

Airline Passenger Management System (APMS)*

The Airline Passenger Management System (APMS) is designed to monitor, track, control, restrain and limit movement of passengers in the passenger cabin during flight so as to greatly reduce the possibility of an individual, or group of passengers, from seizing control, or otherwise, interfering with the safe operation of the aircraft.

The APMS consists of a computer network with a hard-wired connection to every passenger seat. A display panel in the cockpit and the passenger compartment indicates the status of each passenger seat as to occupancy, and the status of each smart seatbelt, by reflecting one of the following: unfastened, fastened, loosely fastened, locked and unlocked. Only the APMS can lock and unlock the seat belt.

The computer is programmed so that no passengers are authorized to leave their seat during certain critical portions of the flight. To ensure compliance all seat belts are locked. When passengers are authorized to leave their seat their numbers are limited to 1-2% of the total passenger load. Passengers are classified according to the risk they present and the computer program ensures that only one high-risk passenger is allowed to move around the cabin at any particular time. Generally, passengers are granted permission to walk around the cabin in accordance with their place in the computer managed queuing system, which considers the order along with the risk level of the passenger. All other passengers remain locked in their seats with their seat belts fastened (or loosely fastened).

The data on the flight manifest is uploaded into the computer by Ground Operations just before take off. The Flight Attendants can access this information using their hand held (wireless) devices by simply entering the passenger's seat number. In addition, the Flight Attendant can communicate with the Pilots and Ground Operations using the Hand Held device. The Flight Attendants are not able to unlock seat belts using these devices.

In larger aircraft, the Pilot Passenger Display and APMS computer located in the cockpit would probably be manned by a Security Attendant who could be an Air Marshal, or an attendant, with special training. Passengers with special needs could be identified and cleared in advance and then be given preferential treatment by the system. In routine, or uneventful flights, the APMS would require no intervention by the attendants or flight crew.

This statement is a summary of the primary capabilities of the APMS.

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*Patent Pending

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