

Aviation Weather

Comprehensive review on aviation meteorology, built to deepen a pilot's weather understanding for pre-flight planning and in-flight decisions, with referenced resources (Aviation Weather Handbook, PHAK Ch. 12–13, AC 00-6B, ACS) and instructor-led formative assessment.

Progresses from atmospheric fundamentals to operational application — atmosphere structure and composition, pressure/temperature/humidity and stability, circulation, wind, fronts, clouds, and precipitation — then into hazards (thunderstorms, squall lines, low-level wind shear, microbursts, tornadoes, lightning, icing).

Closes on practical airmanship, Risk Management — seasonal (summer) considerations across weather, aircraft performance, and human factors, plus approved weather sources and briefing types (Outlook, Standard, Abbreviated) and in-flight tools (ADS-B, SiriusXM, ATC, EFBs).

