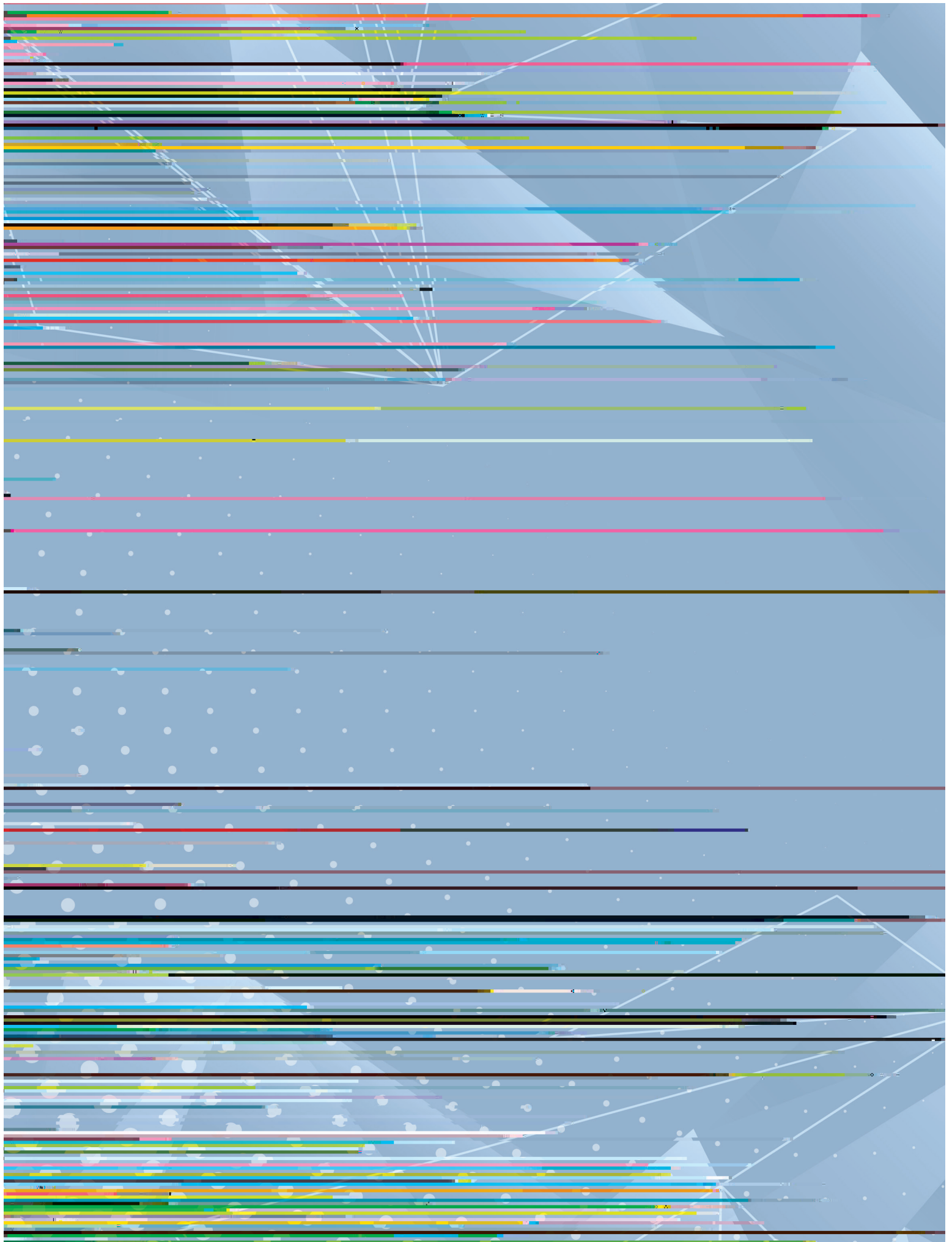
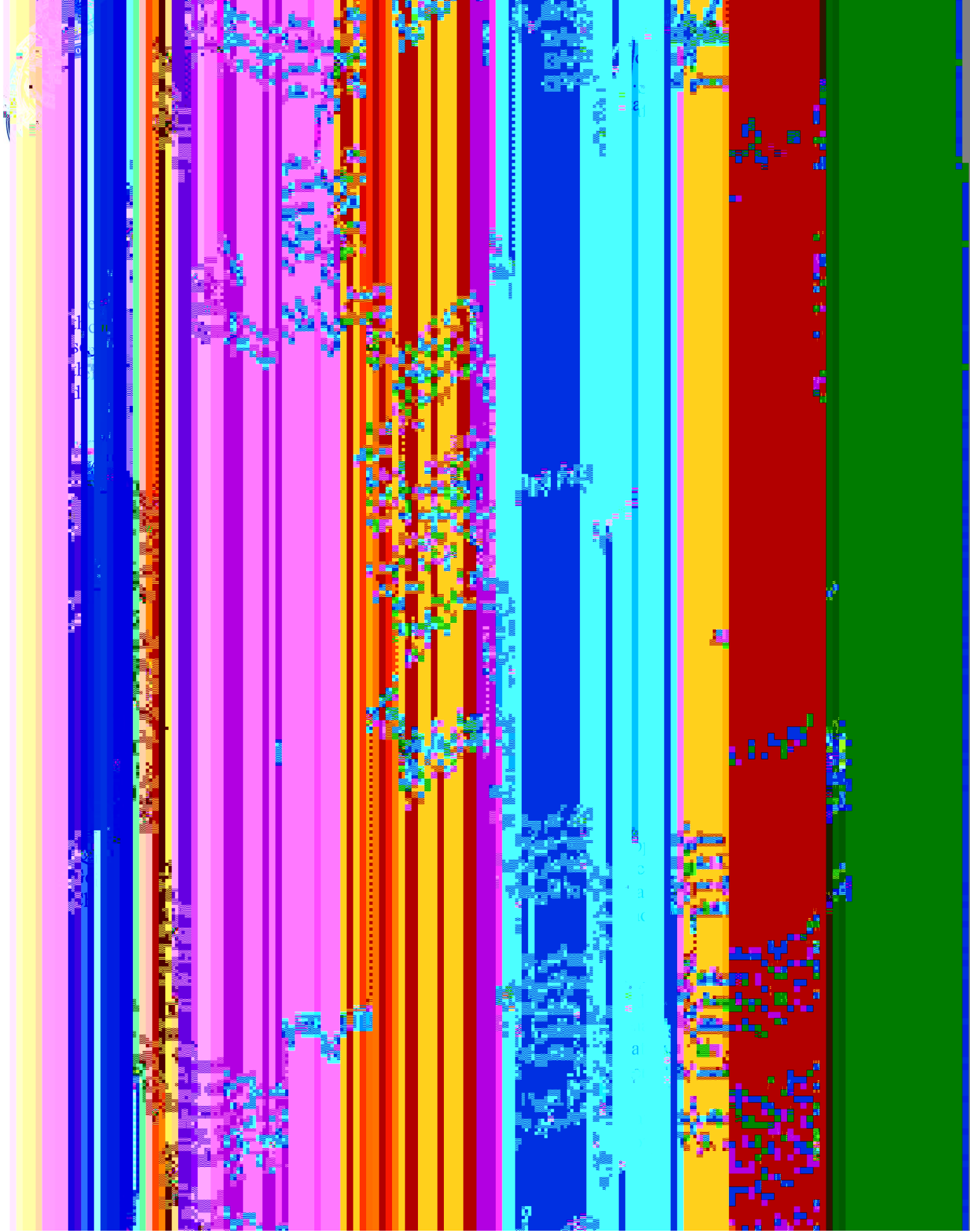


The background features a complex, abstract design. At the top, a dark blue square is centered. Below it, a network of thin, white lines connects various points, creating a web-like structure. The background is filled with numerous horizontal lines in various colors (blue, green, yellow, red, purple) and a field of small, white, star-like dots. The overall color palette is dominated by blues and oranges, with a white text box in the center.

THE DEPARTMENT OF THE AIR FORCE

ENSURING A STABLE ARCTIC THROUGH VIGILANCE, POWER PROJECTION, COOPERATION, AND PREPARATION





The Department of the Air Force Arctic Strategy

The Department of the Air Force Arctic Strategy fully supports the 2018 National Defense Strategy (NDS) and implements the 2019 Department of Defense (DoD) Arctic Strategy embracing the DoD's desired Arctic end-state: A secure and stable region where U.S. national interests are safeguarded, the homeland is protected, and nations address shared challenges cooperatively.

The strategy outlines the Department of the Air Force's unique role and optimizes Air Force and Space Force capabilities for the region. The Arctic's increasing strategic importance, coupled with the



Department of the Air Force Equities in the Arctic

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Great Power Activity in the Arctic

Russia is an Arctic nation. No other country has as much permanent military presence above the 66th parallel. Russia's recent Arctic initiatives include

Changing Physical Environment

Changes in the Arctic environment are transforming Arctic ecosystems⁶. The environment is often cited as the greatest adversary to Arctic operations. Variations in weather and climate forecasting hamper missions and long-term planning for Joint Force needs and capabilities. Thawing permafrost affects infrastructure across the region, including Department of the Air Force hangars and runways. Reductions in single and multi-year polar ice are accelerating the rate of coastal erosion, putting Air and Space Forces' already sparse infrastructure at risk.

Increasing Access & Human Activity

Melting ice, transportation advances, and extraction innovation are exposing resources once thought inaccessible. The Arctic is estimated to harbor over 90 billion barrels of oil reserves, 30% of the world's untapped natural gas, and around one trillion dollars' worth of rare earth minerals.⁷ Extended seasonal access, growth in commercial traffic, and an uptick in tourism increase international competition and the potential need for disaster response.

A secure and stable Arctic region, founded on respect for national sovereignty and the international

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1. Vigilance in All Domains

The Air and Space Forces' ability to protect the homeland requires Arctic domain awareness including threat detection, targeting and tracking, FRPPXQLFDWLRQV DQG ZHDWKHU to build a reliable operational picture.

DoD Arctic Objectives

The Department of the Air Force will contribute to the achievement of the three objectives set out in the 2019 DoD Arctic Strategy:

- Defend the homeland
- Compete when necessary to maintain favorable regional balances of power
- Ensure common domains remain free and open

Lines of Effort

The Air and Space Forces will enhance vigilance, reach, and power through four coordinated lines of effort:

1. Vigilance in All Domains
2. Projecting Power through a Combat-Credible Force
3. Cooperation with Allies & Partners
4. Preparation for Arctic Operations

Missile Defense

'HIHQGLQJ WKH KRPHODQG LV WK DoD. The Department of the Air Force is responsible for the majority of the architecture used to detect, track, and engage air and missile threats that could transit the Arctic. These architectural assets include COBRA DANE, which provides real-time missile data, and the new Long Range Discriminating Radar at Clear, Alaska, which provides persistent long-range, mid-course discrimination, precision, and tracking of missile threats. Adding to these capabilities, cooperation with Canada through NORAD is critical to the defense of the northern approaches. NORAD relies on radar systems like the aging North Warning System, a network of aerospace surveillance radars in northern Canada and Alaska, for early detection of adversary air threats.

The DoD's ability to detect threats and defend North America is challenged by rapidly advancing strategic competitors' capabilities. Today's threats have longer range, better precision, and lower radar cross-sections. To counteract evolving threats:

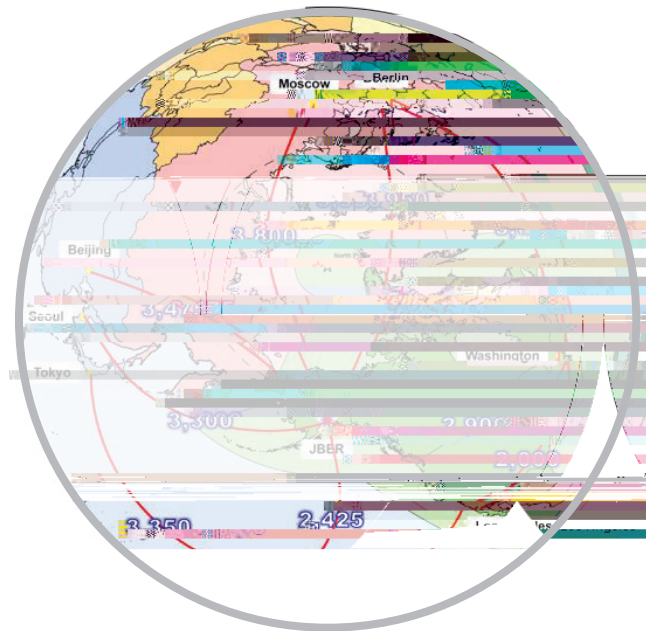
- The Department of the Air Force will enhance its missile defense surveillance system in the northern tier while continuing to work with Canada to identify materiel and non-materiel solutions to the North Warning System.
- The Department of the Air Force will improve domain awareness through new technologies ranging from over the horizon radar to space assets.

The Air and Space Forces will work as part of the Joint Force to develop an Arctic communications roadmap that examines current capabilities and emerging technologies.

2. Power Projection through a Combat-Credible Force

Protecting America's interests in the homeland and abroad entails more than a vigilant defensive

SRVWXUH 7KH \$UFWLF DOVR DIIRUGV VLJQLÀFDQW VWUDWHJLF opportunities for all-domain power projection.





The Arctic is among
the world's most
strategically significant
regions – the keystone
from which the U.S.
Air and Space Forces
exercise vigilance.

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- The Department of the Air Force must adopt Arctic-grade, resilient permanent infrastructure and expeditionary, modular components.
- The Department of the Air Force, with the Joint Force, will develop Arctic basing concepts that complicate enemy targeting systems.

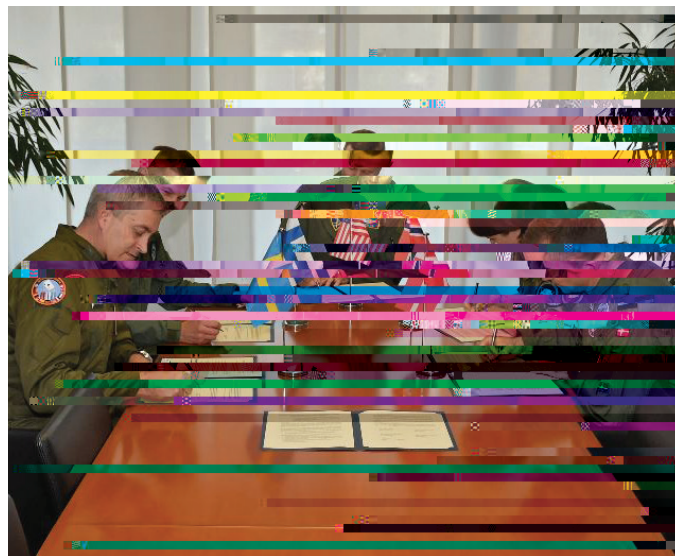
Infrastructure Development

Base infrastructure across the northern tier is a central component to Air and Space Forces' power installations across the Arctic region. To survive in the region, materials need to meet standards including: high thermal efficiency; long-term durability; tolerance to repeated freeze and thaw cycles; and resistance to permafrost degradation. Infrastructure in many austere locations, like Thule, Greenland, has deteriorated due to extreme environmental factors. To address this:

- The Department of the Air Force will advocate for investment in installations that match future operational needs.

3. Cooperation with Allies & Partners

Alliances and partnerships represent key strategic advantages for the United States in the Arctic. The United States maintains strong defense relationships with six of the seven other Arctic nations. Four are NATO Allies: Canada, the Kingdom of Denmark (including Greenland), Iceland, and Norway; and two are NATO Enhanced Opportunities Partners: Finland and Sweden.



Air Chiefs from Sweden, Finland, U.S., Norway, Denmark sign the Arctic Development and Change Air Force Q 2017



Interoperability is especially critical in the Arctic region due to terrain, limited access, and the low-density of domain awareness assets. Through the centuries, regional allies and partners have developed concepts, tactics, techniques, and procedures from which the Joint Force can greatly

Joint exercises demonstrate cooperation, enhance interoperability, and expand deterrence. In air, maritime, land, space, or cyberspace, exercises mitigate operational uncertainties and build trust with allies and partners. Working with local indigenous communities, who possess unique knowledge about the region, helps Air and Space Forces understand the Arctic environment and enriches training and exercises. To build on these efforts:

U.S. cooperation with Arctic allies and partners is based on shared values as well as defense, safety, and security goals in the region. Building these

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whose actions are not aligned with U.S. interests, and bolsters U.S. national security. The Department of the Air Force must work to highlight shared goals, ensuring a peaceful and stable region where international norms and standards are

A substantial portion of the Department's Arctic expertise resides with the Air Reserve Component. The Alaska Air National Guard conducts civilian and military search and rescue operations with its Guardian Angel personnel,

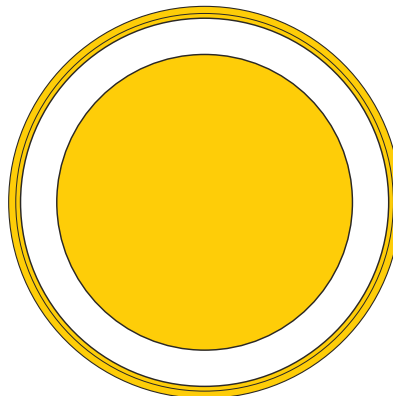
Conclusion

Since its earliest days, the Department of the Air Force has recognized the strategic importance of the Arctic. The Department will continue to lead as the DoD's most active and invested department in the region – critical as a juncture between the homeland, the North Atlantic, and the Pacific, the Department will continue innovating along four lines of effort:

The Air and Space Forces value the Arctic. As the Arctic's importance increases, so too will the Department of the Air Force's focus on the region.

The Department of the Air Force's Arctic Strategy supports both the NDS and DEDs effort to secure a stable region where U.S. national interests are safeguarded, the homeland is protected, and nations address shared challenges cooperatively.

1. Vigilance in All Domains
2. Projecting Power through a Combat-Credible Force
3. Cooperation with Allies & Partners
4. Preparation for Arctic Operations



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