Exercise Report Northern Edge 2019

Alaskan War

The biennial Northern Edge exercise took place in the wilds of Alaska this summer.

Hans Antonissen and Patrick Roegies joined around 10,000 military personnel and 200 aircraft from the US Air Force, navy and marines as the latest technologies were put to the test.

Below: A USAF F-15C Eagle assigned to the 44th Fighter Squadron from Kadena Air Base, Japan, launches from Eielson AFB for a Northern Edge mission. All photos Hans Antonissen and Patrick Roegies

he name may have changed over the years, but there are good reasons why the location of the Northern Edge exercise has remained constant for almost half a century. "Alaska is not only the most strategic place in the world, [but it also] provides the exercise with 110,000 square miles of space between the Joint Pacific Alaska Range Complex [JPARC] and Gulf of Alaska, which enables the exercise [participants] to train according to a set of objectives and a level of intensity that cannot be replicated anywhere else." So says Northern Edge 2019 exercise director Brig Gen Daniel 'Rock' Hieres.

This exercise dates back to 1975 under the appropriately named Jack Frost event. Four iterations took place until 1979 (with the exception of 1978) by which time it was evolving into a joint forces

exercise. The final one took place from January 10 to February 15, 1979 and it focused on command and control techniques including joint task force operations.

It was subsequently renamed Brim Frost and the first of these was held in 1981 and five such US readiness exercises took place until 1989 under the same name. By then it had expanded significantly, adding Airborne Warning and Control System (AWACS), satellites and electronic intelligence among other disciplines.

In 1991 it changed again to become Arctic Warrior as Pacific Command assumed control and added live-fire elements and in 1993 it became known as Northern Edge. The exercise was also extended, testing and validating Alaska Command's ability to field a deployable joint task force and enhancing the participating forces' skills for working together,

















1: US Navy air power was prominent in this year's exercise, including carrier-based assets from CVW-9. Operating from Eielson meanwhile was flamboyantly painted EA-18G 168765 'NL-530' – the 'boss bird' from VAQ-134 'Garudas', 2: A four-ship of ATAC Hunters breaks to land at Eielson. Working alongside the 18th AGRS, the ATAC Hunters provided the requisite mass to genuinely tax the Blue forces. 3: Final preparations for the pilot of double-MiG-killing Eagle of the 44th Fighter Squadron. F-15C 84-0025 'ZZ/18 WG' is the wing's flagship and was credited with shooting down two Iraqi MiG-23s during Desert Storm in January 1991.





potentially anywhere in the world. Bringing the operational aims up to date, Brig Gen Hieres told *AFM*: "Northern Edge comprises three main objectives we are aiming to develop during the exercise. The primary goal is the development of tactical skills, air interdiction, air-ground [and] sea targets. The second is the development of our communications and the third is [evolving] command and control."

Keeping the edge

The latest Northern Edge replicates a series of potential crises set in the Indo-Pacific region. This year's event – held from May 13 to 24 – included a US Navy carrier battle group after an absence of almost a decade. The US Marine Corps also formed a Special Purpose Marine Air Ground Task Force (SP-MAGTF) that comprised a fully integrated air and land battle group.

Maj Larin Wong, a Pacific Air Forces exercise planner told *AFM*: "Northern Edge allows aviators and other operators to train against a very robust adversary threat scenario. It really allows [us] to practise new tactics and techniques for future combat operations and weapons employment." Bringing the air

force, marines and navy together is a relatively rare occurrence, but it underlines the importance of this activity in Alaska. In the event of major conflict, the three main US services will need to seamlessly come together in order to bring substantial mass to bear.

Wong says: "It's a joint fight.

That is why being in Alaska is so advantageous to us; I don't think we have another space that has as big of a training area that combines air, land and sea. Being here allows us to work communication lines and practice command and control of a co-ordinated fight with air and sea [assets] to make sure we can utilise the right tactics and perfect our capabilities as a joint force."

Taking part for the second time as an F-35B squadron was Marine Fighter Attack Squadron 121 (VMFA-121) 'Green Knights', which came to Joint Base Elmendorf-Richardson (JBER) en masse from its permanent residence at Marine Corps Air Station Iwakuni, Japan. According to commanding officer Lt Col Michael Rountree, one of the main drivers for coming to Northern Edge was to work with forward arming and refuelling points (FARPs) for several days. This is a key tactic for marine Lightning Ils;

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the ability to move closer to the 'fight' and ramp up mission rates. The importance of this activity for the marines resulted in what became almost an exercise within and exercise, especially given the task of getting all the logistics in the right place at the right time. Rountree told *AFM*: "Northern Edge is one the most robust venues we can participate in. It's about fighting the way we would

as part of a joint force – so this was probably the best large force training exercise we can get."

Aggressor action

As one would expect, the 18th Aggressor Squadron (AGRS) from Eielson AFB near Fairbanks was at the heart of the action replicating enemy forces with its F-16Cs. The squadron was supplemented by Hawker Hunter Mk58s of the Airborne Tactical Advantage Company (ATAC). "We are the primary threat replicators during this exercise," said Lt Col Jason 'Majik' Monaco, boss of the 18th. "The reason it's such a big deal is because it allows all of these units to come from around the world and use the overwater and overland airspace, the threat simulators and ranges. Northern Edge provides unmatched training

for all the pilots and support members involved." Monaco described his role as 'MiG 1' as being the mission commander for all Red Air aggressor forces as well as the safety observer for the entire air battle.

Navy comeback

After an absence of ten years, a US Navy aircraft carrier participated in this year's

Tanker Task Force

The scale of Northern Edge means that the fighters rely heavily on tanker support originating from all over the country, with USAF KC-10s and US Marine Corps KC-130Js operating out of JBER to support the resident KC-135Rs at Eielson. KC-135 instructor pilot Capt Darren Ward told *AFM*: "What's unique for Northern Edge is that we have multiple airspace [areas] that each require a different approach for aerial refuelling. We

have to look at all the fuel requests and get the tankers there at the requested time and place."

Tanker tasking is run through JBER and Ward says: "We come in pretty early during the planning phase. Experienced mission leaders know the best plan in the world doesn't work if you don't have the fuel!" Maj William Nana, detachment commander of a three-aircraft KC-135R Tanker Task Force that

was deployed from Kadena, Japan, commented on the popular Stratotankers. "This 60-year-old lady is still doing very well. My father flew them, and my son will probably do so too. She is built to last and proves it every day." Although deliveries of the

new KC-46A Pegasus have started, the KC-135 still remains the backbone of the USAF tanker community for the foreseeable future.



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Northern Edge in the shape of the USS *Theodore Roosevelt* (CVN 71), which operated in the Gulf of Alaska with Carrier Air Wing Nine (CVW-9) embarked. It marked another example of the navy's focus on Arctic security and operations in the region around Alaska, in line with the US National Defense Strategy.

The carrier strike group generated a high tempo of

sustained operations, not just involving the air assets but also the destroyers, working as an integral part of the overall battlespace and teaming with P-8A maritime surveillance aircraft as well as all the other land-based participants.

The exercise overall accounted for 1,400 sorties and some 3,900 flying hours. "Northern Edge, first and foremost, is used to replicate our most challenging Indo-Pacific theatre scenarios," said Lt Col Ty Bridge, Pacific Air Forces exercises division deputy division chief from Joint Base Pearl Harbor-Hickam, Hawaii. He praised the value of "being able to perform joint interoperability, tactics and procedures, and utilise the entire capabilities available to the Joint Pacific Alaska Range Complex

[JPARC] and Gulf of Alaska".

Bridge said the goals for the exercise were to assess advanced equipment and future operations and to put those plans through significant rigor to ensure that what is being proposed is effective.

Brig Gen Heires added: "My confidence in our future ability to dominate the air, land and sea fight have never been higher."

1: One of Eielson's resident 18th Aggressor Squadron F-16Cs gets airborne to provide participants with some high-end Red Air. Block 30 serial 86-0270 'AK' is one of the unit's jets wearing an appropriate Arctic colour scheme. 2: An interesting visitor to Eielson during Northern Edge was US Navy EP-3E Aries II 156517 '517'. Built as a P-3C, it was converted as an intelligence-gatherer in Greenville, South Carolina, in 1988 and has served with Fleet Air Reconnaissance Squadron One (VQ-1) since 1992. 3: Eagles were also provided by the USAF's 433rd Weapons Squadron, including F-15C 83-0027 'WA', making a full-afterburner departure. The 433rd is assigned to the USAF Weapons School at Nellis AFB, Nevada. Its host, 57th Wing, also brought F-35As to Northern Edge. 4: F-35B 168730 'VK-16' was one of the VMFA-121 jets that made the trip to Joint Base Elmendorf-Richardson from MCAS Iwakuni, Japan. The F-35Bs started each day at JBER and then regenerated at a FARP for the next mission before returning to base.



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