# IN - MOTION

# A PUBLICATION BY LEA+ELLIOTT TRANSPORTATION CONSULTANTS

## **SUMMER 2017**

## Tampa Airport SkyConnect Vehicles have Arrived!



The SkyConnect vehicles arrived Jul. 18, 2017 from Mihara, Japan Image credit: HCAA

TAMPA - On Jul. 18, 2017, Tampa International Airport's SkyConnect APM vehicles arrived on site and were hoisted onto the guideway.

The SkyConnect APM System is 1.4 miles (2.5 km) long and will connect passengers from the Airport's Main Terminal to the new Rental Car Center with a stop in between at the Airport's Economy Parking Garage.

A total of 12 cars and one maintenance vehicle were shipped from Japan. The vehicles were designed and manufactured by Mitsubishi Heavy Industries in Mihara, Japan. Each vehicle is configured as a married pair; as a result, the SkyConnect APM System will have a total fleet of six vehicles. The SkyConnect APM System will normally operate four vehicles and have ready an additional hot stand-by vehicle and a spare in the maintenance facility. The SkyConnect System will carry 2,500 passengers per hour per direction (pphpd) operating at 160 seconds (2.7 minute) headways. The SkyConnect APM System will also

continued on p 2

#### In this issue...



- Tampa Airport SkyConnect Vehicles have Arrived!
- People In+Motion
- In+Progress
- President's Column
- Meet the Staff

In Motion 1 Vol. 24 No 2

# **SkyConnect Vehicles**

continued from p 1

have the capability of operating five vehicles to increase the APM system capacity as may be required by the Airport during special events or periods of high demand. The addition of the fifth vehicle will increase the capacity to 2,850 pphpd and decrease headway to 125 seconds (2.1 min). The arrival of the vehicles was a major SkyConnect project milestone. Testing and commissioning will begin in August, and the SkyConnect APM System is scheduled to open Feb. 1, 2018.

Lea+Elliott is the Airport's APM System Consultant responsible for overseeing the design, construction, installation, and commissioning of the SkyConnect System. Since 2011, Lea+Elliott has worked with the Airport starting with supporting the Master Plan 2012 Update, which included the SkyConnect System, followed by the APM planning, programming, and procurement through Notice to Proceed of the SkyConnect APM System in November 2014.



Lea+Elliott's Tim McFadden shakes hands with Florida Governor Rick Scott at the TPA SkyConnect vehicle unveiling.



### Tampa to host 16th International Conference on APM and ATS

TAMPA - Tampa, Florida will be the host city for the 16th International Conference on Automated People Movers and Automated Transit Systems – "Moving to the Future – Building on the Past". The

first airport APM went into service at Tampa International Airport in 1971 as part of an innovative terminal design. Since that time the APM/ATS technology has experienced major technological advances, and these systems have been used in numerous applications. As we move to the future, what have we learned and what changes in technology and applications do we envision?



Tampa Airport's airside APM - the first airport APM Image credit: Bombardier Transportation

The conference will be held April 29 – May 2, 2018.

A new APM, SkyConnect, is under construction linking Tampa Airport's Main Terminal with a new Rental Car Center. The SkyConnect will open prior to the conference, and conference attendees will get a behind-the-scenes tour of this new system.

For more information about the conference, visit www.apmconference.org.

In Motion 2

# PEOPLE IN :: MOTION

#### New Principal - Daniel McFadden, P.E.



MIAMI – Lea+Elliott is pleased to announce new Principal Daniel

McFadden, P.E. Dan leads the

Lea+Elliott team in the planning, procurement, design, implementation, testing & commissioning of the

Orlando International Airport South

Complex APM and Airside 1 & 3 APM

replacement projects. Dan also led and played a key role with the implementation of all three APM systems at Miami International Airport—MIA Mover, North Terminal Skytrain and the newly replaced eTrain. Dan joined Lea+Elliott in 1997 and has nearly 30 years of experience in the transit industry having led multiple APM projects involving new APM systems, expansion of existing APM systems, rehabilitation/overhaul/extension of service life of existing APM systems and supporting APM system owners with the O&M oversight and management. Dan is also the Deputy Regional Director for our Miami office.

#### **New Associate Principal - Chris Gambla, LEED AP**



CHICAGO – Chris Gambla, LEED AP has been appointed Lea+Elliott's newest Associate Principal. He has been Lea+Elliott's leader on the ground for the Chicago O'Hare International Airport ATS work, including the current system upgrade and expansion. Chris has nearly 30 years of experience in the transit

industry ranging from planning, finance, design, and procurement to implementation and operations & maintenance oversight. Chris has worked on transit projects all around the world, including the Honolulu Rail Transit Project, the Taipei VAL256 Brown Line in Taipei, and the Evergreen Line in British Columbia. Chris also authored the Airport Cooperative Research Program's *Guidebook for Measuring Performance of APMs at Airports*. Chris joined Lea+Elliott in 2001 and is in our Chicago office.

#### **New Senior Associates**

Lea+Elliott is pleased to announce new Senior Associates – **Gregory Love**; **Jackie Yang, AICP**; and **Brian Yeschenko**.



MIAMI – **Gregory Love** has over 20 years of experience overseeing the implementation of airport APM systems, including Miami International Airport's North Terminal Skytrain, the APM at Hamad International Airport, and one of the world's largest airport APMs—

Dallas/Fort Worth International Airport's Skylink APM. Gregory is currently the on-site project manager for Orlando International Airport's new South Complex APM and the replacement of the Airside 1 & 3 APMs.



SAN FRANCISCO – Jackie Yang, AICP has nearly 20 years of experience in the planning, procurement, and construction management oversight of airport and urban APM systems, including airport APMs at Hamad International Airport, Sacramento International Airport, and the new

BART to OAK system. Jackie specializes in the development of technical and commercial specifications, and in the evaluation of contractor proposals.



DALLAS/FORT WORTH – **Brian Yeschenko** is one of Lea+Elliott's safety experts in the design, development and implementation of transit systems.

Since joining Lea+Elliott in 2008, Brian has worked on the design, installation and commissioning of the signaling/train control system for several APMs,

including the Phoenix Airport PHX Sky Train®, Chicago O'Hare's ATS upgrade and expansion, Orlando International Airport APM, and the Honolulu Rail Transit Project.

#### **Diane Woodend Jones joins Eno Board of Advisors**



DALLAS/FORT WORTH – Lea+Elliott
Chair Diane Woodend Jones, AIA, AICP,
LEED AP was appointed to a 3-year
term to serve on the Eno Center for
Transportation (Eno) Board of Advisors.
Board members are selected from
across industry and government sectors
and possess extensive knowledge and

expertise in surface, air, and water-based transportation policy, management, and operations. The Board meets annually with Eno's Board of Directors to provide advice on organizational priorities and participate in policy and professional development activities.

Eno focuses on all modes of transportation. Eno's mission is cultivating creative and visionary leadership for the sector and to impact emerging issues for the nation's multi-modal transportation system by supporting activities in professional development programs, policy forums and publications.



Vol. 24 N



#### **Mountain View AGT Feasibility Study**

CITY OF MOUNTAIN VIEW – The City of Mountain View, California, is conducting a study to review innovative ways to address the anticipated increased commuter traffic between its Downtown Transit Center and the North Bayshore employment area, where large employers such as Google, Intuit, and Microsoft are located. The study is intended to give the City and its community a clearer understanding of what is feasible regarding Automated Guideway Transit (AGT) technologies currently available and in development within the constraints of the current and planned environment. Over the last few years the City of Mountain View has conducted numerous studies on how to address the growing development and associated travel demand in the City, particularly moving people between the ever growing and changing North Bayshore area and Downtown. Although previous studies, which Lea+Elliott has been involved with, have touched on the possibility of advanced transit or AGT, more near-term solutions, such as transit-only lanes for buses, were prioritized to resolve the immediate needs for improved transit solutions. Throughout these efforts, AGT has remained a long-term consideration due to its sustainable characteristics.

The current study, led by Lea+Elliott, will address the realistic feasibility of AGT technologies as part of the solution to improve the last-mile connectivity. The study will provide a comprehensive evaluation of the suitability of the AGT technologies (e.g., APMs, personal rapid transit, group rapid transit, autonomous transit vehicles, etc.) against identified system characteristics to assess if and how the introduction of an AGT system might be successfully integrated over time into the transportation improvement strategies and projects the City is undertaking. As part of the study, community outreach meetings are being conducted along with City Council study sessions to keep the community and City Council informed of the study's progress and get feedback on findings.

#### **Construction of O'Hare's ATS Expansion Underway**

CHICAGO – The City of Chicago is modernizing and expanding Chicago O'Hare International Airport's Airport Transit System (ATS), which opened in 1993. In conjunction with ongoing construction of a joint-use consolidated rental car and public parking facility ("Joint Use Facility"), the ATS Expansion & Modernization Project has been underway since 2015 and



Lea+Elliott's Muna Okochi at the Mountain View Community Outreach Meeting
Apr. 3, 2017

#### includes:

- replacement of the existing 15-vehicle fleet with a larger fleet (12 married triplet vehicles or 36 cars),
- replacement of the existing automatic train control system,
- expansion of the dual-lane guideway by approximately onehalf mile,
- the addition of one station at the Joint Use Facility, and
- expansion of the Maintenance and Storage Facility.

Currently, the operating system equipment is being installed throughout the existing and new areas of the ATS, and checkout of this equipment is underway. The scheduled delivery of the first car is in September 2017 with subsequent car deliveries occurring regularly thereafter, followed by testing and commissioning. The opening of the Joint Use Facility and ATS is scheduled for 2018.

The Joint Use Facility will accommodate the new ATS station, dedicated levels for consolidated rental car operations, and dedicated levels for public parking. It will also accommodate a bus shuttle center below the ATS station, a Kiss 'n' Fly area, and a cell phone parking lot. Dedicated walk paths to/from Metra's O'Hare Transfer Station will also be provided through the

continued on p 5



Image credit: City of Chicago

In Motion

## President's Column

#### **Privatization at Airports**

I recently attended the first P3 Summit dedicated specifically to airports; and was a bit surprised that there were over 900 attendees. This underscored how public-private partnerships are gaining a stronghold in the airport market.



The growing popularity was further emphasized by the number of P3 projects underway at major hubs. Presentations were offered on such P3 projects at New York's LaGuardia Airport and Luis Muñoz Marín International Airport, Puerto Rico's largest. New or on-going P3 airport projects were also profiled on airports in Kansas City, New York, San Diego, St. Louis, and Los Angeles.

Lea+Elliott was an early proponent of P3 agreements. They make sense because they can kick-start activities that stimulate growth, enhance facilities, and streamline funding and program implementation. In some cases, airport boards are looking for money to help them complete projects for which they don't have funding capacity. In other cases, they feel the private industry can help them implement projects faster and more efficiently, thereby saving money overall. In most cases, the P3 model is chosen because of its potential to optimize the complex pulls between the legal, financial and technical aspects of a project.

We believe in P3s because we have helped implement them and have seen their value firsthand. We were involved in the first project to participate in Penta-P, the U.S. Department of Transportation's Public-Private Partnership Pilot Program, unveiled in 2012. Today, we play a key role in the Landside Access Modernization Program (LAMP) project at Los Angeles International Airport. This major expansion will reduce traffic by adding a train in the central terminal area to connect to Los Angeles's Metro light rail system. The improvement program also adds a consolidated rental car facility and additional parking structures with efficiently designed passenger pick up and drop off stations. This is the first time a combined Public-Private Partnership and Design-Build-Finance-Operate-Maintain model will be used to construct and operate an APM.

While P3s are an important emerging airport improvement solution, they are not always the right solution. In our experience, from providing planning and design expertise to 38 airport APMs worldwide, we have found that project structuring is an integral element within our services because it guides the airport client to an informed decision regarding the optimized program/project delivery strategy. Our process includes techno-economic viability and development of a business case. We identify risks and define optimal risk allocation strategies. Our goal is to develop an ideal delivery approach that can meet an owner's objectives while fostering a competitive procurement environment.

Money is generally hard to find. Too often, funding hurdles become roadblocks. Airport improvements are considered, drawn, then mothballed in internet clouds. We have to be creative in financing the continuous improvement of airports and in increasing their ability to efficiently move people in and around their massive neighborhoods—filled with terminals, garages and runways. Finding solutions for airport growth dilemmas is what we do—and that's just one reason why our workdays are so rewarding.







# In Progress continued from p 4

facility. Demonstrating the City of Chicago's strong commitment to sustainability, implementation of the Joint Use Facility will ultimately replace all rental car buses on the airport roadways with transportation of those passengers on the ATS. This sustainable improvement alone will approximately double ridership on the ATS overnight.

Lea+Elliott's experience with the ATS stretches back to the late 1980s and early 1990s when we provided oversight of the ATS contractor for the City of Chicago during the original implementation of the system. Since then, Lea+Elliott has undertaken numerous ATS- and O'Hare APM-related tasks, and proudly continues our role of assisting the City with the current ATS Expansion and Modernization Project.

Lea+Elliott is excited to support the City of Chicago on this important project, and looks forward to maintaining its long-standing relationship with the City by continuing to assist with ATS and other O'Hare APM-related work.

The ATS operates 24 hours per day, seven days per week throughout Chicago's various weather extremes.



Vol. 24 N

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#### **About Lea+Elliott**

Lea+Elliott is a transportation consulting firm offering a broad range of planning, engineering, program management, and construction management services for clients worldwide. These services are provided to public transit authorities, airports and private sector owners for new transit systems and the refurbishment of existing systems. We have expertise in all modes of transit, including high-speed and intercity rail, rapid transit, commuter rail, light rail, automated guideway transit, personal rapid transit, and conventional and advanced technology buses. The firm is especially well known for its creative structuring of procurements for a wide range of delivery options that include DBOM and P3.

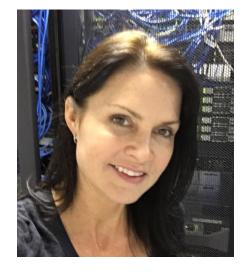


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WASHINGTON, D.C. – Rebecca Ciccone has been with Lea+Elliott for over 15 years, currently serving as the firm's Director of Information Technology (IT). She began her career in the telecom industry in 1990, starting out with a company that created data and voice networking products. She held many demanding roles over the years, from project manager for domestic and international network applications and equipment installations, to senior sales engineer, managing a staff of sales engineers designing wide area networks. "Having a strong background in telecom has helped me understand all aspects of networking," she says. Rebecca worked in telecom while obtaining her degree in Business Information Systems/Computer Science at night.

Rebecca creates and manages all the IT projects for Lea+Elliott, providing departmental strategic planning and budgets and implementing their annual IT plan. She especially enjoys researching and studying

new applications—looking to the future to determine which new technologies will help create a highly productive environment for the company's employees. "I went into IT because it is always changing, and you are constantly learning," she says. "You've got to have a passion for learning.

And you must keep apprised of the fast-paced technology changes, because they happen, literally, every day."

Rebecca appreciates the freedom that Lea+Elliott provides. "Lea+Elliott gives me the opportunity to think outside the box and create projects and not be constrained," she adds. One of her favorite projects has been the implementation of VMware, which virtualizes computing. "It's an exciting, flexible technology that has consolidated our network, added redundancy and saved us money on hardware," she says.

While you'll find Rebecca behind a laptop virtually anywhere, she does take time to enjoy her family. "My kids are the most important part of my life," she says. She and her husband, Bob, have two boys, Connor, 13 and Brandon, 11. Both are competitive swimmers so she is carpooling to practice and to meets both evenings and weekends, year-round. Rebecca enjoys watching them compete at swim meets.

So, what's in the future for this IT executive? "More learning," Rebecca says. "I want to constantly improve and I just want to be the best at what I do."