

**STATEMENT OF
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JOINT INTEGRATED AIR AND MISSILE DEFENSE ORGANIZATION
BEFORE THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON STRATEGIC FORCES
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Thank you, Chairman Rogers, Ranking Member Cooper, and distinguished members of the subcommittee. I appreciate the opportunity to testify. It is an honor to discuss how the Joint Staff and the Joint Integrated Air and Missile Defense Organization (JIAMDO) contributes to the Air and Missile Defense mission.

JIAMDO's Role in Integrated Air and Missile Defense (IAMD) as part of the Joint Staff

As a part of the Joint Staff, JIAMDO supports the Chairman of the Joint Chiefs of Staff, through the Director for Resources, Force Structure, and Assessments (J8), in his responsibility to coordinate development of Joint Air and Missile Defense requirements and capabilities. JIAMDO facilitates collaboration between Services, Combatant Commands (CCMDs), and Agencies to identify existing and emerging capabilities and supports integration through simulations and technology demonstrations.

In support of the Chairman and the Joint Staff, JIAMDO provides expertise, analysis, and coordination across the CCMDs and the Services. JIAMDO is focused on assisting the Department in delivering capabilities that support CCMD operational plans and address air and missile defense capability gaps. JIAMDO's activities are aligned along three main lines of effort

– Requirements Development; Simulations and Analysis; and Doctrine, Architecture, and Concept of Operations (CONOPs) Development.

Regarding requirements, JIAMDO provides Air and Missile defense expertise and coordinates with CCMDs and Services as part of the Joint Capabilities Integration and Development System (JCIDS) process, which includes regular assessment of Capability Gaps, Force Sufficiency, and Portfolio Management. These processes assist the Chairman in his responsibility to provide military advice in areas such as risk assessment and program recommendations. In support of JIAMDO's role in the Joint Staff capabilities and requirements processes, we have liaison personnel at Central Command, European Command, Pacific Command, Northern Command, and U.S. Forces Japan. These liaisons provide a direct link between JIAMDO and the CCMDs as they work air and missile defense issues.

Working with the CCMDs, Services, and the Missile Defense Agency (MDA), JIAMDO also helps develop and assess the doctrine, CONOPs, and architectures needed to guide the development and employment of the Joint Force. Activities include coordination of revisions to Joint Doctrine publications, development of operational concepts, and completion of Capabilities Based Assessments, which translate CONOPs into capability requirements. JIAMDO also works closely with the Missile Defense Agency – in its role as the IAMD Technical Authority – to develop technical requirements leading to incremental improvements in IAMD and to support synchronized development, integration, and fielding of those improvements in the existing programs of record. Lastly, as representative to the NATO Air and Missile Defense Committee, JIAMDO supports alignment and development of capabilities and policies with our NATO Allies.

Through the Simulation and Analysis line of effort, JIAMDO executes studies which require integration of multiple modeling and simulation tools in order to inform Service programs and CCMD plans and requirements, such as the recently completed Joint Capability Mix IV (JCM IV) Study to assess the evolving regional ballistic missile capability and capacity of potential adversaries. Additionally, NIMBLE FIRE is a classified operator-in-the-loop simulation where Service tactical experts come together to execute joint air and missile defense missions using program of record systems and capabilities in a near-future scenario developed in support of and approved by a CCMD. This yields data to inform capability gaps, requirements, concepts, and in some instances, employment techniques. The simulation executes a combined air, cruise missile, and ballistic missile defense event which has run in conjunction with MDA's Missile Defense Integrated Operations Center simulation at Colorado Springs.

JIAMDO also sponsors the annual Black Dart Counter-UAS technology demonstration – a Joint, interagency, live fly/live fire event which includes participation from international partners and industry representatives who have the ability to bring emerging Counter UAS technologies and demonstrate them to Service, Combatant Command, and interagency representatives. This venue enables testing and evaluation of sensors, data link and command and control systems, as well as kinetic and non-kinetic negation capabilities.

Integrated Air and Missile Defense topics of interest

Emerging left-of-launch capability

IAMD is designed to first deter an adversary from employing their aircraft and missile capabilities, and failing that, to prevent an adversary from effectively employing them. Air and Missile Defense operations can be broken down into three phases – Prevent, Defeat, and Minimize. Prevention of an adversary from launching an intended attack – through kinetic or

non-kinetic means; Defeating an attacking aircraft or missile after it has been launched; and Minimizing the impact on friendly force operations if an attack occurs. Each of these tenets is necessary, and each is insufficient without the others.

Prevention – sometimes referred to as “left of launch” operations – is the process of neutralizing an adversary's missile forces through strikes on their launchers, storage, support, or C2 systems. “Prevent” operations are an essential part of air and missile defense because of the size of potential adversary weapons inventories and because no “defeat” capability will be 100% effective. This link between offensive and defensive operations for IAMD is critical. Defense system capability and capacity must provide Commanders with time and space to bring offensive systems to bear in order to achieve military objectives – defense alone cannot prevail in a campaign. Neutralizing an adversary’s offensive capabilities – or their willingness to employ them – is the only practical means to defeat an adversary with a large inventory of offensive weapons.

Though the prevention concept and the imperative of defeating adversary air and missile threats “left of launch” is not new, we continue to be challenged by the use of mobile launchers, camouflage and deception, and the employment of hardened or deeply buried storage and support facilities. The use of dedicated tactical aircraft, Special Forces, and UAVs in western Iraq to neutralize mobile SCUD launchers in 1991 and again in 2003 are the most recent examples. Our adversaries developed these passive defense measures in response to the overwhelming superiority the United States enjoyed for decades in long range, precision strike capability. They understand that fixed systems are inherently vulnerable, even when protected by active defense systems.

Attack Operations – designed to degrade an adversary’s air and missile capabilities – are an integral part our doctrine, CONOPS, and plans. Prioritization of specific targets – missile storage, support facilities, and C2 – is part of the work intelligence analysts and operational planners conduct continuously. Modeling, estimating, and predicting the impact of Attack Operations on adversary air and missile capabilities is complex and uncertain. The process to destroy mobile ballistic and cruise missile launchers is part of the Time Sensitive Targeting (TST) process. Again, there is well established doctrine and procedure to conduct TST. The resources a Joint Commander dedicates to TST versus degrading known, fixed targets, will vary over time and is a function of variables such as the threat they pose compared to other objectives, our ability to detect and target these mobile systems, and the degree to which we have degraded an adversary’s air defense systems and established freedom of action in the airspace above potential storage and launch sites.

Overcoming these passive defense measures requires the right combination of persistent sensors tied to a rapid processing and fusion of visual, electromagnetic, and other data to produce target-quality locating information in support of an engagement decision, as well as the precision weapons with the speed and range required to complete the kill chain in a timeframe measured in minutes.

The cruise missile threat to the homeland

The missile threat to the homeland has historically been limited to Russian and Chinese ICBMs. Our defense against these weapons was – and remains – our own strategic nuclear deterrent. As North Korea worked to develop nuclear weapons and long-range ballistic missiles, the United States decided not to rely on deterrence alone, but rather to build a limited defensive capability against these ICBMs – a capability which will also provide defense against a potential

future limited Iranian ICBM threat. Advances in long-range, precision cruise missiles now bring the United States within range of these conventional and nuclear-capable weapons. We are entering an era where many potential threats – not only advanced, long range cruise and ballistic missiles, but also cyber and other threats – now have worldwide reach. As this trend continues to develop, our national policy, plans, and force structure should be reviewed to determine how best to balance the ability and utility of providing active defense of the United States with the capability to hold potential adversaries at risk in order to deter and defeat these potential threats overseas.

As those plans take shape, JIAMDOD remains engaged with NORAD and their work to develop prioritized homeland air defense systems. The Joint Air Defense Operations Center maintains oversight of the National Capital Region Integrated Air Defense System, which consists of surveillance and fire-control radars as well as communication with fighters on alert and surface-to-air missile systems. The Joint Staff is actively engaged with NORAD in further defining the requirements and improving the capabilities of our homeland defense capabilities.

The organization and oversight structure of missile defense programs

The traditional definitions and threat characteristics which have defined our capability development and organizational structures are breaking down. With the development of depressed-trajectory ballistic missiles, guided and maneuvering re-entry vehicles, hypersonic glide weapons, as well as supersonic and very-long-range subsonic cruise missiles, the threats present a complex and nearly continuous threat spectrum across the characteristics of altitude, speed, propulsion type, and range. We also expect potential adversaries to employ these weapons in a coordinated fashion, with evolving manned and unmanned platforms.

While our interceptors are typically optimized for one type of threat or another, most of our sensors, C2 systems, and air and missile defense platforms and units are multi-functional, designed to operate either across the threat spectrum or as part of a “system of systems.” Our organizational structures, which were originally based on these traditional definitions of “Ballistic Missile Defense” or “Air and Cruise Missile Defense,” will continue to evolve into specific roles within the “Integrated Air and Missile Defense” mission area. I do not suggest any single organization will or should have overall responsibility, merely that they will have defined roles and responsibilities in the IAMD mission area. Services will continue to have the mission to field, train, deploy, and sustain warfighting capabilities, focused on their unique operational environments and core missions. MDA is a superb research, development, testing, and fielding organization, and has already been designated as the IAMD Technical Authority, working on not only Ballistic Missile Defense capabilities but also on architectures to support Air and Cruise Missile defense requirements. The Combatant Commands focus on operational plans and C2 of forces, while identifying capability gaps caused by our adversaries’ investment in new air and missile systems. JIAMD, as part of the Joint Staff, supports the Chairman in his responsibility to provide best military advice to the President and Secretary, and by facilitating Joint IAMD coordination, information sharing, simulation, and analysis.

I look forward to answering the committee’s questions. Thank You.