

Density Altitude KTIP

● VFR KTIP 261855Z METAR KTIP 261855Z AUTO 22006KT 10SM -RA SCT031 BKN043 BKN060 29/25 A2999 RMK AO2 T02870252

Field elevation- 738 ft

Pressure altitude = $738 + [(29.92 - 29.99) * 1000] = 668 \text{ ft}$

Temperature = 29° C or 84° F

Use Altitude Conversion chart on page 9-1 for Density Altitude

Density altitude = Approx. 2,100 ft

Density Altitude KPIA

● VFR KPIA 261854Z METAR KPIA 261854Z 22006KT 10SM CLR 28/24 A2997 RMK AO2 SLP144 T02780239

Field elevation- 661 ft

Pressure altitude = $661 + [(29.92 - 29.97) * 1000] = 611 \text{ ft}$

Temperature = 28° C or 82° F

Use Altitude Conversion chart on page 9-1 for Density Altitude

Density altitude = Approx. 2,100 ft

Density Altitude at a cruising altitude of 4,500 feet MSL

Winds Aloft Table

	500 -4000 FT	2500 -2000 FT	3000 -1500 FT	4500 Filed
KTIP	211° 9kts 30°C	211° 13kts 24°C	213° 14kts 22°C	219° 14kts 20°C
KPIA	210° 8kts 29°C	218° 16kts 24°C	221° 17kts 22°C	226° 18kts 20°C

Temperature = 20° C or 68° F

Use Altitude Conversion chart on page 9-1 for Density Altitude

Density altitude = Approx. 6,800 ft

NOTES:

Definition: Density altitude is pressure altitude corrected for nonstandard temperature.

1st step to calculating density altitude is calculating pressure altitude.

Pressure altitude = Indicated altitude +[(29.92 – Altimeter Setting) * 1000]

For a more precise calculation of Density Altitude you can use an electronic E6B instead of chart 9-1