

INSIGHTS ON GLOBAL AVIATION INFRASTRUCTURE

By Luke Carothers

BY DESIGN, the aviation industry is a global project, and its viability depends on the development of infrastructure in all parts of the world. One of the companies at the forefront of development in multiple regions across the globe is Hill International, a professional services firm with an internationally recognized team of program, project, and construction management experts. The person leading this influential force in the global aviation industry is Steven Morris, the global lead for the aviation practice of Hill International. Morris began his career as an architect and planner, and has more than 30 years of experience in the aviation industry through corporate management, business development, client and government relations, operations management, project finance and due diligence, project assessment and management, and project controls for both commercial and public works programs.

Morris has more than three decades of experience spanning the globe—marketing, planning, designing, managing development, and supporting aviation programs with a combined construction value of over \$400B on projects in North America, Europe, Asia, and the Middle East. Morris believes that one of the biggest issues currently plaguing the industry is aging facilities, particularly within the United States. However, the outbreak of Covid in 2020 has spurred many airport authorities to update their facilities to accommodate a new paradigm of air travel.

Like many other industries, global aviation has changed drastically since the outbreak of Covid-19 in early 2020. Morris believes that we are currently undergoing the largest change in aviation since 9/11. However, while 9/11 forever changed the approach to airport security, Morris believes that the same will be true of how airports approach technology post-Covid. While air traffic slowed in the first months of the pandemic, passengers have responded since with pent up demand.

The outbreak of a global pandemic has increased a push for touchless or contactless technologies in new developments. As airlines continue to move the check-in process to the digital space, airports are responding by updating their infrastructure to accommodate. However, Morris believes that in the near future, airports will also have to accommodate passengers arriving via Uber or Lyft in driverless cars. These systems will require an overhaul of IT infrastructure in airports to ensure security for increased cloud computing.

There is also a recent push to promote more sustainable practices in the global aviation industry. As the world seeks to develop solutions to climate change, Morris believes that there is plenty of space in the aviation industry to make it more sustainable and renewable. If technologies such as electric aircrafts are to be seen as viable, airports must be willing to invest in infrastructure to support it. This means devel-

oping airfield facilities capable of charging batteries between flights, which can be powered by wind or solar power.

Currently, the United States is undergoing a number of projects to improve their aviation infrastructure. With the pause in travel during the first months of the pandemic, many authorities took this opportunity to update their runways and taxis, shutting down spaces and repairing them as needed. Morris notes that with this maintenance work done and with so many facilities up-to-date, many of these new aviation projects are going to focus on upgrading facilities. In New York, JFK International Airport is currently updating two terminals while LaGuardia is developing three. Similar projects are underway in Houston, Austin, and Chicago. With the emphasis on developing facilities, passenger experience is a major factor in many of these projects. Compared to airports in Europe, American airports are behind international airports in terms of their retail opportunities. To achieve these developments, Morris believes that these projects must focus on maximizing the return for investment.

One of the keys to ensuring a maximum return on investment is using construction practices that make projects more efficient. Again, the development of these practices was spurred by the pandemic. As construction projects sought to complete tasks while complying with pandemic regulations, Raouf Ghali, CEO of Hill International, points out that drones became an invaluable tool for projects in the aviation industry. During the slow down in air traffic, drones became ubiquitous as tools for inspection while runways were brought to modern standards. Ghali notes that, when used in conjunction with technologies such as BIM, drones have been instrumental in improving project efficiency.

Morris believes the future for the aviation market in the United States is bright. Many American firms, like Hill, have gained a multitude of experience delivering world-class projects in international markets. Having completed projects in places like Qatar, Greece, and Egypt, Hill is bringing that global experience to bear in the American project with projects underway in Phoenix, Philadelphia, Miami, and Los Angeles. As these multibillion dollar programs come to fruition, the state of the global aviation industry is improved. By easing passenger travel and improving supply chains, these developments bode well for the future growth of the aviation industry.

LUKE CAROTHERS is the Editor for Civil + Structural Engineer Media. If you want us to cover your project or want to feature your own article, he can be reached at lcarothers@zweiggroupp.com.