

Technical Skills (Flying and Systems)

Technical skills are the hard, measurable abilities required to operate an aircraft. Pilots learn these skills in ground school and flight simulators.

- **Aircraft Control:** Managing takeoffs, landings, stalls, and crosswind techniques.
 - **Navigation:** Using flight instruments, maps, and GPS systems to follow flight paths.
 - **Aerodynamics and Weather:** Understanding airflow, lift, and how to read dangerous weather patterns.
 - **Aircraft Systems:** Knowing how engines, fuel, hydraulics, and electrical systems work.
 - **Emergency Procedures:** Applying checklists to handle engine failures, fires, or sudden instrument drops.
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Non-Technical Skills (Human Factors)

Non-technical skills are the cognitive and social abilities that help pilots use their technical knowledge safely. The aviation industry studies these behaviors through **non technical skills** and Crew Resource Management (CRM) training.

- **Communication:** Sharing clear and precise information with air traffic control, passengers, and crew.
- **Situational Awareness:** Knowing the current state of the aircraft, weather, and surrounding air traffic at all times.
- **Decision-Making:** Evaluating risks quickly and choosing the safest option during normal and emergency flights.
- **Teamwork and Co-operation:** Working smoothly with the co-pilot and cabin crew to share tasks and support each other.
- **Stress and Workload Management:** Staying calm, setting priorities, and avoiding panic during high-pressure situations or fatigue.