Fortified air defense units along the Russian Arctic coast were staples of the Soviet Union’s national defense strategy for the Arctic. The coastal defense units at Tiksi (Yakutia, Sakha Republic) played an important role in securing Arctic air space and fortifying Russia’s northern coast. Geographically, Tiksi is approximately 2,600 kilometers from the United States (Alaska). The Russian government has repeatedly announced ambitious plans to expand Tiksi Airbase to include 11 new structures consisting of a dormitory and administrative buildings, a diesel-run power station, and water and fuel reservoirs. The base was designated to receive and operate a regiment of sophisticated S-400 surface-to-air missiles to enhance air defense, which could later be supplemented by “radiotechnical regiments that monitor the defended airspace.” However, current satellite imagery does not show evidence of the S-400 system or the considerable expansion. Russia appears to be significantly behind in its plans for Tiksi, or unable to send permanent equipment as other Arctic bases are of higher priority.

Tiksi’s completed development would represent a fusing of Russia’s military needs and its ambitious economic plans, specifically as it relates to new construction on Tiksi Airbase and anticipated additional infrastructure. These “dual-use” features combine Russian military presence for territorial defense and power projection with capabilities designed to also address civilian security needs such as search-and-rescue, oil spill response and maritime domain awareness in anticipation of increasing commercial shipping through the Northern Sea Route (NSR). “Dual-use” aspects of Russia’s military and infrastructure is increasingly a standard feature in its Arctic presence along the NSR. However, delays and incomplete outposts may suggest financial limitations are restricting to Russia’s Arctic ambitions.

BACKGROUND

Since World War II, there have been at least three Russian air facilities on Tiksi—Tiksi North Airbase (abandoned, 72.038300° 128.471993°), Tiksi West Airbase (abandoned, 71.693779° 128.680116°) and the current joint-use Tiksi Airbase and Airport (71.702462° 128.895752°). During the Cold War, Tiksi Airbase maintained an air detachment from the 37th Air Army of the Supreme High Command, in addition to long-range strategic bombers as well as intelligence collection, communications, and early warning units in the surrounding area. Following the collapse of the Soviet Union, many Arctic military facilities were either abandoned, ceded to local government, or deteriorated due to a lack of maintenance and change of defense priorities. In the case of Tiksi Airbase, a detachment of Tu-95MS
strategic missile-carrying bombers (The North Atlantic Treaty Organization or [NATO] refers to the TU-95 as the Bear Bomber) was withdrawn and replaced by a separate combined air squadron that included An-26 transport aircraft (NATO reporting name Curl), and helicopters for search-and-rescue operations. But by September 2012, even this air detachment was withdrawn from Tiksi due to significant runway deterioration. The airbase subsequently closed in October 2012 for runway repairs.

**SATELLITE IMAGERY OF TIKSI FACILITIES DOES NOT MATCH OFFICIAL RUSSIAN ANNOUNCEMENTS**

On May 6, 2019, Secretary of State Pompeo stated that “Russia has been able to renovate old bases and infrastructure. It claims to have built 475 new military sites, including bases north of the Arctic Circle, as well as 16 new deep-water ports. It secures this presence through sophisticated new air defense systems and anti-ship missiles.” However, the limited developments and minimal military equipment on Tiksi suggest it may not be a key outpost for Russia’s enhanced presence, and instead, merely an aspirational project.

Critical to Russia’s ability to assert air dominance in the Arctic is the refurbishment and construction of airbases capable of hosting civilian and military aircraft. The planned refurbishment of Tiksi Airbase began in 2013 and was to include the development of new military facilities and the deployment of new units in the area. Progress has been very slow to non-existent, and original construction focused solely on runway repairs, allowing the airbase to host a multitude of aircraft. This includes the permanent basing of transport and search-and-rescue helicopters, as well as the periodic deployment of interceptor and transport aircraft, Tu-95MS and Tu-160M (NATO reporting name Blackjack) long-range strategic missile-carrying aircraft, and Il-78 refueling aircraft at the airbase.

By 2014, the Tiksi runway was complete and the base was used by airborne troops for field exercises. A unit of Mi-26 heavy transport helicopters (NATO reporting name Halo) was deployed from the Uprun Airbase, Chelyabinsk, to form a mixed aviation unit with Mi-8/-17 helicopters (NATO reporting name Hip). These helicopters subsequently supported the construction of the new arctic base on Kotelny. During 2015, it was reported that an S-400 Triumf surface-to-air missile (NATO reporting name SA-21 Growler) regiment had been deployed in the Tiksi area. The following year, in July 2016, it was announced that Tiksi Airbase would become a permanent base for high-altitude
MiG-31 (NATO reporting name Foxhound) interceptors. In August 2018, Northern Fleet commander Admiral Nikolai Yevmenov announced that a new air defense division was established, and troops would deploy to the Novaya Zemlya archipelago and the Arctic towns of Dikson and Tiksi. Their mission, according to Yevmenov, was to ensure the safety of airspace over the NSR. Five months later, it was reported that the Northern Fleet’s new air defense base at Tiksi was 95 percent complete and that it would consist of 11 interconnected structures including a dormitory, administrative building, a diesel-run power station, water and fuel reservoirs, cantina, garages, and more. Reportedly, this base would operate a regiment S-400 surface-to-air missiles and would later be supplemented by “radiotechnical regiments that monitor the defended airspace.”

Despite the many announcements, these military systems do not appear in the satellite images analyzed. While this does not rule out the possibility that they will be stationed on Tiksi in the future, it is important to note that Russian statements about Tiksi may be overblown and designed to deter foreign nations from the region. In fact, satellite images acquired between 2013 and 2019 show very little construction. The primary features of the Tiksi area are the town, the port of Tiksi, and the Tiksi Airbase, located 6.5 kilometers to the north. Scattered throughout the area are numerous small fuel storage and communications facilities, including an unusually high number of COMINT and SIGINT facilities, such as an old KRUG II CDA (direction finding) installation (71.660426° 128.676842°) – which would likely be used to detect U.S. or NATO intelligence. It is unclear from satellite imagery alone how many of these
facilities are currently active.

While minor construction took place, the physical structure and size of the town and port of Tiksi did not change significantly during this time period.

Tiksi Airbase consists of a single runway that measures 3,100-meters-by-60-meters, a single taxiway, civilian airport facilities, and military airbase facilities—both showing only rudimentary maintenance and servicing capabilities. Additionally, no military aircraft hangers are present, meaning in extreme climatic conditions, maintenance and servicing activities could not be conducted in the open.

Despite the occasional reports discussing their deployment, none of the satellite images examined show the presence of Tu-95MS, Tu-160, or similar long-range strategic missile-carrying bombers. Similarly, although it was announced during 2016 that Tiksi would become a permanent base for high-altitude MiG-31 interceptors, satellite imagery provides no evidence of their—or any other fighter/interceptor aircraft—presence at the base. The lack of hangers or extensive maintenance and servicing facilities strongly suggest that it is unlikely that any of these aircraft could be deployed to Tiksi except for temporary or emergency duty for short durations.

Only five of the images of Tiksi Airbase show passenger, transport, or support aircraft. The largest number of these aircraft were observed in an image from July 12, 2013, when an An-22 strategic heavy lift transport (NATO reporting name Cock), three Il-18D transports (NATO reporting name Coot), four Mi-8/-17 helicopters and a single Mi-6 helicopter (NATO reporting name Hook) were
Subsequent images show a mixed squadron of five-eight Mi-8/-17 and Mi-26 helicopters which provide transport, search-and-rescue, and anti-submarine warfare (ASW) capabilities.

The 2015 reports of the deployment of an S-400 surface-to-air missile unit to Tiksi are not confirmed by available satellite imagery. If deployment did occur, it was likely a temporary deployment—potentially for Arctic field trials. Late-2018 and early-2019 reports described the construction of a small installation of 11 buildings for an S-400 regiment in the Tiksi area. To date, neither the installation nor S-400 missile systems have been definitively identified in the satellite images examined. In sum, and based on available imagery, much of Russia’s plans to bolster and equip Tiksi remain aspirational.

THE PROLIFERATION AND IMPORTANCE OF “DUAL-USE” OUTPOSTS ACROSS THE RUSSIAN ARCTIC

It appears that “dual-use” outposts across the Arctic is a defining characteristic of Russia’s military footprint in the region. In 2009, Russia allocated 910 million rubles (approximately €27.1 million) to construct 10 “dual-use” search-and-rescue centers spanning the NSR with refurbished airfields, ports, and advanced communication systems. Although only a handful are complete, the infrastructure enhances capabilities that are critical to defending Russia’s Arctic territory and securing the NSR.

RADIO-ELECTRONIC DEFENSE

Perhaps Russia’s greatest priority for Tiksi is in its communication and satellite systems. Tiksi is reportedly part of a network of surveillance satellite installations on remote islands running as far east as Wrangel Island – 300 miles from the Alaskan coast. These satellites serve military purposes (supplementing Russia’s early warning radar network, intelligence gathering, and ASW) as well as civilian purposes (search-and-rescue, maritime domain awareness, and communications). As a network, these satellites and radars create a “protective dome” to defend and secure Russia’s Arctic airspace. These capabilities are further strengthened when integrated with air assets – such as the mixed squadron observed on Tiksi, or the potential future deployment (if these plans are realized) of long-range strategic missile-carrying bombers, and basing of high-altitude MiG-31 interceptors, or S-400 surface-to-air missiles. The completion of this network would allow Russia to assert its control over the NSR, and deters outside threats from the air, land, and sea.

On Tiksi, the presence of COMINT and SIGINT facilities, such as the KRUG II CDAA, are for radio direction finding, intelligence monitoring, and search-and-rescue operations. Its potential reach spans an area stretching several thousand nautical miles off Russia’s Arctic coast. If these facilities are active, Russia enhances monitoring of both surface vessel and air activity, and controls the operating space surrounding the NSR. Intelligence collected by the facility would likely be communicated to the Northern Fleet, prompting a quick response to either a civilian incident or military advance by a foreign nation.

The Northern Fleet, and its newly created Center for Radio-Electronic Warfare, is creating a “radio-electronic shield” across the NSR. The network of systems is designed for radio-electronic warfare and includes the Murmansk-
serve as a hub for increased movement of goods from the Arctic to mainland Siberia. In 2017, the Russian government budgeted five billion rubles (€78 million) for the reconstruction of the port and other infrastructure projects. The port currently handles an estimated 67,000 tons of goods with the hope of eventually handling 300,000 tons. Updated port facilities could also support an increase in shipping traffic along the NSR, but it is unlikely that these ports would have deep enough drafts to manage commercial container vessels.

Port facilities are also a focal point for Russia’s integration of military and civilian assets. This could be viewed as both a cost-saving measure and an effort by the Kremlin to enhance its surface and sub-surface capabilities. Ports associated with these “dual-use” outposts like Tiksi, Dikson, Dudinka, and Pevek would expand Russia’s naval reach into an increasingly accessible Arctic Ocean. Russia’s powerful Northern Fleet used Tiksi Bay in 2018, conducting its first-ever warship training, which included a coordinated naval attack on an unequipped coast. As “dual-use” outposts continue to come online across the NSR, similar exercises blurring the line between military and civilian activity could occur with greater frequency.

CONCLUSION

Clearly, all that is announced by the Kremlin when it comes to its military posture in the Arctic is not necessarily true. This is especially true regarding Tiksi today. It appears that Tiksi’s value may be its part in a growing radio-electronic warfare element. It is also important to continue to monitor the development of such “dual-use” network of outposts as Tiksi spanning the NSR as far west as Pechenga and Severomorsk in the Barents Sea, and as far east as Providenya and Anadyr-Ugolny along the Bering Strait. Collectively, these outposts enhance Russia’s forward operating presence and flexible response where it can monitor surface and air domains or respond quickly with power projection assets across the Arctic region. It will be important to watch the use and integration of these “dual-use” outposts within future snap and large-scale exercises. This will help us better understand how they could operationally fit into Russia’s Arctic military strategy.

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3 Ibid., and “Russian Arctic Aerodrome Shut Down Until Year End for Urgent Overhaul Of Runway,” Interfax-AVN, October 4, 2012.


6 “Russia deploys S-400 missile defense systems in Arctic,” RT.com, December 8, 2015.


10 While the satellite imagery examined for this report is not of sufficient resolution some of these Mi-8 helicopters may be the new Mi-8AMTSh-VA version optimized for Arctic operations. “Russian Federation Ministry of Defense will Acquire Five Arctic ‘Terminators’ in 2016-2017,” TASS, May 25, 2016.