



MIAMI-DADE INTERNATIONAL AIRPORT

Miami, Florida

Airport Summary
Brief

BNP Associates, Inc. has been working at Miami-Dade International Airport since 1974.

SOUTH & CENTRAL TERMINALS CBIS/CBRA/BHS PROGRAM

The Miami-Dade Aviation Department (MDAD) and County officials retained BNP as part of the Burns & McDonnell team for design, engineering, and construction-related services to recapitalize and optimize the Baggage Screening Systems for the Central and South Terminals (Concourses E, F, G, H and J). The project included alterations and additions to the existing outbound Baggage Handling Systems (BHS), and the construction of a new 3-Level building to centralize the checked baggage screening operation for both terminals. Two independent automated Checked Baggage Inspection Systems (CBIS) were implemented; one for the Central Terminal and one for the South Terminal. The design of the CBIS/BHS also included the complete reconfiguration and replacement of the existing outbound baggage systems with a new automated sortation system for the Central Terminal and the replacement of the South Terminal's CBIS with related upgrades to the existing sortation system – all while maintaining the baggage handling inbound, outbound, and security screening capabilities for both the airlines and the Transportation Security Administration (TSA). The completed works increased the screening efficiency with optimized utilization of TSA resources, a reduction of EDS equipment and staffing, and reduced on the job injuries (by minimizing manual operations) for TSA.

SOUTH TERMINAL BAGGAGE HANDLING SYSTEM

BNP Associates, Inc. was retained by MDAD as part of the Borrelli and Associates team to provide design services for the inbound and outbound baggage handling systems. The outbound baggage system design was somewhat limited by the clear height and, though the floor is depressed, civil conditions limited the overall clearance. For this reason, the sortation technology adopted was based on conveyors and high-speed pushers, and twenty-six dual level laterals were provided. An induction matrix allows bags to be sorted discretely to either the upper or lower lateral. Encoding is accomplished with two eight-head line scanner arrays, and handgun and keypad encoding is provided for no-reads. Three online and interline transfer load belts are provided. Additionally, there are input conveyors from lost and found and the small package system.

NORTH TERMINAL BAGGAGE HANDLING SYSTEM

BNP was retained by American Airlines to evaluate and audit the North Terminal Baggage Handling System. BNP assembled a team of controls engineers, system designers and operations experts to audit the existing systems and identify both short term solutions and a long-term masterplan. The BNP solution identified a centralized CBIS and CBRA, which would eliminate the duplication of equipment, man power and inefficiencies that are associated with a many existing screening rooms. We also identified the location and configuration of both manual and automated early bag storage systems.



ASSOCIATES, INC.

BNP PROJECT TEAM

David Mecartney, Principal
Rey Lastra, Project Director

SCOPE OF SERVICES

Analysis Study
Conceptual Design
Design Development
Ergonomic Improvements
Bid Documentation
Construction Administration
Testing & Commissioning