

Beech Bonanza A36
Section V

TAKE-OFF DISTANCE - FLAPS UP

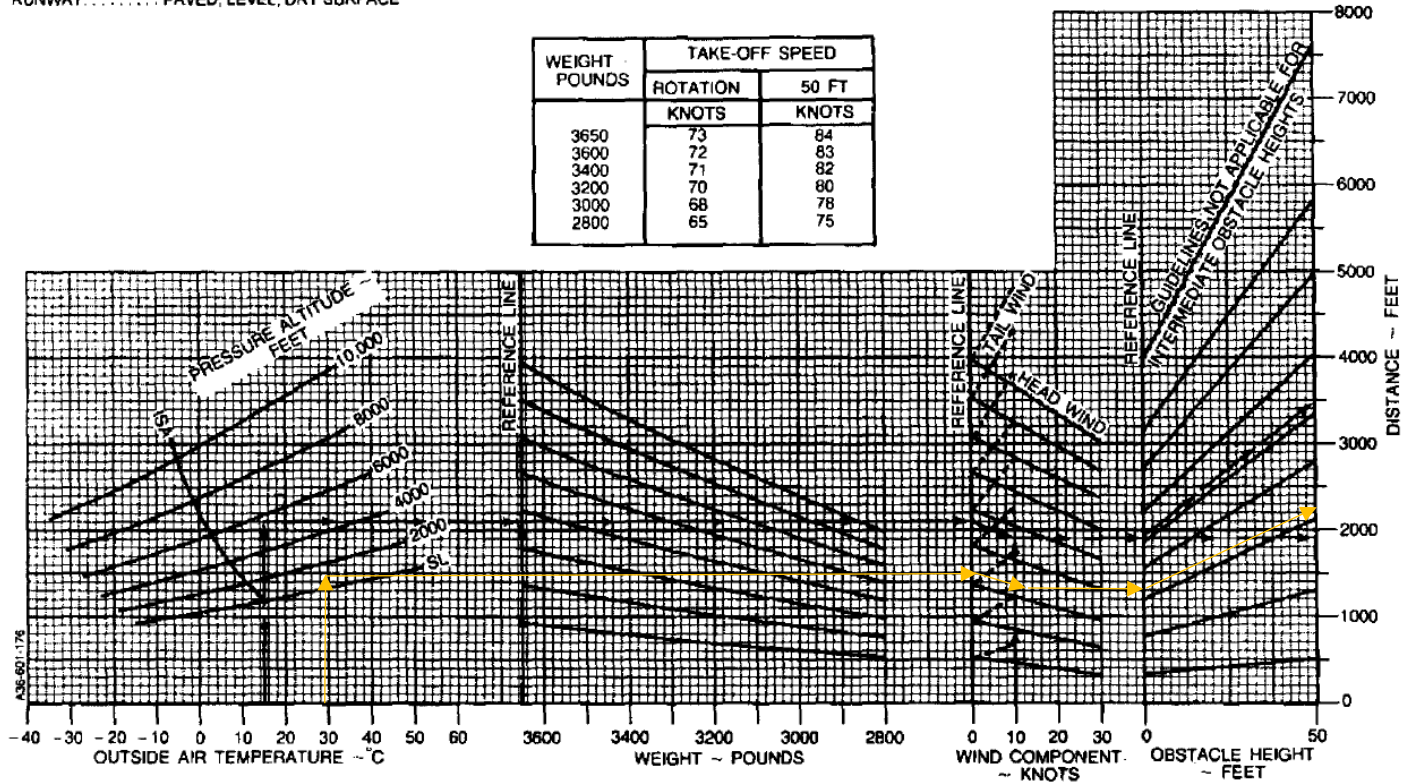
ASSOCIATED CONDITIONS:

POWER TAKE-OFF POWER SET BEFORE BRAKE RELEASE
 MIXTURE FULL RICH (E-1946, E-2104, E-2111 THRU E-3144, NOT IN COMPLIANCE WITH RAYTHEON AIRCRAFT S.B. 28-3052) AS REQUIRED BY FIELD ELEVATION (E-3145 AND AFTER, AND PRIOR AIRPLANES IN COMPLIANCE WITH RAYTHEON AIRCRAFT S.B. 28-3052)
 FLAPS UP
 LANDING GEAR RETRACT AFTER POSITIVE CLIMB ESTABLISHED
 COWL FLAPS OPEN
 RUNWAY PAVED, LEVEL, DRY SURFACE

EXAMPLE:

OAT 15°C
 PRESSURE ALTITUDE 5653 FT
 TAKE-OFF WEIGHT 3650 LBS
 HEAD WIND COMPONENT 10 KTS
 GROUND ROLL 1900 FT
 TOTAL DISTANCE OVER 50-FT OBSTACLE 3475 FT
 TAKE-OFF SPEED AT ROTATION 73 KTS
 50-FT 84 KTS

WEIGHT POUNDS	TAKE-OFF SPEED	
	ROTATION	50 FT
	KNOTS	KNOTS
3650	73	84
3600	72	83
3400	71	82
3200	70	80
3000	68	78
2800	65	75



Section 5. PERFORMANCE (Performance Section is not FAA Approved)

The performance of this airplane equipped with the Tornado Alley Turbo Whirlwind™ Turbonormalizing System is equal to or better than the performance as listed in the original Flight Manual *when operated in the Utility Category.*

When using noise abatement procedures for climb (rpm reduced to 2650), climb rate is not appreciably affected.

However, when operating at the increased weights authorized when operations are conducted in the NORMAL CATEGORY expect:

- A. Increased Takeoff Distance of up to: 30%
- B. Decreased Rate-of-Climb of up to: 13%
- C. Increased Stall Speed of up to: 7%
- D. Increased Landing Distance of up to: 15%
- E. Increased Takeoff and Approach Speeds: Increase 2 Kts.
- F. Increased V_x and V_y speeds: Increase 2 Kts.

CAUTION

**OPERATIONS DURING VERY HOT WEATHER:
Temperature Effects on Engine, Fuel Flow, and Aircraft
Performance.**

While turbocharged and turbonormalized engines will fully compensate for high altitude loss of ambient pressure, they do not normally provide any compensation for changes in air density due to elevated non-standard ambient temperatures.

Maximum power at 29.6 In. Hg. and 2700 RPM will be reduced by approximately 1% for each six (6) degrees F that the ambient temperature exceeds the ISA temperature for the altitude at which the aircraft is operating. This adverse effect on performance due to elevated ambient temperatures should be given careful consideration, especially when operating at higher aircraft gross weights (> 3,600 lbs). Pilots unfamiliar with the effects of reduced power and higher gross weights should be particularly careful to ensure adequate runway distance and initial climb rate in order to clear obstructions.