

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## ID TOPIC #1 – Achieving Information Dominance (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	What Warriors Want: Achieving Information Dominance with Near-Mind-Reading Clarity
<b>*TOPIC DESCRIPTION:</b>	An attempt to re-imagine how large amounts of available data are organized, sorted, and made available, to substantial advantage of decision-makers.
<b>*DESIRED OBJECTIVES:</b>	Proposal of a new organizing principle for data in support of strategic decisions
<b>EXTENDED TOPIC DESCRIPTION:</b>	It is not enough to know more--and better--information than your rival in competition or your adversary in crisis or conflict; information dominance implies an overwhelming advantage in the ability to collect, organize, analyze, and prioritize information that will be used to make decisions. This research seeks to identify the most useful elements of knowledge and information and the most agile and efficient methods to widen the gap ahead of competitors endeavoring to do the same thing) but who are unfettered by anything like ethics).
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## ID TOPIC #2 – Cyber Vulnerability (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	"Don't Answer the Door!" Better Anti-Phishing Strategies to Protect Defense Networks
<b>*TOPIC DESCRIPTION:</b>	Cross-apply and extend successful preemptive intrusion-blocking efforts in other sectors to reduce successful phishing expeditions to zero or near-zero.
<b>*DESIRED OBJECTIVES:</b>	Robust and aggressive cyber defense proposal to distinguish and remove only malicious communications
<b>EXTENDED TOPIC DESCRIPTION:</b>	Several successful and consequential intrusions into DOD Information Networks (DODIN) have been enabled when unsuspecting members responded to phishing e-mails with embedded malware or malicious links. This is the equivalent of inviting an intruder into your home through the front door. While significant strides have been made in filtering spam at the enterprise level and using regular training to establish user skepticism regarding unsigned or unencrypted e-mails, breaches continue to occur, with potentially greater levels of damage than previously sustained. This research looks to leverage and cross-apply physical security concepts analogous to the front door peephole and data pattern concepts like those used by telecommunications companies to identify and block "scam likely" phone calls and offer more effective and consistently reliable methods to prevent breaches of DODIN systems, and if breaches yet occur, to limit the damage.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
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<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
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## ID TOPIC #3– Logistics in Cyber Contested Environment (J6)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Logistics in a cyber-contested environment and mitigation strategy(-ies)
<b>*TOPIC DESCRIPTION:</b>	Homeland Defense (strategic) logistics in a cyber-contested environment and mitigation strategy(-ies). Discussion should include Cyber Vulnerabilities- Civilian Infrastructure on Military Operations
<b>*DESIRED OBJECTIVES:</b>	Define critical logistic nodes and the effect of cyber-attack on defense and a mitigation strategy(ies) A prioritized list of critical civilian infrastructure impacting Homeland defense and a mitigation strategy(ies)
<b>EXTENDED TOPIC DESCRIPTION:</b>	What is the effect of adversary cyber attack(s) on civilian infrastructure as they relate to NORAD & USNORTHCOM Homeland Defense Missions.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	USNORTHCOM J6
<b>*SUBMISSION DATE:</b>	31 AUG 2021
<b>DESIRED COMPLETION DATE:</b>	
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

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## A-DA TOPIC #1 – Approach to All-Domain Awareness (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Jack of All Domains: Toward a Seamless Approach to All-Domain Awareness
<b>*TOPIC DESCRIPTION:</b>	An effort to describe and absorb all-domain awareness in terms of the common characteristics of domains, not their defining differences.
<b>*DESIRED OBJECTIVES:</b>	Insight(s) suggesting strategic opportunities to understand and apply all-domain awareness
<b>EXTENDED TOPIC DESCRIPTION:</b>	The issue with domains (Land, Air, Maritime Surface, Maritime Subsurface, Space, Cyber, Nanometric, etc.) is that they bin nicely and lend themselves to awareness tools optimized for the physical characteristics of the domain. But, just like J-codes in the Headquarters and AORs among the CCMDs, this leads to a natural compartmentalization that impedes integrated operations. This research is intended to postulate a paradigm-shifting understanding of how the different domains interact, in a way that will revolutionize situational awareness across all of them (including those not yet identified).
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
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<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
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## A-DA TOPIC #2 – Terminal Maneuvering (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Mr. Miyagi Catches a Fly(ing HGV): Tracking, Intercept, and Engagement of Terminal-Phase, High-Speed, High-Maneuver Weapons
<b>*TOPIC DESCRIPTION:</b>	Analyze the physics-limited envelope of a typical hypersonic glide vehicle (HGV) and design a low-cost, high-confidence defense scheme employing an area-defense array.
<b>*DESIRED OBJECTIVES:</b>	Innovative HGV terminal defense proposal suitable for prototype consideration
<b>EXTENDED TOPIC DESCRIPTION:</b>	With dramatic increases in the speed and maneuverability of modern weapons in their terminal phase of flight, defenders are faced with a challenge not unlike the character in "The Karate Kid" who tries to catch a fly with a pair of chopsticks; a successful intercept requires the utmost in concentration, speed, and agility. Short of developing a "flyswatter" the size of the several-states envelope of a modern Mach 5+ terminal-maneuvering weapon, this research explores innovative options to track, intercept, and destroy such a vehicle, including the deployment of an array of defensive elements across the footprint of one or more identified clusters of critical infrastructure.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
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<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
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## A-DA TOPIC #3 – 6<sup>th</sup> GEN OTH Radar (J32)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	6th-Gen Over the Horizon Radar Wide Area Persistent All Domain Awareness across CCMDs and Space Integration
<b>*TOPIC DESCRIPTION:</b>	Research 6th-Gen Over the Horizon Radars that provide Wide Area Persistent All Domain Awareness across CCMDs including Space Integration, feasibility and employment concepts
<b>*DESIRED OBJECTIVES:</b>	Provide N&NC recommendations on the sensor capabilities, processing, best placement with a 360 degree mindset on defending the homelands, while integrating todays sensors including Space Integration, feasibility and employment concepts
<b>EXTENDED TOPIC DESCRIPTION:</b>	Research 6th-Gen Over the Horizon Radars that provide Wide Area Persistent All Domain Awareness across CCMDs including Space Integration. Consider integration with existing systems and architecture and make recommendation based on findings for locations future employment and feasibility to assist N&NC Detect, Track, ID, and Warn against peer competitor threats.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD J32
<b>*SUBMISSION DATE:</b>	1 SEP 21
<b>DESIRED COMPLETION DATE:</b>	31 MAR 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	Request Funding
<b>COMMENTS:</b>	Future advanced Long Range, Wide Area, Over the Horizon Radar Detection of modern threats is required to enable decision, space and time for national leaders in support of the defense of the homelands

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## A-DA TOPIC #4 - Competition (J52)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Competition: Are NORAD and USNORTHCOM postured, positioned, and prepared? What does Competition mean to NORAD and USNORTHCOM?
<b>*TOPIC DESCRIPTION:</b>	The Competition Continuum is documented in Joint Doctrine Note 1-19 (2019). The missions of NORAD and USNORTHCOM ultimately serve to protect North America and deter aggression. Are NORAD and USNORTHCOM effectively competing? What capabilities are necessary to effectively compete?
<b>*DESIRED OBJECTIVES:</b>	<ol style="list-style-type: none"> <li>1. Assess NORAD and ability to compete.</li> <li>2. Develop insights on the necessary capabilities and conditions for NORAD and USNORTHCOM to compete.</li> </ol>
<b>EXTENDED TOPIC DESCRIPTION:</b>	The Competition Continuum is documented in Joint Doctrine Note 1-19 (2019). The competition continuum describes a world of enduring competition conducted through a mixture of cooperation, competition below armed conflict, and armed conflict. The missions of NORAD and USNORTHCOM ultimately serve to protect North America and deter aggression. Are NORAD and USNORTHCOM effectively competing? What capabilities are necessary to effectively compete?
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM/J52
<b>*SUBMISSION DATE:</b>	01 September 2021
<b>DESIRED COMPLETION DATE:</b>	NLT 31 July 2022
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>* MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

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## A-DA TOPIC #5 - Integrated Layered Defense (J52)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Integrated Layered Defense of the Homeland: National Security Prerequisite or Preoccupation?
	Integrated Layered Defense of the Homeland comprises all domains (e.g., air, land, maritime, space, cyberspace) and geographies (e.g., global, regional, and local). Integrated Layered Defense protects United States' vital national interests.
<b>*DESIRED OBJECTIVES:</b>	<ol style="list-style-type: none"> <li>1. Assess Integrated Layered Defense of the Homeland as a national security prerequisite</li> <li>2. Develop insights on policy for Integrated Layered Defense</li> </ol>
<b>EXTENDED TOPIC DESCRIPTION:</b>	Integrated Layered Defense of the Homeland comprises all domains (e.g., air, land, maritime, space, cyberspace) and geographies (e.g., global, regional, and local). Integrated Layered Defense creates the balance between offensive and defensive actions necessary to protect United States' vital national interests. An Integrated Layered Defense is the result of coordinated efforts with adjacent Combatant Commands, Allies and Partners, and Whole of Government/Interagency to deter and, if necessary, defeat threats.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM/J52
<b>*SUBMISSION DATE:</b>	01 September 2021
<b>DESIRED COMPLETION DATE:</b>	NLT 31 July 2022
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

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# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## DS TOPIC #1 – Decision Superiority (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	OODA Think It? Melding Artificial Intelligence and Machine Learning with Human Intuition, Experience, and Ethics to Outsmart Opponents
<b>*TOPIC DESCRIPTION:</b>	Consider new approaches to the way humans employ big data to make agile decisions, and recommend a method that confers a substantial advantage.
<b>*DESIRED OBJECTIVES:</b>	Proposal of a new organizing principle for data in support of strategic decisions
<b>EXTENDED TOPIC DESCRIPTION:</b>	The well-seasoned OODA Loop for decision-making (Observe, Orient, Decide, Act) has served the military well, especially in the sense of "operating inside the decision loop" of one's opponent. The advent of AI and ML has tightened the cycle of the traditional OODA Loop, however, such that commanders are challenged to stay even one step ahead of an enemy equipped with these tools. This research proposes a search for a new construct for decision-making, one that leverages the extraordinary speed of big-data AI and ML and that builds in risk mitigation strategies to enable commanders to be bold, resolute, and consistently successful.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

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## DS TOPIC #2- C-sUAS Track Data Integration (J3)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	C-sUAS Track Data Integration
<b>*TOPIC DESCRIPTION:</b>	Security agencies at all levels of the US Government need warning "decision space" to react at the tactical level in protecting people and critical infrastructure from a sUAS threat. This requires a situational awareness picture, accessible and understandable by all security partners, which is fed by databases and any sensors that detect the track.
<b>*DESIRED OBJECTIVES:</b>	Determine: <ul style="list-style-type: none"> <li>- List of required actions at Federal, State, &amp; lower governmental levels</li> <li>- Timeline of required actions</li> <li>- Policies needed at federal, state &amp; local levels</li> <li>- Strategy for unity of actions among governmental levels</li> </ul>
<b>EXTENDED TOPIC DESCRIPTION:</b>	Homeland security and defense partners need to establish integrated sUAS awareness and warning capability which enables detection and appropriate reaction/mitigation by federal, state, local, tribal and territorial security partners. As part of this vision, these template tools, open architecture and agreements will be used to reduce gaps in coverage, to improve detection and to enable mitigation of low-observable and small air threats (to include sUAS) throughout North America.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD J3
<b>*SUBMISSION DATE:</b>	2 SEP 21
<b>DESIRED COMPLETION DATE:</b>	Jun 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	Research will need to start with federal statutes which lay out info sharing restrictions between law enforcement, defense department and local security organizations.

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## DS TOPIC #3 - Deterrence by Denial (J52)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Deterrence by Denial: Is achieving Decision Superiority (DS) through Globally Integrated (GI) All-Domain Awareness (DA) and Information Dominance (ID) enough?
<b>*TOPIC DESCRIPTION:</b>	Unlike deterrence by punishment, deterrence by denial seeks to influence an opponent to either not do something or do something they would rather not do. Are NORAD and USNORTHCOM strategic principles (DA, ID, DS, GI) enough to achieve deterrence by denial?
<b>*DESIRED OBJECTIVES:</b>	<ol style="list-style-type: none"> <li>1. Assess the viability of deterrence by denial</li> <li>2. Determine if NORAD and USNORTHCOM strategic principles (DA, ID, DS, GI) achieve deterrence by denial</li> <li>3. Recommend additional principles if DA, ID, DS, and GI do not achieve deterrence by denial</li> </ol>
<b>EXTENDED TOPIC DESCRIPTION:</b>	Deterrence by punishment is fearing the prohibitive costs of reprisal. Deterrence by denial strives to influence an opponent to either not do something or do something they would rather not do. Nuclear deterrence remains the bedrock of the United States' defense. Reliance on nuclear deterrence alone creates an exploitable gap if competitors believe they can achieve objectives below the nuclear threshold. Directed in the Unified Command Plan, CDR USNORTHCOM and NORAD is responsible for planning, organizing, and as directed executing homeland defense operations within the USNORTHCOM area of responsibility. Are NORAD and USNORTHCOM strategic principles (DA, ID, DS, GI) enough to achieve deterrence by denial?
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM/J52
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<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

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## GI TOPIC #1 – Global Integration (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Yours (nope), Mine (nope), and Ours (yep): Incentivizing Cooperative Force Allocation to Optimize Globally Integrated Operations
<b>*TOPIC DESCRIPTION:</b>	Identification of suitable executive-level incentives to adopt and execute cooperative force allocation principles to support global strategic objectives
<b>*DESIRED OBJECTIVES:</b>	Proposal for a system that encourages cooperative global force allocation
<b>EXTENDED TOPIC DESCRIPTION:</b>	Like trying to get Services to operate together before Goldwater-Nichols and the Joint Qualification System made Joint experience a prerequisite for higher command, so too the Combatant Commands, Services, and Combat Support Agencies continue to compete for resources based on regional or functional equities at the expense of cooperation and integration on a global scale. This research seeks to identify an architecture of incentives, preferably intrinsic and altruistic rather than contrived or mandated, of recognized value at the highest levels of leadership, that will foster a cooperative approach to force allocation that maximizes the effectiveness of a globally integrated strategy and its attendant global operations.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
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<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

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## GI TOPIC #2 – Polar Orbits (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Sittin' Pretty (Long): Ultra-Dwell Schemes for Polar Satellites
<b>*TOPIC DESCRIPTION:</b>	Describe a system of many small, less-expensive satellites equitemporally spaced in a single polar orbit to achieve persistent coverage of a polar region
<b>*DESIRED OBJECTIVES:</b>	Estimate feasibility, technical aspects, and cost projections for a persistent polar coverage solution.
<b>EXTENDED TOPIC DESCRIPTION:</b>	Equatorial geostationary orbits offer continuous coverage of the portion of the Earth within their steady gaze, but they are effectively limited to a certain swath of latitudes above, below, and centered on the Equator; there is no equivalent coverage for the two polar regions, due to the way Earth spins on its axis. This research conceives of a multi-satellite cluster-dwell scheme involving many small satellites in a single, highly elliptical polar orbit (think of the Windows 5-dot animation while an application loads) where several satellites at or near the apogee have linked, distributed Earth-viewing responsibilities, with a consistent number of satellites in the dwell cluster maintained as the departure of the cluster's lead satellite coincides with the arrival of a new trailing satellite.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
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<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## GI TOPIC #3 – Unified Campaign Plan (MFN G5)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Unified Campaign Plan (UCP) Review
<b>*TOPIC DESCRIPTION:</b>	Review, revise, or replace UCP
<b>*DESIRED OBJECTIVES:</b>	Provide a mechanism to better posture the nation for integrated security.
<b>EXTENDED TOPIC DESCRIPTION:</b>	<p>The utilization of GCCs allows regional focus and expertise. It also provides our enemies with gaps and seams to exploit. Further, it does not adequately address a whole of government solution, to include the private sector, when dealing with homeland defense. While the UCP is part of the issue, insofar as GCC boundaries/delineations is concerned, the larger issue is one of efficacy of the regional geographic construct and whether the benefits it provides (alignment with partners, regional expertise, etc) outweigh the seams and gaps it creates vis-à-vis trans-regional threats and limited resourcing.</p> <p>One could argue, that the moves made in the 2018 NDS (Global Campaign Plans, coordinating authority, etc) seem to indicate the need for reform. There is utility in having regional alignment but is the current divisions optimal? Has AFRICOM as a stand-alone entity been value added? Are there enough synergies to align existing GCCs (e.g. NORTH/SOUTHCOM). Finally, does the GCC construct facilitate "whole of government" solutions or hinder them? Should some form of functional alignment be investigated?</p>
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	MFN G5
<b>*SUBMISSION DATE:</b>	31 Aug 2021
<b>DESIRED COMPLETION DATE:</b>	As necessary to provide synergy with NSS, NDS, NMS re-writes.
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	N/A
<b>COMMENTS:</b>	A changing global operating environment necessitates a more rapid, globally integrated, and whole of government security apparatus.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## GI TOPIC #4 - HD Investments (J8)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	American Way of War
<b>*TOPIC DESCRIPTION:</b>	Is the American way of war, focusing on the away game, relevant in today's globally interconnected world?
<b>*DESIRED OBJECTIVES:</b>	Explore the need for homeland defense (HD)
<b>EXTENDED TOPIC DESCRIPTION:</b>	The current and previous Administrations provided National Security Guidance that codified, "First, our fundamental responsibility is to protect the American people, the homeland, and the American way of life" ( <a href="https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf">https://trumpwhitehouse.archives.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905.pdf</a> ) and "It is our most solemn obligation to protect the security of the American people." ( <a href="https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf">https://www.whitehouse.gov/wp-content/uploads/2021/03/NSC-1v2.pdf</a> ) The DOD objectives specifically list "defend the homeland" as the first of four top level items. Yet, many in DOD minimize the need to HD investments compared to the away game - taking the fight to an adversary. Given the national level conversations about China and Russia developing weapons that can reach the homeland, does the threat of US retaliation provide enough deterrence to protect the homeland in a Pacific or European conflict?
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	N&NC/J8 S&T
<b>*SUBMISSION DATE:</b>	Fall 2021
<b>DESIRED COMPLETION DATE:</b>	Summer 2022
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	N/A
<b>COMMENTS:</b>	Can be viewed from a policy, logistics, doctrine, or technology perspective

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #1 – Quiet Submarines (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	SOSUS So What? Tracking the New Generation of Silent Submarines
<b>*TOPIC DESCRIPTION:</b>	Review and offer revisions to current submarine tracking systems, and identify and propose new tracking opportunities based on signals hidden in aggregated data.
<b>*DESIRED OBJECTIVES:</b>	Comprehensive way ahead proposal for persistent modern submarine tracking
<b>EXTENDED TOPIC DESCRIPTION:</b>	The original SOund SURveillance System (SOSUS) was successful in tracking then-Soviet era submarines, and has been replaced as new technologies and systems have come online. But modern submarines have routinely evaded even the newer detection and tracking systems, inducing substantial uncertainty regarding their exact location. This research reviews, updates, and extends the submarine detection and tracking problem, exploring new ways to exploit known signatures and identifying new signals in aggregate data that may more reliably pinpoint a submarine's position.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**



# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #2 – Large Scale NEO (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Vets and the Unvetted: Leveraging Former Military Members in High-Volume, Low-Confidence Evacuation Operations
<b>*TOPIC DESCRIPTION:</b>	Consider, analyze, and offer, if appropriate, a process for formal accommodation of retired and other honorably discharged military veterans to assist in major crises requiring specialized skill sets.
<b>*DESIRED OBJECTIVES:</b>	Proposal for a comprehensive, standing policy to leverage former military expertise
<b>EXTENDED TOPIC DESCRIPTION:</b>	Noncombatant Evacuation Operations (NEO) events have typically been of limited scale such that the capacity of existing forces to receive, vet, and transport candidate evacuees has not been exceeded. The recent experience during the evacuation of US and sympathetic Afghan nationals from Afghanistan quickly outstripped the capability of onsite forces, leading to a tenuous reliance on the Taliban to screen personnel approaching the Kabul airport gates. On their own initiative, a number of former military members with experience in Afghanistan coordinated to assist with other evacuations over and above the official US Government totals. This research examines whether and how the availability of former military members can be accommodated and even planned for in future crises, from legal, logistical, and other perspectives, especially in those situations falling short of the threshold for a Presidentially declared national emergency (e.g., 10 U.S.C. § 688 Retired Recall to Active Duty).
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

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# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #3 – Maritime Logistics Bottlenecks (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Any Port in a (Container Ship) Storm: Relieving Strategic Shipping Bottlenecks through a Distributed Port Plan
<b>*TOPIC DESCRIPTION:</b>	Update the original dispersed homeport strategy initiated by the Navy in the 1980s and apply it to offer a broad, resilient alternative for US maritime cargo capacity.
<b>*DESIRED OBJECTIVES:</b>	Defense-enhanced, cost-benefit validated distributed port cargo handling proposal
<b>EXTENDED TOPIC DESCRIPTION:</b>	Maritime transport of shipping containers is experiencing a significant backlog that has ramifications for DOD that is forecast to last for months or years, if not indefinitely. Title 10 Navy, Title 14 Coast Guard, and Title 46 Merchant Marine capacities notwithstanding, private sector bottlenecks for materials and critical components loom as a challenge for DOD in meeting mission requirements. This research proposes to address one aspect of the problem--container ships backed up while waiting to unload at a few key ports--through policy changes, economic incentives, and port protection infrastructure, to recommend a dispersed array of lower-capacity seaports to service DOD logistics requirements, not unlike the Strategic Homeport concept implemented in the 1980s.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #4 – Lo-Alt Hi-Spd Cruise Missiles (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Surface Tension: Countering Modern Nap-of-the-Earth Air Weapons
<b>*TOPIC DESCRIPTION:</b>	Design an "electric fence" defense scheme for multiple high-speed, low-altitude, low-signature cruise missiles to acquire, track, engage, and destroy these weapons.
<b>*DESIRED OBJECTIVES:</b>	Defense design proposal for component systems enhancing current capabilities
<b>EXTENDED TOPIC DESCRIPTION:</b>	Terrain-following cruise missiles are nothing new; what has changed is the marked increase in proliferation, speed, range, and stealth of these weapons, resulting in a substantially greater threat to infrastructure located deep within the heartland. This research advances and evaluates a number of unconventional strategies to acquire, track, engage, and destroy next-generation cruise missiles, including using available sensor data in new, integrated ways and employing inexpensive interceptors that ensure the cost to defend is less than the cost to attack.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
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<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

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# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #5 – Transportation Mode Flexibility (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	A Pallet for Every (Transportation) Palate: Mode-Independent Packing and Labeling for Shipping Flexibility
<b>*TOPIC DESCRIPTION:</b>	Explore, identify the critical elements for, and design a near-universal palletization and labeling system to support intermodal transportation flexibility.
<b>*DESIRED OBJECTIVES:</b>	Preliminary plan estimating the cost (or cost savings) and resiliency gained through mode independence
<b>EXTENDED TOPIC DESCRIPTION:</b>	Each of the principal transportation modes (rail, truck, air, ship) has experienced improvements over time in speed, capacity, and efficiency. DOD has leveraged the various modes to move extraordinary volumes of cargo, whether prepositioned or just-in-time. Yet, some materials may remain beholden to a particular mode of transportation, not because of suitability, but of packaging. This research develops a system of modular, universal palletization applicable to as much of the DOD stock inventory as practicable, with the goal of packaging and labeling materials such that a shift in transportation mode is more readily accomplished (and still regulation-compliant) when the originally designated sector is saturated, damaged, or otherwise unavailable, simultaneously increasing resiliency and decreasing the risk of a crippling incapacitation of any one sector.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

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# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #6– Small Unmanned Aerial Systems (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Go Small or Go Home: Can the Small UAS Threat be Neutralized by a Swarm of Even Smaller Vehicles?
<b>*TOPIC DESCRIPTION:</b>	Conceive of and describe a linked-swarm system of very small, high-speed unmanned aerial systems (ss-UAS) to defeat larger (but still small) s-UAS weapons.
<b>*DESIRED OBJECTIVES:</b>	Design and unit cost proposal for an ss-UAS defense concept
<b>EXTENDED TOPIC DESCRIPTION:</b>	Small unmanned aerial platforms are becoming more lightweight, numerous, agile, and capable of carrying a host of dangerous payloads. Many large-scale sensors are designed to detect larger platforms, allowing these s-UAS platforms to approach much closer to a target before detection, if they are detected at all. A counterintuitive defensive approach to this threat mimics one found in nature--many larger birds are successfully hounded out of an area by smaller, faster, more maneuverable birds; this research explores the concept of whether a swarm of very small, high-speed, highly maneuverable UAS defenders (ss-UAS) could form the basis of an effective defense against s-UAS weapons.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #7 – Agile Deliberate Planning (J7)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Molasses through a Firehose: Rethinking Deliberate Planning for Greater Agility
<b>*TOPIC DESCRIPTION:</b>	Apply the modern weapon system "remove and replace" maintenance strategy to the development and update of deliberate planning products to improve rapid mission adaptability.
<b>*DESIRED OBJECTIVES:</b>	Proposal for a restructured, agile deliberate planning approach and process
<b>EXTENDED TOPIC DESCRIPTION:</b>	Almost by definition, deliberate planning is a time-consuming, meticulous, thorough process to identify and address the many considerations in developing a viable and comprehensive operational plan or other governing framework. Periodic review and update of such plans occurs at regular intervals, typically every few years, but the pace of operational innovation and adaptation in response to advances by competitors and potential adversaries has rendered standing plans increasingly out of touch and, therefore, less reliable as the point of departure in crisis. This research envisions a radically different approach to deliberate planning, one with a modular "remove and replace" framework that can quickly adapt to emerging operational demands without losing the larger underpinnings of a consistent strategic concept.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM
<b>*SUBMISSION DATE:</b>	2 Sep 21
<b>DESIRED COMPLETION DATE:</b>	31 Jul 22
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None identified
<b>COMMENTS:</b>	Point of Contact may be updated based on sponsorship within Headquarters NORAD and USNORTHCOM.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #8 – Force Allocation (MFN G5)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Force Assignment, Allocation, Apportionment
<b>*TOPIC DESCRIPTION:</b>	Review, revise, change current Force Assignment/Allocation/Apportionment methods and priorities.
<b>*DESIRED OBJECTIVES:</b>	Provide a more realistic construct that enables effective force management to meet global security issues.
<b>EXTENDED TOPIC DESCRIPTION:</b>	Current Force Allocation methodologies tend to support the deployment of ad hoc formations to meet COCOM needs. Additionally, apportionment practices create false impressions for each COCOM regarding true force availability.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	MFN G5
<b>*SUBMISSION DATE:</b>	31 Aug 2021
<b>DESIRED COMPLETION DATE:</b>	As necessary to provide synergy with NSS, NDS, NMS re-writes.
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	N/A
<b>COMMENTS:</b>	A changing global operating environment necessitates a more rapid, globally integrated, and whole of government security apparatus.

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #9 - Russian Strategy (J2)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	How Does Russia Think About Strategy?
<b>*TOPIC DESCRIPTION:</b>	Product will serve as a partial answer to CCDR NORAD & USNORTHCOM's question - How Does Russia Think About Strategy?
<b>*DESIRED OBJECTIVES:</b>	Product describing Russia's Defense Design to include strategic planning processes, institutions, and Research and Development process.
<b>EXTENDED TOPIC DESCRIPTION:</b>	<ul style="list-style-type: none"> <li>- Russia's Defense Design and Deliberate Strategic Planning Process, Institutions, and Key Individuals</li> <li>- Processes, Institutions, and Key Individuals Involved in the Drafting of Russia's Long-Term Threat Assessments</li> <li>- Russia's Research &amp; Development, Acquisition and Field Deployment Process, Institutions and Key Individuals for the Integration of New Operational Concepts and Weapons Systems into the Russian Armed Forces</li> </ul>
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	Russia Pol-Mil, NORAD & USNORTHCOM J2
<b>*SUBMISSION DATE:</b>	September 1, 2021
<b>DESIRED COMPLETION DATE:</b>	
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**



# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #10 - US Civil Defense Force (NGIO)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Should the US Civil Defense Corps be reestablished?
<b>*TOPIC DESCRIPTION:</b>	
<b>*DESIRED OBJECTIVES:</b>	Determine if there is a current or emerging need, and the potential for unmet domestic response organization and capabilities that could be addressed by a largely volunteer Civil Defense organization, similar to that which existed during WWII and the Cold War? If so, propose what its form and functions should be.
<b>EXTENDED TOPIC DESCRIPTION:</b>	<p><u>Facts bearing on the question:</u></p> <ul style="list-style-type: none"> <li>• The strategic environment has changed             <ul style="list-style-type: none"> <li>• The homeland is no longer a sanctuary</li> <li>• Potential adversaries are more aggressive, numerous and capable</li> <li>• Competitors and potential adversaries are forming alliances</li> <li>• Any conflict with those adversaries will be global rather than regional impacting the homeland</li> </ul> </li> <li>• The US and its allies ability to deter attacks on the homeland across the spectrum of conflict has diminished</li> </ul> <ul style="list-style-type: none"> <li>• The US capability, resources and forces available to address multiple challenges simultaneously has not grown since the 1990's</li> <li>• US military force structure and regional OPLAN's require significant mobilization of the Reserve Components, including the National Guard as the primary combat reserve and domestic response force</li> <li>• Simultaneous execution of regional OPLAN's, or a conflict fought globally, will leave few forces available to support/protect US critical infrastructure, local governments and the domestic population</li> <li>• Recent events such as the pandemic, civil disturbances, natural disasters, wildland fires and overseas commitments exceeded interagency capacities resulting in unprecedented "peace time" mobilization of the reserve components within the homeland to meet the needs</li> </ul> <p>FEMA, federal and state emergency services and first responder departments and agencies did not have the capacity to cope with these recent events nor are they projected to be able to effectively address the impacts of a significant attack on the homeland</p>
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM National Guard Integration Office
<b>*SUBMISSION DATE:</b>	02 September 2021

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

## TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

<b>DESIRED COMPLETION DATE:</b>	End of the academic year
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	TBD
<b>COMMENTS:</b>	<p><u>Background</u> Historically, Civil defense comprised activities designed to minimize the effects of war on the civilian population, deal with immediate emergency conditions, and quickly restore vital utilities and facilities damaged in an attack. The Office of Civilian Defense (OCD) was established by President Franklin D. Roosevelt in May 1941. It was responsible for planning community health programs and medical care of civilians in the event of a military attack on the United States. With the Federal Civil Defense Act of 1950, Congress charged the FCDA with creating shelter, evacuation, and training programs that state and local governments would implement. Local governments could request federal funds for these programs and for post-attack health care and reconstruction. In 1979, President Carter signed Executive Order 12179 merging the successor to the Federal Civil Defense Administration (The Defense Civil Preparedness Agency–DCPA) into today's Federal Emergency Management Agency (FEMA). In 2003, FEMA was merged into the US Department of Homeland Security.</p> <p><a href="https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/federal-civil-defense-act-1950">https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/federal-civil-defense-act-1950</a></p> <p><a href="https://en.wikipedia.org/wiki/United_States_civil_defense">https://en.wikipedia.org/wiki/United_States_civil_defense</a></p>

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #11 - Chinese Enablers of Fentanyl Production in Mexico (J57)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Chinese Policies and their impact in Mexican TCO Fentanyl Production
<b>*TOPIC DESCRIPTION:</b>	Identify the Chinese policies that enable continued flow of finished fentanyl and precursor chemicals to Mexico
<b>*DESIRED OBJECTIVES:</b>	<ol style="list-style-type: none"> <li>1. Identify Chinese laws, regulations, cultural considerations etc. that undermine efforts to stem precursor chemical flow into Mexico.</li> <li>2. Distinguish between Chinese government (CCP) and Chinese Transnational Criminal Organization activities (government complicity? Criminal enterprise?)</li> </ol>
<b>EXTENDED TOPIC DESCRIPTION:</b>	Chinese national laws, the structure of government organizations (state owned enterprises vice private) and differences in legal and business practices likely impact how China addresses/fines/sanctions companies or individuals facilitating the shipment of fentanyl precursor chemicals to Mexico. Better understanding how China's system is set up and enables/mitigates these shipments would provide a foundation for N&NC J2, NCJ3 and N&NCJ5 efforts to combat the raw components of fentanyl production in Mexico as part of a whole-of-government approach to countering transnational organized crime.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	NORAD and USNORTHCOM/J57
<b>*SUBMISSION DATE:</b>	01 September 2021
<b>DESIRED COMPLETION DATE:</b>	NLT 01 June 2022
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	
<b>COMMENTS:</b>	

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**

# TAB 2 - AY 2021-2022 PROSPECTIVE RESEARCH TOPIC NOMINATION

## OTHER TOPIC #12 - Future RUS OOAD (CDR, Naval Air Forces, US Atlantic Fleet)

<b>CLASSIFICATION:</b>	UNCLASSIFIED
<b>*RESEARCH TOPIC TITLE:</b>	Expected frequency of future RUS OOAD and required force laydown to effectively support NORAD and NORTHCOM.
<b>*TOPIC DESCRIPTION:</b>	From an aviation perspective, this will define the HSM/MPRF capacity requirement to ensure trained and ready forces are available for homeland defense.
<b>*DESIRED OBJECTIVES:</b>	To define/determine CRUDES sustainment capability to meet TASW requirements
<b>EXTENDED TOPIC DESCRIPTION:</b>	The study will assess whether NAVNORTH's current Task Group Greyhound (service retained tasking) and six-month PTDO using CRUDES in sustainment is a suitable sourcing model for TASW.
<b>*REQUESTING/SPONSORING ORGANIZATION:</b>	Commander Naval Air Forces, U.S. Atlantic Fleet
<b>*SUBMISSION DATE:</b>	03 September 2021
<b>DESIRED COMPLETION DATE:</b>	TBD
<b>*POINT OF CONTACT:</b>	N&NC/J72
<b>*MAILING ADDRESS:</b>	NORAD&USNORTHCOM/J72, 250 Peterson Rd (BLDG 1470), Suite 401, Peterson AFB, CO 80914-3813
<b>*EMAIL ADDRESS:</b>	n-nc.peterson.n-ncj7.mbx.j72-education-team-omb@mail.mil
<b>*TELEPHONE NUMBER (Commercial and DSN):</b>	719-554-1150
<b>FAX NUMBER (Commercial and DSN):</b>	N/A
<b>AVAILABLE FUNDING, IF ANY:</b>	None
<b>COMMENTS:</b>	

**PLEASE NOTE: \* DENOTES MANDATORY FOR SUBMISSION TO THE DATABASE**