United Dynamics
Aerospace & Defense

Technologies and Solutions yet to be imagined.

RESEARCH AND DEVELOPMENT

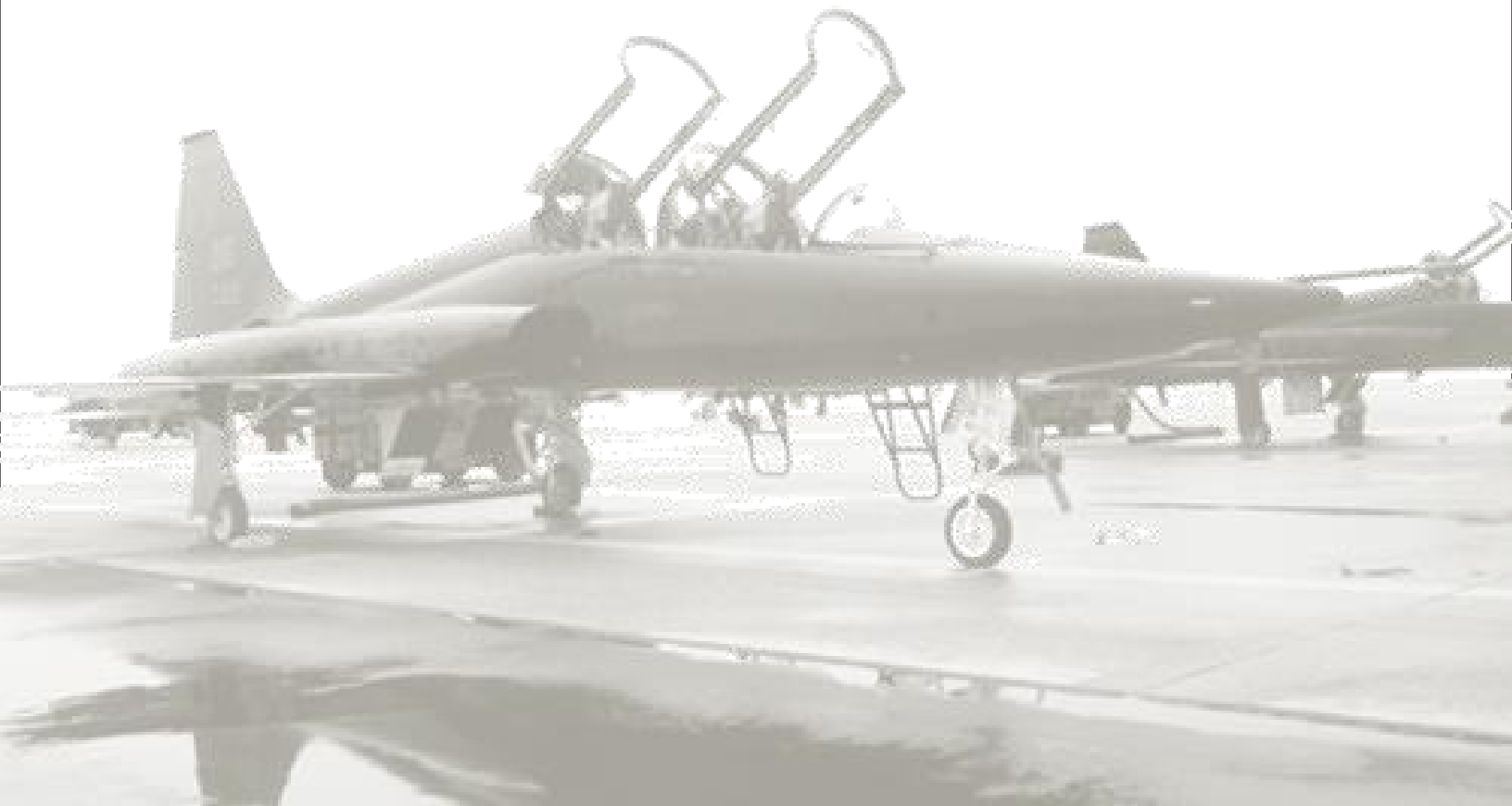
United Dynamics is a HUBZone Certified Small Business that understands and solves the challenges you are encountering… even with missing or incomplete technical data.

Our mission is to solve supply chain issues that enable your military and commercial end users to safely deliver their crew, passengers, and payloads.

To this end, United Dynamics invests in the future by internally researching and developing advanced technology solutions to ongoing reliability, availability, maintainability, and sustainment issues.

Our investments into our customers' needs have enabled us to become the preferred turn-key supplier of flight critical units and systems to our large or small business partners, foreign military units, and all branches of the United States Armed Forces.

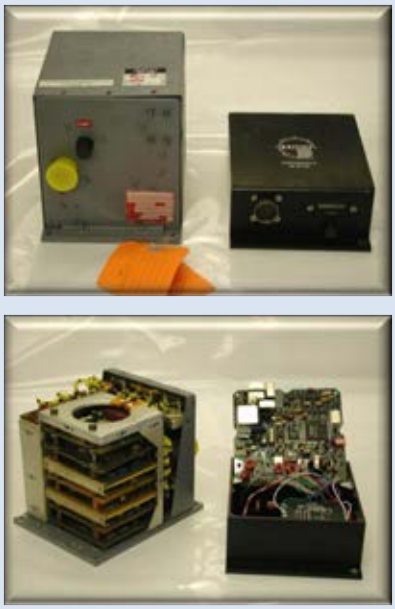
- ✓ DoD Systems Engineering and Configuration Management Processes
- ✓ Pro-Active Obsolescence Mitigation
- ✓ In-House Testing Capabilities
- ✓ Engineering and Logistics Analyses for Long-Term Reliability, Availability, Maintainability, and Sustainment
- ✓ Qualified Engineering, Manufacturing, and Production Personnel
- ✓ Financial Stability
- ✓ Experienced with First Article Testing
- ✓ Experienced with Qualification Testing, Particularly with Complex and Critical Safety Items



CASE STUDIES

T-38 TALON PROTECTION PANEL (P-PANEL)

Using our Research & Development funds, United Dynamics invested into this "technology insertion" project to enhance flight safety, reliability, and cost. Using the Northrop Grumman design specification document and envelope drawing, United Dynamics redesigned all of the legacy boards and massive relay into one circuit card assembly using FMGA Electromagnetic Interference technology. The housing is manufactured from a one-piece machined aluminum billet and is anodized for surface and oxidation protection.



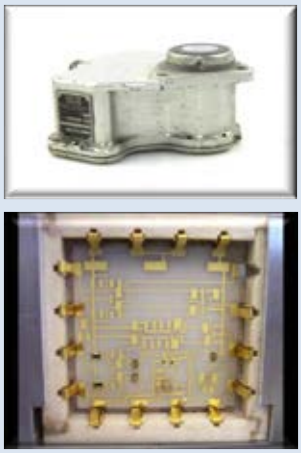
Our design offered the US Air Force significant savings for future modifications and upgrades, based on 400 estimated flight hours per panel, per aircraft, per year:

- 55% reduction in total ownership costs, to include initial purchase cost and approximate maintenance cost per flight hour.
- 59% reduction in cubic inch space.
- 46% reduction in weight per unit.
- Detailed Mean Time Between Failure and Failure Mode, Effects and Criticality Analyses providing a 5000 flight hour warranty, or 12.5 years of operations with no added cost or maintenance down time.

PICTURED: The left unit is the legacy P-Panel; the right unit is the United Dynamics' solution.

PRATT & WHITNEY PW-100 ENGINE LIGHT-OFF DETECTOR

As part of a Small Business Innovative Research (SBIR) project, United Dynamics designed and developed a new Light-Off Detector (LOD) for Pratt & Whitney PW-100 engines. The LOD is a part of the F-15 and F-16 engine's secondary fire detection system with the capability to detect and report leaking fuel vapor before it ignites. The original unit, still in use today, uses 1970's ionized glass phototube and transformer technology: bulky, heavy, expensive, and unreliable. Due to the extreme temperatures and vibrations, the LODs have recurring failures. Operators are required to purchase repair kits and continually train personnel to maintain them.



Our solid-state, "plug and play" unit uses Silicon on Sapphire technology with successful operation at extreme temperatures up to 600°C and no performance degradation. Other benefits? Smaller. More reliable. Lower cost.

PICTURED: Legacy Light-Off Detector (top) and United Dynamics' solid state solution (bottom).

HUBZone Historically Underutilized Business Zone CERTIFIED

AS 9100 REV D INDEPENDENTLY CERTIFIED

ISO 9001 :2015 INDEPENDENTLY CERTIFIED

GOLD BOEING SUPPLIER

NAICS: 332510 332710 332721 332722 332911 332919 332991 332999 333415 333612 333613 333999 334418 334419 334513 334514 334519 335999 336411 336412 336419 339999 541330 541420 811310

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