

The need to improve accommodations for passengers with disabilities in aircraft cabins

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Passengers with disabilities find it difficult to use aircraft in operation today. As one example, passengers restricted in mobility require more space for them and/or their assistants to move around in the aircraft cabin, especially to use the lavatory. Creating more space to meet the needs of these passengers create challenges for aircraft operators as they try to increase revenues by increasing seat density. Some aircraft, especially regional and narrow-body aircraft have physical geometries that make it challenging to design lavatories to accommodate passengers with a disability. Despite these challenges, operators, airframers, cabin integrators and other suppliers are working hard to find new ways to accommodate passengers with disabilities by new products and services in existing and future aircraft. This supply chain needs assistance in improving these products and services to properly accommodate people with disabilities.

In 2013, the National Research Council Canada (NRC) launched a human factors program called Working and Travelling on Aircraft (WTA). Among other areas, the WTA program will seek to find technologies and services that will reduce passenger discomfort in aircraft cabins. This includes discomfort of those passengers with disabilities who find it extremely difficult to travel in today's aircraft. In support of the WTA program, NRC is constructing a Cabin Comfort & Environment Research (CCER) Facility. The facility will be used to investigate how technologies and services can be developed and refined to accommodate passengers with limited sight, hearing, and mobility. The efforts will include finding ways to accommodate passengers who are allergic to animal dander caused by service animals onboard aircraft.

The presentation will lay out proposed methodologies for evaluating technologies and services within the CCER Facility. The WTA Program will work closely with the supply chain to evaluate and improve products that will maximize disabled passengers' comfort when travelling in future aircraft.