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Nota di contenuto	Aircraft Fuel Systems; Contents; Acknowledgements; List of Acronyms; Series Preface; 1 Introduction; 1.1 Review of Fuel Systems Issues; 1.1.1 Basic Fuel System Characteristics and Functions; 1.1.2 Fuel Quantity Measurement; 1.1.3 Fuel Properties and Environmental Issues; 1.2 The Fuel System Design and Development Process; 1.2.1 Program Management; 1.2.2 Design and Development Support Tools; 1.2.3 Functional Maturity; 1.2.4 Testing and Certification; 1.3 Fuel System Examples and Future Technologies; 1.4 Terminology; 2 Fuel System Design Drivers; 2.1 Design Drivers 2.1.1 Intended Aircraft Mission 2.1.2 Dispatch Reliability Goals; 2.1.3 Fuel Tank Boundaries and Tank Location Issues; 2.1.4 Measurement and Management System Functional Requirements; 2.1.5 Electrical Power Management Architecture and Capacity; 2.2 Identification and Mitigation of Safety Risks; 2.2.1 Fuel System Risks; 3 Fuel Storage; 3.1 Tank Geometry and Location Issues for Commercial Aircraft; 3.2

Operational Considerations; 3.2.1 CG Shift due to Fuel Storage; 3.2.2 Unusable Fuel; 3.3 Fuel Tank Venting; 3.3.1 Vent System Sizing; 3.4 Military Aircraft Fuel Storage Issues
3.4.1 Drop Tanks and Conformal Tanks 3.4.2 Closed Vent Systems; 3.5 Maintenance Considerations; 3.5.1 Access; 3.5.2 Contamination; 4 Fuel System Functions of Commercial Aircraft; 4.1 Refueling and Defueling; 4.1.1 Pressure Refueling; 4.1.2 Defueling; 4.2 Engine and APU Feed; 4.2.1 Feed Tank and Engine Location Effects; 4.2.2 Feed Pumping Systems; 4.2.3 Feed Tank Scavenging; 4.2.4 Negative g Considerations; 4.2.5 Crossfeed; 4.2.6 Integrated Feed System Solution; 4.2.7 Feed System Design Practices; 4.3 Fuel Transfer; 4.3.1 Fuel Burn Scheduling; 4.3.2 Wing Load Alleviation
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6.3.1 The Flying Boom System Equipment

Sommario/riassunto

All aspects of fuel products and systems including fuel handling, quantity gauging and management functions for both commercial (civil) and military applications. The fuel systems on board modern aircraft are multi-functional, fully integrated complex networks. They are designed to provide a proper and reliable management of fuel resources throughout all phases of operation, notwithstanding changes in altitude or speed, as well as to monitor system functionality and advise the flight crew of any operational anomalies that may develop. Collates together a wealth of information on
