Promote robust, balanced and stable U.S. defense spending

In the face of serious and growing threats, America’s aerospace and defense industry is the cornerstone of our freedom and prosperity.

Maintaining the security of the United States and her citizens is our government’s most important responsibility. The world has become considerably more dangerous in just the past decade—today the Pentagon faces Russian aggression on NATO’s doorstep, an increasingly capable and assertive China, military advances and political provocation by Iran and North Korea, and widespread global terrorism.

Our most capable potential adversaries have made huge strides in their offensive and defensive capabilities, from submarines to cyberspace, and they continue to invest in advanced research and development and operational concepts at a rapid pace.

America’s current military advantage against any potential military foe is hard-won—if we are to continue to have the finest equipped and best trained military force, we must ensure that:

> U.S. defense spending meets the needs of the current force
> We invest in platforms and capabilities we will need in the future
> Funding is consistent from year to year so that programs can be managed effectively

Talking Points

Growing Threats Require Greater Defense Spending

History shows that U.S. military strength is vital for keeping America—and the world—prosperous and stable. Our armed forces must be large and capable enough to meet multiple threats in multiple environments and they must have the most modern weapons and technology we can provide. Defense spending must be based on realistic assessments of where power and presence are necessary, and the investment Congress and the American people must make to achieve our goals, rather than arbitrary limits or ties to domestic spending levels.

Five years ago, the President and Congress sought to address America’s unsustainable debt by setting arbitrary 10-year limits on discretionary spending, including both domestic and defense accounts. While the more draconian effects of the Budget Control Act of 2011 (BCA) have been avoided by successive bipartisan agreements, military budgets still are inadequate for the challenges our nation faces. Cuts to defense or other discretionary accounts—which together represent only 29 percent of federal spending—cannot resolve the fundamental imbalance between income and outlays so long as the revenues and mandatory spending actually driving our budget deficit remain untouched.

Based on recent dire warnings from our civilian and military leaders, current and projected defense spending is simply inadequate, and will place the U.S. at risk of having forces that are under-equipped, lacking vital technology and stretched dangerously thin. We can afford more: from 1980 through 2014, defense spending averaged 4.4 percent of U.S. gross domestic product (GDP); by 2015 it declined to 3.2 percent; and according to DOD budget projections, spending on defense will amount to only 2.6 percent of GDP in 2020.
Going forward, we need sustained reinvestment in our national security. We must increase base defense spending substantially to at least $620 billion in FY2018, as opposed to the $549 billion cap currently mandated under BCA. (‘Overseas Contingency Operations,’ or OCO, funding, is not included in either number.) This is consistent with the amount proposed by then-Secretary of Defense Robert Gates in his FY2012 defense budget plan—and later endorsed by the National Defense Panel—after Gates’ FY2012 budget had already cut Pentagon spending by nearly a half-trillion dollars. This budget would be well below the historical average for defense spending of four percent of gross domestic product.

**Defense Spending Must Be Balanced**

Military power is a combination of size, capability and presence—in other words, a large enough force, deployed to the right places, and armed with the best possible weapons and equipment. As the new President seeks larger and more stable defense budgets, those funds also must be allocated appropriately between current readiness—primarily in the Operations and Maintenance (O&M) and Personnel accounts—and investment for the future force, primarily in the Procurement and Research and Development (R&D) accounts.

There are many trades to be made in this calculation. For example, technology—though expensive—saves lives and reduces the size of the force required. Similarly, the force must be large enough—regardless of how well-equipped they are, our troops cannot be in two places at once. There is growing concern among defense analysts that, even if defense budgets increase substantially, growth in personnel and dependent costs could erode the Pentagon’s ability to invest in future systems and better capabilities.

While providing for the readiness and care of troops today, defense leaders—starting in the White House—must look to the medium and long-term needs of the force. Since 1980, procurement of weapons and equipment has ranged from 14 to 29 percent of total defense spending; research and development funding has ranged from eight to 13 percent. The next President must establish a goal of 35 percent as the minimum combined proportion of defense spending devoted to the investment accounts.

**Defense Budgets Must Be Stable**

Stable funding of defense programs is just as important as their funding level. For several years, the Department of Defense has adapted its budget planning to the threat of deep and arbitrary budget caps (only prevented by last-minute budget deals); delayed appropriations and continuing resolutions; and use of the Overseas Contingency Operations (OCO) funding category. In this uncertain and unpredictable context, procurement and modernization programs have been started, stopped, delayed and restructured too frequently, wasting funds and slowing an already cumbersome acquisition process.

It is vitally important that the next President work with Congress to make defense budgeting more rational. Consistent and timely action on authorization and appropriations bills, and the hundreds of line item decisions that they make, allow the executive branch and industry to prudently plan in order to maximize economic performance, foster stable employment and equip a modern force.
Promote a secure, efficient and innovative industrial base that shapes and supports U.S. national security strategy and enhances economic growth

To preserve America’s military advantage, we must protect our programs and processes from cyberattacks, remove barriers to innovation, and eliminate unnecessary bureaucracy.

Defense acquisition reform is not a new subject; the acquisition system has been changed dozens of times, by every administration and Congress. But today, for the first time since World War II, the purpose of acquisition reform is not just to save money, but to stay ahead of threats and provide faster solutions to our fighting forces. We have begun to realize that the United States alone does not determine the extent of our advantage—what the Pentagon calls ‘pacing competitors’ like Russia and China are getting better and better, faster and faster, all the time.

This concern has driven DOD’s ‘Third Offset’ strategy, which is specifically intended to help the armed forces maintain a qualitative operational edge. It has driven Congress to propose significant legislative initiatives over the past two consecutive years, focused on expanding the availability of commercial products for defense procurement, rebalancing the role of the Services in the acquisition system, and better protection for industry’s intellectual property. And the heightened drive for innovation permeates the entire defense industry—we are continually expanding the reach and effectiveness of American technology.

Despite some meaningful improvements in the Pentagon’s acquisition practices and processes in recent years, the system is still too slow, inconsistent and risk-averse. To maximize efficiency and innovation, DOD acquisition must:

> Adopt a balanced and cooperative approach to cybersecurity
> Ensure that research and development leads to meaningful procurement programs
> Protect companies’ intellectual property (IP)
> Reduce and streamline the oversight and auditing regime

Talking Points

Adopting Balanced and Cooperative Cybersecurity Efforts

The Defense Department is requiring the American defense industry to become compliant with a specific cyber security standard by 31 December 2017. AIA believes this topic deserves to be carefully examined to ensure compliance occurs through true cooperation rather than mandate. Collaboration with industry will give DOD a better sense of industry’s approach to the threat and business risk management practices. Currently, each defense contractor is being directed to achieve the same level of compliance throughout its activities, without regard to the varied levels of risk and categorization of data and computing environments. Industry should be allowed to assess the risk of the threat and through an analysis of countermeasures, decide what cyber practices to employ just as DOD does for itself. Lastly, once a specific practice is accepted by one U.S. government agency, companies should be permitted to apply that same practice to other contracts without having to build an entirely new approach for each contract.
Research and Development Must Lead to Meaningful Programs

At a time when DOD strategy is focused on innovation, it is curious that its new independent research and development (IR&D) policy threatens to inject additional bureaucracy into the R&D process. The proposed IR&D Rule on cost allowability (i.e., the ability of contractors to recover R&D costs from the government) will require that a “technical interchange” with the government takes place “prior to project initiation.” Industry supports enhanced two-way communication, but there is considerable confusion even within DOD regarding how this ‘interchange’ will be conducted—and it is certain to make technology development slower and less agile. A second proposed rule that would dis-allow IR&D “used to reduce bid cost on competitive proposals” risks unintended consequences both for industry and for DOD, because all IR&D is intended to help a company capture business by offering a competitive proposal.

Perhaps the most daunting challenge to effective R&D is that promising technology too seldom leads to fielded programs. To a large extent, this is a resource question—as AIA has made clear, DOD’s budget must increase—but companies have little incentive to put their best talent toward initiatives that are unlikely to ever make it to the field. Rather than micromanaging each stage in R&D, DOD and industry must work together to expand meaningful dialogue among the warfighting commands who define their needs, the Services who buy capabilities, and the companies that produce weapons and equipment.

Companies’ Intellectual Property (IP) Must Be Secure

AIA members are concerned about how DOD is implementing open systems architecture (OSA), especially since such implementation often results in aggressive attempts to force contractors and subcontractors to relinquish rights to their intellectual property. We understand the need to reduce lifecycle costs, and we support DOD efforts to ensure relevant interfaces are open to enable competition. However, we do not support policies that would enable a subsequent competitor to benefit unfairly from a company’s privately-funded R&D. In our comments on the DOD’s OSA Contract Guidebook for Program Managers, which represents the current DOD acquisition policy guidance on OSA, AIA has sought a clearer delineation of where a company’s IP rights end and the government’s need for ongoing competition begins. AIA also has proposed legislation that would balance the government’s desire for competition against contractors’ need to protect privately-funded R&D.

The Defense Department’s Audit and Oversight Regime Must Be Reduced and Streamlined

Some military procurement experts estimate that nearly thirty cents of every contract dollar goes toward compliance with government regulations. Consistent, streamlined acquisition regulations will give the U.S. aerospace and defense industry more flexibility and incentives to innovate and compete, which will preserve its dynamic role in the American economy. To achieve this, DOD must move away from its current, moribund transactional-based business model where “every dollar matters so every dollar will be reviewed.” Neither industry nor the Government can afford this approach. Instead, DOD must adopt a more systematic, rather than transactional, approach using modern analytics, materiality thresholds, and substantial reliance on approved systems, leading to a sizeable reduction in outdated, individual transactional “touch points.” DOD also can accept contractors’ third-party audits of their records as adequate proof of compliance.
Advocate for policies and funding that enable the achievement of NextGen performance objectives and the safe integration of UAS and other new entrants into the NAS

The vision for the next generation transportation system, also known as NextGen, has always called for integration of new and emerging technologies such as Unmanned Aircraft Systems (UAS) and commercial space operations. Commercial flight is safer today than at any time in the history of aviation. Maintaining safe skies through a timely, risk-based approach is the first priority. At the same time, enthusiasm for UAS technology has created a huge commercial market from what was once a niche interest shared by a small number of hobbyists and researchers. We need a NextGen system that ensures the safety of both manned and unmanned aircraft in the 21st Century. With the rapid growth of UAS applications and an anticipated market size that is estimated to be in the billions of dollars by 2025, it is crucial that appropriate funding and resources for full implementation of NextGen be available to the FAA. AIA’s ultimate goal of achieving safe and routine operation of all classes of UAS in the NAS depends on full implementation of NextGen, a “system of systems.” Our nation is a leader in UAS design, manufacturing, and operation. Along with the enabling technology, maintaining our leadership in the global marketplace requires sound and fair export policies. AIA will advocate for full funding of NextGen and work with domestic and international stakeholders to facilitate full integration of all classes of UAS into the airspace.

> Achieve appropriate funding and legislative support for UAS, NextGen and FAA Reauthorization Priorities

AIA will advocate for necessary resources to keep NextGen implementation on target. Through our involvement in the NextGen Advisory Committee (NAC), we will seek out opportunities to highlight the successes of NextGen. We will also conduct meetings with staff and Members of Congress to emphasize the importance of NextGen implementation to aviation growth and introduction of emerging technologies. By advocating for operational performance, AIA will press for increased accountability of the FAA in NextGen implementation.

> Advocate for availability sufficient and safe spectrum for UAS global interoperability

The FAA projects that roughly 7,500 larger, more complex unmanned systems will be operational in the U.S. within five years. Operation of these aircraft will require adequate radiofrequency spectrum for communications, command and control and air traffic management. AIA will work within its UAS Committee and Spectrum Working Group, along with other stakeholders to develop educational campaigns and advocacy programs on spectrum requirements and global interoperability. AIA will execute an engagement strategy to secure implementation of international spectrum allocation decisions, and associated regulatory actions by the FCC.

> Facilitate global harmonization of UAS standards (ICAO, JARUS, and ISO)

We must work to harmonize international policies and regulatory efforts related to UAS. The U.S. must keep pace with efforts that support a common set of international standards and practices. To that end, AIA exercises leadership roles in committees and working groups in organizations such as ICAO, JARUS and ISO. Through international harmonization, UAS manufacturers and operators can be assured that their aircraft can be sold, certificated and operated in diverse international environments.

> Clarify UAS export policies and processes and advance reform proposals

There is no stopping the growth of UAS technology, the growing number of aircraft in the skies, nor the innovative uses operators are identifying for unmanned systems throughout the world. The U.S. must revise outdated export policies to maintain U.S. technological superiority, foster R&D, and ensure our partners and allies look to the U.S. to provide for national security requirements. While any sophisticated technology must be monitored to ensure it is not used by potential adversaries, the U.S. aerospace industry must not be prevented from responsibly selling UAS technology overseas. Globally, the military UAS sector is expected to grow by 79% in the coming decade. By clarifying export policies, we can be assured that U.S. manufacturers are able to compete in this international marketplace while continuing to support national security objectives.
NextGen and UAS – Talking Points

> Partnering with the aviation industry, the FAA and NextGen are creating a healthy and sustainable National Airspace System.

> NextGen is a comprehensive suite of upgrades, technologies and procedures that improves every phase of flight and enables aircraft to move more efficiently from departure to arrival.

> Airlines, pilots and air traffic controllers have better information and enhanced tools that get passengers to their destinations more quickly while burning less fuel and producing fewer emissions.

> Overall, NextGen is expected to deliver $160.6 billion in benefits through 2030.

> NextGen is on target to meet its original high-level objectives by 2025.

> AIA’s Unmanned Systems priorities are:
  • Preserve Aviation Safety
  • Maintain Leading U.S. Market Position
  • Encourage Commercial Innovation

> It’s important that our audiences understand AIA’s perspectives on how government and industry should collaborate on developing regulations, policies, and procedures for integrating unmanned systems into our skies.

> Generally, guiding principles supported by industry state that any new rule or policy must:
  • Promote emerging technologies while maintaining aviation safety;
  • Achieve routine access for unmanned aircraft systems to all classes of airspace;
  • Harmonize with international regulations and
  • Reform U.S. export policies

> There is no stopping the growth of UAS technology, the growing number of aircraft in the skies, nor the innovative uses operators, both civilian and military, are identifying for unmanned systems.
Work with the FAA, regulatory authorities and Congress to accelerate and streamline product approval processes

The unprecedented level of aviation safety we enjoy today has been achieved through collaboration between industry and the regulators. Transformation of the existing product approval processes to a risk-based and data-driven approach is welcomed by the aviation industry. Global supply chain and manufacturing along with new and innovative business models, demand flexible and efficient processes worldwide. Our Civil Aviation sector is focused on supporting, advocating for and continuing to build the best, most advanced aviation industry in the world. Improving the certification process is a central focus of our efforts. Defining appropriate metrics to measure systems performance and enabling the required cultural shifts within the aviation community, in both industry and regulatory bodies, are essential steps for continued systemic and enduring changes.

> Maximize the benefits of existing delegation system;

The FAA use of Organizational Designation Authorization (ODA) specifically allows the FAA to oversee industry practices and the certification of aircraft and parts to achieve design conformance and compliance with government standards. While this system is critical to a timely certification process and has helped deliver an outstanding safety record, it’s important that this symbiotic relationship between government and industry be taken to the next level. The health and effectiveness of the ODA system are critical to our ability to move to more advanced systems of product approval. AIA will continue to advocate for appropriate methods and metrics to maximize the benefits of the ODA.

> Global acceptance of FAA approvals

Our superior aviation products enjoy an increasing demand worldwide. We need to eliminate redundant and non-value-added certification efforts by multiple states that are cost prohibitive and result in delays in product entry to market. Greater reliance on the competencies of certifying states through the leveraging of bi-lateral agreements will eliminate duplication of effort. The FAA has already initiated certain activities to achieve this objective. AIA will work with the FAA and other international authorities to expedite and facilitate implementation of a recently announced roadmap to achieve efficient and effective product movements across geographical boundaries.

> Preparing for the future through effective change management

The U.S. certification process is in need of an upgrade. The system is not broken by any measure, but given today’s changing global marketplace, any delays in the certification process can negatively impact U.S. industries’ global competitiveness. Utilizing more advanced methods of product approval and oversight, based on Safety Management System (SMS) principles, is one way to reduce the time necessary to introduce new products to market and to help keep the U.S. at the forefront of global aviation competitiveness. Cultural changes within the FAA and industry to embrace more advanced methods for produce certification are necessary. Developing the necessary tools and guidance to institutionalize both systemic and workforce cultural changes are important elements of preparing us for the future. AIA will work with the FAA to implement Certification Process Improvement principles, a proven best practice, for conducting certification and take steps to achieve a systems approach to certification and oversight.
FAA Certification – Talking Points

> Our Civil Aviation sector is focused on supporting, advocating and continuing to build the best, most advanced aviation industry in the world. Improving the certification process is a central focus of our efforts.

> The U.S. certification process is in need of an upgrade. The system isn’t broken by any measure, but given today’s changing global marketplace, any delays in the certification process can negatively impact U.S. industries’ global competitiveness.

> Over the last decade, U.S. manufacturers have greatly benefitted from improved communication and collaboration with government regulators in the certification process. Along with this progress, technological advancements, improved materials, and superior aircraft design, enabled by effective government oversight of aircraft manufacturing and operations have contributed to significant gains in aviation safety.

> Without improvement, U.S. manufacturers increasingly are at a disadvantage facing competition from international manufacturers.

> What else is needed? One, the FAA taking full advantage of the delegation of authority, which would require the FAA to transition to a risk-based systems-oversight approach. Two, the consistent interpretation of existing regulations.
Advance security cooperation enterprise reforms to prioritize and expedite building of full-spectrum partner capability

Security cooperation enabled by U.S. defense industry exports is a foundational component of the U.S. National Security Strategy. U.S. defense exports advance our security objectives overseas, support the projection of American “soft power” and sustain a peaceful and stable international order by supplying full-spectrum capabilities to our allies and partners. Indeed, the export of a defense capability can strengthen a strategic relationship with an ally, build the foundation for an emerging regional partnership or provide a critical deterrent to military conflict.

Defense trade funds U.S. economic security and technological innovation. Every dollar spent by other countries on U.S. defense systems helps fund innovation and lowers unit costs at a time when domestic budgetary pressures are putting pressure on the U.S. military’s purchasing power and the resilience of the American defense industrial base. In addition, our foreign allies and partners become more able to operate jointly with U.S. forces or advance our common security objectives on their own.

The U.S. Security Cooperation Enterprise is under significant stress. Industry supports the review process that ensures transfers of defense technologies do not adversely impact our warfighters’ battlefield edge and are consistent with U.S. foreign policy objectives. At the same time, the U.S. Foreign Military Sales (FMS) system managed $33.6 billion in sales in 2016, and has been hitting historical highs in dollar value in recent years. With 140 new security cooperation requests a month, requirements are straining a system not designed for the volume, tempo or scale of demands currently placed on it.

In the current global security environment, we must focus attention on identifying where and how we need to grow our security, political and economic influence on our allies and partners through defense exports even as our competitors race to supplant our leadership.

While the U.S. has historically been the “partner of choice,” foreign competitors are aggressively trying to usurp this role. France announced it had doubled its annual defense sales agreements from 2014 to a record figure of $17.5 billion in 2015. In addition, countries like Russia and China are aggressively expanding their defense export activity to bolster their influence around the world.

The President needs to accelerate and expand on Security Cooperation Enterprise Reform (SCER) initiatives. SCER must first establish a clearly articulated doctrine that guides a comprehensive National Security Cooperation Strategy (NSCS) with sufficient interagency coordination, resources and training as well as appropriate collaboration and communication with U.S. industry.

As part of a National Security Cooperation Strategy (NSCS), the administration must begin a regular classified consultation with U.S. industry about the priority capabilities our allies need to help advance our full spectrum foreign policy, security, humanitarian and maritime interests.
The Dynamics of the Current Global Defense Marketplace

Unlike the United States, most countries do not possess an effective strategy development process, a deliberate budget cycle, a professional acquisition corps or a systems life-cycle manager. Their security cooperation requests are growing in complexity, number and urgency, and do not match the pace or capacity of our review and approval process. This confluence of circumstances creates frustration that increasingly causes our partners and allies to consider capabilities other countries have to offer.

At the same time, foreign governments are increasingly more reliant on defense export opportunities to ensure the survivability of their domestic manufacturing base. Our competitors employ a “whole of country” approach that reaches to the highest political levels to capture global market share and influence. Their efforts represent a direct challenge to American efforts to shape the global security environment and sustain the technological edge of the U.S. defense industrial base.

The Case for Reform

Recent reform efforts have made incremental improvements to the Security Cooperation Enterprise. However, the absence of clear doctrine and strategy, combined with an under resourced system, limit the effectiveness of these initiatives. The requisite standard of timely interagency coordination for identifying and executing security cooperation priorities remains elusive. Absent mutually understood priorities, U.S. industry strategic investment and business development activities lag desired objectives, resulting in customer delays, increased costs, and, in several instances, lost sales to foreign competitors.

Talking Points

The President should accelerate and expand on Security Cooperation Enterprise Reform (SCER) efforts that establish a doctrine that will best support our partners and allies and govern the transfer of defense systems. This initiative should ensure there are sufficient resources, training and coordination across the interagency and with U.S. industry to develop and execute a National Security Cooperation Strategy that:

> Identifies Priorities for Building Partner Capacity as a Component of U.S. National Security Strategy: Identify and expedite the transfer of defense systems and platforms necessary to achieve stated strategic and tactical objectives in designated priority countries and regions.

> Aligns U.S. Industry Programs and Technology Development with Security Cooperation Priorities: Expand consultation and cooperation with U.S. manufacturers to ensure industry’s ability to produce competitive and exportable defense systems, including non-Program of Record (non-POR) solutions, and industry’s engagement with foreign partners and allies are informing and aligned with U.S. security cooperation priorities.

> Streamlines the Technology Review and Contracting Process for Priority Security Cooperation Transactions: The U.S. military and defense industrial base will benefit substantially from reforms to FMS contracting, greater clarity in the policies and processes for Technology Security and Foreign Disclosure (TSFD) reviews and Unmanned Aircraft Systems (UAS) exports, and better licensing caseload management techniques for the export of items on the U.S. Munitions List (USML).

> Promotes the Competitiveness of American Defense and Security Technologies in Priority Regions: Support and expand U.S. policies, procedures and government engagement with partners and allies that maximize the competitiveness of U.S. defense companies in priority foreign markets.
Promote the full functionality of the U.S. Export-Import Bank

The U.S. Export-Import Bank is America’s Export Credit Agency (ECA). The Ex-Im Bank is a "lender of last resort" that works directly (or indirectly with U.S. banks) to support the export activities of U.S. companies of all sizes. The Bank is able to help exporters by protecting against buyer nonpayment, providing financing for a foreign buyer’s purchase, helping companies sell to foreign customers on credit terms, and allowing exporters to borrow against export-related assets.

Ex-Im Bank was created to support American jobs by facilitating the export of U.S. goods and services. By financing the export of American goods and services, Ex-Im Bank has supported 1.4 million private-sector, American jobs in the past seven years, including 109,000 jobs in FY 2015 alone. Nearly 90% of Ex-Im Bank transactions support small businesses.

Ex-Im Bank is an independent, self-sustaining federal agency that consistently generates a surplus for the U.S. Treasury while responsibly managing risk in its portfolio. The fees and interest the Bank charges for its services generated a surplus of $431.6 million above and beyond all costs for American taxpayers in 2015. Ex-Im Bank’s active default rate was 0.261% as of March 2016. Ex-Im Bank is committed to effective risk management and maintains prudent reserves to cover potential losses—seventeen times greater than the Bank’s current default rate.

Ex-Im Bank support is a valuable asset in sustaining the U.S. aerospace industry’s global competitiveness and innovation. For many aerospace companies and their suppliers, the livelihood of workers and their families depends on U.S. exports. Sales to foreign customers of passenger and business aircraft, helicopters, satellites, and the numerous parts, components and services needed to maintain and operate these systems are a cornerstone of our industry. In fact, 58 percent of the value of U.S. aerospace exports comes from supply chain companies. These exports are particularly valuable as a revenue stream for small and medium sized companies that are also trying to navigate U.S. budget cuts affecting their opportunities in the defense and space sectors.

With every passing day that the U.S. Export Import Bank is not operating at full capacity, businesses from the United States are denied new export opportunities overseas, damaging local economies and limiting American jobs.

The Ex-Im Bank is supported by a robust bipartisan majority in Congress, but is not operating at full capacity. Substantial bipartisan majorities in both the House and Senate voted to approve a multi-year reauthorization of the Ex-Im Bank to ensure that it could continue its mission of promoting economic growth and jobs through exports. While the Ex-Im Bank is back in operation and accepting new applications, it is prohibited from approving transactions more than $10 million (including major aerospace export opportunities) because of the lack of a quorum on the Bank’s Board of Directors.

Congress and the Administration must work together to restore and protect the full functioning of the U.S. Export-Import Bank by ensuring the Bank’s Board of Directors has the quorum needed to review and approve transactions worth more than $10 million and to manage its portfolio of transactions effectively.
The Dynamics of the Current Global Aerospace Marketplace

The aerospace and defense industry accounted for 9.5 percent of all U.S. exports, and is the nation’s second largest exporting industry. U.S. exports achieved a record $107.1 billion in the first three quarters of 2016. These sales represent sustained growth of high-skill, high-wage American jobs and innovation at every level of the supply chain.

Our industry’s civil aviation and space exports are in high demand in emerging economies that are growing trade linkages with the United States. For instance, the Asia-Pacific Region accounted for 37 percent of total U.S. aerospace and defense exports in 2015. This economic engagement also provides the U.S. with an opportunity to extend its influence in countries and regions critical to our national security and foreign policy interests.

The Case for Ex-Im Bank Quorum

As major commercial aircraft sales and satellite sales usually exceed the $10 million dollar threshold, foreign customers who can no longer access Ex-Im Bank financing for U.S. aerospace systems can and will turn to our foreign competitors and foreign Export Credit Agencies to fulfill their requirements. Our foreign competitors already benefit from significant government support in terms of subsidies, regulatory relief and aggressive advocacy and engagement in key markets to increase their market share and global influence at the expense of our own. Thirty transactions worth more than $20 billion to U.S. companies are currently stalled because of the lack of a quorum in the Bank’s Board of Directors.

Talking Points

Congress and the Administration must work together to restore a full quorum for Ex-Im Bank’s Board of Directors so that the Bank returns to full capability and our industry’s potential foreign customers regain confidence that the Bank will return to normal operations. To achieve success, we call for actions that:

> Restore Quorum on a Temporary Basis Until the Normal Board of Directors Nomination Process is Completed. Until the new Administration has a chance to put forward its nominees for the Ex-Im Bank Board, the Bank must be allowed to operate as normal even though it may not have a standard quorum of three Board members in place for a full term.

> Identify and Expedite the Review and Approval of Nominees for the Ex-Im Bank Board. The Ex-Im Bank Board is normally a bipartisan group of five members tasked with managing the agency’s portfolio risk and implementing policies and reforms to maximize the agency’s effectiveness. All five seats should be filled as soon as possible.

> Protect the Bank’s Ongoing Operations and Prepare for Successful Reauthorization in the Future. The bipartisan majority in Congress that re-authorized the Bank must work with the Administration and industry to ensure greater awareness of the importance of the Bank to our nation’s foreign policy, national security and economic vitality.
Advocate for increased, predictable and balanced civil aerospace investments

Aerospace is a unique and critically important field that is vital to our nation. For over a century, U.S. government and private sector investments in aerospace programs have:

> Created America’s 21st Century air transportation system and revolutionized how our nation—and the world—has developed and grown while making aviation the safest mode of transportation.

> Enabled a $330 billion per year global space industry that has fundamentally improved our lives while creating employment for hundreds of thousands of American workers.

> Advanced knowledge, science, and the creation of new technologies, which drive countless industries that deliver tremendous economic and social benefits.

> Inspired generations of Americans to study science, technology, engineering, and math (STEM) and pursue high tech/high-wage careers ensuring America remains the most technically advanced nation.

> Enabled and extended global communications capabilities to every point on Earth.

> Provided a unique vantage point for understanding landforms, the atmosphere, and oceans to produce data for agriculture, mining and drilling urban and other planning, and for critical weather forecasts and global intelligence, saving countless lives and billions of dollars annually.

U.S. Aerospace Leadership is at Risk

Despite the amazing benefits aerospace provides our nation, our continued leadership is not assured.

> U.S. Government research and development (R&D) as a percentage of our Gross Domestic Product (GDP) has fallen by 60% since 1964. By contrast, China’s R&D investment is the fastest growing of all advanced countries as China seeks to counter U.S. space advantages and gain influence over our traditional partners.

> In real dollars, NASA funding has fallen below where it was in the 1990’s squeezing the agency’s ability to develop new missions for exploration, science and aeronautics, leading to cost and schedule inefficiencies for ongoing programs and missions.

Action Needed to Continue U.S. Aerospace Leadership

> Commit to predictable budgets, fund robust investments, promote innovative partnerships, and repeal the Budget Control Act of 2011. In recent years, our space programs have been hampered by a lack of long-term budget and planning which impedes cost-effective management. Existing systems and programs have been delayed, curtailed, or forced to develop costly workarounds due to government shut downs. The cloud of uncertainty caused by budget instability hampers government space programs, imperils private sector investment, and places the space industrial base and workforce at risk. The U.S. needs to make stronger investments in R&D to enable innovation and competitiveness and strengthen our industrial base.
> **Restore Independent U.S. Crew Access to Space.** There are two complementary, viable pathways to achieving U.S. independence in human space operations and ending U.S. reliance on the Russians for sending our astronauts into Low Earth Orbit. Both the Space Launch System and Orion Multipurpose Crew Vehicle—NASA’s next generation human transportation systems—and NASA’s Commercial Crew and Cargo programs to provide robust and commercially-based access to the International Space Station must be fully funded.

> **Civil Aerospace-Related Investments Should be a key part of any new Administration Plan to Promote Economic Growth.** While national policy makers typically focus on terrestrial “infrastructure investments” such as highways & bridges or new renewable energy systems, we shouldn’t take aerospace for granted. When considering new investment priorities, recognize that aerospace is a uniquely dynamic sector with tremendous economic impact where the U.S. has a significant competitive advantage. We should:

- Increase NASA budgets for science, exploration, space technology and education.
- Support NOAA’s work to provide resilient weather satellite constellations for forecasting, first responder support and better airspace utilization.
- Fully fund FAA’s NexGen air traffic modernization program and other civil aviation infrastructure investments that will reduce congestion, improve aviation efficiency, and facilitate the rapid integration of beneficial new Unmanned Aircraft System capabilities into our national airspace.
- Support federal civil aeronautics research activities such as NASA’s New Aviation Horizons that promise to assure continued U.S. leadership in aviation.
- Promote STEM education and the retention of highly skilled foreign-born workers who have been educated at U.S. colleges and universities.

**Talking Points**

> By fostering innovation and enabling new products and services, investments in national aerospace capabilities are a major unsung contributor to U.S. economic growth.

> NASA/NOAA Earth observation and weather satellite capabilities significantly enhance the safety and security of the American people and protect the environment.

> NASA’s aeronautics research effort makes flying safer, more efficient and environmentally friendly.

> Investments in FAA’s NextGen program will make future flight safer, reduce flight times and flight delays, and save large amounts of fuel.

> To enable more Unmanned Aircraft Systems to operate in the national airspace, NextGen will provide a safe 21st century infrastructure for the skies.
Assure America’s 21st century space competitiveness

In the 21st Century, space is a global enterprise. In the past decade, more communications satellites have launched from overseas spaceports than from the U.S., and today most commercial geosynchronous communications satellites are owned by foreign companies. Other nations are also aggressively seeking to grow their space economies and counter the asymmetric advantage our nation’s space capabilities provide for our warfighters and national leadership.

To compete effectively in the growing commercial space marketplace, our nation needs a 21st Century Space Competitiveness Strategy to foster greater U.S. economic growth and national security. The U.S. will become the first-choice provider of space-related goods and services by creating the conditions necessary to compete in the global commercial space marketplace and lead in areas like technology development, workforce training, exports, and innovation.

Elements of a 21st Century Space Competitiveness Strategy

Budgets

> National Security Space Investment: Recent DoD investments in space modernization and procurement are inadequate to enable the U.S. to remain unmatched in capability, technology and performance in the increasingly contested space environment. AIA will work to ensure that national security investment budgets for Research, Development, Test & Engineering and procurement accounts are sufficient to be certain that U.S. national security technologies remain unequalled.

Regulations

> Export Control Category XV: The State Department should publish as soon as possible final rules for Category XV (Space Systems) of the U.S. Munitions List. These final rules should include revisions that raise the limits of allowable aperture size to reflect global market trends. The final rules should also complete the regulatory rulemaking related to commercial satellites.

> The U.S. should avoid disrupting these globally harmonized spectrum bands, including the Ka-bands, to allow for development of future global satellite systems.

> Orbital Debris Mitigation: Policies on orbital debris mitigation should be forward leaning, consistent with accepted best practices backed by transparency and confidence building measures. This will ensure freedom of access to space while asserting U.S. leadership among the burgeoning members of the global space community.

Policy

> Hosted Payloads: Develop a national policy on hosted payloads on satellites, especially as they relate to national security vs. non-national security related satellites.

> Sector-Specific Metrics: Focus on sector specific elements of the space industrial base and establish measurable space trade/export objectives in each of those sectors.

> New Space Applications: Support and advance a national effort to develop and field new space applications and technologies for the commercial market (e.g., wi-fi from space; power generation).
> More Proactive Engagement: Encourage NASA, DoD and NOAA to actively promote U.S. industry for new space market opportunities. Recommend adding trade promotion responsibilities to NASA’s mission in the next NASA Reauthorization Bill to support the U.S. space industrial base. Support NASA exploration initiatives with international partners to improve stability and grow potential common hardware and system sales. Improve NASA exploration program stability to grow potential common hardware and system sales.

**Advocacy**

> Global Commercial Space Leadership: Establish a bipartisan national consensus on the need for U.S. international commercial space leadership.

> Export-Import Bank: Encourage the Export-Import Bank of the United States to expand its support for financing exports of satellites and space systems.

> Enhanced Supplier and Customer Training: Initiate dedicated outreach to U.S. space industrial base suppliers and their customers on space export control reform changes, and provide comprehensive training as the new regulations are promulgated and implemented.

> Trade Promotion: Secure focused U.S. Government promotion and advocacy of U.S. space products to foreign customers under the leadership of the Department of Commerce’s International Trade Administration (ITA).

> Department of Commerce Space Asset Evaluation: Evaluate the current alignment of the Department of Space Commerce as it relates to the National Oceanic and Atmospheric Administration and the International Trade Administration to ensure maximum focus on industry advocacy and promotion.

To remain the preeminent military space power and become the commercial space leader, we must acknowledge that much of the next generation of space innovation is being driven by the global commercial space environment and we need to recognize that our commercial competitiveness and military space effectiveness are recognized as increasingly interdependent. Just as our nation did after the initial Soviet success in space after the launch of Sputnik, we must set the pace in space by out-innovating and out-competing the global competition. As in the Apollo era, “Failure is not an option.”

**Talking Points**

> Space products and space enabled services provided by U.S. industry as government contractors and commercial providers serve as a positive contributor to national economic growth and national security.

> Space products and space enabled services are often dual use. Greater innovation and economies of scale will flow from this recognition by government civil and military space officials, thus benefitting national security, the economy and strengthening the aerospace and defense industrial base.

> Promotion of U.S. space competitiveness will help assure a level playing field for U.S. industry in the global marketplace.

> By leading the charge on U.S. space competitiveness, AIA will uphold its position as the community of choice for aerospace and defense stakeholders.

> To remain the preeminent space leader, we must recognize that much of the next generation of space innovation is being driven by the global commercial space environment and that our commercial competitiveness and military space effectiveness are increasingly interdependent.
Advocate for programs, policies, and investments that promote innovation in the U.S. aerospace and defense workforce and industrial community

Investments and programs that foster innovation provide a critical foundation to ensure our nation’s industrial base is healthy and the U.S. aerospace and defense industry is preeminent in the global market. To build a sustaining “innovation ecosystem” we need to encourage government investments in research and development that results in technological innovation, fosters the creation of new applications, increases our technological advantage over adversary nations, and attracts bright young minds to our industry. This ecosystem will also leverage emerging business processes, technologies and tools such as Big Data Analytics, Digital Simulation and Visualization, Augmented Reality and Cognitive Computing. These will help facilitate the digital transformation throughout the supply chain by increasing interoperability and maximizing productivity.

The scope of this priority encompasses the work programs of both the AIA Technical Operations Council and the Workforce Policy Council. There is an interdependency between the goals of both councils. Within industry the functional activities represented by AIA’s Technical Operations Council cannot be sustained without having a technically skilled and capable workforce. To help inspire, train and recruit the industrial workforce of the future, we count on the workforce development and talent management company experts on the Workforce Policy Council to help promote aerospace and defense career excitement and excellence in STEM education.

Steps to Promote Greater Innovation

- Advocate for technology investment and government funding that supports research and innovation, technical capabilities, and a robust workforce throughout the supply chain.

- Support legislation and acquisition policy that protects intellectual property while fostering architecture standards that promote innovation opportunities.

- Work with our customers to support digital transformation of the ecosystem through model-based development practices and standards.

- Collaborate with stakeholders to inspire, educate, improve access to and retain a diverse and qualified A&D workforce.

- Advocate for a healthy regulatory and legislative environment to the benefit of the aerospace and defense workforce

Engaging Our Members in Positive Action

AIA’s Technical Operations Council and their subordinate committees will help member companies resolve challenging technical issues that are broad in both scope and application. The Council will advocate for technology investment and government funding for pre-competitive research that promotes innovation, maturation of technical capabilities and a robust workforce throughout the supply chain. Council initiatives will raise awareness of the unintended consequences resulting from insufficient investments in Independent Research in development which hinders technology maturation. The Council will work to ensure our industry has effective and affordable lifecycle product support policies, concepts, business practices and technologies. Initiatives are underway to protect intellectual property while fostering interoperability, and open architecture standards that promote innovation opportunities for all stakeholders.
The Council will continue to promote advanced manufacturing technologies and the digital transformation of the product lifecycle ecosystem, and continue to monitor the risks of disruptive technologies as they emerge. The Council continues to build upon successful relationships with DCMA assessing and improving Quality Assurance supply chain surveillance, “Detection to a risk-based quality management approach.

The Workforce Policy Council promotes the growth of a scientifically and technologically capable aerospace and defense workforce through creation and implementation of an overarching industry strategy that includes diversity and inclusion, workforce studies and analytics, and promoting Science, Technology, Engineering and Mathematics (STEM) education programs. This Council promotes best practices and initiatives at the national and state-levels to enhance a highly-skilled and robust aerospace and defense talent pipeline. The Council serves as a convener with a variety of stakeholders including national, state and local government, industry, labor and academia that collaborate to find solutions for growing our future workforce.

**Talking Points**

> Allowing aerospace and defense companies to protect their intellectual property will foster the research that makes innovation possible, and enable U.S. industry to achieve a level playing field in the global marketplace.

> Our efforts to support digital transformation of the ecosystem through model-based development practices and standards will help strengthen the U.S. aerospace and defense infrastructure.

> To retain our U.S. industrial base capability, we need to inspire and develop the aerospace and defense workforce of tomorrow.

> AIA enhances its role as the community of choice for stakeholders by organizing government, academia and industry driving policies and practices that help develop and retain the aerospace and defense workforce.
Promote the development and adoption of consensus-based standards and policies that drive industry best practices and member value

Voluntary industry consensus-based process and hardware standards provide value to aerospace and defense enterprises. This value is realized by driving consistency of business practices and processes throughout a company’s internal activities and its supply chain. By specifying common technologies and configurations, companies avoid the cost of individually recreating aerospace qualified parts used in aircraft, spacecraft and land and marine vehicles. Part Standards such as AIA’s National Aerospace Standards (NAS) are selected for use throughout our industry. Manufacturers choose standard parts because they eliminate the need to design a new part for each application. Their adoption results in cost avoidance through purchasing commercially available parts, which are mass produced and meet quality and reliability levels required by our industry.

Standard processes and practices help to regulate our industry. Customers regulate their suppliers by specifying standard practices in contracts; government incorporates by reference industry standards into regulation.

This priority will provide all AIA divisions, committees and councils the knowledge and capability to enable them to effectively self-regulate through developing industry consensus based standards and standards practices, which the government can reference in their regulations. By providing the supply chain guidance through industry-developed standards, costs are reduced for the customer who doesn’t need to recreate guidance and the supplier who has one common set of specification that can be applied to multiple customers.

Steps to Promote AIA Standards

> Be the standards developer of choice for aerospace and defense specific standards required by AIA members.

> Provide guidance for AIA policy divisions to execute strategies for development and adoption of AIA recommended standards by industry and government as a preferred approach to regulation.

> Promote the visibility and coordination of AIA standards activities and positive working relationships and partnerships with key standards stakeholders, government agencies, regulatory bodies, and other standards organizations to promote common standards and prevent duplication of effort.

> Drive continuous improvement in the efficiency, effectiveness and coherence of the AIA standards system.

Using Innovative Technologies to Deliver Standards

AIA will pursue emerging and innovative technologies to deliver our standards to our customers. These technologies include our own NAS 3-D model product, and the Semantic Web of Interoperable Specs and Standards (SWISS) project being promoted by the Department of Defense. By embracing and adopting these innovative technologies we will remain on the forefront of being the standards developer of choice for aerospace and defense specific standards required by AIA members.

By developing consensus-based industry standards, AIA is able to influence the regulatory process by providing government industry-accepted standards and best practices, which can be incorporated into regulation by reference. Government benefits from using industry standards because they use the latest technology and innovation and are accepted by industry. AIA standardization staff will meet with each AIA Council to promote this concept and encourage adoption of the practice. Any AIA committee or council can develop standards using subject matter experts and the collective knowledge of the group’s membership.
One critical need to enhance adoption of AIA standards is to have government partners included in the process of identifying gaps in regulations and creating industry standards to fill those gaps. To encourage this cooperation, we will promote AIA standards activities and foster positive working relationships with key standards stakeholders, government agencies, regulatory bodies, and other standards organizations to promote common standards and avoid duplication of effort. We will achieve this through enhancing our communications and outreach, and driving continuous improvement in our processes.

**Talking Points**

> AIA is continuing its long and proud history of providing industry standards that enable our manufacturers to produce products that enhance our safety and security.

> AIA’s position on standards as a preferred approach to regulation and on promoting the adoption of common standards helps to improve the U.S. aerospace and defense infrastructure and retain U.S. industrial base capability.

> By encouraging other nations to adopt National Aerospace Standards we’ll advance the goal of achieving a level playing field for U.S. industry in the global market place.

> By being the standards developer of choice for the aerospace and defense industry, AIA will enhance our role as the community of choice for aerospace and defense stakeholders.