

NATIONAL SECURITY TRENDS

Navigating Emerging Challenges and Opportunities



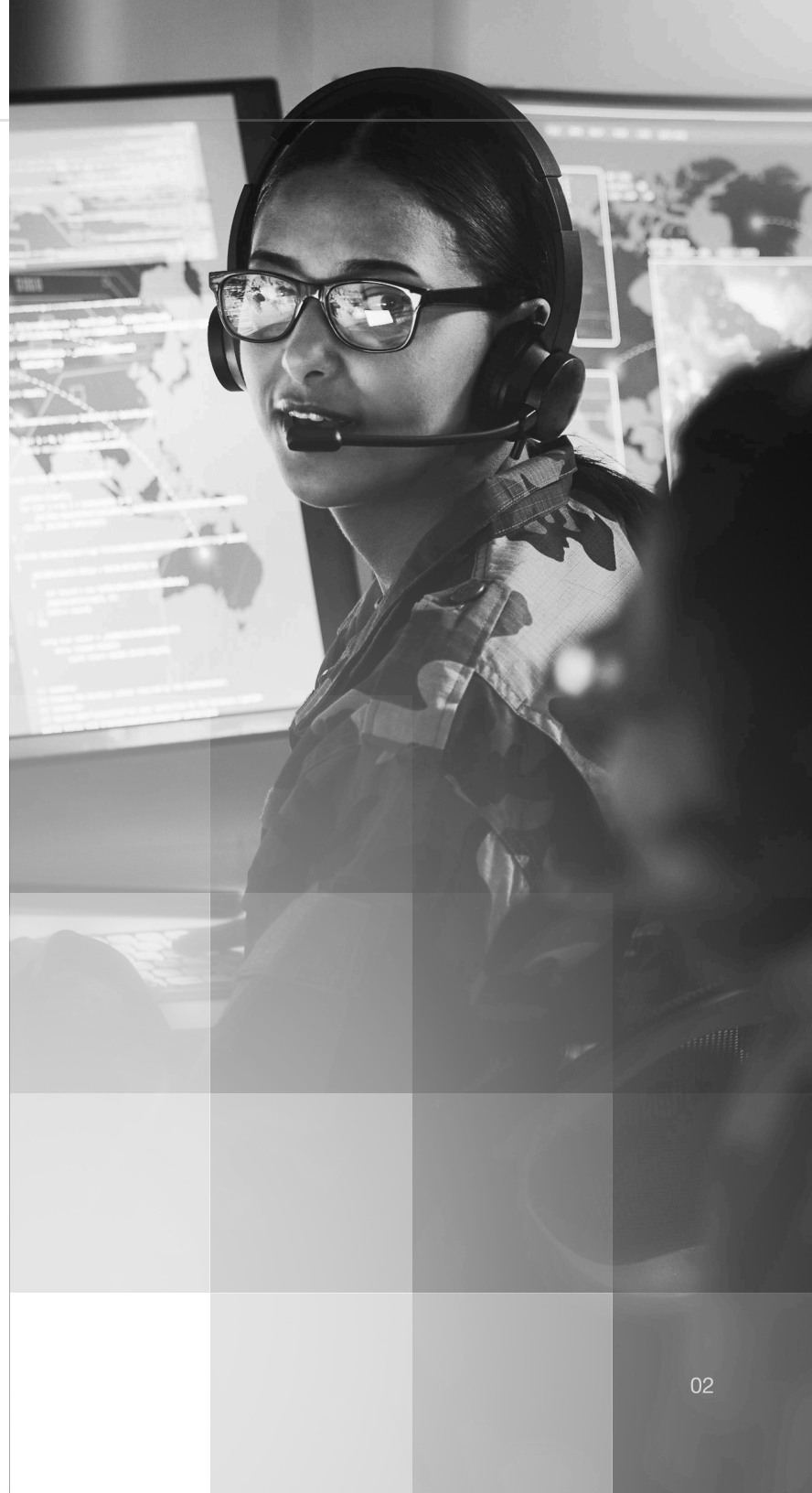
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INTRODUCTION

The global security environment is evolving at an unprecedented pace, driven by intensifying geopolitical competition, technological innovation, and emerging threats across multiple domains. As strategic competition with so-called near-peer adversaries accelerates, the ability to adapt and innovate has never been more critical for national security. Systems Planning & Analysis (SPA) is at the forefront of addressing these complex challenges, offering objective and trusted data-driven insights that help safeguard our nation's defense and ensure the readiness of its capabilities.

This e-book examines the key national security trends shaping defense priorities, from an increasing international threat environment and IT modernization to reinvigorating infrastructure and building workforce readiness. By understanding these dynamics, stakeholders can anticipate challenges, enhance decision-making, and ensure the U.S. remains prepared to face current and future threats.



STRATEGIC COMPETITION IN AN EVOLVING THREAT LANDSCAPE

The global security arena is defined by intensifying competition with near-peer adversaries, namely China and Russia. This geopolitical tension demands a fundamental reassessment of defense priorities, infrastructure resilience, and technology investments.



A DYNAMIC THREAT ENVIRONMENT

The shifting balance of power presents immediate challenges:

China's Strategic Growth

China's advances in military technologies, cyber capabilities, and space infrastructure pose systemic challenges to U.S. dominance. Beyond traditional military advancements, China exploits non-military avenues such as social media platforms like TikTok, tainted food exports, and disruptions to global health systems. These actions undermine national will and sow division, achieving strategic effects without conventional conflict. Addressing these challenges requires strategic planning, robust technological innovation, and a proactive approach to identifying and mitigating unconventional threats.

Russia's Hybrid Tactics

From cyber espionage to disinformation campaigns, Russia employs unconventional methods to disrupt Western security. Mitigating these hybrid threats demands coordinated efforts across intelligence, cybersecurity, and strategic communications, alongside enhanced readiness to counter emergent tactics that blur the line between civil and military domains.

Regional Instability

Emerging threats from Iran and North Korea, coupled with increasing competition in critical regions like the Indo-Pacific, add complexity to defense planning. Addressing these challenges requires sustained diplomatic engagement, forward-deployed assets, and enhanced regional partnerships.



The U.S. must move beyond incremental responses and pursue transformative approaches to sustain its strategic edge. SPA supports this effort through robust analysis, predictive modeling, and innovative strategies for solving complex national security challenges with mission-specific tools, deep subject matter expertise, and data-driven insights across all domains.

Strategic deterrence costs far less than failed deterrence. Investing in readiness now prevents exponential costs later.

THE OVERLAP OF CYBER AND CONVENTIONAL THREATS

Cyber operations have become an integral aspect of modern warfare, threatening civil infrastructure, military systems, and economic stability. Near-peer adversaries are conducting cyber incursions with growing sophistication, targeting critical systems to degrade U.S. capabilities during crises. SPA's expertise in cyber impact analysis and operational resilience ensures the government is prepared to defend its digital and physical frontiers while maintaining mission assurance.



TECHNOLOGY MODERNIZATION AND DEFENSE INNOVATION

The defense community is undergoing a significant transformation driven by advancements in cloud infrastructure, artificial intelligence (AI), machine learning (ML), and big data analytics. These innovations promise enhanced decision-making, operational efficiency, and predictive capabilities—but they also come with new risks and complexities.



EMBRACING A DATA-ENABLED FUTURE

The national security enterprise increasingly relies on data-driven solutions to analyze trends, optimize operations, and respond to threats with speed and precision. However, this shift must balance innovation with practical safeguards to mitigate risks associated with over-reliance on digital systems. SPA harnesses the power of AI/ML to drive productivity and provide cutting-edge applications and guidance for tackling national security challenges. Through our advanced modeling, simulation, and AI-driven analytics, we deliver trusted data and decision-support tools that ensure decision-makers have actionable insights when they matter most.

AI/ML Services in National Security

AI and machine learning enable predictive threat analysis, real-time risk assessment, and automated decision-making, enhancing agility across all domains. While these tools can identify patterns in large datasets and anticipate adversarial actions, they are only as reliable as their underlying data sets. SPA recognizes this critical limitation and integrates safeguards to counter adversaries exploiting known data weaknesses. SPA's custom ML models and expertise in applying foundational models ensure clients effectively use technology to address emerging threats while optimizing resources.

Cloud Computing and Network Design & Engineering

As IT systems transition to cloud-based infrastructures, SPA helps ensure architectures are robust and agile without compromising mission integrity. By designing resilient, secure, and scalable environments, SPA supports seamless operations and secure data sharing, adhering to strict cybersecurity standards to mitigate risks and maintain readiness.

The IT modernization movement must balance innovation with resilience, ensuring systems can adapt to rapid changes while maintaining security and reliability.

MODERNIZATION ACROSS ALL DOMAINS

From seabed to space, the defense ecosystem is witnessing a convergence of traditional and emerging technologies. SPA's domain-spanning capabilities—including future force assessment and design, acquisition portfolio and program management, and systems engineering and integration—play a critical role in advancing U.S. defense readiness.

Modeling and Simulation

SPA tools optimize force structures, simulate operational scenarios, and inform decision-making under complex conditions. By enabling predictive analysis, these tools provide a clear understanding of potential outcomes and inform strategic decisions. These tailored solutions empower federal clients to simulate complex systems, test security protocols, and make data-driven decisions in high-risk environments.

Digital Twins and Virtual Testing

SPA's engineering capabilities create virtual replicas of systems to test performance and identify vulnerabilities without risking operational assets. This approach reduces costs and accelerates development timelines, ensuring faster deployment of critical technologies.



REBUILDING THE U.S. INDUSTRIAL BASE AND INFRASTRUCTURE SECURITY

The readiness of U.S. defense capabilities relies heavily on its organic industrial base, infrastructure, and supply chains. Decades of underinvestment have left critical systems vulnerable to disruptions and unable to meet escalating demands.



REINVIGORATING INDUSTRIAL CAPABILITIES

To sustain its strategic advantage, the U.S. must rebuild its organic industrial base, strengthen its supply chains, and accelerate investments in infrastructure to address future global challenges. SPA provides critical support in this effort by identifying vulnerabilities, assessing risks, and developing strategies to enhance resilience.

Shipbuilding Capacity

The U.S. shipbuilding industry is a shadow of its past greatness. Decades of atrophy in commercial shipbuilding and a contracting defense supplier base have made quality, quantity, and timeliness of critical components persistent risks to cost and schedule objectives. The reliance on a “boom-bust” cycle approach has hindered stability and long-term efficiency and output. Additionally, these cycles lead to a lack of skilled workers as they literally “abandon ship” during bust times, leaving the industry incapable of meeting even current demands and unprepared to respond to national emergencies requiring sealift and warships. SPA leverages its deep expertise in strategy and policy to develop investment plans that revitalize the shipbuilding enterprise, advance manufacturing capabilities, and cultivate the skilled workforce essential to sustaining the nation’s maritime power.

Infrastructure

Chronic underfunding from years of trimming defense budgets has jeopardized current and future readiness across tactical and strategic capabilities. Aging facilities—such as deep-draft drydocks, missile silos, runways, depots, and ammunition storage facilities—hinder the ability to meet the demands of modern warfare. SPA has vast experience in modeling warfighting campaigns and the infrastructure that underpins them to enable informed decision-making and ensure the U.S. remains prepared to respond effectively to national security challenges.

Resilient supply chains and a robust industrial base are the cornerstones of national defense. SPA provides clear analyses and guidance to help protect these critical systems.

Supply Chain Security

With heavy reliance on foreign suppliers and the integration of advanced technologies into the nation's warfighting platforms, weapons, and sensors, maintaining a robust and responsive supply chain is critical to delivering and sustaining these capabilities. SPA provides actionable insights to protect supply chains from adversarial influence and disruptions across sea, air, space, and land domains. This includes identifying critical dependencies and implementing safeguards to ensure the continuity of essential resources and components.



PREVENTING HIGH-CONSEQUENCE EVENTS AND DELIVERING SUCCESS

Sound decisions lead to successful outcomes but poor decisions can lead to failures, accidents, or disasters that disrupt readiness and stability across domains—including program management, policy, operations, manufacturing, and sustainment.

SPA's Framework of Risk Awareness for Mission Excellence (FRAME) fosters a culture of deliberate, informed decision-making at all levels. FRAME can be used, for example, to examine where and why supply chains are vulnerable or our industrial base has degraded. Armed with this knowledge, we can aid decision makers in choosing policies and programs to rectify the weaknesses. By minimizing errors and optimizing capabilities, FRAME helps organizations prevent high-consequence events while achieving mission success.



BUILDING THE WORKFORCE OF TOMORROW

The rapid pace of technological change requires a skilled, adaptable workforce ready to tackle the nation's most pressing challenges. SPA partners with government and industry to build talent pipelines, enhance STEM education, and invest in workforce development initiatives.



THE ROLE OF HUMAN CAPITAL IN NATIONAL SECURITY

While emerging technologies drive transformation, people remain at the heart of national security. SPA emphasizes:

Training and Development

Upskilling the workforce to include leveraging AI, ML, and advanced analytics effectively. These programs ensure personnel are equipped with the knowledge and tools to address evolving requirements. SPA also emphasizes hands-on training and cross-functional skill development to build a more agile and versatile workforce capable of adapting to rapid technological shifts.

Mission-Oriented Culture

A shared sense of purpose and commitment to national defense motivates today's workforce to deliver impactful results. SPA fosters this culture through clear communication of mission objectives and continuous engagement. By prioritizing collaboration, transparency, and alignment with overarching national security goals, SPA strengthens the sense of collective responsibility among team members.

Next-Generation Talent

SPA's internship programs and talent initiatives ensure the next generation is prepared to lead. These programs focus on providing practical experience and mentorship to personnel with STEM backgrounds to cultivate future leaders in national security.



SAFEGUARDING TOMORROW'S SECURITY

The challenges facing the U.S. national security community are vast, complex, and continually evolving. Strategic competition, technological innovation, and infrastructure resilience are converging to redefine the defense landscape. By investing in readiness, modernizing systems, and building a mission-driven workforce, the U.S. can meet these challenges head-on.

SPA remains a trusted partner in advancing national security priorities. Our expertise, objectivity, and innovative applications empower decision-makers to anticipate trends, mitigate risks, and strengthen America's strategic advantage.

Supporting Defense, Intelligence, and Homeland Security

SPA serves many clients across Defense, Intelligence, and Homeland Security, spanning sea, land, air, space, and cyber. Here is a partial list of clients that trust us to be objective and responsive.

Department of Defense

National Aeronautics and Space Administration

United States Navy

Department of Homeland Security

United States Air Force

Department of Commerce

United States Marine Corps

Department of Transportation

Multiple Combatant Commands

Department of Energy

Multiple Intelligence Agencies



ABOUT SPA

Systems Planning & Analysis (SPA) is a premier provider of innovative solutions for complex national security challenges. For over 50 years, SPA has delivered trusted, data-driven insights that inform critical decisions across defense, intelligence, & homeland security sectors. Our experts specialize in advanced analytics, modeling and simulation, systems engineering, and AI-driven solutions, ensuring our clients are prepared to navigate evolving threats and achieve mission success.

Learn More: Visit www.spa.com to explore how SPA supports national security programs across the U.S. and allied partners.

