



Airport Planning

WSP has unparalleled expertise in planning for cost-effective, resilient, and net-zero airports that generate economic vitality and provide a world-class passenger experience. We balance needs of airports of all sizes with those of airlines, host communities, agencies, and other stakeholders.

OUR SERVICES

We provide planning and guidance documents, decision tools, and staff extension resources to aviation officials to prepare for the future:

- Airport master planning
- Purpose and need and alternative evaluation
- Terminal Planning
- New/replacement airport site analyses
- Airfield/airspace analyses
- Financial analyses
- Preliminary engineering design
- Construction phasing and implementation planning
- Cargo planning
- Environmental studies and assessments
- Future Ready® planning



SAT

Aviation & master planning, noise compatibility, and preliminary engineering. Included initially establishing whether a new airport site was needed. \$9M, 2018-2022.



STL

Completed master plan, focusing on cost effective replacement and consolidation of aging terminals and new multimodal access. \$5.4M, 2020-2022.



PHL

Ongoing master plan with focus on replacing aging terminal area & developing 5-10 year CIP, 11-20 year project and funding list. \$5M, 2019-2022.

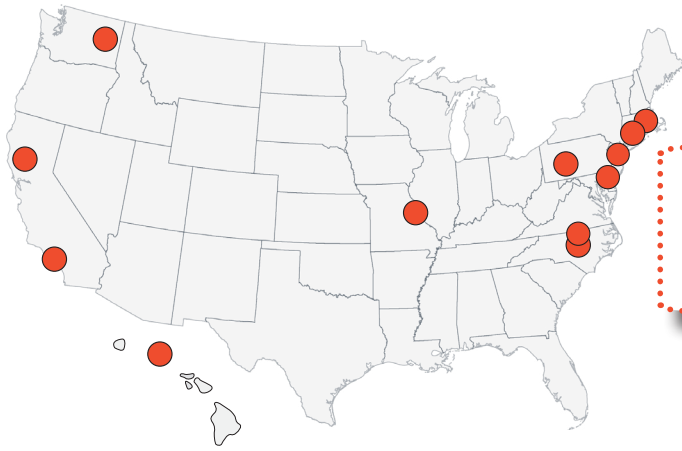


LGA

Comprehensive master plan focusing on the optimal use of the Terminal C site. This plan enabled Delta to proceed with design for its new Terminal C. \$4M; 2015-2016.



WSP'S NATIONWIDE PLANNING ENGAGEMENTS



BDL GEG HNL LGA PHL PVD SAT
BOS GPI LAX MKE PSP RDU SMF STL



THOUGHT LEADERS IN AIRPORT PLANNING



Our R&D efforts inform us on leading edge and new technologies.

WSP's aviation planners participate on committees and panels, present at conferences, and author white papers such as *Greening Future Flight* (pictured right). For the Airport Cooperative Research Program (ACRP), we completed *ACRP Report 03-51 - Electric Aircraft on the Horizon - an Airport Planning Perspective*, which focuses on our view to industry changes and implications on emerging facility needs. Other ACRP studies include: *Using Collaborative Decision Making (ADCM) for Enhancing the Management of Adverse Conditions (10-27)*, *an Airport-Centric Study of the Urban Air Mobility Market (03-50)*, *Airports and UAS (03-42)*, and many more.

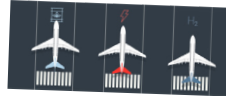
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GREENING FUTURE FLIGHT

Planning holistically for electric aircraft, hydrogen aviation, and greater use of sustainable aviation fuel—to reduce aviation's carbon footprint

Technology continues to advance decarbonization efforts in aviation. Research and development toward low-emission and zero-emission flight includes battery electric and hydrogen-fuel-cell technologies. Together with sustainable aviation fuel (SAF), these technologies hold promise to deliver enduring solutions that address carbon-emissions reduction.

In the following Q&A, WSP's Mattias Frithiof, Director, Advisory, Sweden, and Gaël Le Bris, C.M., P.E., Senior Aviation Planner & Senior Technical Principal, United States, explore the challenges that the sector must address to turn these fossil-free fuel alternatives into viable options; they also consider the potential for wider positive impact.



How do you see fossil-free fuel alternatives shaping aviation for future flight?

Mattias Frithiof: Generally speaking, air transport provides fast transport over large distances, which increases accessibility and connectivity. This is a cornerstone component in the processes that create societal and economic development in a globalized world. So, there are tangible values and benefits from this form of transportation. Of course, though, there are negative impacts as well. The introduction of

alternative fuels and propulsion techniques should be seen as a way to further improve the balance between the costs and benefits of aviation.

As with any technology shift, change will come gradually; implementation will start small, and the scale will then increase. Already today, the deployment of SAFs is increasing and improving aviation's environmental performance. SAFs will most likely be the main focus in the short and medium term—with a more disruptive technology shift on the horizon, as the sector moves towards electrified aircraft. Here too, change will likely be gradual, as tests are increasingly carried out in small- and medium-sized aircraft on short and medium distances.

While disruptive technology itself is interesting and exciting, there is real potential for multifaceted positive impact, enabled by gradual development. Current fleets, systems and infrastructure will not be obsolete overnight. This situation is good for the economy from both public and private perspectives: it facilitates well-considered collaboration and innovative initiatives. With the gradual introduction of new technologies, small aerial vehicles over shorter distances will first change the landscape for regional accessibility. New possibilities will arise for more connections and thus improved economic relations and business activity as well as better accessibility in new directions. Formerly "disconnected" areas may be revitalized as they can structurally compete with more accessible geographies. A more geographically distributed and less monocentric economic development may be one very positive outcome of this process.

ABOUT WSP

WSP USA is the U.S. operating company of WSP, one of the world's leading professional services firms. Dedicated to serving local communities, we are planners, engineers, technical experts, strategic advisors and construction management professionals. WSP USA designs lasting solutions in the buildings, transportation, energy, water and environment markets. With more than 12,000 employees in over 200 offices across the U.S., we partner with our clients to help communities prosper.



CONTACT US

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