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Nota di contenuto	Commercial Aviation history -- Flight Controls, High lift systems and their actuation -- Engines and Nacelles -- Cabin Pressurization and Air Conditioning -- Wheels, Brakes and Landing Gear -- Fuel Systems -- Instruments and sensors -- Anti-ice and Deice systems for wings, nacelles, and instruments -- Loss of flight controls, United Flight 232 -- In Flight Thrust Reverse Actuation -- Cabin Pressurization Accident -- Landing Gear Accident -- Fuel System Failure -- Flight System Sensor Failure -- Icing Conditions -- Conclusion -- Index.
Sommario/riassunto	This book discusses the multiple systems that make commercial jet travel safe and convenient. The author starts by tracing the evolution of commercial jets from the Boeing 707 to the double decker Airbus A380. The next 7 chapters discuss flight controls, along with the high lift surfaces (flaps and slats) that are essential to allow high speed, low

drag aircraft to take-off and land. The other systems include Engines/Nacelles, Cabin Pressurization and Air Conditioning systems, Landing Gear and brakes, Fuel Systems, Instruments/Sensors, and finally Deicing systems for the wings, nacelles and external air speed sensors. Case studies describe a significant accident that arose from a failure in the various systems described. The final chapter summarizes the past 60 years of jet travel and describe how these systems have created a cheaper, safer mode of travel than any other. Discusses the “behind the scenes” systems that keep commercial aircraft operating to designed specification, including materials of construction, nominal as well as severe requirements, normal, off-normal and emergency operation; Describes the high loads and large movements necessary to reconfigure an airplane from low-drag, Mach 0.87 flight to high lift low speed take-off and landing speeds; Explains the importance and operation of the various, aviation sub-systems by describing what happens when failures occur in this equipment.