AEROSPACE AND DEFENSE INDUSTRY - INDUSTRY REPORT

SG Analytics
A Straive Company

WARTIME-SCALE PRODUCTION AND AI-DRIVEN RESILIENCE

Reshape the US A&D Industry Outlook

MAY 2026

Contents

Executive Summary

The US Aerospace and Defense (A&D) industry is currently navigating a period of robust growth and structural transformation. Driven by a resurgence in commercial aviation and elevated defense spending, the sector is pivoting toward wartime-scale production levels. Major contractors are increasingly focused on supply chain resilience, prioritizing reshoring and domestic sourcing to mitigate the risks of global fragility and regulatory complexity.

According to Mordor Intelligence, the US A&D market is projected to reach a size of $610.2 billion by 2031, growing at a CAGR of 5.7%. Integrating advanced services is essential as the industry operationalizes artificial intelligence (AI) to streamline everything from shop-floor inspections to complex submarine scheduling. AI has moved from experimentation to a core productivity driver, yet the industry's ability to fully capitalize on these gains is hindered by a critical labor shortage.

Specifically, 100,000 positions remain unfilled in 2025 due to retirements, attrition, and technological advancement, as per Talenbrium's 2025–30 US A&D Strategic Workforce Planning Outlook. As the sector continues to consolidate through strategic M&A activity, addressing this human capital gap while scaling production and enhancing domestic capacity remains the primary determinant of long-term competitive advantage and economic stability.

$610.2 Billion

is the projected market size of the US A&D industry by 2031, growing at a CAGR of 5.7%, as per Mordor Intelligence

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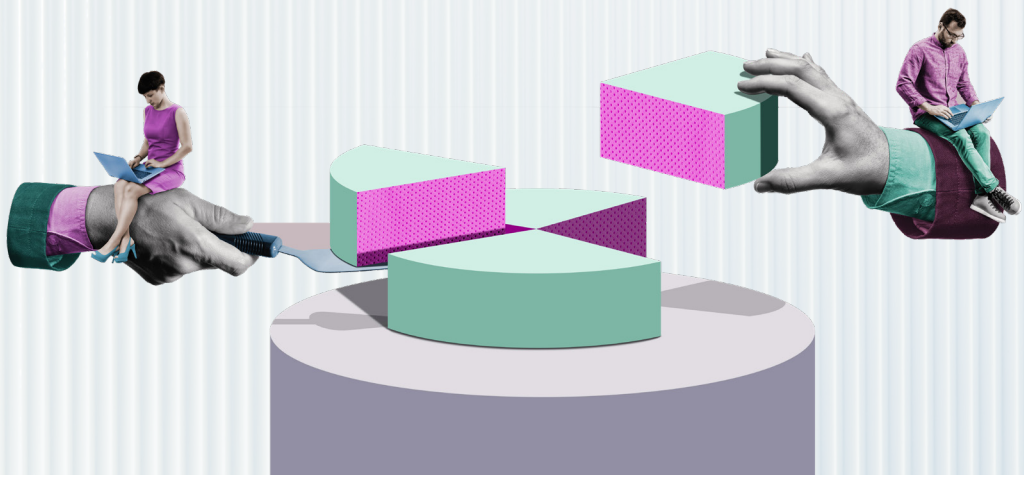
Market Overview



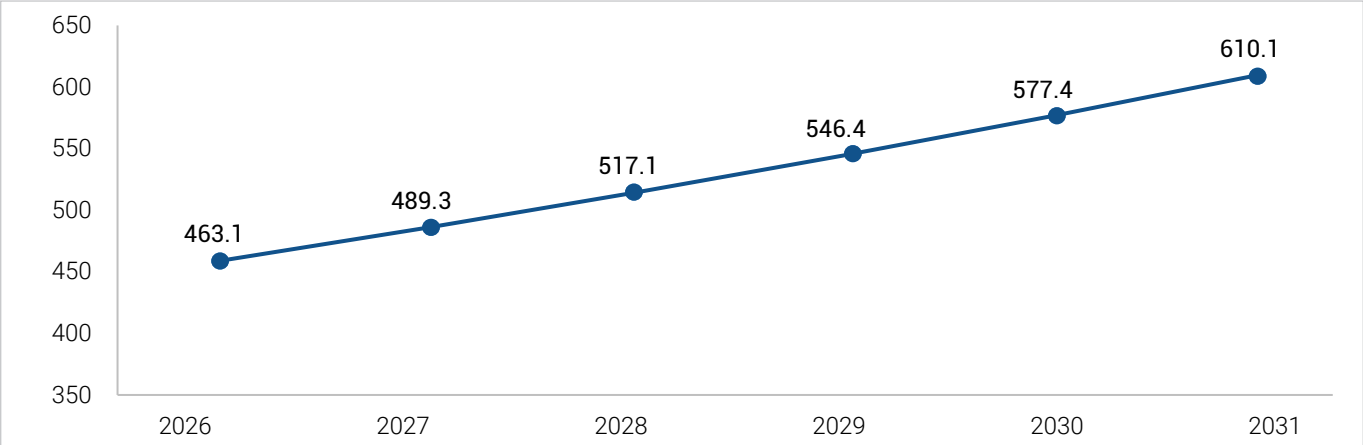
The US A&D industry entered 2026 with strong momentum, supported by elevated defense spending, commercial aviation recovery, and rising investments in space and next-generation defense technologies. According to Mordor Intelligence, the market is estimated at approximately $463 billion in 2026 and is projected to grow at a CAGR of 5.7% through 2031, driven by geopolitical tensions, modernization programs, and sustained aircraft demand. In 2024, the industry generated nearly $995 billion in total business activity and contributed around $443 billion to US GDP, reinforcing its strategic economic importance, as per Aerospace Industries Association (AIA).

Defense spending remains the primary growth driver. The FY26 US national defense budget request reached approximately $961 billion, with major allocations toward munitions, naval shipbuilding, missile defense, and space systems. FAA forecasts project steady long-term passenger traffic growth, while US commercial space launch activity is expected to rise significantly over the next decade. AI-enabled defense technologies, autonomy, and industrial reshoring are increasingly shaping capital allocation across the sector.

The industry is led by companies such as Lockheed Martin, RTX Corporation, Boeing, and Northrop Grumman. M&A activity strengthened significantly in 2025, with seven mega-deals above $1 billion totaling $24.3 billion, highlighting accelerating consolidation across defense technology, supply chain, and aftermarket segments.

The US A&D industry is supported by higher defense budgets, recovering commercial aviation demand, expanding space activity, and rising investment in advanced defense technologies. Major defense contractors continue to dominate the sector, while growing consolidation and M&A activity reflect strong demand for defense technology, supply chain, and aftermarket capabilities.

Figure 1: US A&D Market Size (in $Billions)



Source: Mordor Intelligence

Macro Drivers

Defense Budget Expansion and Modernization

Rising defense budgets are underpinning long-term demand visibility, with the 2025 National Defense Authorization Act authorizing around $901 billion.

Commercial Aviation Recovery and Fleet Renewal

US air travel activity has reached record levels, with 2025 marking the busiest year in more than 15 years as the Federal Aviation Administration managed 17.2 million flights, surpassing pre-pandemic levels and exceeding 2019 volumes by roughly 200,000 flights.

Space and New Domain Expansion

The US continues to dominate space activity, accounting for 192 orbital launches in 2025, representing about 61% of global launches, highlighting rapid scaling in launch cadence and increasing strategic importance of space infrastructure.

Industrial Policy and Supply Chain Localization

Industrial policy is reshaping supply chains, with the US remaining 100% import-reliant on at least 15 critical minerals and sourcing around 70% of rare earths from China. In response, over $25 billion has been directed toward rebuilding the domestic munitions industrial base.

Backlog Growth and Revenue Visibility

Strong backlogs are securing multi-year revenue visibility, with Boeing reporting a record backlog of about $682 billion and Lockheed Martin around $194 billion, or 2.5x its annual revenue. These figures indicate sustained demand and long-term stability across both commercial and defense markets.

Emerging US A&D Trends

Reshoring and Redundancy Redefine US A&D Supply Chains

In 2025–2026, supply chain resilience in the US A&D industry has become a core operational priority, focused on sustaining and scaling production amid supplier fragility and regulatory complexity. Deloitte highlights that supply chains are becoming simultaneously more efficient and more resilient, reflecting a shift toward redundancy, localization, and visibility. PwC also notes growing industrial base sovereignty, with companies increasingly prioritizing reshoring, multi-country manufacturing, and adaptive logistics. Rising production demand across missiles, munitions, and aircraft is making capacity a major industry constraint.

At the company level, Lockheed Martin is strengthening supplier coordination through large-scale supplier summits involving over 200 partners to support missile production. Similarly, RTX Corporation is investing in domestic sourcing of critical materials, including US-based production capabilities for advanced semiconductor components, reducing reliance on global supply chains.

Industry-wide data underscores both the urgency and scale of this shift. Supply chain disruptions affected almost two-thirds of aerospace firms and have historically eroded 12–15% of annual revenue, highlighting the cost of fragility. Moreover, 67% of private-sector respondents reported that their companies made significant capital investments in facilities and production capacity, while 51% of small-business respondents reported similar investments, as per the Vital Signs 2026 Survey. At the same time, 26% of A&D executives are investing in self-healing supply chain capabilities, while 45% expect to reshore or nearshore most production by 2030, signaling a long-term structural pivot, as per PwC's Future of Industrials Survey. Together, these trends show resilience is becoming a key driver of execution, scalability, and competitive advantage across the US A&D industrial base.

45%

of A&D executives expect to reshore or nearshore most of their production by 2030, as per the PwC's Future of Industrials Survey

26%

of A&D executives are investing in redundant system failover as a self-healing supply chain capability, as per the PwC's Future of Industrials Survey

Wartime-Scale Production Ramp-Up Reshapes US A&D Economics

The US A&D industry is shifting toward wartime-style production, with missile and munitions output scaling to levels not seen in decades. The sector is moving from low-rate, program-driven manufacturing toward sustained, high-volume production supported by long-term contracts, predictable demand, and coordinated industrial expansion to build a surge-ready industrial base.

At the company level, Lockheed Martin is scaling multiple missile programs simultaneously, with GMLRS capacity reaching 14,000 rockets annually, HIMARS launcher output doubling to 96 units per year, and PAC-3 MSE production exceeding 600 interceptors in 2025 with further increases planned. In parallel, RTX Corporation has entered long-duration agreements with the Department of Defense to expand output across Tomahawk, AMRAAM, SM-3, and SM-6 programs, with several targeting two- to fourfold production increases.

Industry-wide, missile and munitions procurement spending has risen sharply over the past decade, while artillery production is being ramped from pre-conflict levels of 14,000 rounds per month toward a target of 100,000. Meanwhile, major programs across the sector are targeting production increases ranging from 20% to as high as 400%, driving overlapping demands across shared supplier tiers and reinforcing the need for sustained government support to expand critical manufacturing capacity, as per the BCG White Paper. Together, these shifts indicate production scale is emerging as a core competitive differentiator in the US A&D industry.

20% to 400%

simultaneous production increases across major US defense programs are intensifying pressure on overlapping supplier tiers, as per the BCG white paper

Workforce Constraints Become the Key Bottleneck in US A&D

By 2026, workforce constraints will have become a structural bottleneck for the US A&D industry, limiting its ability to convert strong demand into production output. Skill shortages in engineering, advanced manufacturing, and digital roles, driven by aging labor demographics, security clearance requirements, and competition from the technology sector, continue to tighten the talent pool.

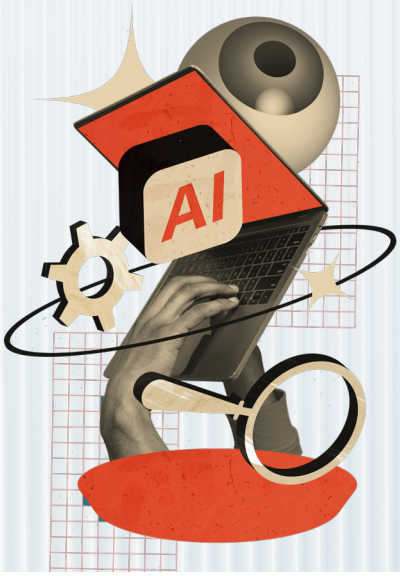
At the company level, Huntington Ingalls Industries estimates its shipbuilding operations alone will require nearly 19,000 additional skilled trades workers over the next decade, even as the median age of its workforce exceeds 50. Similarly, General Dynamics continues to face elevated attrition at its shipyards, exceeding 20% for average workers and up to 30% in critical trades, directly affecting production timelines.

The broader industry data highlights the scale of the challenge. Attrition across the sector remains near 15%, while 76% of organizations report difficulty hiring engineers and 56% struggle to source skilled trades, as per the 2025 AIA–McKinsey A&D workforce study. As of 2025, the industry is estimated to have nearly 100,000 unfilled roles, with engineering positions accounting for around 40% of the gap, as per Talenbrium's 2025–2030 US A&D Strategic Workforce Planning Outlook. Workforce availability has now become a key driver of production capacity, execution timelines, and cost structures across the US A&D industry.

56%

of organizations report challenges sourcing skilled trades talent, as per the 2025 AIA–McKinsey A&D workforce study

Operationalizing AI in the US A&D Industry



AI Emerging as a Core Productivity Driver in the US A&D

AI adoption across the US A&D sector has moved beyond experimentation into scaled operational deployment, with leading primes embedding AI across manufacturing, supply chains, and engineering workflows. At RTX Corporation, AI-enabled automated optical inspection at its Santa Isabel electronics facility improved shop-floor efficiency, increasing output by 14%, reducing inspection time from 30 minutes to 10, and halving defect leakage rates.

Similarly, at General Dynamics Electric Boat, AI reduced submarine schedule planning from 160 manual hours to less than 10 minutes, while Portsmouth Naval Shipyard shortened material review cycles from several weeks to under one hour. These gains highlight AI's growing role in addressing shipbuilding and program execution bottlenecks.

On the MRO side, Textron is leveraging generative AI through its TAMI platform, enabling technicians to query maintenance documentation in real time. Tasks previously taking up to 20 minutes are now completed in one to two minutes, reducing aircraft downtime and improving first-time fix rates.

Industry-wide adoption still remains early, with only 17% of firms embedding AI in more than a quarter of their offerings and 13% scaling AI across procurement workflows, as per Survey data from the National Defense Industrial Association. However, investment continues to accelerate, with AI-driven defense manufacturing attracting $4.7 billion in venture funding in 2025 and targeting a $40.6 billion US depot maintenance opportunity. Proven use cases are now delivering measurable ROI, including up to 45% improvements in supply chain reliability and 40–75% reductions in engineering effort and lead times, reinforcing AI's role in improving operational efficiency across the A&D industry.

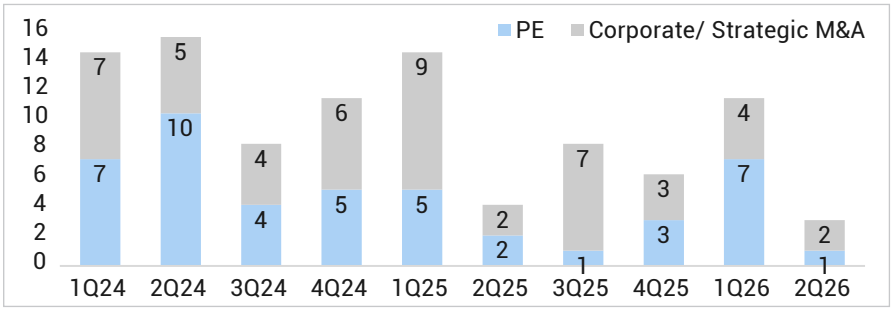
17%

of private sector respondents use AI in more than one-quarter of their defense products or services, up 4 percentage points YoY, as per the Vital Signs 2026 Survey

AI is increasingly becoming a core operational enabler across the US A&D industry, improving manufacturing efficiency, engineering workflows, maintenance operations, and supply chain execution. As adoption scales, AI is helping improve operational efficiency, reduce execution bottlenecks, accelerate workflows, and strengthen production and program delivery capabilities across the sector.

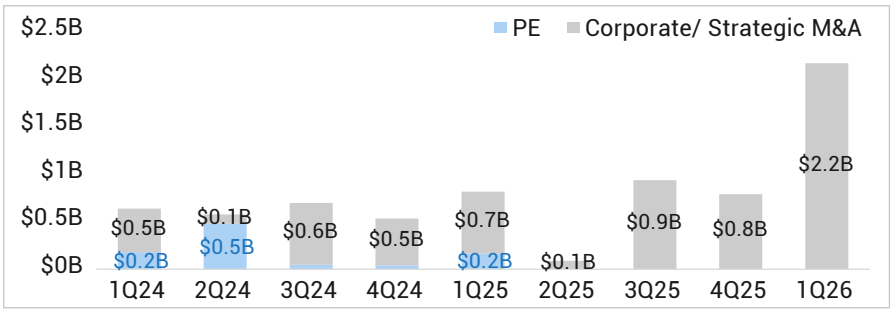
Key US A&D Deals

Figure 2: A&D Lower Middle Market and Middle Market Deal Count



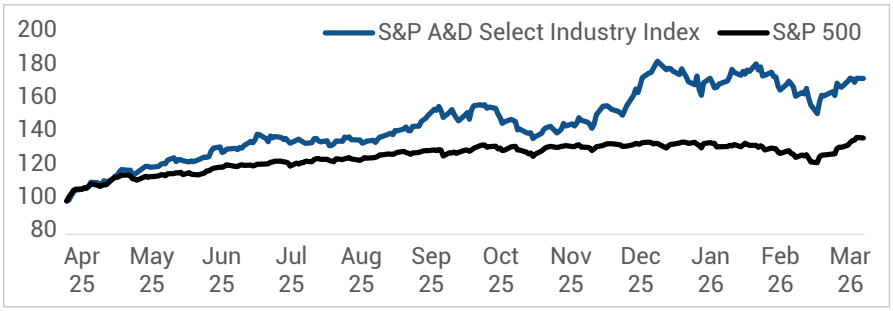
Source: PitchBook, data as of April 21, 2026

Figure 3: A&D Lower Middle Market and Middle Market Capital Raised



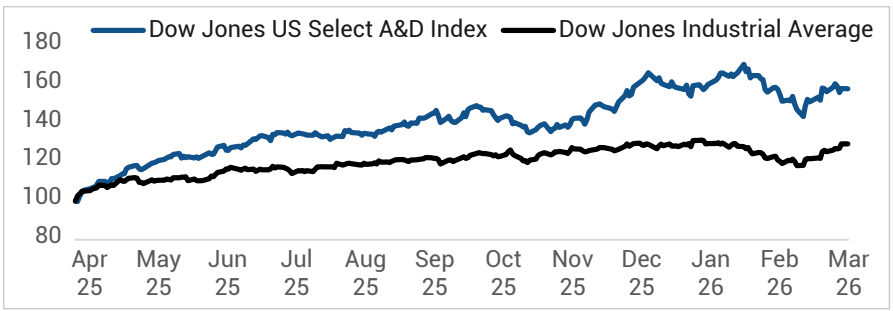
Source: PitchBook, data as of April 21, 2026

Figure 4: S&P A&D Select Industry Index YTD Performance



Source: S&P Global, data as of April 21, 2026

Figure 5: Dow Jones US Select A&D Index YTD Performance



Source: S&P Global, data as of April 21, 2026

A&D Lower Middle Market and Middle Market Deal Summary

91
Companies

110
Deals

107
Investors

53
Exits

$2B
Largest Deal

$7.6B
Capital Invested

Key Private Equity Deals Tombstones

April 1, 2026

H.I.G. CAPITAL

Acquires

GLOBAL ELITE GROUP

a provider of unarmed aviation security services, for an undisclosed amount

March 25, 2026

Chimney Rock

Acquires

UEC UNITED ELECTRONICS COMPANY

a provider of mission-critical electronics for A&D and industrial sectors, for an undisclosed amount

March 24, 2026

VELOCITY ONE CLIMB WITH CONFIDENCE

Charlesbank

Acquires

Falls Filtration Technologies, Inc

a manufacturer of air and liquid filtration products for A&D and industrial markets, for an undisclosed amount

March 23, 2026

ACP

to Acquire

EPTEC

a provider of specialist naval and defense preservation services, for an undisclosed amount

January 26, 2026

CORE INDUSTRIAL

AxioAero GROUP

Acquires

AIRWAY AEROSPACE LLC.

a provider of aircraft component maintenance, repair,and overhaul (MRO) services, for an undisclosed amount

November 04, 2025

THOMABRAVO

Acquires (Portions of Digital Aviation Business)

BOEING

a provider of aviation software and digital solutions, for approximately $10.6 Billion

July 25, 2025

GenNx360 Capital Partners

PAG

Acquires

TURNER AVIATION

a provider of MRO services for the aviation industry, for an undisclosed amount

July 24, 2025

WARBURG PINCUS

Berkshire Partners

Acquire (Take-Private)

TRIUMPH

a provider of mission-critical A&D engineered systems and proprietary components, for approximately $3 Billion

February 12, 2025

Platinum Equity

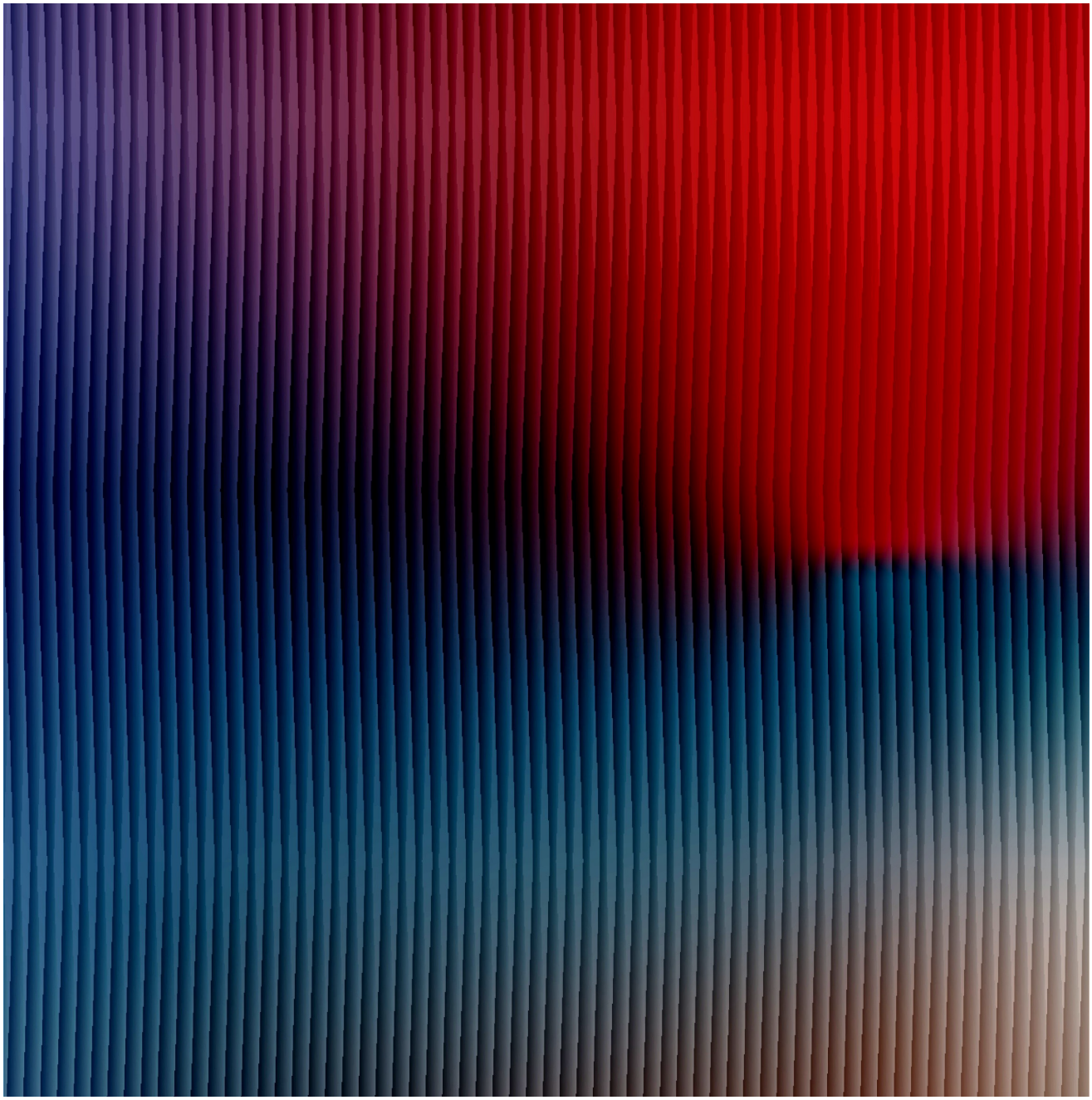
Acquires

HEROUX DEVTEK

a global manufacturer of aerospace systems and components, for approximately $1 Billion

A&D Upcoming Events

US Aircraft Expo	May 15–16, 2026	110 Tune Airport Dr, Nashville, TN
SGx 2026	May 17–18, 2026	1919 Connecticut Avenue Northwest Washington, DC
ASCEND 2026	May 19–21, 2026	Washington Hilton, Washington, D.C



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