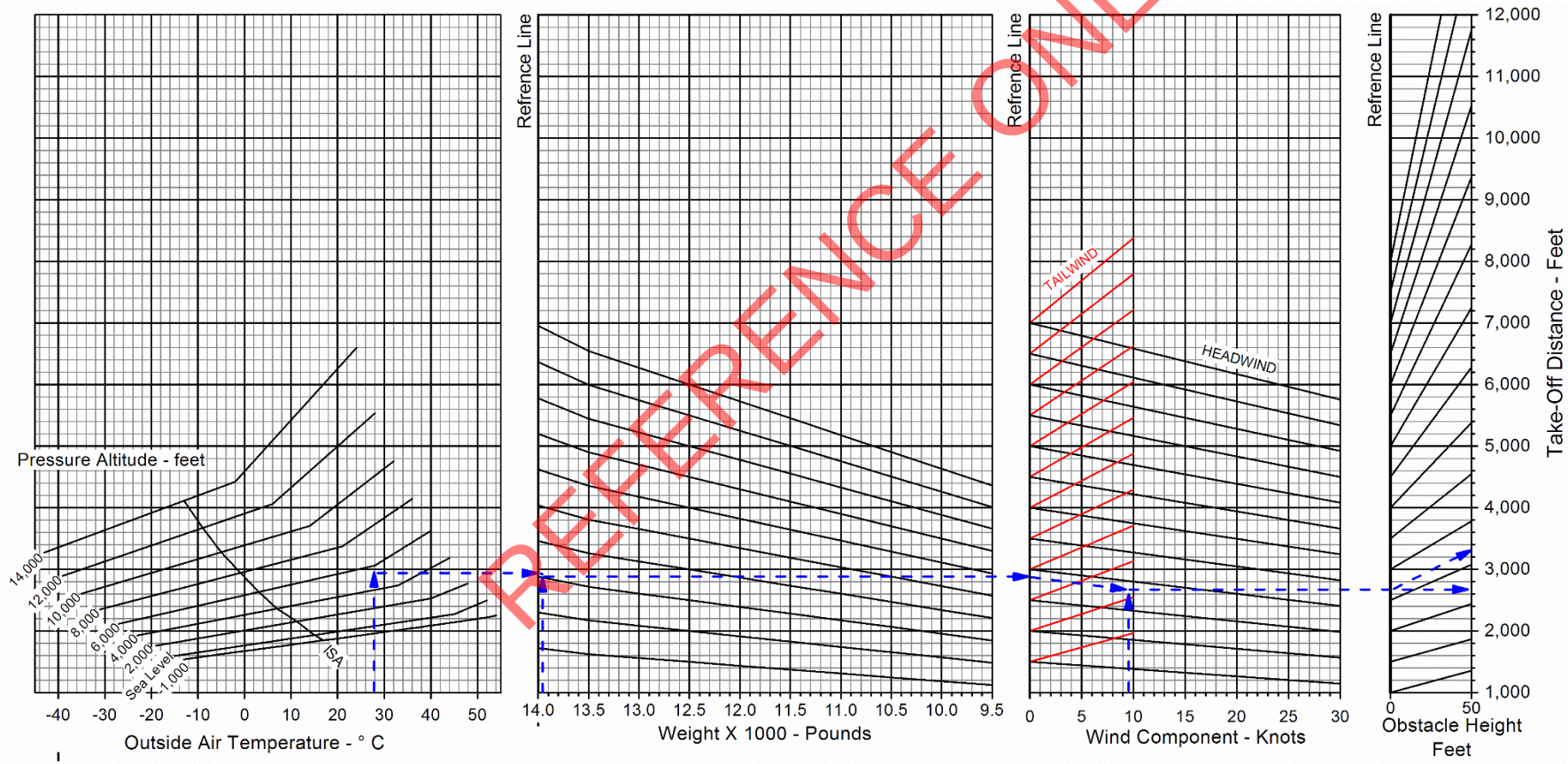
Power..... Takeoff power set before brake release.
Flaps..... Approach
Landing Gear..... Retract after lift off.
Runway..... Paved, Dry, Level Surface

Note:
Obstacle clearance guide lines are not applicable to intermediate obstacle heights.

Weight Pounds	Take-Off Speed - Knots	
	V_R	V_2
14,000	98	104
12,500	98	99
9,500	98	99

Example

OAT..... 28 °C
Pressure Altitude..... 5,433 feet
Weight..... 13,949 pounds
Headwind Component..... 9.5 knots
Ground Roll .....2,700 feet
Distance over 50 ft obstacle...3,300 feet
Take-off Speeds
Rotation..... 98 knots
50 feet..... 104 knots



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