Speed, Scale and Superiority

47G x DICE

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Presented by: Aaron Starks

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The Fastest Man Alive

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www.PublicDomainFootage.com

652 MPH in 5 Seconds

He endured 46.2 Gs — the highest voluntarily survived at the time.

His research transformed:

- Pilot safety
- Ejection systems
- Seat belts
- Human endurance science
- Aerospace advancement

"Fastest Man Alive"

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The Global Race

The Department of Defense now consistently describes China as the nation's "pacing challenge."

Space

Cyber

Autonomous systems

AI

Energy

Supply chains

Manufacturing capacity

Industrial resilience

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"This is not simply a competition of weapons. It is a competition of industrial ecosystems."

"The question is no longer:
Can America innovate?

The question is:
Can America innovate at speed... produce at scale... and maintain superiority?"

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"Why Speed Matters"

In Modern Conflict, Time Is a Weapon

Recent conflicts have revealed:

Drone innovation cycles measured in weeks
AI-enabled targeting
Massive ammunition consumption
Supply chain fragility
Industrial bottlenecks

In previous eras, military dominance was measured by the size of armies.

Today, dominance is measured by:

- how quickly we adapt,
- how rapidly we manufacture,
- and how fast innovation reaches the battlefield."

Speed is no longer operational advantage.

"Speed *is* deterrence."

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"Why Scale Matters"

America still leads the world in innovation.

But adversaries are investing heavily in:

- manufacturing capacity,
- supply chain control,
- and industrial mobilization.

The DoW has repeatedly emphasized the need to strengthen the defense industrial base.

"The next great strategic advantage will belong to the nation that can scale breakthrough technologies the fastest."

Winning the future is not just inventing hypersonics.

It's producing them.

Sustaining them.

Upgrading them.

And doing it faster than our adversaries."

"Why Superiority Matters"

Military superiority:

strengthens deterrence,
protects allies,
preserves freedom of navigation,
and reduces the likelihood of conflict.

"History teaches us something important:
Weakness invites aggression.

Strength preserves peace."

"Our goal is not conflict.

Our goal is to create such overwhelming technological, industrial, and operational superiority that conflict never becomes necessary."

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Speed Wins Wars. Digital Engineering Delivers Speed.

Digital engineering enables the United States to design, test, field, and sustain military capabilities faster than our adversaries.

- Reduces development timelines from years to months
- Enables “digital twins” to simulate systems before production
- Improves readiness through predictive maintenance
- Accelerates collaboration across government, industry, and operators
- Creates faster adaptation to evolving threats

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Why Digital Engineering Matters to National Security

Military superiority now depends on how rapidly systems can evolve, connect, and respond across every domain.

AI & Autonomy

- Autonomous systems require continuous software evolution
- Digital engineering accelerates testing and deployment

Supply Chain Resilience

- Shared digital environments improve manufacturing coordination
- Reduces vulnerabilities across defense suppliers

Deterrence & Readiness

- Faster modernization preserves technological superiority
- Enables rapid adaptation against near-peer competitors

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"Why Utah Matters"

Utah possesses strengths in:

Composites, Software, Autonomy, Space Systems, Advanced Manufacturing, Propulsion, AI and Sustainment.

Hill Air Force Base generated approximately $12.76 billion in economic impact in 2024.

Utah's aerospace and defense industry represents a major portion of the state economy.

Utah Is Built for This Moment

Utah Companies Already Delivering

"These companies are not waiting for the future.

They are building it."

"And increasingly, the world is looking to Utah as a place where innovation actually becomes operational capability."

1. Northrop Grumman
2. L3 Harris Technologies
3. Lockheed Martin
4. Karmen Space & Defense
5. Hypercraft
6. Ram - Aviation, Space, and Defense

Utah, answering the call for speed, scale, and superiority

Fueling Utah's Liftoff

Economic Impact of Utah's Aerospace and Defense Industry (2023)

INDUSTRY CONTRIBUTION TO UTAH GDP

19.2%

500K	TOTAL JOB IMPACT IN UTAH
$100B	TOTAL ECONOMIC OUTPUT
$30B	ANNUAL COMPENSATION OF UTAH EMPLOYEES
$1.6B	DIRECT ANNUAL STATE TAX REVENUE
23.4%	INDUSTRY EMPLOYMENT GROWTH, 2019-2024
31.1%	INDUSTRY WAGE GROWTH, 2019-2024
1st	BEST STATES (U.S. NEWS & WORLD REPORT)
1st	BEST STATES FOR THE MIDDLE CLASS (SMARTASSET)
1st	BEST UNIVERSITIES FOR TECHNOLOGY TRANSFER AND COMMERCIALIZATION INDEX, THE U OF U (MILKEN INSTITUTE)
2nd	BEST STATE ECONOMIES (WALLETHUB)
2nd	MOST FINANCIALLY LITERATE STATES (WALLETHUB)
3rd	BEST STATES FOR AEROSPACE ENGINEERS (ZIPPIA)
4th	LARGEST DELTA HUB (DELTA AIRLINES)
7th	HIGHEST CONCENTRATION OF STEM TALENT (CNBC)
10th	BEST STATES FOR GETTING A JOB IN THE AI BOOM (CNBC)

Executive Summary

Utah is home to a strong and growing aerospace and defense industry.

The state's strengths in aircraft component manufacturing and assembly, unmanned systems, and advanced materials manufacturing build on a rich history and legacy of aerospace and defense in the state. For decades, companies like Boeing, Duncan Aviation, L3Harris, Lockheed Martin, and Northrop Grumman have operated in Utah, as have key aerospace and defense infrastructure sites such as Hill Air Force Base, Falcon Hill, and Dugway Proving Ground.

Across our state, the industry employs a highly skilled labor force with significant educational assets and programs. The industry and its associated economic impact supports nearly 500,000 jobs, and pays nearly $30 billion in annual employee compensation. Industry employment grew by 23.4% over the last five years, outpacing the nation. Wages in aerospace and defense rose by 31.1% over the last 5 years, outpacing both the nation and total wage growth in Utah.

The result is a major positive impact on Utah's economy. The aerospace and defense industry, including critical supply chain and infrastructure industries, accounts for 19.2% of Utah's total GDP. Generating nearly $100 billion in output each year and nearly $1.6 billion in direct annual tax revenue, the industry encourages the development and growth of many companies and helps to propel Utah's brand worldwide.

DEFINITIONS:

The aerospace and defense industry in Utah comprises companies in aerospace- and defense-related manufacturing, such as guided missile and space vehicle parts manufacturing, but also defense- and security-related industries such as national security and space research and technology. In a broader sense, aerospace and defense research and development is breaking ground in areas such as artificial intelligence, cyber security, machine learning, and other industries critical to domestic and internet security. The continued emergence of new technology requires constant innovation and development. Critical supply chain and infrastructure industries are also included in the analysis.

See the appendix for the full list of codes under the North American Industry Classification System (NAICS) used to measure the industry.

- The next chapter of American superiority does not have to be written somewhere else.

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