DOCUMENT
GSM-G-CPL.022

DOCUMENT TITLE

GENERAL OPERATIONS, FLIGHT PLANNING AND PERFORMANCE

CHAPTER 20
LANDING CHARTS

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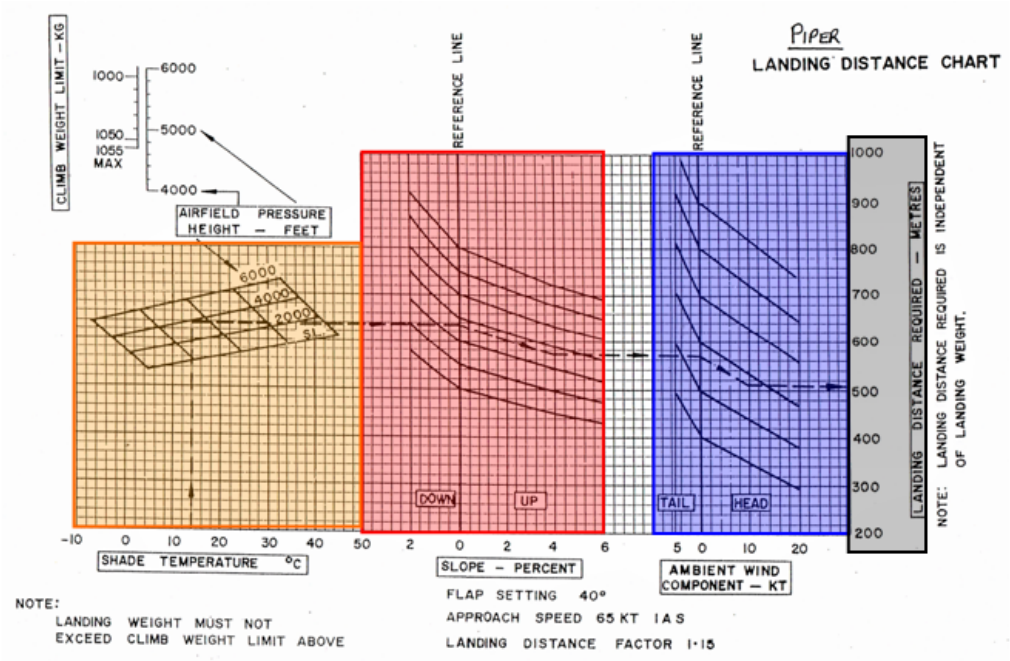
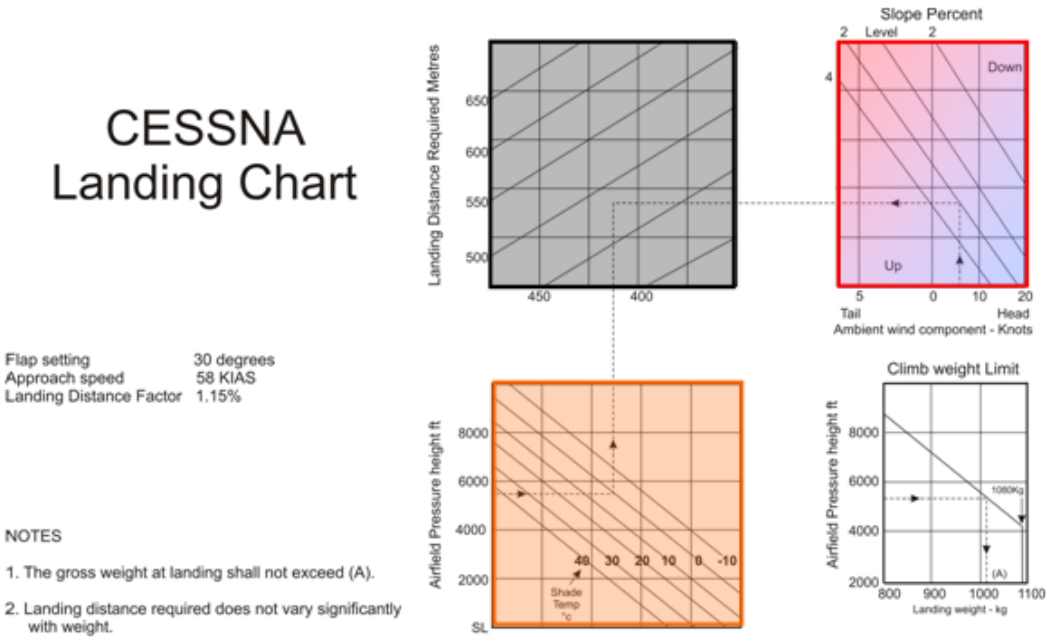
LANDING CHARTS

Landing charts are typically provided in several forms. They allow a pilot to compute the landing distance of the aircraft with a specified flap configuration. A pilot can also compute landing weight for a given distance. The landing distance chart provides for various **pressures altitudes, temperatures, slope, winds,** and **weight or distance**.

Most P-charts are normally divided in to sections, though often not the same order



NOTE: you can see on this Cessna type chart, wind component and weight are in the same section



CESSNA LANDING CHART

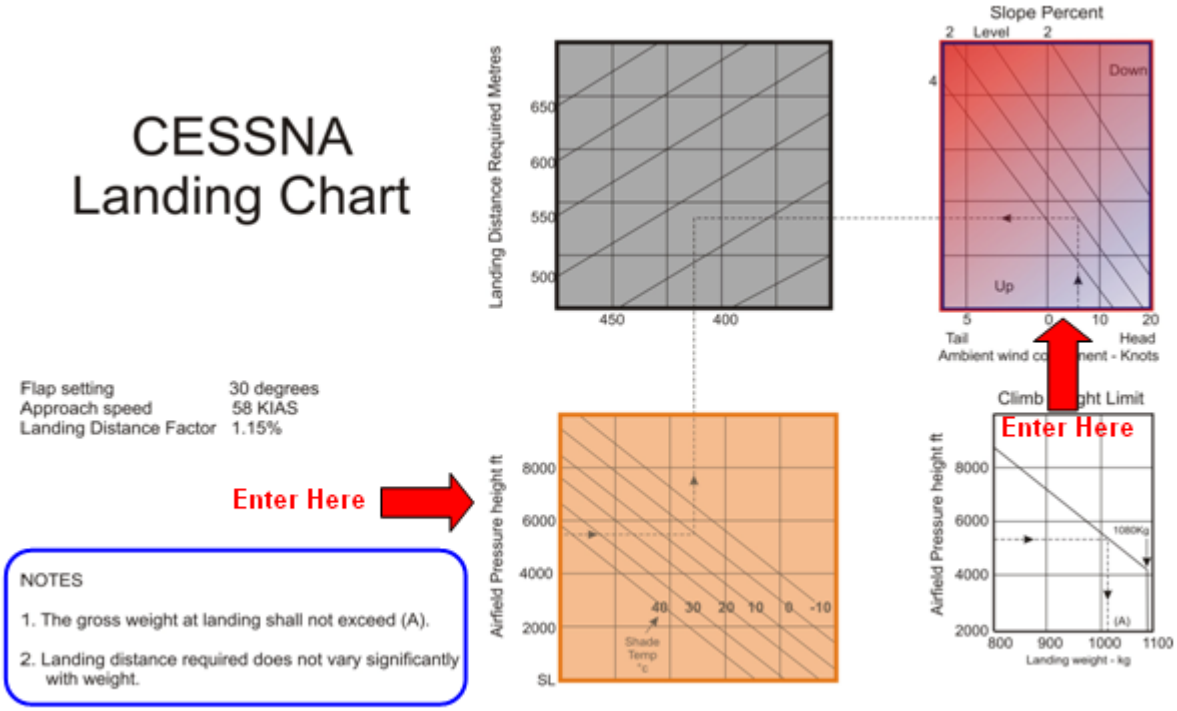
All Take-off's are voluntary, but all landing do become compulsory. Landing performance charts again follow the same basic principles as found in the take-off charts.

Pressures altitudes, temperatures, surface, slope, winds, and weight or distance.

It is important to read the note on charts and extract the relevant information

Note :

1. Talks about climb weight limit. (This will be discussed later)
2. States, landing distance will not vary significantly with weight, hence weight is only show in the climb weight limit



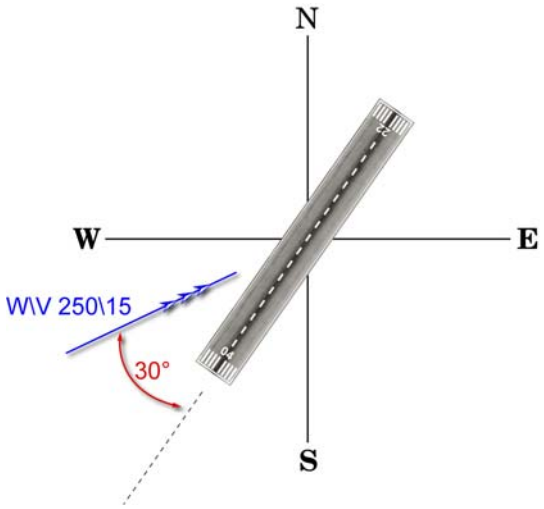
This type of landing chart has duel entry points

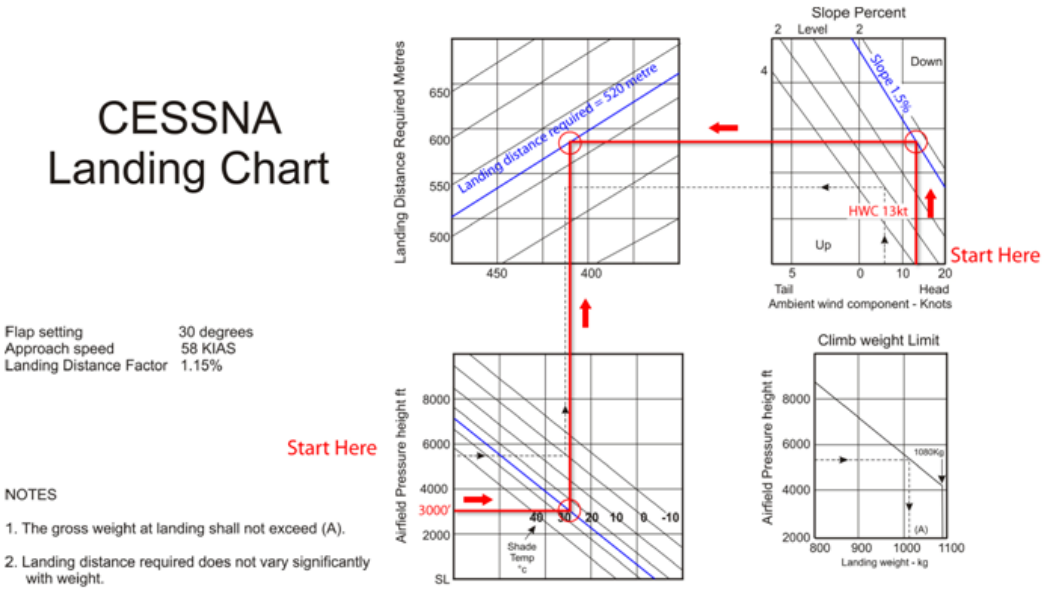
- One at pressure height
- One at wind component

CHART EXAMPLE

Given the following destination information for the Landing chart below :

Elevation	340^{ft}	Pressure Alt = 3000ft OAT =+25
OAT	25°C	
QNH	1021	
TODA	700m	
Surface	long wet grass – There is NO surface representation	
Slope	1.5% dwn to SSW – This would be an Up slope for landing on runway 22	
Wind	250/15	The angle between Rwy and wind direction is 30°giving HWC 13kt
Rwy	22/04	





PIPER TYPE LANDING CHART

Example

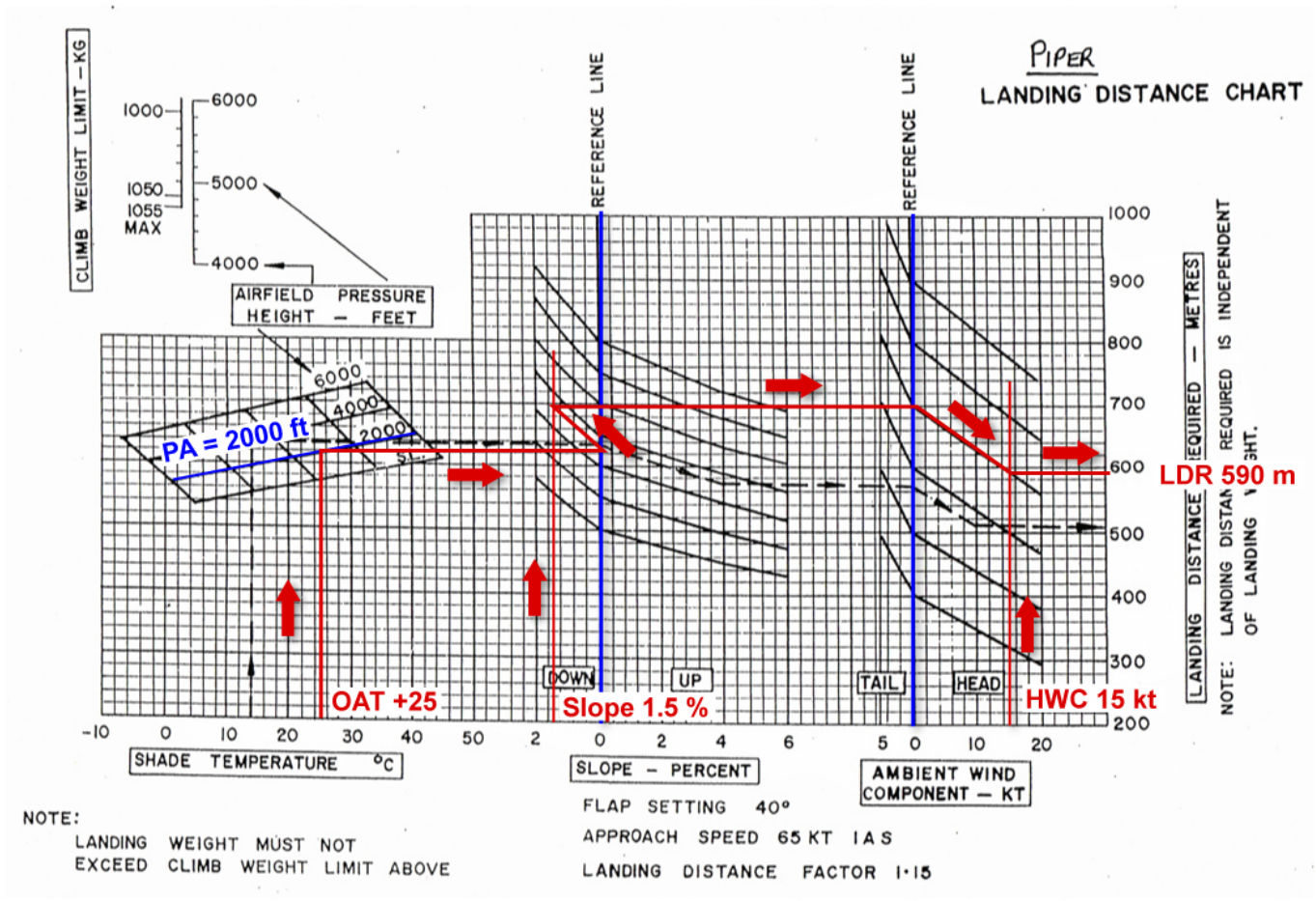
Below is a Piper type landing chart

Again the principle is the same

Given the following as an example to work through the graph

Elevation	2300ft	PA = 2000ft
QNH	1023Hpa	
OAT	25ºC	
Slope	1.5% dwn	
HWC	15kt	

Take note of the Reference line's, remember from previous P Chart you must go to the reference line first before plotting your line



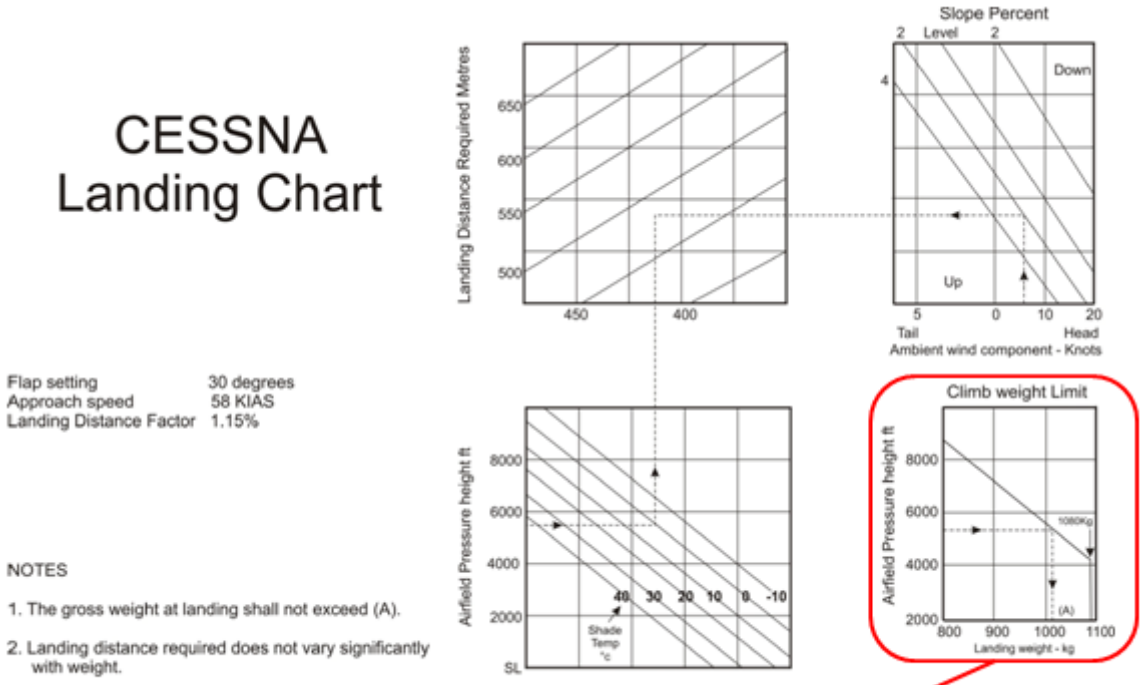
Answer : Landing distance required 590meter

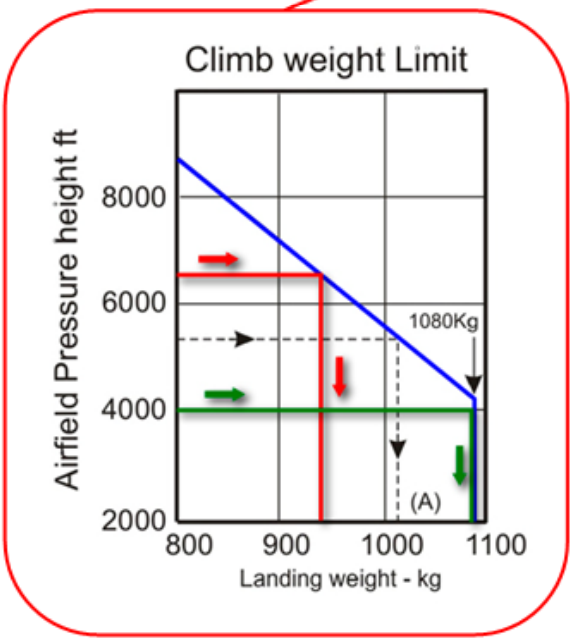
CLIMB WEIGHT LIMIT FOR LANDING CHARTS

Civil Aviation Orders, section 20.7.4 subsection 9.1

Climb weight limit for a Cessna type landing chart is in its own box (lower right corner)

Enter the airfield pressure altitude on the left hand side of the box, from here move horizontally to the right until you hit the climb weight limit line highlighted in blue, from that point move vertically down and read the climb weight limit for landing.





Enter with your Pressure Altitude.

Example 1

PA = 6500ft
Climb weight limit = 940kg

Example 2

PA = 4000ft
Climb weight limit = 1080kg, max landing weight as shown by the Pchart

As we have seen all P charts have slight variations for use.This landing chart is yet another example showing a different method for Climb weight limit.

Climb weight Limit on the chart is quite easy : Locate you pressure altitude on the airfield pressure height side, draw a line horizontally to the left and read off.