



U.S.-Saudi Business Council
مجلس الأعمال السعودي الأمريكي

U.S. ADVANCED AIR MOBILITY MISSION

Jeddah & Riyadh, Saudi Arabia

February 3-6, 2025

www.ussaudi.org

Dear Friend of the U.S.-Saudi Business Council:

The U.S.-Saudi Business Council (USSBC) is proud to be leading a delegation of 12 companies in the rapidly growing Advanced Air Mobility (AAM) industry to Saudi Arabia. The mission will visit Jeddah on February 3, 4 and Riyadh on February 5, 6.

The Kingdom has launched a national priority program to develop an AAM sector, with the expressed goal of becoming the predominant leader of this new industry in the Middle East.

The U.S. is leading the development of the AAM industry, a sector rapidly evolving worldwide. U.S. companies hold a strategic and competitive edge on almost all aspects of the industry, including innovative design of transport and delivery modes, airspace management and data, energy-saving propulsion systems, drivetrain and motors, infrastructure, and safety and security.

Saudi and U.S. partnerships have powered the development of many key industries in the Kingdom. The U.S. was a key contributor to the start of the Saudi aviation sector 80 years ago. As the Kingdom strives to become the regional leader in AAM, U.S. and Saudi collaborations can once again be at the heart of an exciting new industry.

Our delegates represent a cross section of products and solutions from some well-established names in the aviation space as well as smaller, start-up companies with cutting-edge technologies that will be among the future champions of the industry. Although many of them are new to Saudi Arabia, they are open to establishing a presence in the Kingdom to position themselves as reliable, long-term partners. They offer:

- **DBT Aero:** Alternative Double Box Tail Aircraft
- **Electra.aero:** Hybrid Electric, Ultra Short Manned Aircraft
- **e1Air:** Power Solutions Using Methanol to Produce Fuel Cell-Grade Hydrogen
- **Five-Alpha:** Vertiport Infrastructure Design
- **Fortem Technologies:** Counter Drone Systems to Protect Airspace
- **Future Flight Global:** Implementation and Integration of Advanced Air Transportation
- **NEXA Capital Partners:** Financial Advisory Services to Aerospace, Transport, Logistics
- **NUAIR:** Non-Profit Economic Development Agency for UAS and AAM Sectors
- **Piasecki Aircraft Corporation:** Hydrogen-Powered eVTOL and VTOL Aircraft
- **Roboxi:** Autonomous Ground Vehicle for Runway Inspection/Maintenance
- **Thales USA:** Advanced Avionics and Sensors
- **TruWeather Solutions:** Advanced Weather Analytics for AAM

We invite you to review the profiles of our delegate companies which follow.



DBT Aero Inc.
Riverton, UT
<https://dbt.aero/>

Participant: Michael Duke, Founder & CEO

Summary: DBT Aero developed and is commercializing Double Box Tail aircraft, an ultra-efficient, laminar flow aircraft design that offers reduced drag, increased stability and handling, and includes innovative sustainable powertrain technologies. Their product line designs of hybrid electric aircraft for passenger and cargo aircraft run from 5-seat and 9-seat+2 up to 19-99 passenger commercial aircraft.

Company Profile

Founded in 2019, DBT Aero's advanced aircraft geometries align seamlessly with the demands of electric and hybrid propulsion systems. The design is fully scalable including Group 1 – 5 unmanned aerial systems (UASs). The prototypes include a pioneering 3D-printed aircraft, exemplifying their commitment to advanced, modular solutions with unprecedented dispatch reliability. All DBT Aero aircraft are planned for fly-by-wire to allow swift migration to remotely piloted, optionally piloted, or autonomous operation.

DBT Aero's aircraft have greater overall range, speed, performance, flight stability, control and payload capacity—volume and weight. Owners and operators benefit from a 30% increase in efficiency through reduced operating costs, increased payload, larger cabin volume, and faster cruise speeds. The design provides for this efficiency independent of the propulsion selected and enables Jet A, Sustainable Aviation Fuel (SAF), hybrid and, eventually, fully electric and hydrogen propulsion.

Mission Objectives

- Meet airspace and certification authorities to understand certification requirements in order to begin the process of certifying its aircraft.
- Meet airport infrastructure authorities to understand airport infrastructure and goals.
- Meet key supply chain, MRO, and aviation manufacturers for potential localization.
- Understand aviation leasing and dealer networks.
- Meet potential operators (airlines, charter, corporate), lessors, MRO, sales.
- Attract investment to accelerate certification.



Electra.aero

Manassas, VA

<https://www.electra.aero/>

Participant: Diana Siegel, CFO

Summary: Electra manufactures hybrid-electric manned aircraft (with potential for unmanned piloting) intended for sustainable urban and regional mobility. It specializes in designing eSTOL (electric short takeoff and landing) airplanes equipped with pilot assistance systems, powered-lift, distributed electric propulsion, and on-demand service that eliminates the need for ground charging infrastructure. The hybrid electric manned airplane flies people and cargo without the need for traditional airport runways.

Company Profile

Electra is a next-gen aerospace company pioneering Direct Aviation, the next level of connectivity. Its Ultra Short technology delivers 2.5x the payload and 10x longer range with 70% lower operating costs than helicopters and eVTOLs with far less certification risk. Electra's team includes some of the most respected and successful entrepreneurs and engineers. Investors include Lockheed Martin, Honeywell, Safran, Prysm Capital, Virginia Innovation Partnership Corporation, Statkraft Ventures. Customers include NASA, the U.S. Air Force, the U.S. Army, and the U.S. Navy.

Electra is focused on the development, certification and production of the EL9 aircraft, a 9-passenger Ultra Short aircraft able to take off and land within 150ft that does not require traditional airport infrastructure but only the space of about 3 helipads.

- 600km range before a 45min IFR reserve due to hybrid-electric architecture.
- Very quiet operations via 8 distributed electric motors.
- 300km/h cruise speed.
- Single-pilot certified. Includes fly-by-wire system to be autonomy-ready as regulations evolve.
- Capable of operating in 45 degree C temperatures without requiring external cooling stations.

Electra is open to localization of their aircraft operations, training, maintenance, and distribution for the MENA region.

Mission Objectives

- Meet local operators and potential customers interested in providing regional air mobility services with Electra's EL9 aircraft.
- Meet airlines, relevant Saudi Government agencies and PIF portfolio companies.
- Identify partnership opportunities related to local sales and distribution, operations, and investment.



Five-Alpha LLC

Fort Wayne, IN

<https://www.linkedin.com/company/five-alpha/>

Participant: Rex Alexander, President/Executive Director

Summary: Five-Alpha is a globally recognized aeronautical consultancy specializing in vertical flight infrastructure design, safety, regulatory compliance, and education. They are a leader in vertiport standards development as well as scientific research in supporting the Advanced Air Mobility industry for the private, public, and U.S. military sectors.

Company Profile

Five-Alpha LLC's areas of expertise include Heliport and Vertiport Design and Development, VTOL/AAM Infrastructure Research, Regulatory and Standards Development, Infrastructure Risk Analysis, infrastructure Education and Training, and Aviation Infrastructure Master Planning.

Products and services offered include:

- Vertical Flight Infrastructure Development Advisor
- Vertiport Design Development and Site Selection
- Infrastructure Oversight of Architects and Engineers
- Vertical Flight Infrastructure Feasibility Studies
- Vertical Flight Infrastructure Research
- Regulations, Standards, and Code Development and Interpretation
- Vertical flight Infrastructure Risk Analysis
- Vertical Flight Infrastructure Safety Management System Implementation
- Emergency Action Plan Development
- Vertical Flight Infrastructure Wind Tunnel Testing Interpretation; Education and Training; Accident Prevention; and Accident Investigation

Five-Alpha has been retained by the Federal Aviation Administration (FAA), Transportation Safety Institute (TSI), National Aeronautics and Space Administration (NASA), and the International Civil Aviation Organization (ICAO), in addition to large corporations at the local and international levels.

Mission Objectives

- Meet government and military agencies, ACE firms, and healthcare and academic organizations to discuss collaboration and localization.
- Provide for the safest Advanced Air Mobility transportation system possible
- Assist Saudi Arabia to lead in the harmonization of aviation standards and regulations.
- Collaborate in research with like-minded experts.



Fortem Technologies, Inc.
Pleasant Grove, Utah
www.fortemtech.com

Participant: Timothy Bean, Executive Director, Commercial Market

Summary: Fortem Technologies is a global leader in airspace awareness and security. The company develops and manufactures advanced airspace safety and security solutions, including its flagship SkyDome® System and TrueView® radar sensors. Its solutions leverage low-cost radar technology integrated with AI processing to track thousands of aerial objects simultaneously, enabling unparalleled situational awareness for airspace management. They support the creation of urban and rural air corridors and secure vertiports to facilitate safe and efficient operation of advanced air mobility (AAM) systems. With notable clients such as the U.S. Army and strategic investments from Boeing, Lockheed Martin, Hanwha, and Toshiba, Fortem has solidified its position as a trusted partner in advancing global airspace security.

Company Profile

Founded in 2016, Fortem's product portfolio has been rigorously tested through deployments at major international sporting events, urban centers in Japan and the U.S., and various U.S. Department of Defense (DoD) initiatives. The company's solutions are free of International Traffic in Arms Regulations (ITAR) restrictions, ensuring ease of adoption globally.

SkyDome® System is a comprehensive counter-unmanned aircraft system (C-UAS) designed to monitor and protect airspace effectively. Unlike competing solutions that rely on disparate components from multiple vendors, it offers a fully integrated, end-to-end solution developed in-house. This technology is also integral to Fortem's contributions to AAM and UTM/U-space architectures worldwide, ensuring safe operations of emerging eVTOL aircraft. TrueView® radar sensors and SkyDome® Manager software are tailored to address the challenges of managing a sky crowded with drones and low-altitude aircraft. The SkyDome® System's modular and portable design allows it to scale applications ranging from small zones to expansive airspaces spanning hundreds of miles. Fortem provides full-service installation, maintenance, and active management for its products, ensuring seamless operation and support.

Fortem is committed to working with Saudi Arabia. It has an established partnership with INTRA, a leading defense-focused security provider in Saudi Arabia. It aims to establish a few corridors by 2026, create jobs, and provide training on technologies such as radar and airspace management and planning. They would maintain vertihub data and monitor the network of air corridors across Saudi Arabia after helping with its initial installation and provisioning. Fortem anticipates hiring software teams in Saudi Arabia to locally support the integration of the vertihubs and air corridors with other services and enhancements. For example, Fortem partners with micro weather providers and other ecosystem partners



that require ongoing testing, integration and planning as the vertihubs air corridors are enhanced and expanded over the next few decades.

Mission Objectives

- Expand its presence in the region by collaborating with commercial and civil organizations dedicated to advancing AAM initiatives.
- Meet relevant authorities to establish a Regional HQ and help hire a staff of initially 5, then over 75 people to provide initial support and installation of air corridor networks and vertihubs.
- Meet with vertiport manufacturers and air corridor planners to share how their technology can assist with safe AAM operations.
- Meet commercial critical infrastructure owners interested to maintain air security over their sites.



Future Flight Global

Washington, D.C.

<https://ffg.aero/>

Participant: Karan Singh, CEO & Founder

Summary: Future Flight Global (FFG) specializes in AAM and Unmanned Aerial Systems (UAS), integrating operations, infrastructure, maintenance, training, digital airspace management, and supporting technologies to enable comprehensive operations in partnership with governments, organizations, and industry leaders.

Company Profile

FFG is a pioneer in delivering innovative, sustainable, and safe mobility solutions and leverages its extensive knowledge of aircraft operations to lead the charge in the adoption, implementation, and integration of advanced air transportation.

FFG is poised to swiftly deploy and manage AAM and UAS assets across various operating models in key global markets, including the United States, the Middle East, Europe, and Southeast Asia. Backed by decades of aviation experience, FFG pledges to operate all aircraft at the highest standards of safety, security, and efficiency.

The future of aviation demands a specialized and cohesive ecosystem. FFG delivers the expertise and strategic partnerships necessary to support complex operations and missions. They have partnered with industry leaders to offer a comprehensive, end-to-end solution that includes operations, infrastructure, maintenance, training, and digital airspace management.

FFG's team includes seasoned aviation professionals and forward-thinking innovators with extensive expertise in traditional aviation, aerospace technology, aircraft operations, and sustainability. The team actively collaborates with governments, organizations, and industry leaders to remain at the forefront of this revolution.

Mission Objectives

- Learn about the local AAM landscape and government objectives/goals.
- Explore partnerships for localized operations, investment, and deployment.
- Engage with potential investors in FFG.
- Connect with Saudi companies that need AAM solutions.
- Collaborate with regional agencies on innovative air mobility projects.

Future Flight Global is keen to have a substantial presence in the Kingdom through joint ventures with local partners. They will invest money and commit resources to meet the specific needs of the Saudi Arabian market.



Hydrogen Aviation Development Corp.
(dba e1Air)
McLean, VA
<https://www.e1air.com/>

Participant: Michael Dymont, Chairman

Summary: Hydrogen Aviation Development Corp (e1 Air) provides clean Hydrogen power solutions that use methanol to produce fuel cell-grade hydrogen. Applications include eVTOL fuel, EV charging stations in remote locations, micro-grids at MW scale.

Company Profile

e1Air unlocks the future's energy transition aims by providing clean, cost-effective, Hydrogen power solutions that use advanced Methanol. Their Methanol-to-Hydrogen generator products are simple, robust, and cost-effective. They produce pure fuel cell-grade Hydrogen anywhere you need it, in real-time, as required by the fuel cell power solution.

e1Air brings together the knowledge, capability, and technology to accelerate the adoption of clean Hydrogen based energy across the Aviation sector. With on-site and on-demand clean energy generation, e1Air technology can augment airports' inadequate existing or forecasted grid capacity.

The company is the company is open to localization, particularly through strategic partnerships that could involve co-manufacturing.

Mission Objectives

- Introduce its TRL level 9 systems to the Saudi aviation sector.
- Meet aviation regulators.
- Meet airports, ground service operators, and airlines to discuss offtake agreements.
- Identify blue and green methanol supply agreements, if available, from the Kingdom's energy sector.



Piasecki Aircraft Corporation

Essington, PA

<https://piasecki.com/>

Participant: John Piasecki, President & CEO

Summary: Piasecki Aircraft Corporation (PiAC) is a world-recognized pioneer in vertical flight with development of over 25 Vertical Take Off and Landing (VTOL) aircraft. They build hydrogen electric (fuel cell) powered VTOL and UAV aircraft (incl. compound helicopters) and design/test helicopters and experimental aircraft for the U.S. military.

Company Profile

PiAC specializes in the development of advanced VTOL aircraft, unmanned aerial systems (UAS), and enabling technologies including advanced propulsion, such as hydrogen electric fuel cells, adaptive flight control/autonomy, and advanced aerostructures. PiAC designs, builds, qualifies, and flight tests experimental aircraft under both U.S. Military and FAA airworthiness standards. PiAC operates out of the 220,000 sq ft Heliplex facility acquired from Lockheed Martin Sikorsky, where they conduct research and development, manufacturing, and maintenance, repair, and overhaul of helicopters. PiAC is currently developing the PA-890, an 8-place eVTOL powered by a High Temperature Proton Exchange Membrane (HTPEM) Hydrogen Fuel Cell propulsion system currently being developed by PiAC under a \$37 million U.S. Air Force contract. PiAC employs over 100 people and is AS9100 certified.

PiAC's customers include U.S. Department of Defense and Military Services, Boeing, Lockheed Martin, Columbia Helicopters and United Therapeutics. They are the recipient of the U.S. Presidential National Medal of Technology, Smithsonian Aerospace Achievement Award, and U.S. DoD Tibbitts Award for small business innovation. PiAC's products/services intended for the Saudi market:

- PA-890 hydrogen fuel cell powered eVTOL, an 8-place slowed rotor compound helicopter with >2000lb payload, 250nm range, 50% reduced operating cost compared to turbine helicopters, lower noise, and zero emissions.
- SpeedHawk compound helicopter upgrade to the H-60 Blackhawk helicopter, increasing speed by 50% to over 200kts, doubling range, and with up to 50% reduction in vibration and fatigue loads to improve maintenance needs, lifespan, and reduce operating cost.
- Other VTOL and UAS platforms depending on Government and Commercial needs.

PiAC is interested in locating co-production of their PA-890 eVTOL, setting up a conversion facility to implement the SpeedHawk upgrade of H-60 helicopters in the Middle East market, and other co-production opportunities in the vertical lift and UAS sector.



Mission Objectives

- Understand the Saudi vision for vertical flight as part of its larger Vision 2030.
- Meet senior Saudi public and private sector leaders responsible for implementation of Vertical Flight strategy for both commercial and military needs.
- Explore collaboration with Saudi partners to develop, certify, deploy, and operate advanced VTOL aircraft, such as the PA-890, including in country co-production, operations, and sustainment in support of the larger Middle East market.



Roboxi

Sandnes, Norway

<https://www.roboxi.com/>

Participant: Ken Erik Steine, Founder & COO

Summary: Roboxi develops an autonomous ground vehicle that uses AI-powered sensor systems to inspect airport runways, taxiways, aprons, lights, and perimeters for damage and FOD (foreign object debris) for safety and predictive maintenance purposes.

Company Profile

Roboxi offers a multi-functional autonomous solution to transforming the inspection and maintenance operations of airport runways, taxiways, and aprons.

By utilizing AI and advanced camera systems, their robot can scan and automatically collect FOD, Scan and check airport lights, scan and inspect pavement, and perform autonomous fence control. All data collected will be distributed to the airport operators. The Roboxi system is seamlessly managed through a centralized command center using advanced wireless communication. This flexible system allows a single command center to oversee operations across multiple airports or enable multiple command stations to manage individual robots as needed. Leveraging cutting-edge AI technology, Roboxi effectively addresses various airside challenges, ensuring safety and efficiency at every step.

Mission Objectives

- Learn about the future KSA Aviation goals.
- Understand the KSA market opportunities.
- Engage directly with KSA Airport stakeholders.
- Meet airport owners and operators.
- Meet with potential partners to discuss localization.



Thales USA, Inc.
Arlington, VA
La Défense, France (parent company)
<https://www.thalesgroup.com/en/united-states>

Participant: Alex Sauriol, Digital Aviation Project Design Authority

Summary: Thales is a global leader in advanced technologies within three domains: Defense & Security, Aeronautics & Space, and Digital Identity & Security. Thales is a leading avionics provider of products/solutions aimed at various airborne platforms including rotocraft and AAM vehicles.

Company Profile

Thales provides proven and globally-recognized systems that enable safe and efficient UAS/RPAS operations at scale for applications in defense, aeronautics/space, and cybersecurity. They provide a broad portfolio of detection, tracking and mitigation solutions to support customers who need to enable UAS operations AND protect critical infrastructure and personnel. Thales offers a comprehensive and consultative approach to deliver sustaining solutions that meet their customers' current and future airspace needs, leveraging Thales' deep expertise in ATM, strategic investments in R&D, and commitment to safety.

The Group invests close to €4 billion a year in Research & Development, particularly in key areas such as quantum technologies, Edge computing, 6G, and cybersecurity. Thales has close to 81,000 employees in 68 countries. In 2022, the Group generated sales of €18.4 billion.

In the United States, Thales has conducted significant research and development, manufacturing, and service capabilities for more than 130 years. Today, Thales has 37 locations around the U.S., employing nearly 5,000 people. Working closely with U.S. customers and local partners, Thales is able to meet the most complex requirements for every operating environment.

As a leader in the UAS/AAM domain enabling UAS operations through onboard systems, airspace integration/management and security/protection systems, Saudi Arabia serves as a key market for Thales, and they are interested in exploring opportunities to expand their presence in the emerging UAS/AAM domain. Thales considers localization in many instances and has operations in 68 countries including Saudi Arabia.

Mission Objectives

- Explore opportunities to expand presence in the emerging UAS/AAM domain.
- Meet relevant Saudi Government agencies as well as UAS/AAM op.



TruWeather Solutions Inc.

Reston, VA

<https://truweathersolutions.com/>

Participant: Don Berchoff, CEO

Summary: TruWeather provides advanced weather analytics and ecosystem solutions for the Advanced Air Mobility (AAM) industry, combining weather sensors, data integration, and machine learning-powered micro-weather models. They help operators, planners, and OEMs optimize routes, vertiport locations, and operations while improving safety, reducing weather-related costs, and meeting aviation standards for scaling AAM systems.

Company Profile

TruWeather offers a full ecosystem solution inclusive of advanced weather sensors, weather situational awareness, predictions, custom decision producers, and live aviation meteorologist services. TruWeather has a full set of weather data services available via Application Programming Interface or web application today. Its solutions aim to address weather pain points for uncrewed, crewed electric and hybrid powered aircraft in the emerging AAM industries.

With an international presence and sales growth doubling year over year with VC backing, TruWeather's focus is on safely reducing the AAM Weather Tax™ by 30% for vertiport and aircraft operators and other stakeholders, targeting a 4:1 return on investment for their clients. TruWeather accomplishes this by working with vertiport and corridor planners, OEMs, operators, and other stakeholders to develop a weather strategy and plan beginning in the initial project design phase.

TruWeather will apply the ASTM Weather Specification Standard (ASTM F3673-23) and work with the appropriate Civil Aviation Authorities to potentially adopt the new standard. The Federal Aviation Administration (FAA) supports the standard and TruWeather can execute the standard framework to enhance the safe scaling of AAM operations. NASA and the Department of Transportation have awarded TruWeather several research innovation grants valued at over \$5M to design and deploy two low-altitude weather testbeds.

Mission Objectives

- Meet relevant Saudi government agencies.
- Meet potential partners to discuss localization.

Populating the full service in Saudi Arabia would require access to Saudi Weather Radar Data; specially published aviation weather hazard products; non-airport weather reports from regional or local mesonets; and transportation camera feeds.



NEXA Capital Partners LLC
(Mission Co-organizer with USSBC)
Washington, D.C.
<https://nexacapital.com/>

Participant: Michael Dymant, Founder and Managing Partner

Summary: Founded in 2007, NEXA Capital Partners provides corporate and strategic financial advisory services to the aerospace, transportation, logistics, and homeland security sectors. NEXA and its advisory businesses, including UAM Geomatics Inc. (www.nexa-uam.com), are among the most heavily vested business advisors in the future of the Advanced Air Mobility sector.

Beginning in July 2023, an international management consulting consortium comprising AT Kearney, NEXA Capital, and NUAIR was engaged by the General Authority of Civil Aviation (GACA) of Saudi Arabia to develop the National Advanced Air Mobility Roadmap (“Project”). The finished project was delivered in August 2024.

NEXA’s involvement with the Project included:

- Developing the roadmap for advanced air mobility in the Kingdom of Saudi Arabia.
- Designing the advanced air mobility business case and establishing appropriate governance for it.
- Designing the executive plan to develop the roadmap for the advanced air mobility system in KSA.



NUAIR
(Mission Co-organizer with USSBC)
Syracuse, New York
www.nuair.org

Participant: Ken Stewart, President & CEO

Summary: Established in 2015, NUAIR is a nonprofit driving economic development through innovations in UAS and Advanced Air Mobility to safely integrate into America’s national airspace. NUAIR operated one of the seven FAA-designated test sites for UAS and AAM development during the first decade of the program, working with key technology and industry partners to develop and demonstrate early uncrewed flight operations and airspace management constructs. NUAIR works on urban, regional, statewide, and federal levels to create Advanced Air Mobility planning and strategies focusing on safety and integration. NUAIR has developed an AAM Center of Excellence to enable early AAM commercial concepts of operation, develop safe airspace management approaches that integrate with manned flight operations, and validate the safety and business cases of current and future UAS and AAM operations.

Beginning in July 2023, an international management consulting consortium comprising AT Kearney, NEXA Capital, and NUAIR was engaged by the General Authority of Civil Aviation of Saudi Arabia to develop the National Advanced Air Mobility Roadmap (“Project”). The finished project was delivered in August 2024.

NUAIR’s involvement with the Project included:

- Analysis of the technical and regulatory requirements of a KSA advanced air mobility system.
- Preparing a regulatory case for the advanced air mobility system to move into KSA’s future.
- Profiling expertise and skills needed by the Kingdom to facilitate long-term success.

