

Client:
Louis Armstrong
New Orleans
International
Airport

Project Cost:
\$250,000,000

Project Duration:
2002–2007

**Parsons
Responsibilities:**
Lead joint
venture partner
providing program
management,
construction
management,
design
management,
project/program
controls, contract
administration
and management,
purchasing, safety/
security, quality
assurance/quality
control, progress
reporting; DBE
program
monitoring, and
interagency
coordination and
regulation,
including funding
and legislative
support.



The Louis Armstrong New Orleans International Airport (LANOIA) was originally named after aviator John Moisant, who died in an airplane crash on this land in 1910 while attempting to set a world's record flight. The airport's code, MSY, is believed to be derived from Moisant and the stock yards that were originally on the site. The Moisant Field airport plans began in 1940. During World War II, the land became a government air base. It was returned to civilian control after the war, and commercial service began at Moisant Field in May 1946. The airport was renamed in 2001 to honor Louis Armstrong, a New Orleans native, on his 100th birthday.



Right:
1-19 runway
construction.

Parsons is the lead joint venture partner in the Parsons Aviation Louisiana (PAL) Team for the LANOIA Capital Improvement Program (CIP). The PAL Team includes GOTECH, Inc., NOLMAR Corporation, and Urban Planning and Innovations. Parsons personnel provide program management, design management, construction management, quality assurance and quality control, safety oversight, and contract administration.

January 2005 marks the midpoint of Parsons' five-year contract with LANOIA. In July 2002, Parsons' original contract included 12 small task orders for capital projects, valued at \$25 million. Parsons' responsibilities have expanded to include the airport's five-year CIP totaling \$250 million. In December 2004, the New Orleans Aviation Board formally extended the PAL contract through June 2007.

The CIP was originally based on the master plan from the mid-1990s, and recently was modified to incorporate post 9/11 airport operating requirements. The airport has recovered its passenger demand more rapidly than many of the other southern major-hub airports. Through the CIP, Parsons is renovating the airport's aging infrastructure. Our projects include:

- ➔ Complete rehabilitation of the 7,000-foot, north-south 1-19 runway and the 10,000-foot, east-west runway.

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Upper left: Louis Armstrong New Orleans International Airport main terminal.

Upper right: Pouring new concrete on 1-19 runway.

- ➔ Extension of a passenger concourse that adds 9 gates.
- ➔ Phased procurement of 44 passenger loading bridges.
- ➔ Rehabilitation of the concourse aprons.
- ➔ Addition of a new aircraft rescue and fire fighter station.

In addition, PAL has responsibility for the design and construction management of the 478 homes under the first phase of the Residential Sound Insulation Program (RSIP). Currently, the RSIP has over 90 homes in design or construction.

During the first six months on the project, Parsons brought the best practices from the Program Management and Construction Management (PM/CM) work at the Cleveland, Seattle, and San Francisco airports from LANOIA. Parsons implemented an electronic office environment to support all of the project requirements. An Information Technology (IT) jump-start team started within the first month of the contract award, and they specified hardware and software for the CIP. The IT jump-start team integrated and implemented three primary software packages that track schedules, project costs, cash flow, invoices, and electronic document control.

Working with the Director of Aviation, Parsons established an innovative monthly



reporting system for the New Orleans Aviation Board. The web-based report that is easy to access and navigate includes an interactive presentation, which was adapted from a Parsons business development tool. The report lists every active project and provides a pictorial, schedule, and cost status to date. This tool gives the Board excellent visibility of progress to date.

PAL's roles and responsibilities expanded as the confidence of the Director and the Board increased. Critical time-sensitive work, associated with the TSA, mandated passenger and baggage screening process, and this was successfully implemented by December 2002. In January 2003, PAL's scope expanded to all CIP, projects, and three months later the Residential Sound Insulation Program was added. In May 2003, work began on the major rehabilitation of the Airport's 7,000-foot, north-south runway, 1-19; and its parallel taxiway, Sierra.

Rehabilitation of 1-19 and taxiway Sierra project was the first major project that used Parsons' best practices. An innovative, three-dimensional partnering was structured with, and on behalf of, the Airport. Parsons principal project managers partnered with the Aviation Director and served as part of the Airport's staff, while the Director searched for a Deputy Director of Planning and Development. Through this relationship, a new

approach was conceived for the 1-19 final design which addressed the life-cycle performance on a previously poorly designed runway rehabilitation project. Parsons personnel then partnered with the designer to shepherd them through the myriad Federal Aviation Administration's (FAA's) design requirements. This resulted in a superior design for an unbonded concrete overlay to replace the previous asphalt application, which had reflective cracking and differential settlement. The design included an adapted application of expanded polystyrene (EPS) blocks to minimize the differential settlement that occurred between the old taxiway and a new holding apron. Due to the extremely compressive soil conditions that existed under the entire airport, the lightweight EPS blocks replaced a volume of soil equal to the weight of the new pavement. The holding apron and taxiway uniform included 20,000 cubic yards of 3- and 4-foot blocks that were placed 7- to 9-feet below grade. After completing this project, the FAA awarded the PAL Team with two of the largest funding awards that the Airport had ever received.

Parsons personnel acted as the construction manager for the fast-tracked, 180-day, \$26 million project. Calling on lessons learned from our work at Cleveland Airport, an informal partnering approach was initiated with the local contractor. While keeping safety requirements and quality of product as the highest priority, Parsons worked to get rapid answers to requests for information and were flexible in evaluating field modifications and resequencing of work. At the end of the project, the contractor provided a superior

runway and taxiway that opened ten days ahead of schedule and under the estimated project budget.

Immediately following the completion of runway 1-19 and continuing throughout 2004, three major projects entered design.

Due to deteriorating surface conditions and differential settlements, the airport's primary 10,100-foot, 10-28 runway had to be rehabilitated immediately. Parsons proposed and managed the construction of 9 new gates to concourse D for easier passenger boarding and enhanced the aging infrastructure to concourse A. To better serve all airline passengers, replacement passenger loading bridges were specified and built for 44 of the airport's gates. The total cost of these projects was over \$100 million.

PAL has grown from a staff of 7 to a staff of 30, which includes 9 full-time Parsons employees. During our tenure, we have:

- *Managed over 38 different CIP projects.*
- *Reconciled over 40 contractor and professional service provider invoices each month.*
- *Scanned more than 20,000 documents into the airport's system.*
- *Prepared more than 60 contracts and contract amendments.*
- *Designed or rehabilitated over 90 homes for the Residential Sound and Insulation Program.*
- *During 2004, PAL received contract administration responsibility for 20 maintenance providers.*

Our most recent milestones include the completion of final designs for the three 2005 major projects and the award of the rehabilitation bid for runway 10-28. We will begin runway 10-28 construction following the February 2005 Mardi Gras celebration. Concourse D expansion will begin in late spring 2004 and will be completed by the end of 2006. The first passenger loading bridge installation is scheduled for the fall of 2005.

Right: Concrete slabs

