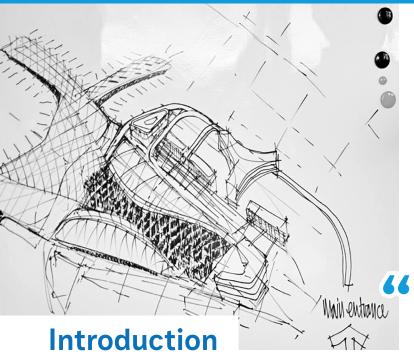


Anniversary Edition



Celebrating a remarkable milestone of resilience, innovation, and success, we are excited to commemorate the 75th anniversary of Landrum & Brown (L&B). Since its inception three-quarters of a century ago, L&B has been a leading example of excellence in the aviation industry as one of the first airport planning and advisory consultancies. With unwavering dedication, pioneering spirit, and a commitment to exceeding client expectations, L&B has not only weathered the tides of change in the aviation industry but has also emerged as a trailblazer shaping the layouts of airports large and small with its groundbreaking contributions from financing the first commercial service airports to planning the landside, terminals, airfields, and the airspace that allowed commercial aviation to literally takeoff.

As we reflect on our rich history and achievements, we honor the visionaries, employees, partners, and loyal clients who have been integral in our journey. Join us as we embark on this celebratory occasion, recognize our past accomplishments, and look forward to a future where only the sky's the limit.



Included in this edition

- The Dawn of Aviation Consulting & The Origins of L&B
- The Evolution of the Commercial Aviation Industry
- Exploring Past Projects and Innovation
- Looking Forward to the Next 75 Years

The Dawn of Aviation Consulting & L&B

It was in the late 1940s, when intercity travel was dominated by trains and the aviation industry was in its early days, that Charlie Landrum and John Brown met in New York at The Airlines National Terminal Commission. Charlie was an architect and engineer, and John was a business and financial advisor - an interdisciplinary pairing that would be a hallmark of their future collaborations. When the Commission downsized, they kept their jobs but were sent to Cincinnati to "regroup."

The Cincinnati-Northern Kentucky International Airport (CVG) – surrounded by cow pastures, with cars parked haphazardly around a small terminal building – was a testament to this early era of aviation and spurred Charlie's and John's imaginations of what might be possible.

It was while working on a Commission sponsored project for Wayne County, Michigan, which involved creating a financial plan for Romulus Air Force

Base (now Detroit Metropol-

itan Wayne County Airport) to attract commercial airlines, that they decided to start their firm. Their involvement in this project lent credibility to the plan and demonstrated to Charlie and John the critical need for specialized airport planning and consulting services.

On January 1st, 1949, in Cincinnati, Ohio, Landrum & Brown, was founded. As one of its first assignments, L&B completed the first master plan and cargo master plan for CVG.

Their pioneering efforts were instrumental in shaping the aviation industry. They convinced the Federal Aviation Administration (FAA) of the necessity of master plans, advocated for independent environmental studies, provided expert opinions on financial feasibility, and emphasized the importance of long-term planning for airport owners. Today, the commercial airport community owes a great debt to these early visionaries who laid the groundwork for modern airport consulting and development, transforming the aviation land-scape and establishing a dynamic, international industry.



1949 | Founded by | Charles O. Landrum | and John F. Brown | in Cincinnati, Ohio



950 1960 1970 1980 1990 2000 2010 2020 203

Landrum & Brown Leadership

Their pioneering efforts were instrumental in shaping the aviation industry. They convinced the Federal Aviation Administration (FAA) of the necessity of master plans, advocated for independent environmental studies, provided expert opinions on financial feasibility, and emphasized the importance of long-term planning for airport owners."



The Evolution of L&B and the Commercial Aviation Industry

Over the last 75 years, L&B evolved from a two-person consultancy to the globally recognized leader in aviation planning.

Airports worldwide have entrusted L&B as their primary partner for aviation consulting. With staff located in four countries, we are dedicated to leveraging their diverse expertise/locations and international insights to tackle the aviation industry's multifaceted challenges. L&B's mission is centered on enhancing the world through innovative solutions and unwavering commitment. L&B offers ample technical breadth, depth, and capacity to address every facet of aviation consulting, encompassing:

- Master Planning and Strategy
- Terminal Planning and Design
- Commercial Development
- Environmental and Sustainability
- Business and Finance
- Airfield and Airspace Management
- Ground Transportation/Mobility

Airports worldwide have entrusted L&B as their primary partner for aviation consulting. With staff located in four countries, we are dedicated to leveraging their diverse expertise/locations and international insights to tackle the aviation industry's multifaceted challenges."

Our portfolio features clients at many of the largest and busiest airports worldwide, as well as those smaller players vitally connecting smaller communities to the world. As part of this 75th Anniversary issue, we are displaying a few industry-leading clients and how L&B's innovative approaches to aviation consulting over the years has helped these clients be at "the leading edge". In most cases, these are major airports at which we have worked for decades and are still very much involved with today.

ORD

Chicago O'Hare International Airport





Chicago's Evolution

The images below left to right depict "Orchard Field" and the evolution of O'Hare from a mature mid-continent dual hub to a world-class international gateway.





As the City of Chicago continually raises the bar for world-class service, passenger experience, aircraft capacity, and innovation at Chicago O'Hare International Airport (O'Hare), L&B has continually supported its development, and initiatives for over 65 years. From orchard fields, to World War II aircraft production facility, to one of the world's busiest gateways, O'Hare has implemented some of the largest airport development programs in the world including:

- Terminal 2 & 3 Development
- Terminal 1 Redevelopment
- International Terminal 5 Development and Expansion
- Airfield Modernization Resulting in Eight Runways
- O'Hare Global Terminal and Satellite Concourse 1 & 2 Development

These large-scale programs have occurred at one of the busiest airports in the world and have incorporated significant innovation along the way including:

- Industry First Airport Sustainability Program
- Largest Noise Management Program in the World
- One of the Largest Art Collections at an Airport
- Largest Snow and Deicing Program at an Airport
- Numerous Aviation Technology Development Firsts
 Implemented Worldwide
- World-Class Amenities Leading to an Enhanced Human Experience

L&B is proud to have been a part of these major development programs and significant innovation and we are excited to continue supporting O'Hare to meet the goals of the City of Chicago and its communities.



DEN Denver International Airport

In 1985, the City of Denver hired L&B to design their new airport's airfields anticipating high future flight volumes. Denver International Airport (DEN) was being planned to replace the old Stapleton Airport, which couldn't expand due to its urban location and insufficient runway capacity in poor weather.

L&B designed DEN's airfield for up to four simultaneous approaches in instrument meteorological conditions (IMC) weather. At that time, the FAA had no standards for the operation

of triple and quadruple simultaneous approaches and thus defaulted to a standard that a third approach must be at least three nautical miles from the first two. Therefore, L&B laid out the airfield as visual meteorological conditions (VMC) airfield with runways close to the terminal area within an IMC airfield with runways located further from the terminal. This resulted in an ultimate airfield configuration that had twelve runways, initially developing five and adding a sixth after the airport opened.

PVG/SHA

Shanghai Pudong and Hongqiao Airports

L&B entered the Chinese market in 2003, winning bids by the Shanghai Airport Authority (now AVINEX) to provide planning and consulting for Shanghai Pudong (PVG) and Hongqiao (SHA) Airports. L&B's long-standing partnership with AVINEX has included master planning, airfield, terminal, and landside optimization, activation planning, and multi-airport system strategies.

L&B's aviation work in China has led to several innovations and industry "best practices," with PVG's Terminal 2 showcasing domestic-international swing gate capability and SHA Terminal 2 exemplifying the intermodal integration of rail and air facilities.



PVG Terminal 2 was designed as a major international gateway with a forecasted capacity of over 40 million annual passengers. It features mixed domestic and international use and vertically segregated passenger flows for maximum flexibility. Sixty percent of its contact stands can accommodate both domestic and international arrivals and departures (swing gates).

SHA Terminal 2 is a domestic terminal that integrates air and rail services including high-speed rail and metros along with ground transportation functions under one roof. This intermodal facility connects a major high-speed railway station with the airport to enhance city and inter-city mobility in Shanghai and the Yangtze River Delta.





WS Western Sydney International Airport (WSI)

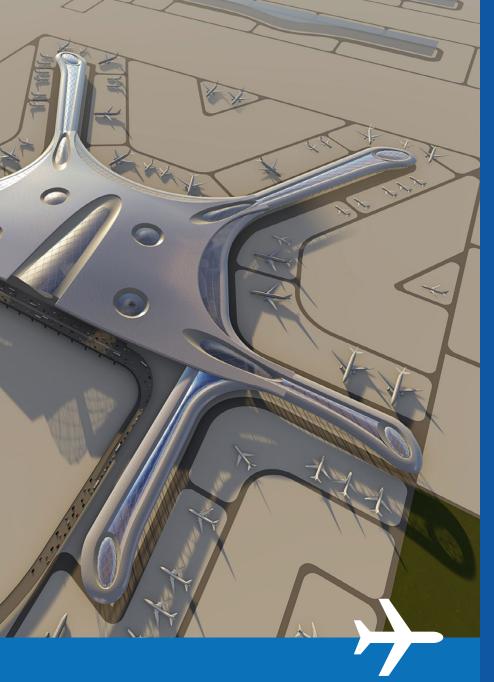


Western Sydney International Airport (WSI), also known as Badgerys Creek Airport, is Australia's latest greenfield airport. It is a nationally significant infrastructure with its site officially designated by the Australian Federal Government in 2014, after decades of debate.

L&B, as the lead aviation technical advisor to the Australian Government, conducted detailed market assessments, aviation forecasts, and capacity requirements to support the need for Western Sydney International Airport (WSI), as well as confirmed the suitability of the site initially selected in 1986. The findings of this work evolved

into creating the functional specifications and layout plans for WSI with initial construction of WSI in late 2018.

While the future airport operator – Western Sydney Airport Co. Ltd. – continues to work with the Australian Government and other stakeholders to evolve the design of WSI, L&B's approved airport site layouts continue to serve as guiding blueprints for initial airport development, as well as master planning purposes. WSI is expected to open on time and on budget in 2026, built to initially service 10 million passengers annually and ultimately handle 82 million annual passengers.



Looking Forward

From its humble beginnings in Cincinnati to its status today as a global leader in aviation planning, L&B's journey epitomizes resilience, adaptability, and visionary leadership.

Looking forward, L&B is focused on continuing to support airports as they solve the next challenges and take advantage of future opportunities. Whether it is developing and operating more sustainable resilient airports or creating plans for deploying the latest technologies and industry practices in the operation of landside, terminals, airfields, and the airspace, L&B is committed to being a leader in the aviation industry.

What is the Landrum & Brown LAB?

The LAB is Landrum & Brown's research and development unit. Our mission is to harness decades worth of industry knowledge and expertise to develop innovative solutions that support our clients along with promoting industry thought leadership.

This document was prepared by Landrum & Brown, Incorporated

Authored by

Lisa Schafer Matt Lee

with contributions from

Rob Adams
Richard Barone
Berta Fernandez
Gary Gibb
Abdullah Hamza
Katie Hawkinson
Jeffrey Jackson
Andy Lee
Sharon Sargent
Sarah Strom
Marie Tupputo
Christian Valdes



landrumbrown.com