The Airtrain is a double-track light rail service linking the terminals in JFK Airport via a 2.9km loop, with two spurs of 4.8km and 5.3km to regional transport hubs. It opened in 2003.

The Airtrain serves ten stations: six within the central terminal area of the airport; three in the car rental and long-term parking areas (of which one is an existing station on the city subway network); and one existing station for rail, subway and bus services.

The project included extensive development at the latter two stations. It is part of the Port Authority of New York & New Jersey’s term Airport Improvement Program and is associated with a broader vision for the economic regeneration of the Jamaica area in Queens.

The main objective of the project was to improve access to, from and within JFK Airport, facilitating the forecast substantial growth in passenger numbers following airline deregulation, whilst providing an alternative to access by car and improving journey times. The objective of regeneration around Jamaica Station emerged during the process of building support amongst local communities.

The Port Authority was first mandated to provide a rail link to the airport in 1962. Despite successive reports and proposals, obstacles including funding issues, a lengthy regulatory process and local opposition blocked progress. In 1978, the Metropolitan Transport Authority introduced a ‘train to the plane’ service to Howard Beach Station, with a bus shuttle link to the airport, but this was discontinued in 1990. In the same year, a Federal Act allowed airport operators to fund eligible airport improvements through a Passenger Facility Charge (PFC) levied on airline passengers.

The Port Authority began planning an ambitious Automated Guided Transitway (AGT), a 35km direct link to the city centre, in 1992/93, but opted instead for the smaller Airtrain proposal in 1995. Opposition continued from the Mayor of New York (who supported the original aim of providing a ‘one seat ride’ to the city centre), the Air Transport Association and local communities. However, the PFC funding mechanism allowed the Airtrain to proceed without state or city funding, resolving much of the political opposition to the project. Its use required Federal Aviation Administration approval.
**TIMELINE**

**CONCEPTION: 1962:** PORT AUTHORITY (PA) HAS MANDATE FOR AIRPORT LINK

**CONCEPTION: 1968:** MTA RECOMMENDS RAIL LINK TO CITY CENTRE

**PRECURSOR: 1978:** ‘TRAIN TO THE PLANE’ SERVICE INTRODUCED

**INCEPTION: 1990:** FEDERAL ACT INTRODUCES PASSENGER FACILITY CHARGE

**PRECURSOR: 1990:** ‘TRAIN TO THE PLANE’ SERVICE DISCONTINUED

**CONCEPTION: 1993:** PA SCOPING AUTOMATED GUIDED TRANSITWAY (AGT) SYSTEM

**INCEPTION: 1995:** DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS) ON AGT SYSTEM SUBMITTED

**INCEPTION: 1995 (AUG):** FAA AGREES TO USE OF PFC FOR AIRTRAIN SCHEME

**CONTROVERSY/DELAY: 1996:** ATA OPPOSITION - FAA APPROVAL ON HOLD

**INCEPTION: 1997:** FINAL EIS ON AIRTRAIN SCHEME, INCLUDES APPRAISAL OF ALTERNATIVE OPTIONS

**CONTEXT: 1997:** PA BEGINS CONSTRUCTION OF AIRTRAIN AT NEWARK AIRPORT

**INCEPTION: 1998:** FAA APPROVAL

**CONSTRUCTION: 1998 (MAY):** CONSTRUCTION BEGINS (DBOM CONTRACT)

**INCEPTION: 1999:** CITY COUNCIL APPROVAL. FINAL FAA APPROVAL INCLUDES PLANS FOR JAMAICA STATION

**CONSTRUCTION: 2001:** CONSTRUCTION BEGINS AT JAMAICA STATION

**ACCIDENT/DELAY: 2002:** FATAL ACCIDENT DURING TEST RUN

**CONSTRUCTION: 2003:** CONSTRUCTION COMPLETE

**DELIVERY: 2003 (DEC):** LINE OPENS

FAA approval was dependent on eligibility criteria and came in several stages. Another crucial element was the city council’s permission for the Port Authority to use the right of way on the Van Wyck highway, thus minimising the impact on local residential communities and remaining within the FAA’s eligibility criteria.

The 1997 Environmental Impact Statement included an appraisal of alternative options for improving access to the airport. During construction, a community outreach program was set up, delivering local area improvements and awarding contracts to local businesses.

**CHARACTERISTICS**

The Port Authority was the client, awarding a Design, Build, Operate and Maintain contract to the Air Rail Transit Consortium (a joint venture of Bombardier Transportation, Skanska USA, STV Inc., Alcatel Canada, and Perini Corp). The estimated cost increased from USD 1.1bn in 1996, to USD 1.6bn in 1998 (USD 2.14bn in 2010 prices), including the DBOM contract of USD 1.2bn. The final cost was USD 1.88bn (USD 2.22bn in 2010 prices), 4% over budget.

Trains have been designed to also operate on the rail and subway tracks, allowing a ‘one seat ride’ to be developed in the longer term. The need to maintain normal traffic conditions on the heavily congested highway network was a constraining factor in construction.

**TIMELINE ISSUES**

The Port Authority’s decision to proceed with the Airtrain, instead of the more ambitious AGT project, and the introduction of the PFC funding mechanism were the key events enabling progress.

The use of a DBOM contract allowed simultaneous design and construction, reducing construction time. However, a fatal accident during a test run caused a one-year delay to the opening.

**FUNDING**

The PFC was the main source of funding (70% or USD 1.4bn), the Port Authority’s capital funds providing the remainder (30% or USD 0.6bn). Operating costs are covered by fare revenues and the avoided costs of bus shuttle services.

Actual ridership numbers have been lower than forecast but have increased steadily since the project’s opening. Intra-airport and staff trips are free, and their inclusion in traffic forecasts has made comparisons between forecast and actual traffic difficult.