

BREAKING
DEFENSE / *GAME CHANGER*

**Always on target:
Today and tomorrow —
no matter the threat**

 **BOEING**



Protecting the entire U.S. and beyond

SEE HOW

Boeing is embracing speed, agility and affordability to deliver the most digitally advanced, simply and efficiently produced, and intelligently supported products and capabilities to outpace the unprecedented threats and challenges of a fast-moving future battlespace.

The U.S., its allies and international partners face an unprecedented challenge in staying ahead of rapidly proliferating threats across multiple domains — which are showing no signs of slowing down. From intercontinental ballistic missiles to low-flying cruise missiles to swarms of unmanned aircraft systems, the increasingly complex global operating environment necessitates a strong industrial base that can simultaneously [attract and develop top talent](#), modernize and enhance enduring missile defense systems, and [innovate affordable, next-generation solutions](#) with speed to deter and defend against emerging and future threats.

To help meet that challenge, Boeing is moving with urgency to fuel the development of leading edge, disruptive products and capabilities across our company. We continue to build on our 60-plus-year history of providing trusted, reliable systems, as well as leverage years of investment in the technology, tools and people needed to continue to deliver for the warfighter.

These innovations include new missile design and development, industry-leading modeling and simulation capabilities utilizing Boeing's Virtual Warfare Centers, digital engineering, open system architectures, collaborative technologies, hypersonics, directed energy, network solutions, advanced sensing, command, control and communications capabilities, and the new high ground of space-based defense and security. We're also accelerating the evolution of the full digital lifecycle — from requirements through sustainment — making it more agile and insightful than ever while exceeding the highest levels of quality.

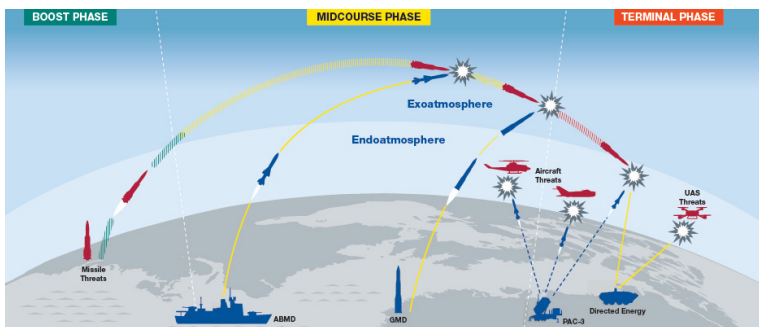
In short, it's all about delivering with speed, agility and affordability. And Boeing is embracing all three as we accelerate our digital evolution with the same forward-leaning spirit and excitement about the future that has guided us through more than a century of innovation and change.

That's how we'll equip warfighters with the rapid, effective capabilities they need to stay ahead of the threats and challenges of a fast-moving battlespace.

READY TODAY

Boeing's proven multi-layered, multi-domain solutions are ready today — and continue to set the industry standard for performance and affordability in support of readiness worldwide. Our current portfolio includes:

- Serving as prime contractor for [Ground-based Midcourse Defense](#), or GMD, the only operationally deployed missile defense program that has defended the entire U.S. homeland, including Alaska and Hawaii, against long-range ballistic missile attacks.
- Producing [Patriot Advanced Capability-3](#), or PAC-3®, Missile seekers, which provide critical guidance data to the PAC-3 interceptors that have protected warfighters, allies and international partners around the world from a variety of air and missile threats for 20 years and counting.
- Harnessing more than 40 years of innovation and expertise to develop precision [Directed Energy](#) solutions, including our combat-tested [Compact Laser Weapon System](#) that's currently deployed with the U.S. Marine Corps.



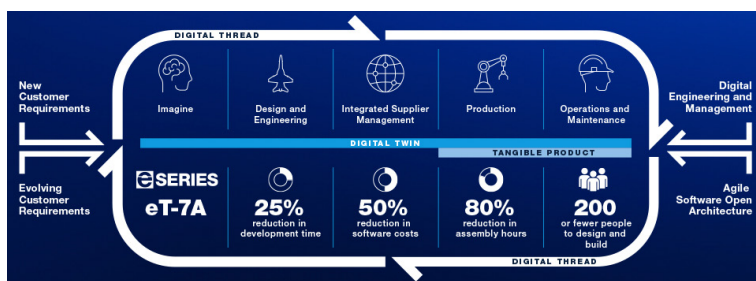
Multi-layered, multi-domain defense at home and abroad.

- Developing and producing components for the [Aegis Ballistic Missile Defense](#) Standard Missile-3, or SM-3, interceptor for accurate, effective defense against short to medium-range ballistic missile threats.
- Delivering and protecting military communications, data and space-based assets against kinetic, directed energy, jamming, ground-launched and cyber threats.
- Providing space communications to and from the ground and via space-to-space crosslinks with advanced resiliency techniques and systems to assure access to voice and data in all environments.
- Combining expertise in DevSecOps, open architectures, multi-domain sensors and platform integration with high-speed, high-bandwidth secure communications to accelerate the creation of the resilient, multi-domain network required to connect sensors to shooters.
- Enabling advanced missile warning and tracking across orbits through Boeing's subsidiary, Millennium Space Systems, including Wide Field of View and Track Custody Prototype to detect and track current and advanced threats.
- Providing a commercial satellite network via our [Satellite as a Managed Service](#) capability, eliminating traditional impediments to commercial technology like proprietary hardware and reliance on a single satellite operator.
- Offering **Assured Position, Navigation and Timing, or APNT**, technologies that maintain critical position and timing to protect targeting capabilities in the absence of GPS.
- Delivering long-range, large data rate communications from air-to-air and air-to-ground assets via Boeing's **Directional Networking Waveform**, facilitating sensor-to-shooter capabilities that can overcome jamming in contested environments.

MODERNIZING FOR TOMORROW

Boeing's first century was defined by what we built — this century will be defined by innovations in how we design, build, deliver and maintain for our customers. This shift has led us to a digital transformation.

We are "all in" on digital engineering across our Defense, Space & Security business — building on more than 30 years of experience in digital engineering to lead the way in embracing the U.S. Department of Defense's vision and strategy for an end-to-end digital lifecycle.



Building better through Boeing's digital production system.



Attracting and developing top talent.

There are game-changing examples of digital engineering, agile software development and open systems architectures being used every day in our company, including:

- Elevated sensing solutions to deter and defeat ballistic, cruise and hypersonic missile threats — including an affordable family of air, sea and land deployable sensor/platform options with reconstitutable, persistent, on-demand capabilities.
- The development of a Maneuver Short Range Air Defense, or M-SHORAD, Increment 3 Missile to provide advanced capabilities, including enhanced range, speed, end-game maneuverability and a Weapons Open Systems Architecture, or WOSA, for rapid future technology upgrades.
- Digitally engineering the requirements, schematics, interfaces and design for the latest iteration of the **PAC-3®** Missile seeker.
- A new [300kW-class High Energy Laser Weapon System](#) in partnership with General Atomics Electromagnetic Systems.
- The **Advanced Mission Systems Design Center**, where we are leveraging open architectures to create a roadmap for shared software across platforms in the air domain.
- A **Space & Launch** team that is running fully agile software development and implementing containerized software to meet a government customer's DevSecOps requirements — so successfully, in fact, that our customer is telling us to replicate this model across the rest of the enterprise.

Simply put, we will rapidly deliver the most digitally advanced, simply and efficiently produced, and intelligently supported solutions to the warfighter.

We know that when it comes to space and missile defense — every moment counts.

Interested in learning more about how we're applying cutting-edge innovations or joining our team? Stop by our booth at the 2022 Space & Missile Defense Symposium from Aug. 9-11 at the Von Braun Center in Huntsville, Alabama. Learn more about careers at Boeing at jobs.boeing.com.

PARTNER. PREPARE. PROTECT.

Transforming the future of Homeland
Missile Defense—right here in Alabama.

A map of the state of Alabama is overlaid on a satellite image of the Earth at night, showing city lights. The state is outlined in white. Within the state, the city of Huntsville is highlighted with a white square and the text "HUNTSVILLE, AL".

HUNTSVILLE, AL

boeing.com/missiledefense

