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Sommario/riassunto	The security of the U.S. commercial aviation system has been a growing concern since the 1970's when the hijacking of aircraft became a

serious problem. Over that period, federal aviation officials have been searching for more effective ways for non-invasive screening of passengers, luggage, and cargo to detect concealed explosives and weapons. To assist in this effort, the Transportation Security Administration (TSA) asked the NRC for a study of emerging screening technologies. This report--the third of four--focuses on currently maturing millimeter-wavelength/terahertz imaging and spectroscopy technologies that offer promise in meeting aviation security requirements. The report provides a description of the basic operation of these imaging systems, an assessment of their component technologies, an analysis of various system concepts, and an implementation strategy for deployment of millimeter-wavelength/terahertz technology screening systems.
