



CFI-PTS Technical Subject Areas 8-2020:

Aeromedical Factors

Runway Incursion Avoidance

Visual Scanning and Collision Avoidance

Principles of Flight

Airplane Flight Controls

Airplane Weight and Balance

Navigation and Flight Planning

Night Operations

High Altitude Operations

14 CFR and Publications

National Airspace System

Navigation Systems and Radar Services

Logbook Entries and Certificate Endorsements (touted by some as the most lacking area)

Certificates and Documents

1. The training requirements for the issuance of a recreational, private, and commercial pilot certificate.
2. The privileges and limitations of pilot certificates and ratings at recreational, private, and commercial levels.
3. Class and duration of medical certificates.
4. Recent pilot flight experience requirements.
5. Required entries in pilot logbook or flight record

PAVE

Pilot – training, experience, fitness

Aircraft – airworthiness, performance, configuration, avionics airworthiness

environment – Airport conditions, terrain, airspace, and weather

External Pressure (the mission) – urgency to make the flight?

Flight Planning:

- **W-DR FAWN**
 - **W** – weather
 - **D** – delays
 - **R** – runway lengths required, runway distances
 - **F** – fuel required
 - **A** – alternate
 - **W** – weight and Balance
 - **N** – notams



Constant Pressure versus Feet of Altitude:

<u>mb</u>	<u>feet</u>
850	~5000
700	~10,000
500*	~18,000
300	~30,000
250	~35,000
200	~39,000
150	~45,000

- Winds at 500mb height tend to direct surface weather movement!
 - Where the highs and lows are headed

From National Weather Service: <https://www.weather.gov/jetstream/500mb>

“The 500 millibar constant pressure charts is the mainstay of the upper air charts. If meteorologists could only look at one chart, the 500 mb level chart would, by far, be the top choice.” <https://www.weather.gov/jetstream/500mb>

Weather Flying pg. 52 (Robert O. Buck and Robert N. Buck)

“We are apt to only look at the surface map when, really, that isn’t where we fly. Fortunately, there are maps drawn for where we do fly, in the sky above. These are often overlooked, and they should not be.”

Air-Age Education Series – Science of Preflight Aeronautics (1943)
(Columbia University)

Spin Endorsement:

Jet Warbird Training Center, Santa Fe, NM - <http://www.jetwarbird.com/>



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THANKS FOR LISTENING!

Cheers,

Don M. Jones

A handwritten signature in black ink, appearing to read "Don M. Jones", with a large, stylized flourish at the end.

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