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Yokota

Civil-Military Use of U.S. Bases in Japan

By Patrick M. Cronin, Paul S. Giarra, Zachary M. Hosford
and Timothy A. Walton

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Cover Image

Yokota Air Base in Fussa, Tokyo, Japan.

(Photo courtesy of the Tokyo Metropolitan Government.)

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YOKOTA: CIVIL-MILITARY USE OF U.S. BASES IN JAPAN

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I. EXECUTIVE SUMMARY

By Patrick M. Cronin, Paul S. Giarra,
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The United States and Japan should strongly consider making Yokota Air Base available for civilian aviation while simultaneously preserving military readiness and enhancing operational capacity. Doing so could lead to new infrastructure developments with both civilian and military benefits, help solve critical airport shortages for a close ally and potentially open the door to expanded U.S. military use of civilian aviation facilities across Japan. Such a dispersed approach to military operations is well suited to current security challenges and could effectively serve the interests of both allies. If successful, expanding civilian access to Yokota would also set a valuable precedent for other bases in the Asia-Pacific region.

Yokota dual use could buttress both military and economic goals, and the timing seems to be right for such a project. Both Washington and Tokyo want to retain effective military bases in Japan, where the present domestic climate favors a strong alliance. Goodwill remains high in the wake of the alliance's response to the triple disaster of March 2011, and current tensions in the East China Sea have underscored the importance of military cooperation. As a result of expert discussions over the past year, there is now a clearer understanding of the considerable infrastructure enhancements that would improve operational capacity for the U.S. military.

Careful civil-military integration at Yokota Air Base could avoid undermining military control while adding more military capacity through facility improvements. These enhancements could be achieved by following well-established precedents and best practices of dual use, including the instructions governing dual use at Misawa Air Base. Operational hazards could be mitigated through a trial phase that restricts civil use to limited business aviation operations. Equally important, an agreement to open Yokota to some civil aviation could be tied to an agreement to make some civilian airports

accessible to military forces during contingency operations.

Dual use of the Yokota Air Base could be a “win-win” proposition for the United States and Japan. The United States could benefit through enhanced infrastructure and access to other civilian facilities in Japan, whereas Japan would benefit through increased airport capacity, which it desperately needs. The bitter public rancor in Japan regarding U.S. bases in Okinawa – the “Futenma narrative” – might be replaced with a positive “Yokota narrative,” in which both allies gain from a new and more politically sustainable approach to U.S. military bases in Japan.

II. INTRODUCTION

In the eyes of the Japanese public, U.S. military bases are often seen more as a detriment than a benefit. Despite a relatively successful U.S.-Japanese base realignment agreement in 2006, the Japanese public has focused on the controversial issue of U.S. forces stationed in Okinawa. This perception, in turn, has narrowed the attention of policymakers at the expense of the broader security relationship.

The United States and Japan need to identify new opportunities to enhance and sustain their alliance. As one part of this effort, transforming Yokota Air Base into a dual-use facility, available for both military and civilian purposes, would allow the allies to experiment with a new model of cooperation that could address both military and political challenges.

Yokota Air Base is a vital strategic asset for the U.S.-Japan alliance and would play crucial roles in combat, combat support and strategic lift in the defense of Japan. Additionally, Japan would be a central staging base for combat, command and control, and strategic transport operations in the event of a future crisis in Korea, continuing the precedent set during the Korean and Vietnam Wars. Although civil-military integration at Yokota Air Base faces several technical obstacles – including maintenance of adequate ramp space for military operations, potential interruptions in civilian flights during an emergency and possible increases in noise pollution and accidents – these challenges appear surmountable.

Arguments to open the runway and air base at Yokota to some civil aviation have been on and off the alliance agenda since President George W. Bush and Prime Minister Junichiro Koizumi raised the issue in 2003.¹ A subsequent feasibility study rejected the notion because of protracted alliance negotiations over a replacement facility for Marine

Corps Air Station Futenma on Okinawa and concerns that civil aviation might degrade military operational control in a contingency. However, a decision to colocate U.S. Air Force (USAF) and Japan Air Self-Defense Force (JASDF) personnel at Yokota demonstrated that, in general, integration at U.S. bases could confer operational and political benefits.

For dual use of Yokota to be a compelling option for the United States and Japan, military requirements must continue to take precedence over civil economic and transportation concerns. Dual use must also have the potential to increase military capacity. Many U.S. and Japanese interlocutors agree on this principle, and it is the basis for Tokyo's proposals and planning for civil-military integration.

The United States seeks enhanced military capacity not only to defend Japan but also to respond to regional contingencies. As Article IV of the Treaty of Mutual Cooperation and Security between the United States and Japan states, U.S. forces in Japan are intended to be used “whenever the security of Japan or international peace and security in the Far East is threatened.”² Because Yokota Air Base is a strategic logistical and aerial-refueling hub for U.S. operations throughout the Asia-Pacific and Indian Ocean regions, the U.S. military needs to maintain operational control over the base in a number of surge scenarios.³ Although the peacetime day-to-day operations of Yokota may seem modest, military requirements demand maximum flexibility and surplus capacity to handle extra demand in crisis scenarios. During the Vietnam War, for example, Yokota Air Base did reach maximum capacity. More recently, during the 1991 Gulf War and the 2003 Iraq War, use of Yokota Air Base was significantly increased to provide personnel and supplies.

Local politics may support this change. In contrast to an earlier policy of demanding full

reversion of Yokota Air Base to Japanese control, the Tokyo Metropolitan Government's policy is to simultaneously bolster the U.S. military presence and introduce civil aviation at the air base. Some members of the community surrounding the base are concerned about rising noise levels that could accompany additional use, but most of the local community not only appears to support the establishment of a Joint Missile Defense Center in Yokota but also has expressed an interest in a relationship in which the base could become a dual-use facility. America's own experience, both domestically and abroad, suggests that dual-use facilities invariably improve communications and political ties with local communities, sometimes making the difference between having shared access and losing it altogether. Hence, a dual-use approach could more closely integrate the air base with the local community, securing continued support for U.S. military presence in the region.

To evaluate the possibility of expanding Yokota Air Base to civilian as well as military use, the Center for a New American Security conducted a year-long project that included 10 study group sessions in Washington and Japan and numerous meetings with officials and former officials from the U.S. Defense Department, State Department and Air Force, as well as the Japanese Ministry of Defense, Ministry of Foreign Affairs and Japan Self-Defense Forces. The study group sessions also included transportation experts, academics and analysts from both countries, whose experience, analysis and judgments helped to inform the views expressed in this report.⁴

This report examines the potential dual use of Yokota Air Base through the prism of U.S. national security interests and alliance strategy. It starts by assuming that effective U.S. military operational control and capacity are paramount. It also considers, however, the broader strategic context in the Asia-Pacific region, the domestic

The Tokyo Metropolitan Government's policy is to simultaneously bolster the U.S. military presence and introduce civil aviation at the air base.

political context in Japan, the benefits and potential risks of expanding use of Yokota Air Base and the potential benefits to the Japanese economy. The report concludes with a series of recommendations to advance efforts to make Yokota Air Base a dual-use facility and, in the process, contribute to a strong U.S.-Japan alliance.

III. STRATEGIC CONTEXT

The historic postwar bargain of the U.S.-Japan alliance was founded on Japan's provision of military bases in exchange for America's commitment to the defense of Japan. The terms of the 1960 Treaty of Mutual Cooperation and Security between Japan and the United States of America undergird the alliance – often called the “cornerstone” of peace and stability in the Asia-Pacific region⁵ – which has helped prevent major conflict since the end of World War II.

Today, America's forward-deployed military remains the backbone of the U.S. security strategy in Asia, but shifting strategic trends pose major challenges for military bases in Japan and across the region. The U.S. military relies on these bases for joint air combat; command, control, communications, computers, intelligence, surveillance and reconnaissance; lift; aerial refueling; and other operations. At the operational and strategic levels, these U.S. air bases serve as the nerve centers for joint and combined command and control, as well as material and logistics support.

The United States seeks to retain these forward-deployed forces; however, it must do so in the context of a rapidly changing strategic environment. Former Secretary of Defense Robert Gates announced in 2010 that the U.S. government planned to alter its defense posture in Asia to become more “geographically distributed, operationally resilient, and politically sustainable.”⁶ As one part of a much larger effort, civil-military dual use of Yokota Air Base could help the United States achieve these fundamental goals.

There are at least three drivers affecting the review of the U.S. forward-basing structure: the pace of military modernization in Asia, the development of operational concepts that will make it increasingly difficult for the United States to move and maneuver its forward forces, and the lingering political challenges over U.S. bases in Okinawa.

Military Modernization in Asia

Over the past two decades, there has been unmistakable progress in the modernization of many Asian militaries.⁷ Not only have those countries been adding to their arsenals and operational readiness, but many have ongoing territorial disputes with one another, lingering historical and cultural animosities, and opaque policymaking and decisionmaking processes that sow concerns among neighbors.⁸

China's military modernization has been particularly rapid, outpacing its meteoric, if somewhat slowed, economic growth. The Pentagon estimates that China's total military-related spending reached \$120-180 billion in 2011.⁹ Although this spending represents less than 3 percent of China's gross domestic product, China's defense expenditures have more than tripled in real terms over the past decade.¹⁰

Considerable uncertainty about China's intentions is exacerbated by China's behavior and lack of transparency. China has developed weapons systems that significantly increase the capabilities of the People's Liberation Army, not only in the usual military domains of air, ground and naval forces, but also in less traditional areas, including intelligence, surveillance and reconnaissance, space, counterspace and cyberspace.¹¹ The development of China's first aircraft carrier, fifth-generation fighter aircraft and anti-ship ballistic missiles have heightened concern throughout the region – not so much because of the operational capabilities conferred by these systems but because of what they appear to signal about future Chinese capabilities and strategic intentions. Furthermore, China's expanded naval capabilities have allowed the People's Liberation Army Navy and China's numerous “white hull” maritime security agencies to be more assertive in the South and East China Seas, along the Ryukyu Island chain and in the vicinity of the Senkaku/Diaoyu Islands.¹²

All of these capabilities present new challenges to the U.S. basing structure and to the U.S.-Japan alliance more broadly. China's modernizing military capabilities could threaten current U.S. bases in Japan (and elsewhere), given the increased effective range of Chinese weapons and the persistent lack of hardening around U.S. bases in Japan.¹³

An agreement on the dual use of Yokota Air Base could allow the United States not only to improve the base's operational capability but also to further harden the base and disperse operations to civilian airports and JASDF airfields.

The Impact of Anti-Access Strategies on Fixed Bases

A second driver of a new U.S. approach to forward basing in Asia is China's anti-access/area-denial (A2/AD) strategy, which aims to prevent tactical and operational access, and freedom of action by U.S. and allied forces. As part of this strategy, China has been amassing an enormous arsenal of short- and medium-range conventional ballistic missiles, combined with advanced integrated air defense systems, long-range radars, strike aircraft and standoff munitions. This trend threatens America's forward military bases in ways that were not anticipated when the current basing structure was conceived.

The USAF Chief of Staff and the Chief of Naval Operations have written one of the few unclassified explanations of an emerging counter-A2/AD joint operational concept, which was required by the 2010 Quadrennial Defense Review and has been dubbed Air-Sea Battle. They state that "sophisticated adversaries" equipped with next-generation military platforms can "expand the range of the denied area" for U.S. and allied power projection forces and "threaten U.S. aircraft, forward airfields and ports."¹⁴ These concerns are mirrored in Japan's latest annual defense white paper, which observes that "China has been increasing its defense spending, broadly and rapidly modernizing its military forces, mainly its nuclear and

missile force as well as its Navy and Air Force, and strengthening its capability for extended-range power projection."¹⁵

If China is able to successfully develop and integrate the technologies and doctrines necessary to execute an A2/AD strategy, then the risks inherent in the current U.S. base structure in Japan could rise to unacceptable levels. Even the perception that major bases are vulnerable may influence political resolve in a crisis, reducing the likelihood of action by top government officials and thereby significantly reducing the bases' operational value. Although hardening the infrastructure at Yokota Air Base and securing the ability to operate out of additional airports in Japan would only be a small part of a potential U.S. response to counter an A2/AD strategy, they would help mitigate the threat.

Operational and Political Sustainability

Despite an overall improvement in Japanese public support for the alliance with the United States, pockets of dissent remain in Okinawa. Left unresolved, disputes with some quarters in Okinawa (from local constituents to unions and local officials to the governor) could hamper political support for U.S. military operations throughout Japan. At a minimum, basing issues in Okinawa remain a distraction and opportunity cost for the alliance.

The heated dispute over the U.S. military base in Okinawa illustrates the negative consequences of weak public support for U.S. bases. Okinawan pressures have consumed inordinate financial resources and political capital, and overshadowed notable base-management successes in mainland Japan.¹⁶ Tensions on Okinawa further increased in July 2012 when 12 Marine Corps MV-22 Osprey tilt-rotor aircraft were deployed to modernize the aging CH-46 Sea Knight helicopter squadrons currently stationed at Marine Corps Air Station Futenma. Political protests based on perceptions of

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MV-22 safety concerns gathered such momentum that the Japanese government effectively grounded the aircraft pending a safety review.¹⁷ Even though an independent Japanese investigation validated the technical safety of Ospreys, the issue still consumed the time and effort of many of the top security policymakers in Japan, including Minister of Defense Satoshi Morimoto, Minister of Foreign Affairs Koichiro Gemba and even Prime Minister Yoshihiko Noda.¹⁸ This negative “Futenma narrative” dominated the alliance security dialogue for several years.¹⁹

Success at Yokota could change the conversation about basing. Given existing positive relations with the surrounding communities and the Tokyo Metropolitan Government, careful civil-military integration of Yokota Air Base could set a precedent for greater U.S. access to bases and facilities, facilitate the trend toward far-greater U.S.-Japan military integration and confirm positive municipal and prefectural relations with U.S. bases as the rule rather than the exception. In the Tokyo disaster management drill on September 1, 2012, U.S. and Japanese military aircraft conducted an exercise of transporting relief supplies to Haneda Airport. Giving military aircraft access to one of Tokyo’s two major civilian airports – albeit for

a single disaster relief exercise – represented a positive development on which the national governments should follow up.

Japan’s Defense Realignment

Over the past few years, Japan’s defense establishment has been reorienting its posture to address new challenges. Japan has revised its basic national security strategy from “static” to “dynamic” defense, prioritizing agile and flexible forces able to proactively defend Japanese islands and waters.²⁰ This will require Japan to disperse and protect multiple bases within its territory. With the December 2010 release of its National Defense Program Guidelines and five-year Mid-Term Defense Program, Tokyo is adapting to the changing security dynamics in the region. In the first major shift in defense strategy since the end of the Cold War – emphasizing the defense of its southwestern territories and offshore islands – Japan has highlighted the increased relevance of the “first island chain” and the Ryukyu Island straits.²¹ The 2010 guidelines emphasize the need to work with the United States on base realignment to reduce the burden on the Japanese population, especially in Okinawa, which creates political pressures that squeeze operational capabilities within the alliance.²²

The themes of deepening and broadening the U.S.-Japan alliance are reiterated in the Japanese Defense Ministry’s *Defense of Japan 2012* white paper, which sets out ambitious regional mission requirements for the future force.²³ Significantly, this white paper echoed the February 2012 decision that delinked the relocation of III Marine Expeditionary Force personnel from Okinawa to Guam, from the relocation of Marine Corps Air Station Futenma. It also reiterated an April 2012 joint statement by the alliance defense and foreign ministers regarding adjustments to the 2006 United States-Japan Roadmap for Realignment Implementation.²⁴ All of these choices, including moving ahead with returning some areas

previously used for military bases back to civilian use, were designed to “maintain deterrence and mitigate the impact of U.S. forces on local communities.”²⁵

As part of the ongoing Defense Policy Review Initiative, and as specified by the Realignment Roadmap (approved by the U.S.-Japan Security Consultative Committee, or “2+2,” in 2006), notable operational integration and transformational changes are underway or have been completed at several sites on mainland Japan:

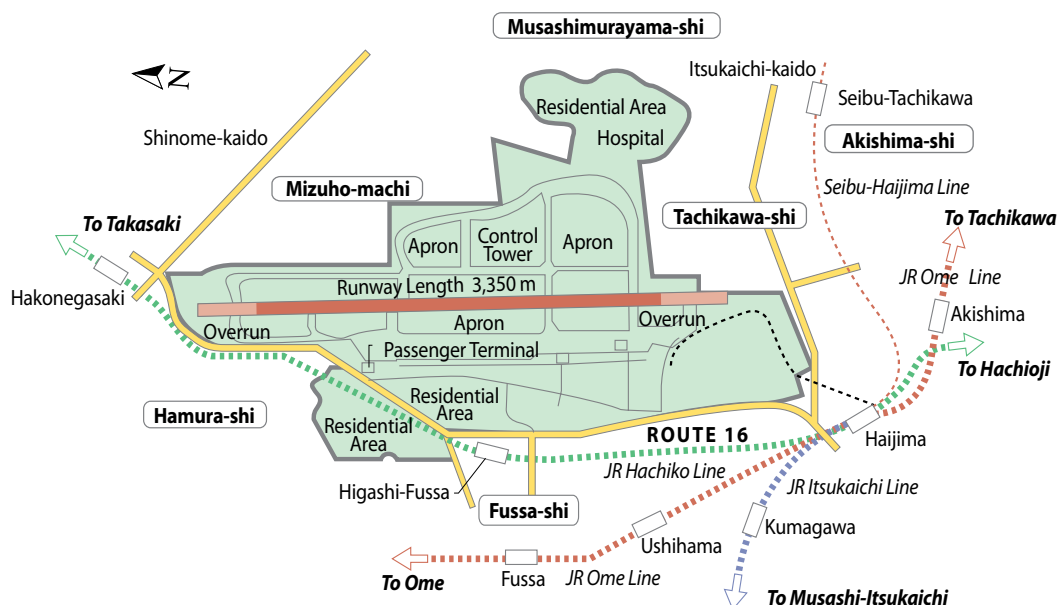
- Yokosuka Naval Base, at which the nuclear-powered aircraft carrier *USS George Washington* has been stationed and specialized maintenance facilities constructed.
- Naval Air Facility Atsugi, which will remain active after portions of Carrier Air Wing Five and some air-wing maintenance facilities relocate to Marine Corps Air Station Iwakuni.
- Marine Corps Air Station Iwakuni, which will receive a significant portion of Carrier Air Wing Five aircraft and maintenance facilities, open a new runway that has been relocated to achieve civil-military dual use with a single runway and institute commercial aviation operations connecting to Haneda Airport this year.
- Camp Zama, where new headquarters and facilities for the Japan Ground Self-Defense Force Central Readiness Force are being built.

At Yokota Air Base, significant additional command and control facilities have been built, reflecting an emphasis on unifying bilateral cooperation with Japan and multinational operations in the region. One major command and control milestone was achieved when the United Nations Command (Rear) headquarters was relocated to Yokota Air Base in 2007. In 2012, the Air Defense Command of the JASDF transferred to Yokota from Fuchu and now is located in its new headquarters next to the U.S. Forces Japan-Fifth

Air Force headquarters and command center complex.

Taken together, these bilateral and national command and control arrangements at Yokota and elsewhere are part of an emerging and closely coordinated bilateral emphasis on improving the operational capabilities of the U.S.-Japan alliance by integrating it more closely: base by base, service by service, and at the theater and regional command level. In contrast to Okinawa, local municipalities throughout mainland Japan – at Misawa, throughout the Kanto Plain, at Sasebo and at Iwakuni – have by and large supported and facilitated the presence and operations of U.S. forces. In addition, the Tokyo Metropolitan Government has been using Yokota Air Base for its regular disaster management drills since 2001 and has been working jointly with U.S. military units since 2006. Tokyo is also motivated by the potential for natural disasters, such as the March 2011 Great East Japan Earthquake. Civil-military integration of Yokota Air Base is an opportunity to further strengthen joint operational readiness and capability.

FIGURE 1: DIAGRAM OF YOKOTA AIR BASE AND THE SURROUNDING TRANSPORTATION INFRASTRUCTURE



Source: Tokyo Metropolitan Government

IV. U.S. FORCES AT YOKOTA AIR BASE: PAST, PRESENT AND FUTURE

Since the end of the Vietnam War, Yokota Air Base has served as a key strategic airlift and logistics hub and is currently home to the 374th Airlift Wing – the only USAF airlift wing forward-deployed in the Pacific. The 374th Airlift Wing includes about 3,500 personnel and focused on operations, mission support, maintenance and medical. The USAF conducts flight operations at the base with C-130H Hercules tactical lift aircraft, C-12J Huron passenger and cargo airlift aircraft and UH-1N Iroquois light-lift utility helicopters.

On a daily basis, Yokota Air Base maintains a peacetime posture, as modified by local warning conditions. However, this peacetime posture does not come close to reflecting the full operational capacity of the base. Crisis and wartime combat and combat support missions would demand greatly increased staging, throughput and sortie rates.

Yokota Air Base has a single runway, 11,000 feet long and 200 feet wide (approximately 3,350 meters

long and 60 meters wide), supported by taxiways and ramp space suitable for a major operational airfield. The base has extensive operational support, maintenance and munitions storage facilities. It includes a passenger terminal for military personnel transiting to locations in Japan and throughout the region, as well as on-base housing for U.S. military personnel stationed there.

Although Yokota Air Base operations are as important as its command and control functions, it is not purpose-built for modern or future combat and combat support operations. Its single runway seriously constrains high-tempo, high-capacity operations and its taxiway layout does not support high-speed ground operations. Despite recent consolidating moves, the military and civilian air traffic control systems in the Tokyo area are not optimized for high-capacity air operations, although incorporating advanced air-traffic control technology and improved traffic routing could significantly improve this situation. Furthermore, road and rail infrastructure, although significantly enhanced in the 1950s, has not kept up with demand.

Yokota Air Base: A History

What today is Yokota Air Base was once part of the Imperial Japanese Army's complex of bases in the Tokyo metropolitan area. Established in western Tokyo in 1940 as Tama Army Airfield, it was a flight test center associated with the Musashino-Nakajima aircraft manufacturing plant. Together with nearby Showa Air Base and Tachikawa Air Base to the east, it formed an aircraft development complex similar to that of the U.S. Army Air Forces at Wright-Patterson Field in Ohio. Tama Army Airfield was untouched by the strategic bombing campaign and, following Japan's surrender, was occupied by the U.S. Army and renamed Yokota Army Airfield in September 1945. In the immediate postwar years, it was home to a variety of reconnaissance, search and rescue, and fighter squadrons.

With the outbreak of the Korean War, operations at Yokota Air Base intensified dramatically. During this period, a variety of U.S. Air Force fighter, bomber and reconnaissance wings conducted combat operations over North and South Korea. Yokota Air Base became part of the United Nations Command, and today is one of seven U.N. Command bases in Japan, with specified international access obligations and operational commitments to stability and crisis response on the Korean Peninsula.²⁶

Because of its continual improvement and expansion since 1945, Yokota Air Base enabled important combat and logistical operations throughout the Cold War, serving as

a cargo and logistics hub, as well as a staging point for complex fighter and bomber operations. Yokota Air Base has been able to surge during crisis and war while supporting regional military operations throughout East Asia because of its inherent flexibility and capacity. Over time, it has been transformed significantly, without ever losing its emphasis on combat and combat support operations. A major milestone occurred in the early 1960s, when the single runway at Yokota was extended to its current length of 11,000 feet.

During the U.S. base realignments in Japan beginning in the 1960s and 1970s, many additional functions were consolidated at Yokota Air Base. One addition occurred in 1974, when the headquarters of U.S. Forces Japan was relocated there from Fuchu Air Station. During the war in Vietnam, combat and logistics operations again intensified at Yokota Air Base, and Yokota became a major waypoint for air operations into Southeast Asia. B-52 bombers en route to other bases deployed via Yokota Air Base and greatly intensified troop transportation operations staged through Yokota. U.S. Air Force fighter squadrons deployed from continental U.S. bases to Yokota Air Base and then forward deployed from there to fighter bases on Okinawa and throughout Southeast Asia.

Major combat and combat support operations at Yokota Air Base drew to a close as the war in Vietnam ended and bases and squadrons were consolidated on Okinawa.

Since that time, Yokota has served as an important logistics and air transportation hub for U.S. operations throughout East Asia, with an increasing emphasis on command and control and operational expansion during crisis. Since the end of the Cold War, Yokota's relative importance has remained undiminished. With base consolidation largely complete, operations from and through Yokota Air Base are crucial to the American force posture in Japan and throughout the region.

V. U.S. MILITARY REQUIREMENTS FOR DUAL USE

Although Yokota Air Base civil-military integration presents a mutually beneficial opportunity for Japan and the United States, establishing such integration at Yokota would require meeting practical security requirements, especially in the event of a contingency operation or conflict. Continued U.S. operational control over the air base would be necessary, regardless of the type of dual use pursued (general aviation, business aviation, low-cost carriers or other approaches). The base would retain its military priority, and a strict agreement would need to be in place and understood within the local community.

Successful implementation of dual use at Yokota Air Base would necessitate a frank recognition by all parties that dual use and military operations are somewhat at odds with each other. In contrast to the commercial efficiency of airfields, military requirements will seldom conform to civilian efficiency standards in peacetime, much less during contingencies.

Precedents for sharing military and civilian use are clear and well established and are reflected in the detailed guidance contained in USAF policies and instructions, as well as in legal agreements and memoranda of agreements from individual cases. Furthermore, exercises can be used to practice reverting from civil to military operational control. Alliance managers would need to minimize the risk of a potential disagreement over whether a particular situation constitutes an emergency. However, such issues are as much political as legal, and even dedicated military bases within Japan (or any other foreign country) are subject to the political cooperation and will of the host government.

In evaluating the prospects for dual use of Yokota Air Base, a former senior military officer

Opening civilian airports to greater military access in contingencies is an issue that deserves serious consideration, and from a U.S. perspective, could well be a quid pro quo for dual use at Yokota Air Base.

well-versed in air base operations considered the introduction of general aviation as a viable possibility when coupled with necessary infrastructure improvements and an emphasis on improving U.S. access throughout Japan.²⁷ Opening civilian airports to greater military access in contingencies is an issue that deserves serious consideration, and from a U.S. perspective, could well be a quid pro quo for dual use at Yokota Air Base. A law to enable U.S. forces to use civilian airports in contingencies was enacted in 2003, but the specific plan for implementation needs to be addressed to fully realize the potential benefit of such access.

Current and Historical Precedents for Shared Civil-Military Use of Bases

Although each case is unique and Yokota Air Base merits its own detailed examination, there are numerous examples of dual-use air bases. (For more on the specific U.S. Air Force [USAF] requirements for civil-military dual use, please see Appendix B.)

Within the United States, there are currently 23 Joint Use Facilities (facilities with a combination of military and commercial and/or general aviation operations), including facilities with fully scheduled commercial civilian operations.²⁸ Hickam Air Force Base (Honolulu International Airport, Hawaii) is a prominent domestic example. The United States also operates out of a number of U.S. and host nation dual-use facilities around the world. Misawa Air Base in Japan, for example, houses three U.S. military services (Army, Navy and Air Force), Japan Air Self-Defense Force (JASDF) units and Japanese domestic commercial aviation.

UNITED STATES

Kirtland Air Force Base – part of Air Force Materiel Command and home of the Air Force Nuclear Weapons Center; adjacent to Albuquerque International Sunport with 22 gates and 5.6 million passengers per year.

Eglin Air Force Base – home of the 96th Test Wing; incorporates the Northwest Florida Regional Airport with 3 gates and 800,000 passengers per year.

Hickam Air Force Base – home to U.S. Pacific Air Forces; shares

runways with adjacent Honolulu International Airport with 42 gates and 21 million passengers per year.

Scott Air Force Base – has provided joint use to civilian aircraft since 1997 as MidAmerica St. Louis Airport.

Sheppard Air Force Base – home of the 82nd Training Wing; adjacent to Wichita Falls Municipal Airport in Texas with 2 gates and 4 flights per day.

JAPAN

Misawa Air Base – home of the 35th Fighter Wing; shares a single runway with Misawa Airport with 2 gates and 3 flights per day.

Marine Corps Air Station Iwakuni – home of Marine Aircraft Group 12 and its fighter and helicopter squadrons, and about to receive Carrier Air Wing 5 fixed-wing aircraft from Naval Air Facility Atsugi; shares its runway with daily commercial flights.

Naha International Airport – JASDF fighter squadrons and Japan Maritime Self-Defense Force P-3 squadrons share this former USAF base with commercial aviation operations.

KOREA

Kunsan Air Base – home of the 8th Fighter Wing; shares a single runway with Gunsan Airport with 2 gates and 3 flights per day.

TURKEY

Incirlik Air Base – home to the USAF 39th Air Base Wing, Turkish Air Force squadrons and British Royal Air Force operations; also a NATO base.

GERMANY

Rhein-Main Air Base – adjacent to Frankfurt Airport, Germany; operated from 1945 to 2005 as the primary passenger and airlift hub for U.S. forces in Europe.

VI. MILITARY BENEFITS OF DUAL USE

As part of a dual-use memorandum of understanding, the U.S. military could pursue Japanese funding for physical upgrades to the existing internal base infrastructure. New infrastructure improvements could include increased taxiway capacity, high-speed ramps, new fuel hard stands, new hangars and facilities, hardened underground fuel storage tanks and improved passive defenses, such as hardened hangars and aircraft revetments. These improvements would increase the operational capacity and survivability of the air base. The level of effort and extent of improvements incorporated by the Japanese government at Marine Corps Air Station Iwakuni is a good example of what might be achieved at Yokota Air Base.

Improvements to external infrastructure – such as establishing improved road, rail and helicopter links to Yokota – would also provide an operational benefit by more closely linking the base to intermodal logistics networks.

On-base and off-base improvements would need to be carefully coordinated with the surrounding municipalities. Planners would need to address local concerns and seek to maximize the potential for municipal and prefectural business development. They also should seek to leverage the increasing political support for additional civil aviation capacity in western Tokyo, ensuring that dual use of Yokota Air Base is clearly interpreted by the Japanese public as a response to that sentiment.

These initiatives introduce a new aspect of the realignment process: bilateral military and civil-military integration across Japan and the region. This integration process, as exemplified at Yokota Air Base, has significant implications for bilateral security. It is meant to redress the longstanding practice of “separate but equal” segregation of U.S. and Japanese forces in order to achieve the great

gains in operational flexibility and resiliency that come from sharing access to facilities. This is a laudable goal, since sharing facilitates and cooperation drives numerous other initiatives that strengthen national, alliance and regional security.

This integrating aspect of base management reinforces the operational vision for the future developed by recent commanders of U.S. Forces Japan and their advocacy for bilateral integration between the U.S. and Japanese militaries. Such integration would not only facilitate operational collaboration and sharing of knowledge among allies, it would also increase the effectiveness of both partners, and also build the political capital necessary to continue joint operations in the defense of Japan. The relocation of the headquarters of the Japan Ground Self-Defense Force’s Central Readiness Force to the U.S. Army’s Camp Zama and the relocation of the JASDF Air Defense Command to Yokota demonstrate this current emphasis on integration. Bilateral integration is especially noteworthy at Yokota Air Base, not least because the Air Defense Command headquarters is also the Ballistic Missile Joint Task Force Headquarters for the Defense Forces.

VII. POTENTIAL MILITARY RISKS

In order to develop plausible plans for civil-military dual use of Yokota Air Base, a number of military challenges would need to be addressed.

The Air Force is concerned that any civil aviation might reduce the ramp space available for USAF and JASDF operations and thereby reduce military operational flexibility, which could weaken the U.S. deterrent posture in the region. For example, without aerial refueling operations conducted from Yokota Air Base, not only are land-based aircraft capabilities reduced but naval aircraft capabilities are also reduced (because aircraft that operate from aircraft carriers often rely on land-based aerial refueling). Because of the relatively short-range unrefueled combat radius of carrier air wings, a reduction in USAF aerial refueling capabilities would dramatically reduce sortie generation rates (and thus available effects) or force U.S. carrier battle groups to operate closer to an adversary's coast, thus significantly increasing the risks they face.

Another concern is that increased noise pollution and local anxiety regarding increased operations would be blamed on the U.S. military. General aviation aircraft appear to be particularly well suited for operations at Yokota Air Base because their small size and relatively quiet operations would produce significantly less noise pollution than large commercial aircraft.

Finally, there is concern that general aviation is a "slippery slope" that would likely lead to pressure to expand civilian operations in the future. Frankness on the part of the government of Japan regarding potential aspirations for Yokota and a strong dual-use Memorandum of Understanding to that effect might allay concerns. There also exists some doubt whether proposed on- and off-base infrastructure improvements would actually be implemented by Japan.

Checklist of Civilian Requirements for Civil-Military Dual Use

In order to properly conduct a civil-military integration of Yokota Air Base, a number of military and civil aviation technical requirements and political considerations would need to be reviewed. To make Yokota Air Base attractive to general aviation operations, Yokota Air Base would need to provide the following services:

- 24-hour/7-day-a-week availability (complemented by Haneda Airport)
- On-demand landing approval
- Rapid handling of arriving passengers, including a dedicated Customs, Immigration and Quarantine area
- Helicopter shuttles to downtown Tokyo
- Ramp space for general aviation aircraft (including space to conduct at least light maintenance)
- Aircraft handling equipment, including fuel and baggage equipment
- Hangar space
- Ramp access
- Waiting facilities for passengers and crew
- Security
- A fully staffed business center in the passenger terminal, including business communications terminals.

KEY AIRPORTS SERVING TOKYO



Source: Center for a New American Security

VIII. CIVILIAN BENEFITS OF DUAL USE

With a population of almost 35 million, Tokyo and its adjacent suburbs comprise the world's largest megacity. Yet it has only two major civilian airports, neither of which services western Tokyo, where Yokota Air Base is located. If civil aviation could be introduced without undermining Yokota's principal purpose as a military base, then shared use could fundamentally rebalance civil aviation in Tokyo. It would also restore Tokyo's competitiveness as an aviation gateway and as a business center. The positive effect of strengthening Tokyo's infrastructure and business profile should be a prime consideration of U.S. alliance managers.

The requirements for civil aviation in the Tokyo metropolitan area have continually increased because of increased civil aviation traffic and the unique demands of the region for increased

general aviation. The airports serving the Tokyo metropolitan area – Tokyo International Airport (commonly referred to as Haneda Airport) and Narita International Airport – have nearly reached capacity. Although the Japanese government has constructed a fourth runway at Haneda and lengthened one of Narita's two runways, demand for civil aviation has outpaced available landing slots. The Tokyo Metropolitan Government estimates that airport capacity will reach its limit again in the early 2020s.²⁹

Dual use of Yokota Air Base would more evenly distribute available airports, shorten travel times and promote domestic and international economic activity throughout Tokyo, especially in the west.³⁰ Contrary to declining demographic trends across most of Japan, the Tokyo metropolitan area has experienced high levels of growth in recent years. The uneven distribution of the region's airports has made travel from the western areas inconvenient and time

consuming: It takes three hours or more to reach Narita Airport from the Yokota area.³¹

Some U.S. national security and transportation specialists are proposing to start with business aviation operations as a first phase of Yokota civil-military use. Compared with regular commercial aviation, business aviation does not require large-scale infrastructure and makes fewer demands on military operations. Improved access to Tokyo from overseas would also meet a demand in the U.S. business community.

Demand has outpaced capacity not only in the commercial aviation segment of the market but also in general aviation, particularly business aviation. The flow of general aviation flights from North America to Asia has gradually increased, but it is not coming to Tokyo and is largely bypassing Japan. Indeed, given the economic size of Japan, levels of aviation have been relatively low, and Singapore and Shanghai have thrived as alternative regional business aviation hubs. This is due to three factors: Limitations on business aviation access at the crowded Narita and Haneda airports have dissuaded flights; comparatively onerous regulations for business aviation in Japan have hampered business aviation activity within the country; and Japan's advanced domestic rail transportation network facilitates swift domestic travel at the expense of domestic business aviation. However, the increasing demand for aviation from North America and Asia and the growth in international commerce could supersede these dynamics.³²

Business aviation at Yokota Air Base is potentially important on several levels. Business aviation airports contribute extensively to local economic health.³³ The benefits to the cities and towns surrounding Yokota Air Base are analogous to those of Teterboro Airport in New Jersey. Teterboro is essentially New York City's business aviation airport and is a perfect model for what might be achieved at Yokota, as well as an example of the

local effects of a busy corporate aviation facility. A recent study showed that the airport created 15,554 jobs and generated \$670 million in salaries and \$1.8 billion in sales annually.³⁴

Nationally, business aviation at Yokota Air Base would foster greater connections between global economic centers and Tokyo, which is Japan's economic growth engine and center of international business. Successful corporate executives need to come to Tokyo for face-to-face negotiations and to close deals on short notice, a practice currently stymied by capacity and regulatory barriers to corporate aviation.

Regionally, business aviation at Yokota could become a competitive counterweight to the developing business aviation gateways and maintenance centers developing at Shanghai, Singapore and elsewhere, where corporate executives are now going to close deals instead of Tokyo. The relative lack of landing slots for business aviation at Narita and Haneda – and the inflexibility of the current system – increases the likelihood that Yokota Air Base will be viewed as an attractive option for business aviation. Tokyo is also vying for the 2020 Summer Olympics, and the dual use of Yokota Air Base is a key element of its bid.³⁵

After assessing the impact of introducing business aviation, a second phase of expanding dual use at Yokota might involve trying domestic commercial flights. Domestic commercial air travel out of Yokota would meet demand from western Tokyo and complement airport capabilities in the wider metropolitan area.

IX. NEXT STEPS AND POLICY RECOMMENDATIONS

Civil-military dual use of Yokota Air Base could be mutually beneficial for the United States and Japan, and both nations should press forward by developing specific proposals for shared use and assessing their respective costs and benefits. However, officials must reach a consensus on the kinds of steps that would guarantee effective use during a crisis while still filling a political and commercial need by expanding civilian aviation in western Tokyo. While this report examines civil-military dual use of Yokota Air Base from a political and military perspective, a recent MITRE report (summarized in Appendix A) illustrates that this integration is also technically feasible

The government of Japan has established a cabinet-level liaison committee to consider Yokota civil-military integration. The objective of this *renrakukai* is to restore the proposal to the bilateral agenda. The U.S. government should oblige Japan in this matter.

The first step is for national officials involved in the established consultative mechanism (namely, the State and Defense Departments and their Japanese counterparts) to restore the issue of Yokota Air Base dual use to the official agenda. The second step is to establish a Track 1.5 approach that includes businesses, local community members and other relevant stakeholders who are not part of the official 2+2 process. In support of those talks, decisionmakers would benefit from analyzing several additional questions:

- How would dual use enhance rather than diminish military air capacity?
- What is the technical and political feasibility of notional enhancement plans?
- How would military operational control be maintained (despite concerns about new physical impediments that come with parallel civil aviation operations)?
- How might the U.S. and Japanese militaries gain better access to civilian airports (e.g., with Haneda as a primary case study)?
- With Yokota as a model, how can the U.S. and Japanese governments develop a long-term roadmap for routine use of multiple military airfields in Japan for joint and bilateral air operations exercises?

The governments could undertake a classified review of these issues while supporting an unclassified Track 1.5 study group to delve more deeply into these and other pertinent questions. Setting a reasonable deadline, probably in 2014, the two governments could then make a well-informed decision about whether and how to establish shared civil-military use at Yokota Air Base.

We recommend that the U.S. and Japanese governments put the following items on the agenda to discuss in a Track 1.5 forum:

- Determining how civil-military integration of Yokota Air Base fits into the alliance's plans and capacity needs.
- Correcting misperceptions about, and establishing timelines for, Tokyo's civil aviation requirements, including an analysis of Tokyo's capacity to serve as a central transportation destination and gateway for international general aviation.
- Encouraging dual use as a way to advance civil aviation needs (engaging stakeholders in civil aviation, from corporate through full commercial freight and passenger operations).
- Using municipal development to support both military and civil air operations at Yokota and to benefit surrounding communities.
- Determining how plans to improve internal and external infrastructure will benefit civil and military aviation.
- Specifying the legal, technical and political

requirements for ensuring effective military operational control at Yokota Air Base, to serve as a practical precedent for other locations and as a draft bilateral agreement that incorporates USAF technical standards for dual-use bases (including the realistic precedents of how dual use has been implemented at other bases).

- Planning for improvements to on-base dual-use infrastructure, such as improved runway and taxiways and expanded aprons, additional hangars and maintenance facilities, aircraft revetments and hardened hangars, underground fuel-storage tanks, additional firefighting capacity and equipment for handling cargo and passengers.
- Planning for improvements to off-base infrastructure, including modernizing and connecting roads and rail lines.

X. CONCLUSION

The United States can work toward its goals of modifying its basing structure in Japan and beyond by adopting civil-military dual use at Yokota Air Base. By allowing civilian aviation operations, the U.S. military can actually enhance operational capability at a crucial time. As part of a dual-use agreement, the United States should seek additional infrastructure improvements, including active and passive defenses, as well as access to additional facilities throughout Japan.

Such an agreement would diversify U.S. forward-deployed forces, complicate adversary targeting, enhance flexibility in an increasingly complex environment and boost political sustainability in the midst of a downward trend in public perception of U.S. bases in Japan. Dual use of Yokota Air Base might only be a first, small step toward addressing a host of larger strategic challenges, but it could serve as a model for future U.S. force posture as the United States prioritizes the Asia-Pacific region.

Dual use of Yokota Air Base might only be a first, small step toward addressing a host of larger strategic challenges, but it could serve as a model for future U.S. force posture as the United States prioritizes the Asia-Pacific region.

ENDNOTES

1. The term civil aviation refers to all nonmilitary flights and includes commercial (scheduled airline service) and general aviation. The latter category refers to aviation used for disaster relief, emergency services, pleasure, business, government, police, firefighting, search and rescue, transport, oil industry, surveying, mapping and photography.
2. "Treaty of Mutual Cooperation and Security Between Japan and the United States of America," January 19, 1960, <http://www.mofa.go.jp/region/n-america/us/q&a/ref/1.html>.
3. In 1999, U.S. Ambassador to Japan Thomas Foley affirmed Yokota Air Base's "critical importance" to U.S. efforts to fulfill its "obligations under the U.S.-Japan Mutual Security Treaty." "Foley Defends Yokota Base in Meeting with Ishihara," *The Japan Times*, May 26, 1999, <http://www.japantimes.co.jp/text/nn19990526a1.html>. Since then, developments in America's Asia-Pacific military posture and threat capabilities have only increased the strategic importance of Yokota Air Base.
4. Many but not all participants are thanked in the acknowledgements.
5. Barack Obama, "Remarks by President Obama and Prime Minister Noda of Japan" (Asia-Pacific Economic Cooperation meeting, Honolulu, November 11, 2011), <http://www.whitehouse.gov/the-press-office/2011/11/12/remarks-president-obama-and-prime-minister-noda-japan>. Secretary of Defense Leon Panetta slightly altered the classic phrase in 2012 by saying that the U.S.-Japan alliance would remain "one of the cornerstones for regional security and prosperity in the 21st century." Leon E. Panetta, "Shangri-La Security Dialogue" (Singapore, June 2, 2012), <http://www.defense.gov/Speeches/Speech.aspx?SpeechID=1681>.
6. Robert Gates, "Remarks as Delivered by Secretary of Defense Robert M. Gates" (International Institute For Strategic Studies Shangri-La Dialogue, Singapore, June 5, 2010), <http://www.defense.gov/speeches/speech.aspx?speechID=1483>.
7. Various countries in the region have been increasing their defense expenditures and military capabilities. Throughout the Asia-Pacific, countries are acquiring or seeking new and substantially improved capabilities through surface combatants, submarines and fighter jets. Stockholm International Peace Research Institute, "The SIPRI Military Expenditure Database," <http://milexdata.sipri.org/>.
8. In 2012, Asian military spending will surpass that of Europe, according to the authoritative International Institute for Strategic Studies in London. See "Asia Defence Spending to Overtake Europe," *Financial Times*, March 7, 2012.
9. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2012* (May 2012), 6.
10. Stockholm International Peace Research Institute, "The SIPRI Military Expenditure Database."
11. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2012*, 6-10.
12. See Michael Auslin, "Don't Forget About the East China Sea," *East and South China Seas Bulletin 2* (Center for a New American Security, May 3, 2012), <http://www.cnas.org/flashpoints/bulletin/bulletin-2-dont-forget-about-east-china-sea>; and Ronald O'Rourke, "China Naval Modernization: Implications for U.S. Navy Capabilities – Background and Issues for Congress," Congressional Research Service Report RL33153 (Congressional Research Service, August 10, 2012), 41.
13. Chinese land attack weapons capable of striking targets in Japan include the DF-3 and DF-21 ballistic missiles and B-6 bombers armed with land attack cruise missiles. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2012*, 42.
14. Furthermore, any projected upgrades by adversaries in "remote sensing and weapons guidance, maneuverable and terminally guided ballistic missile warheads, growing anti-satellite capabilities and cyber attack will amplify the military anti-access and area-denial challenge, further testing America's ability to sustain regional security." General Norton A. Schwartz, USAF and Admiral Jonathan W. Greenert, USN, "Air-Sea Battle: Promoting Stability in an Era of Uncertainty," *The American Interest* (February 20, 2012), <http://www.the-american-interest.com/article.cfm?piece=1212>. One primary U.S. planning document describes the broad threat environment as follows: U.S. forces potentially face new threats from "cyberspace attacks . . . to increased piracy, to anti-satellite weapons tests . . . to . . . systems designed to threaten our primary means of projecting power: our bases, our sea and air assets, and the networks that support them." Department of Defense, *Quadrennial Defense Review Report* (February 2010), 8-9.
15. Japanese Ministry of Defense, *Defense of Japan 2012* (2012), part 1, chapter 1, section 3, page 4, http://www.mod.go.jp/e/publ/w_paper/2012.html.
16. According to O'Rourke, "the permanent bases and garrisons in South Korea and Japan have become corrosive, especially on Okinawa, where the local population has become hostile to the U.S. military presence." O'Rourke, "China Naval Modernization: Implications for U.S. Navy Capabilities – Background and Issues for Congress," 49. Also see Travis J. Tritten and Chiyomi Sumida, "Tens of Thousands Protest Osprey Deployment Plan to Okinawa," *Stars and Stripes*, September 9, 2012, <http://www.stripes.com/news/pacific/okinawa/tens-of-thousands-protest-osprey-deployment-plan-to-okinawa-1.188664>.
17. "U.S.: Osprey Safe to Fly over Populated Areas," *The Japan Times*, August 25, 2012, <http://www.japantimes.co.jp/text/nn20120825b3.html>.
18. "Japan Investigation Backs U.S. Finding on April Osprey Crash," *Stars and Stripes*, August 28, 2012.
19. However, the response to the Great East Japan Earthquake of March 2011 also showed the Japanese public how military forces can support the civilian population. Although imperfect, Operation Tomodachi, the logistics of which were run from Yokota Air Base, succeeded in providing much-needed aid to a disaster-stricken population in the wake of the earthquake-tsunami-nuclear triple disaster.
20. Although Japanese defense spending is capped at the traditional one percent of gross domestic product, it nonetheless is the second highest in

the region and extremely formidable, despite self-imposed limits on certain weapons systems.

21. The “first island chain” refers to the natural geographic barrier formed by islands off the coast of the Asian mainland from the Japanese archipelago, down through the Ryukyu Islands, Taiwan and the Philippine archipelago. China intends to control access well beyond this demarcation.

22. Japanese Ministry of Defense, *National Defense Program Guidelines for FY2011 and Beyond* (December 17, 2010), http://www.mod.go.jp/e/d_act/d_policy/pdf/guidelinesFY2011.pdf.

23. The white paper can be viewed at http://www.mod.go.jp/e/publ/w_paper/2012.html.

24. Secretary of State Hillary Clinton, Secretary of Defense Leon Panetta, Minister of Foreign Affairs Koichiro Gemba and Minister of Defense Makiko Tanaka, “Joint Statement of the Security Consultative Committee” (April 27, 2012), find the PDF here: <http://www.mofa.go.jp/region/n-america/us/security/scc/index.html>.

25. Ibid.

26. The seven U.N. Command bases in Japan are Yokota Air Base, Camp Zama, Yokosuka Naval Base, Sasebo Naval Base, Kadena Air Base, Marine Corps Air Station Futenma and White Beach Port Facility.

27. During a study group meeting on November 17, 2011, in Washington, the former senior military officer said, “Integrating Yokota is an obvious choice from every aspect. I can’t think of any reason why we wouldn’t have a shared, consolidated or integrated base on Yokota.”

28. Bill Stine, “Business Aviation: Possibilities for the Joint Use of Yokota Air Base” (meeting at the Center for a New American Security, Washington, August 8, 2012).

29. “Promoting Civil-Military Dual-Use of Yokota Air Base,” Tokyo Metropolitan Government, (October 2012), http://www.chijihon.metro.tokyo.jp/kiti/english/120ct_English.pdf.

30. To facilitate the Tokyo government’s planning, portions of Yokota airspace formerly controlled by the U.S. military were returned to Japanese national control in 2008.

31. The western part of the Tokyo metropolitan area – including the Tama area (referred to as Tokyo’s “Silicon Valley”), as well as neighboring Saitama, Kanagawa and Yamanashi prefectures – has experienced high levels of population and business growth. Although commentators in the past have stated that Japan has “too many airports” as a result of “exaggerated demand forecasts and rampant, costly, and arguably pork-barrel construction projects,” restrictive regulations on general aviation have constrained potential international business activity, and in contrast to the rest of the country, demand in the Tokyo area exceeds capacity. Mizuho Aoki, “Bubble Era’s Aviation Legacy: Too Many Airports, All Ailing,” *The Japan Times Online*, February 7, 2012, <http://www.japantimes.co.jp/text/nn20120207i1.html>.

32. Anticipating the prospects for increased global business aviation activity, companies such as Gulfstream and Bombardier have developed new business

jet models with extended ranges. These new models can fly from New York to Tokyo (or Hong Kong) without the need to stop and refuel, thereby improving ease of access for businesses and facilitating economic activity.

33. Stine, “Business Aviation: Possibilities for the Joint Use of Yokota Air Base.”

34. “Teterboro Airport Economic Impact Study – Greater Than the Sum of its Parts” (Port Authority of New York and New Jersey, May 2005), cited in Michael Lahr, Martin E. Robins and Robert Checchio, “Reaching the Potential: The Imperative for Forming National Aviation Policy in a Post 9/11 Environment,” Report No. 49777-21-05 (Rutgers University and University Transportation Research Center, November 2009), <http://trid.trb.org/view.aspx?id=914480>.

35. Business aviation at Yokota will be a key aspect of Tokyo’s bid to host the 2020 Olympics. The gauge used by the International Olympic Committee (IOC) to measure a city’s competitiveness includes aviation capacity, and corporate aviation is particularly relevant to successful Olympic operations. Among other issues, Tokyo’s air transportation access was deemed inadequate in its 2016 Summer Olympics bid, and the Tokyo Metropolitan Government estimates that the Summer Olympics would entail five or six times more traffic than the 2002 Japan-South Korea World Cup. The Tokyo Metropolitan Government further anticipates major demand for general aviation capacity during a 2020 Tokyo Olympics from executive sponsors, heads of state and IOC members. It is important to note that Tokyo’s request for landing access at Yokota Air Base to support the 2002 World Cup surge in air traffic between Seoul and Tokyo was denied by the United States. The IOC will announce the venue of the 2020 Olympics in September 2013.



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OCTOBER 2012

Yokota

Civil-Military Use of U.S. Bases in Japan



APPENDIX A: A TECHNICAL ANALYSIS OF YOKOTA AIR BASE

The MITRE Corporation's Center for Advanced Aviation System Development, the federally funded research and development center that works for the Federal Aviation Administration, conducted a study of the technical feasibility of Yokota Air Base for dual-use. MITRE examined the potential future demand for air traffic, the question of whether other civil airports or air bases in the region could relieve increasing civil aviation demand and the potential impact of the additional civil aviation traffic on the air base. The study also analyzed civil aviation questions at Yokota Air Base, the Japan Air Self-Defense Force's Iruma Air Base and Naval Air Facility Atsugi. The study was conducted on the basis of available military information.

Using data from Airport Council International projections, MITRE examined existing capacity at Haneda and Narita airports. The Council projected modest growth domestically in Japan's mature market and slightly higher international growth. Taking into account the two airports' published flight capacities, MITRE concluded that Haneda and Narita airports will reach total saturation by 2026. The study cautioned that if the actual average growth rate is higher than the estimated rate by only one-half percent, the saturation point could come as early as 2020. Given the time it takes to develop new airport capacity, this is a relatively short timeline that emphasizes the imperative to develop additional civil aviation capacity now in the Tokyo area.

MITRE also evaluated the technical viability of dual use at Yokota, Iruma and Atsugi. Assessing the suitability of runway lengths for various types of aircraft, it concluded that most aircraft types would be able to operate from Iruma and Atsugi for short-range flights but that only Yokota Air Base, with its long runway (primarily used for cargo aircraft), provides full flexibility for aviation operations. In addition, Yokota Air Base

meets almost all 4E International Civil Aviation Organization specifications for ground operations. This was the specification for the largest civil aircraft before the new 4F aircraft category was introduced to accommodate the new Airbus A380.

If the actual average growth rate [of growth at Haneda and Narita airports] is higher than the estimated rate by only one-half percent, the saturation point could come as early as 2020.

However, airfield capacity is not determined solely by runway length, taxiway width and shoulder width. Passenger and cargo-handling facilities are another key parameter. For civil-military aviation, the lack of available apron area and gate sites makes civil operations unfeasible at Atsugi and significantly limited at Iruma. Aprons and gate sites can accommodate even the largest aircraft at Yokota. Nonetheless, municipal and prefectural planners might need to use space that is currently not part of the base to add additional apron/gate space to accommodate civil aviation operations.

Furthermore, MITRE evaluated potential flight operations. Using advanced planning simulations, MITRE concluded that airspace corridors could be established for aircraft flying from both Yokota and Iruma. According to public data, Yokota Air Base has the potential for reasonably high peacetime levels of civil-use runway availability throughout

the 18-hour flight day. In contingency scenarios, the current military level of operations would greatly escalate, necessitating that useful peacetime integration take into account crisis and conflict requirements. In peacetime, Yokota Air Base could handle a variety of civil aircraft operations, potentially including general aviation flights, low-cost carriers, domestic operations within Japan, domestic long-haul and cargo operations, and purely domestic long-haul confined to medium aircraft. Civil aviation activities at the air base could exceed 80 daily movements of regional aircraft. In contrast to other potential sites such as Iruma, Yokota also has the potential for increased capacity growth, making it attractive to low-cost carriers and a variety of other general aviation options.

MITRE concluded that there will be a definitive need for additional Tokyo runway capacity in the next 10 to 20 years and that deliberate planning should start now. Yokota Air Base has a long runway and space for potential facilities on- and off-base, making it the best option, with the greatest technical and economic potential for dual use. MITRE also examined the idea that facilities to accommodate civil aviation operations should be provided off the base in order to avoid undermining military capacity.

APPENDIX B: THE U.S. AIR FORCE'S REQUIREMENTS FOR CIVIL-MILITARY DUAL USE AND YOKOTA AIR BASE

The U.S. Air Force (USAF) has established regulations for the dual use of air bases, which are used to craft joint use agreements in the United States and memoranda of understanding when operating abroad. U.S. Air Force Policy Directive 10-10, "Joint Use of Military and Civilian Flying Facilities" (and was released on October 25, 2007), has been updated and substantially revised "to cover a wider variety of military and civil joint use at flying facilities."

The directive applies to domestic U.S. airfields but could provide the basis for Air Force thinking about Yokota Air Base requirements. With regard to "Civil Use of Military Airfields," the directive states the following:

When the proposed civil use does not compromise operations, security, readiness, safety, environment or quality of life and the sponsoring Government agency has sufficient financial resources to address associated civil costs, civil use of airfield infrastructure will be accommodated. Only proposals submitted by authorized representatives of local government agencies eligible to sponsor a public airport will be evaluated for possible joint use.

The deputy assistant secretary of the Air Force for installations (SAF/IEI) will be responsible for installation and facility policy and shall "provide oversight of joint use flying facilities" and "serve as the final approval authority of all joint use agreements and airport operations agreements." Additionally, HQ USAF/A3/5, through the director of operations (A3O), the director of air operations (A3O-A) and the Civil Aviation Division (A3O-AC) shall "review operational impacts associated with the mixed military/civil use of airfields and ensure all impacts have been considered and addressed before forwarding a joint use proposal or agreement to SAF/IEI."

On Air Force airfields, Air Force operational requirements take precedence over civil aircraft operations. At Air Force airfields with joint use agreements, the conditions under which that precedence is enforced will be specified in the agreement.

Civil aircraft using Air Force airfields in foreign countries are subject to U.S. Federal laws and regulations that have extraterritorial effect and to applicable international agreements with the country in which the [USAF] installation is located.

In addition, Air Force Instruction 10-1002, released on September 1, 1995, pertains to "Agreements for Civil Aircraft Use of Air Force Airfields." In order to begin the process of considering a USAF airfield for joint use, a local government agency eligible to sponsor a public airport must submit a formal proposal to the installation commander. The proposal must include the proposed type of operation, the type and number of aircraft to be located or operating at the airfield and an estimate of the number of annual operations for the first five years. The Air Force Instruction identifies eight factors to consider in evaluating a proposal for joint use:

- The "impact on current and programmed military activities at the installation." Given planned increases in U.S. forward posture in the Asia-Pacific region, the demand for programmed military activities at Yokota Air Base is likely to increase.
- "Compatibility of proposed civil aviation operations with present and planned military operations." In the case of Yokota, such compatibility depends on an assessment of U.S. requirements for current and future military operations and the type of civil aviation operations and infrastructure and access improvements proposed by the Japanese government.

- “Compatibility of [military and civilian] communication systems” and “instrument capability of civilian crew and aircraft.” Modern civilian aircraft, especially business jets, feature advanced communication and instrument systems that are compatible with the U.S. military’s air traffic control systems.
- “Runway and taxiway configuration (Installations with single runways normally will not be considered for joint use).” Because Yokota Air Base has a single runway, Air Force instructions would normally preclude its consideration for dual use. However, the lower demands of general aviation aircraft (as compared with those of commercial aircraft) might allow an exception to be made. If a single runway was considered for dual use, technical issues related to accommodating the differing approach speeds of civil and military aircraft might arise. For example, if Yokota Air Base serviced commercial aviation, it might have arrivals every 4 to 5 minutes, mixing commercial airliners and C-130s (assuming an annual throughput of 5 million passengers on the existing single-runway facility during an operational day of 14 hours). Because of the varying approach speeds of medium-sized commercial airplanes and C-130s, that mix of aircraft would be difficult to manage from an air traffic control standpoint. General aviation aircraft, such as business jets, would more easily integrate into existing air traffic control operations.

Despite the immense difficulty in gaining Japanese support, the Air Force might request the construction of a second runway and commensurate high-speed exits, taxiways, apron space and hangars. Those infrastructure improvements would not only facilitate civilian operations but also improve military capability and capacity at the air base, significantly increasing the attractiveness of dual use. It is important for Japan to understand the significance of the improvement. But the necessary acquisition of land adjacent to the air

base probably makes a second runway impossible to contemplate, at least in the foreseeable future. In contrast to locations (such as Gatwick Airport in London) where taxiways have been converted into runways in order to increase capacity while not encroaching on local communities, Yokota Air Base must adhere to military standards for necessary taxiway spaces because of the significant potential threats posed by North Korea and China.

- “The possibility for sabotage, terrorism, and vandalism increases with joint use; therefore, joint use will not be considered: if military and civil aircraft would be collocated in hangars or on ramps or if access to the civil aviation facilities would require routine transit through the base.” To assure proper security of the military portion of a dual-use Yokota Air Base, dedicated civil aviation hangars, ramps, fences and security monitoring systems would need to be constructed.
- “Fire, crash, and rescue equipment.” Converting Yokota to dual use might require a major increase in fire-fighting units and infrastructure (including a higher water flow rate).
- “The availability of public airports to accommodate the current and future air transportation needs of the community through construction or expansion.” As discussed in Appendix A, MITRE Corporation has estimated that the Tokyo-area aviation capacity will be saturated by 2026, if not sooner. Continued marginal improvements to Narita and Haneda airports may yield additional capacity, but civil aviation access to Yokota Air Base would help meet the increasing demand.
- “The availability of land for civil airport complex.” Although some areas of Yokota Air Base are suitable for civil airport operations, Japan may need to expand the base into the adjacent community in order to construct infrastructure and facilities suitable for effectively meeting civil requirements.

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