

# Landing Calculations Worksheet

Date \_\_\_\_\_ Airport \_\_\_\_\_

## Field Data and Conditions

Altimeter Setting \_\_\_\_\_

Wind, Magnetic \_\_\_\_\_

Temperature \_\_\_\_\_

Field Elevation \_\_\_\_\_

Runway In Use \_\_\_\_\_

**Note:** If From TAF / METAR ect. Convert to Magnetic

Head wind
Cross Wind

**Calculate**      Kts      Kts

## Calculate Wind Factor

Head Wind \_\_\_\_\_ Kts Divided by 9 = \_\_\_\_\_ X 10 = \_\_\_\_\_ % Headwind Factor

Tail Wind \_\_\_\_\_ Kts Divided by 2 = \_\_\_\_\_ X 10 = \_\_\_\_\_ % Tail Wind Factor

**Caution:** Max 10 kts - No more than 5 kts recommended - ADD Tail Wind Factor

## Calculate Pressure Altitude

**Note:** If result is below sea level use sea level pressure altitude.

Note: May be Negative or Positive.
Altimeter Setting
Field Elevation
Pressure Altitude

29.92 -   =   X 1000 =   +   =  

## Cessna Charts

From the Cessna Landing Charts (5.12 -5.13) find the sets of distances that bracket the actual temperature and the actual pressure altitude. Temper 1 will be the low temperature and Temp 2 will be the high temperature. Pressure Altitude 1 will be the low pressure and Pressure Altitude 2 will be the high pressure. Note: if the temperature or pressure matches one in the charts you do not need to do an adjustment for that chart.

### Temperature Factor Calculation

\_\_\_\_\_ c Actual Temp  
 - \_\_\_\_\_ c Temp 1  
 = \_\_\_\_\_ c X 10 = \_\_\_\_\_ %  
Temperature Factor

### Pressure Altitude Factor Calculation

\_\_\_\_\_ Actual Pressure Altitude  
 - \_\_\_\_\_ Pressure Altitude 1  
 = \_\_\_\_\_ X 0.1 = \_\_\_\_\_ %  
Pressure Alt Factor

## Temperature Adjustment

	Cessna Chart	Pressure Altitude 1 = _____ ft	Chart Pressure Altitude 2 = _____ ft
		Ground Roll	Ground Roll
		Total To Clear 50 ft Obstacle	Total To Clear 50 ft Obstacle
Temp 2 _____ Distances	_____	_____	_____
Temp 1 _____ Distances	- _____	- _____	- _____
Difference	= _____	= _____	= _____
Temperature Factor	X _____ %	X _____ %	X _____ %
	= _____	= _____	= _____
Temp 1 Distances	+ _____	+ _____	+ _____
<b>Adjusted Distances</b>	A1= _____	A2 = _____	B1 = _____      B2 = _____

## Pressure Altitude and Wind Adjustment

Temp Adjusted Distances	B1 _____	B2 _____	
Temp Adjusted Distances	A1 - _____	A2 - _____	
Difference	= _____	= _____	
Pressure Alt. Factor	X _____ %	X _____ %	
	= _____	= _____	
Temp Adjusted Distances	+ A1 _____	+ A2 _____	
<b>Adjusted Distances</b>	= _____	= _____	
Subtract Headwind Factor	- _____ %	- _____ %	
	= _____	= _____	

### Caution:

**Add Tailwind Factor - Max 50%**

## Grass Runway Adjustment

Ground Roll Distance	_____
	X 45 %
Grass Adjustment	= _____
Ground Roll Distance	_____
Grass Adjustment	+ _____
<b>Final Ground Roll Distance</b>	= _____
Total To Clear 50 Feet	_____
Grass Adjustment	+ _____
<b>Final Total to Clear 50 ft</b>	= _____