

***THE OPERATIONAL AND ECONOMIC
EFFECTS OF
NEW LARGE AIRPLANES
ON
UNITED STATES AIRPORTS***



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BACKGROUND

Historically, airframe manufacturers have met the demands of continued growth in passenger and cargo traffic with the development of larger and more efficient airplanes. The aviation industry and the flying public witnessed such development during the late 1960s with the introduction of the first wide-bodied aircraft in 1969, namely, the Boeing 747. Succeeding years saw the introduction of other wide-bodied aircraft, such as, the McDonnell-Douglas DC-10, Lockheed L-1011, and the Airbus Industrie A300. Continued growth with the ever greater emphasis placed on international service has caused airframe manufacturers to consider the introduction of a second generation of wide-bodied airplanes, which the Federal Aviation Administration (FAA) and industry refer to as new large aircraft (NLA). Proposed NLA have significantly wider wingspans, taller tail sections, longer fuselages, heavier taxiing weights, and the ability to transport a greater number of passengers than aircraft types now in service. Airframe manufacturers consider this approach as one means to fulfill the operational requirements of their airline customers. Once the Boeing Airplane Company or Airbus Industrie secures sufficient launch customers for NLA, actual production will proceed. Airbus Industrie has stated an expected entry service date as early as 2004. In anticipation of NLA service, the FAA and the aviation industry are answering the fundamental questions of how to safely accommodate NLA service and what costs can be anticipated.

This report provides an understanding of the operational demands imposed by NLA and the effects on airports not built to NLA design criteria. Furthermore, the report presents estimated cost figures as provided by U.S. airports to upgrade or build the necessary infrastructure to safely accommodate NLA service.

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