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STRATEGIES TO SECURE OUR FUTURE — **The Supersonic Flight Alliance**

By Fiona McKay, Pacific Northwest Aerospace Alliance, Deputy Executive Director

The Pacific Northwest has long been recognized as the largest aerospace cluster in the world. At the leading edge of new technologies, with a high concentration of aerospace suppliers and one of the most skilled aerospace workforces in the world, it's no surprise that the region has attracted investment from OEMs and Tier 1 companies from around the globe. To secure our continued reputation as the leading region, many investments to expand our aerospace market are underway. While activities in space and the UAS arena are well established, an exciting opportunity is also on the rise: the supersonic jet resurgence.

PNAА SPOTLIGHT



The Supersonic Resurgence

Over a decade has passed since the final flight of the Concorde, the world's first commercial supersonic airplane. Reaching speeds of up to 1,350 mph, a flight from London to New York could be completed in less than two and a half hours. Unfortunately, costs and stringent regulations put an end to the supersonic dream. However, with advances in technology and approaching changes in regulations, the dream is now resurfacing with a vengeance. In 2018, NASA awarded Lockheed Martin a contract to build and test a quieter supersonic aircraft, the Low-Boom Flight Demonstrator (LBFD), a contract valued at 247.5 million dollars. With advances in technology, the quieter supersonic jet will produce a "thump," rather than the traditional supersonic boom. With a noise something similar to a car door closing, the impact on the public is limited. With these developments, a range of start-up companies are now positioning themselves to be part of the first wave of business — regional and commercial jets to be delivered — in addition to other established aerospace giants, such as Gulfstream and Boeing.

New entrants Aerion Supersonic, Spike Aerospace and Boom Supersonic have already secured sales ahead of their anticipated certifications in the first half of the next decade, and U.S. lawmakers are now repositioning to pave the way for supersonic flight and to restore the USA's position as the leading technical authority in aerospace.

However, one key hurdle remains — a suitable land-based Civilian Supersonic Corridor (CSSC) — essential for flight testing. And we think that the Pacific Northwest is the perfect location to provide a solution.

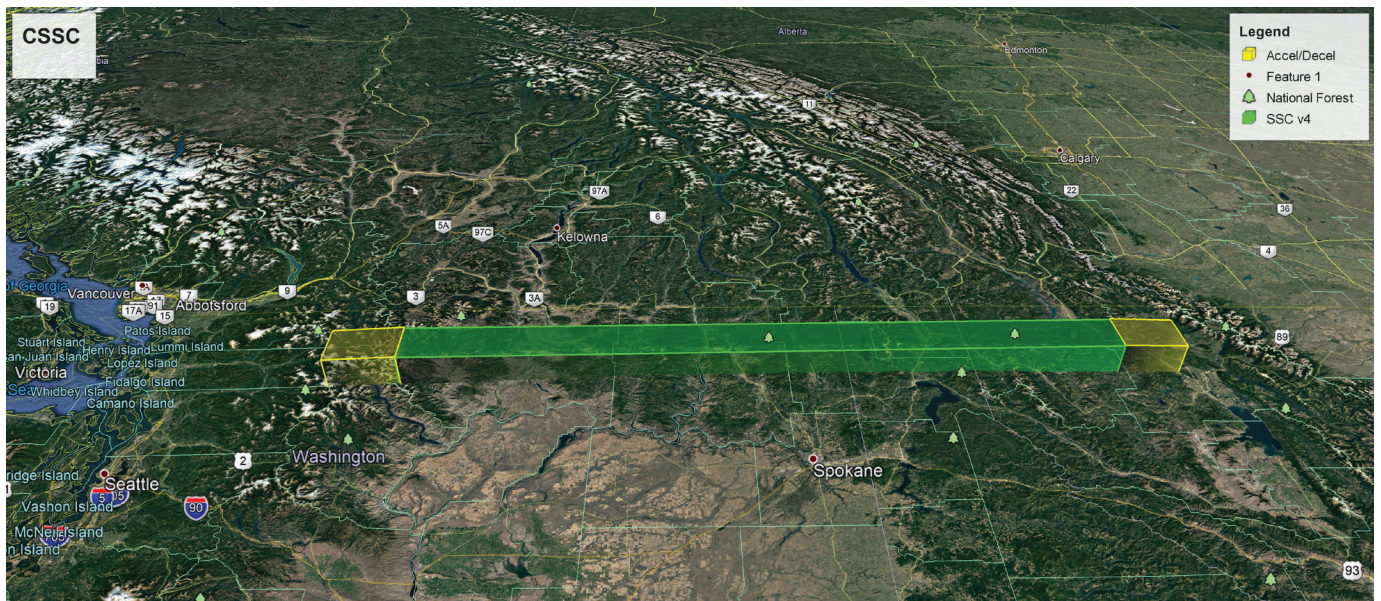
AeroTEC: Leading the Charge for the Pacific Northwest

There couldn't be a better company to be leading the charge on behalf of the Pacific Northwest. Launched in 2003, AeroTEC is a dynamic leader in the testing, engineering and certification space. AeroTEC has grown from executing supplemental type certification programs for companies that provide airframe modifications such as winglets, including as aviation partners Boeing and Raisbeck Engineering, to supporting large scale design-build-test-certify efforts for clean-sheet aircraft type certification programs. Such capabilities are rare outside of an OEM, yet AeroTEC has not only mastered it, but has a unique advantage as they are able to provide competitive bids. In some cases, large OEMs with internal test capabilities have chosen to outsource work directly to them.

AeroTEC's track record of success has resulted in significant investment in the region from international companies, such as Mitsubishi Aircraft Corporation — they now manage their test and certification program for the Mitsubishi Regional Jet at Moses Lake in Eastern Washington. The associated opportunities emerging from Mitsubishi Aircraft Corporation's AeroTEC's investment brings in over 100 million dollars per year to the local community, both for aerospace companies and beyond. They have since invested in a regional headquarters in Renton, Washington, where engineering, sales and marketing efforts will be focused.



Such is AeroTEC's commitment to Washington State, through their vertically integrated capabilities and capacity to take on projects of all sizes, they now support — or are preparing to — new entrants in the market, including space, UAS, electric and special mission airplanes. Recently announced ventures include flight testing for MagniX, another rising company in Washington State, and a further contract with Eviation, an Israeli electric aircraft start-up. And in addition to all this, AeroTEC continues to be committed to playing a huge role in the future of aerospace in Washington State. And that's where the Supersonic Flight Alliance comes in.



Bringing Supersonic to Washington: The Supersonic Flight Alliance

Overland testing is essential for all commercial aviation applications, due in part to the increased safety it provides and reduction in wasted fuel — specifically, the ability to monitor test flights from the ground, and identify the multitude of alternate airports to use in case of emergency. But today the only overland supersonic testing option is at Edwards Air Force Base in the Mojave Desert, California, a small and busy corridor where military operations take priority. Due to stringent rules relating to the certification and operation of civil supersonic aircraft — many based on the sonic boom of outdated technologies — no other sites have been approved through current legislature. However, there is bipartisan agreement that the U.S. is losing its technological advantage, especially in aerospace, and the government is committed to bringing supersonic technology back to commercial use.

To open up the possibilities the FAA is currently tasked with creating rules relating to the certification and operation of civil supersonic aircraft, with new noise standards to be proposed in the first quarter of 2020. With the strength and influence of our aerospace industry, coupled with their commitment to bring new aerospace opportunities to Washington State, AeroTEC recognized that there was an opportunity for Washingtonians to impact the legislature that will ultimately affect where the FAA allows testing of supersonic airplanes. Cue the Supersonic Flight Alliance (SSFA) — a collaborative effort to drive focus and energy towards establishing a 300-mile Civilian Supersonic Corridor (CSSC) over Central and Eastern Washington, just north of Moses Lake, Washington and Grant County International Airport.

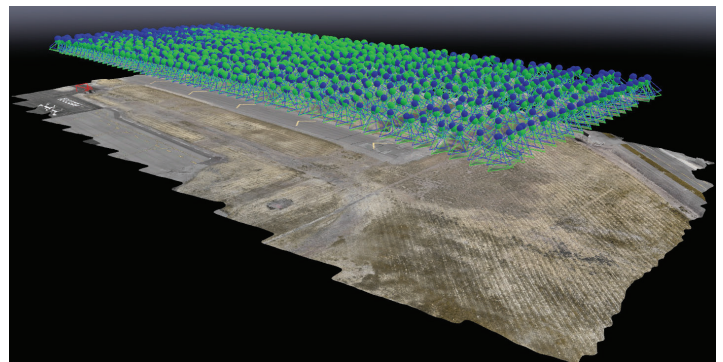
The Supersonic Flight Alliance

Vision: Provide the infrastructure necessary for the safe, sustainable and effective development of supersonic commercial aircraft in America by representing the interests of the aerospace Industry to the responsible governments.

Mission: Create a civilian supersonic corridor over Eastern Washington.

Supporting Organizations:

Port of Moses Lake, PNA, AFA...and many more.



This is an ideal location for flight testing because of its airspace, low population density, long runways and proximity to other airports. This particular section of airspace has historically been used by Boeing, Mitsubishi Aircraft, the U.S. Navy and JAL Airlines for testing and training.

The initiative is bringing together OEMs with local and federal government to support responsible lobbying, research and education, development, and infrastructure efforts for supersonic aircraft in Eastern Washington. To date the SSFA has successfully brought together a range of OEM's, trade organizations, ports and economic alliances to create a united front. They have met with state and national legislators and engaged the FAA, launched research programs including noise research, proposed the location and shape of the corridor and sought feedback from industry partners.



— Lee Human —



We Can All Play a Part

“This is an opportunity for the Washington State aerospace community to attract supersonic aircraft development to our state,” said Lee Human, AeroTEC’s president and CEO. “With the CSSC in place, Washington State will become an ideal place for new aerospace OEMs to put down roots, which will benefit everyone in the supply chain.”

The corridor is being drafted and could be provisionally approved in the next 12 to 18 months, pending changes to FAA noise regulations. These actions will no doubt bring more attention to Washington State and drive further business opportunities. Regardless of whether or not you are a supplier of or customer to AeroTEC, we all benefit. As the actions of the CSSC influence OEMs to bring work to Washington State, there will be a natural integration with Tier 2 and Tier 3 suppliers, along with significant local economic benefits. It is essential that we come together to support this effort — even the smallest actions can make a difference. Stay up to speed on the latest developments through the community newsletters and events provided by organizations such as PNA and AFA, and educate your community on the changing technologies and positive benefits supersonic will bring. Now is the time to accelerate our collective commitments to secure our continued reputation as the cluster at the forefront of innovation in aerospace.