

LARRY WIRSING

Experienced Executive | Program Leader | Aerospace Engineer

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Summary

Aerospace executive with 12+ years leading advanced aircraft development, R&D, and cross-functional engineering teams. Proven success developing autonomous systems, electric propulsion, and sustainable aviation solutions across commercial and defense sectors. Seeking a product-driven leadership role to accelerate innovation and usher in the next era in aviation.

Experience

Aurora Flight Sciences, A Boeing Company Cambridge, MA
Vice President of Aircraft and Product Development 08/2023 - Present

- Lead core business unit responsible for ~75% of company revenue.
- Direct nine concurrent aircraft development programs for clients including Boeing, DARPA, NASA, Army, and Wisk.
- Collaborate with Boeing to accelerate technology development and product transition.
- Drive continuous improvement through senior leadership engagement.

Vice President of Commercial Programs 12/2020 - 08/2023

- Oversaw and grew portfolio of programs in urban air mobility, sustainable aviation, autonomy, and human space exploration.
- Led major program captures including NASA EPFD.
- Clients included Boeing, NASA, FAA, Wisk, Virgin Galactic, and SkyGrid.

Director of Business Development, Commercial Programs 01/2020 - 12/2020

- Restarted major business development initiatives as a result of the COVID and 737-MAX related business impacts.
- Secured contracts with NASA and Wisk through targeted business development.

Program Manager, Commercial Programs 10/2015 - 01/2020

- Led multi-engine autonomy technology demonstrator program.
- Managed Aurora's D8 program and NASA aeronautics research portfolio.

Deputy Program Manager, Military Programs 02/2014 - 10/2015

- Deputy PM for AACUS prototyping program.
- Served as Flight Test Director and acting PM.

Aerospace Engineer and Principal Investigator 02/2012 - 10/2015

- Systems and flight test engineer on UAS programs deployed to Afghanistan.
- Executed SBIR projects on diverse aerospace applications.

Belcan Corporation Lynn, MA
Propulsion Design Engineer 05/2011 - 02/2012

- Provided design and analysis for GE Aviation military and commercial engine programs.

Skills

Technical Program Management, Aircraft Development, Rapid Prototyping, Technology Development, Product Development, Portfolio Management, Conflict Resolution, People Leadership, Business Development, Contract Negotiations, Stakeholder Management, Earned Value Management, Risk Management, Change Management.

Education

Boston University, College of Engineering Boston, MA
Bachelor of Science in Aerospace Engineering 09/2007 - 05/2011

Languages

English Native ●●●●●

German B2 CERF ●●●●●

PROGRAM SUMMARIES

DARPA CRANE (X-65)

08/2023 - Present

X-Plane program with the objective of demonstrating the feasibility of active flow control.

- Led the program through a successful CDR.
- Secured Phase 3 contract award.
- Guided the program through design to manufacturing transition, with first flight planned for 2026.

DARPA Liberty Lifter

08/2023 - Present

Seaplane demonstrator program with the objective of demonstrating in-ground effect flight operations in high sea states.

- Performed numerous feasibility studies, wind tunnel tests, and tow tank tests.
- Received \$25M upscope after DARPA downselected to Aurora as the sole performer.
- Partnered with naval architecture firms and shipyards to incorporate maritime design and manufacturing methods.

DARPA SPRINT

10/2023 - Present

High Speed Vertical Takeoff and Landing (HSVTOL) aircraft demonstrator program with objective of 400-450 knots at cruise.

- Boeing Vertical Lift and Aurora teamed to develop fan-in-wing blended wing body concept.
- DARPA downselected Aurora and Bell concepts after successful Conceptual Design Review (CoDR).
- Performed wind tunnel testing at the Boeing Vertical Wind Tunnel and held successful Preliminary Design Review (PDR).

Army Launched Effects Medium Range (LE-MR)

08/2023 - 12/2024

Prototype development program aimed at integrated and testing mission systems and payloads.

- Aurora served as the system integrator of Anduril's Altius 700, Northrop Grumman payloads, and Collins mission system.
- Conducted multiple successful flight test events at Dugway Proving Ground.
- The Army is re-competing the LE-MR program in 2025 based on program learnings.

NASA Electrified Powertrain Flight Demonstration (EPFD)

06/2020 - Present

Partnership with GE Aerospace to integrate and flight test 1-MW hybrid electric propulsion system on a SAAB 340B aircraft.

- Served as the capture lead for Boeing on the EPFD proposal.
- Program has completed Critical Design Review and is building ground test hardware to be tested in 2025.
- Modifications to the SAAB 340B aircraft are underway, with flight testing planned in early 2026.

NASA Sustainable Flight Demonstrator (X-66)

06/2021 - Present

Boeing and Aurora are developing thin-wing technologies that are aimed to be demonstrated on a modified MD90 aircraft.

- Supported the development for the \$1.15B proposal to NASA.
- Aurora leading thin wing development and supporting Boeing in all other program disciplines.

Wisk's 6th Generation Air Taxi

07/2020 - Present

Wisk, Boeing, and Aurora are developing the world's first self-flying four-seat, all-electric air taxi.

- Secured major role for Aurora at the start of the 6th Generation Air Taxi program.
- Have continuously provided dedicated engineering and management resources to the program since 2020.
- Battery and electric systems testing at Aurora's Manassas headquarters.

Virgin Galactic Mothership

03/2022 - 05/2023

Aurora contracted to provide engineering services to design replacement for VMS Eve.

- Completed conceptual design and preliminary design of clean-sheet mothership aircraft.
- Program ended by mutual agreement shortly after PDR.

Proprietary Programs

08/2023 - Present

Develop, field, and operate several UAS products for Government customers.

SKIRON-X

08/2023 - Present

Group 2 UAS designed for multi-hour intelligence, surveillance, and reconnaissance (ISR) missions.

- Conducted R&D on platform, including hydrogen fuel cell that achieved 7h endurance record.
- Overseeing productization and business development efforts.

PROGRAM SUMMARIES

Unpiloted Autonomous Twin Engine Prototype

05/2018 - 03/2020

Designed a prototype 19,000lb twin engine autonomous aircraft while Boeing Commercial Airplanes conducted product studies.

- Aircraft design and autonomy architecture achieved a PDR-level of maturity.
- Engaged with potential customers to evaluate market and product feasibility.

NASA D8 X-Plane

10/2015 - 09/2018

The D8 is a single-aisle aircraft replacement concept that has a double-bubble fuselage and boundary layer ingesting engines.

- Received multiple NASA contracts to design a subscale X-Plane demonstrator and help inform the SFD program.
- The D8 competed against the Boeing Transonic Truss Braced Wing and Blended Wing Body concepts.

NASA Passive Aeroelastic Tailoring (PAT)

07/2017 - 12/2019

Designed, built, and ground tested a 40ft wing box with tow steered composite skins.

- Used automated fiber placement (AFP) manufacturing processes to produce tow-steered skins.
- Manufactured and assembled large scale wing box.
- Load testing and vibration testing took place at NASA Armstrong.

FAA CLEEN II

10/2015 - 12/2018

Designed, built, and tested a key D8 double-bubble fuselage joint using pi-clips.

- Participated in consortium with engine companies and Boeing.
- CLEEN II program helped mature and reduce risk for the NASA D8 X-Plane concept.

ONR Autonomous Aerial Cargo Utility System (AACUS)

02/2014 - 10/2015

Prototype program to develop advanced autonomous capabilities to enable rapid cargo delivery by unpiloted rotorcraft.

- Developed a suite of autonomy capabilities and tested them on the Boeing H6-U and a UH-1H.
- Procured and modified a UH-1H aircraft to support closed loop autonomous flight.

NOAA Gravity for the Redefinition of the US Vertical Datum

07/2013 - 12/2017

Integrated an advanced gravimetry sensor on Aurora's Centaur aircraft and supported data collection efforts.

- Demonstrated that the gravimetry sensor, coupled with Centaurs autopilot, delivered superior data quality.
- Received follow-on contract to collect gravity data as part of the GRAV-D program.

Skate Small UAS (SUAS)

02/2012 - 02/2014

Group 1 platform designed for intelligence, surveillance, and reconnaissance missions.

- Developed Skate from concept design through low rate production and operational deployment.