

Japanese Aircraft That Were Transferred Overseas and Subsequently Used for Military Operations in the 1980s

Historical Insights on Defense Equipment Transfers Drawn from Past Cases

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Introduction

The subject of Japan's defense equipment transfers has frequently appeared in recent reporting both in Japan and abroad.¹ Within this coverage, some reporting in Australia has raised concerns about Japan's limited track record in naval vessel transfers.² It is undeniable that Japan's defense transfer record has remained limited since the establishment of the Three Principles on Transfer of Defense Equipment and Technology in 2014, even if the scope is expanded to Japan's defense transfers as a whole.³ However, while not widely known, there have been a significant number of cases in which equipment transferred from Japan was used for military operations abroad, even when solely considering the postwar period.⁴

The current framework of Japan's defense equipment transfers can be likened to an egg. Foreign economic policy forms the egg's "shell," security trade control policy represents the "egg white," and defense equipment transfer policy is the "yolk." Foreign economic policy is considered the "shell" because its post-war framework has primarily been built up within the structure of economic policy.⁵ The origins of security trade control policy, which corresponds to the "egg white," can be traced back to the regulations of the Coordinating Committee for Multilateral Strategic Export Controls (COCOM), which Japan joined in the 1950s. COCOM was an export control framework established by Western countries to regulate exports to communist countries during the Cold War era, and it was said that COCOM's fundamental nature was to ensure security. Japan's export control system under COCOM regulations remained weak for a long time. However, following the 1987 Toshiba Machine incident, both the government and private sector clearly recognized the necessity of strengthening the security trade control system. In the late 1980s, a security trade control system was established, and it continues to this day.⁶ Finally, Japan's defense equipment transfer policy, which corresponds to the "yolk," was most strictly controlled under the Three Principles on Arms Exports adopted by the Miki Cabinet in 1976, but restrictions eased from the 1980s onward.⁷

This paper focuses on the 1980s, a turning point in the history of Japan's defense equipment transfer policy, and introduces cases of Japanese aircraft that were transferred overseas and subsequently used for military

operations during that decade. These cases are categorized into two major types, and none of them involved direct transfers from Japan to foreign military forces. By examining these past cases, this paper aims to provide historical insights for the future direction of Japan's defense equipment transfer policy.

Circumstances Surrounding Defense Equipment Transfers in the 1980s

In the context of postwar Cold War history, the period from the end of 1979 to the mid-1980s is often referred to as the "New Cold War." During this time, the détente in the 1970s had come to an end, and tensions between the United States and the Soviet Union were escalating once again. Against the backdrop of an unprecedented trade imbalance with Japan, the United States called for increased defense efforts from Japan as well as more proactive opening of its market.

The Nakasone administration at the time implemented a series of concrete and proactive measures to strengthen Japan-U.S. relations, including various measures in the defense sector to respond to U.S. demands. The administration increased the defense budget and lifted restrictions on the transfer of weapons technologies to the United States by making an exception to the Three Principles on Arms Exports, responding to the request for provision of dual-use technologies which were considered to surpass those of the United States at that point.

Under Japan's security trade control system in the 1980s, items subject to COCOM regulations were classified as "strategic goods" and designated as requiring approval for export. If the destination country/region was part of the Communist bloc, items with sophisticated functionality were prohibited from export. However, because the details of COCOM regulations were not disclosed, the criteria for export approval were unclear to exporting companies. Moreover, export control procedures at the time lacked effectiveness, and there was very little awareness of security-oriented trade control among exporting companies.⁸ Meanwhile, Japan's defense equipment transfer policy was subject to the political decision to effectively ban such exports under the Three Principles on Arms Exports. Consequently, under the framework of that time, "military aircraft," which were classified as "directly employed in combat," were effectively embargoed under the Three Principles. In contrast, "aircraft" classified as "dual-use goods" were designated as requiring export approval, with decisions on their exportability determined based on the political alignment of the destination country/region.

In addition, separate from the economic policy framework, Japan concluded an agreement with the United States regarding Japan Self-Defense Forces (SDF) equipment as a framework for security policy.⁹ The 1980s also marked a period of decommissioning of many pieces of equipment that had originally been loaned or provided to Japan by the United States during the early years of the SDF, or domestically manufactured for and utilized by the SDF using U.S. financial assistance. This decommissioned equipment was subject to a return obligation to the United States, and under the direction of the Mutual Defense Assistance Office

(MDAO) at the U.S. Embassy in Japan, it was either disposed of locally at SDF supply facilities or returned to designated U.S. military bases in Japan.

Case Involving YS-11 Aircraft

The YS-11 was Japan's first domestically produced passenger aircraft after World War II. It entered service in 1965, with a total of 182 units manufactured. The SDF operated 23 YS-11 aircraft within the Maritime Self-Defense Force (MSDF) and Air Self-Defense Force (ASDF). From the start of its entry into service in 1965, a total of 75 YS-11 aircraft were transferred overseas to 16 airlines in 12 countries, including those under lease agreements.¹⁰ The largest YS-11 operator in Europe was Olympic Airways of Greece, which at its peak owned 10 YS-11 aircraft, including two on short-term leases.

Between 1980 and 1981, the Hellenic Air Force purchased six YS-11 aircraft that had been used by Olympic Airways. These aircraft had been newly manufactured between 1970 and 1971 as passenger planes for Olympic Airways in Greece. The six units acquired by the Hellenic Air Force accounted for all the YS-11 aircraft Olympic Airways owned at the time.¹¹ The Hellenic Air Force adopted the YS-11 as a temporary measure until new transport aircraft could be procured, using it to supplement their C-130 transport aircraft and thereby extending the operational lifespan of the latter.



The Hellenic Air Force operated the YS-11 as a transport aircraft from 1981 to 2010, with one unit designated for VIP transport. Furthermore, the Hellenic Air Force introduces the YS-11 on its official website, as Greece was the only country in Europe to operate a Japanese-manufactured military aircraft.¹²

This case represents a situation in which "dual-use good" aircraft transferred abroad were subsequently re-transferred and utilized for military operations.

Cases Involving MU-2 Aircraft

The MU-2, a small multi-purpose aircraft independently developed by Mitsubishi Heavy Industries as a civilian aircraft, saw a large production of 762 units between its entry into service in 1965 and the end of

production in 1987. The SDF operated 53 MU-2 aircraft within the GSDF and ASDF. The MU-2 gained high acclaim in the small civilian aircraft market, particularly in the United States, and 703 units were transferred overseas to a total of 26 countries.¹³ Mitsubishi Heavy Industries temporarily withdrew from the small civilian aircraft sector in 1988, transferring the business to the U.S. company Beech Aircraft Corporation, but the MU-2 was transferred back to Mitsubishi Heavy Industries in 1998. Even today, a large number of the aircraft continue to be operated, with service centers in three locations in the United States, as well as one each in Europe and South America.¹⁴ Among the numerous MU-2 aircraft transferred overseas, cases of military operations involving the aircraft have been confirmed in at least four countries during the 1980s.

During the Falklands War in 1982, the Argentine military operated a large number of civilian aircraft under its command. The Argentine Air Force established a civilian aircraft squadron known as the Escuadrón Fénix (Phoenix Squadron), which operated three MU-2 aircraft, with an additional MU-2 deployed by another unit.¹⁵



Civilian aircraft under Argentine military command during the Falklands War undertook various missions, including maritime reconnaissance against British naval forces and air transport to the Falkland Islands, with many aircraft lost in combat. Organizations of people involved at the time have stated that MU-2 aircraft were used in the Falklands region for missions such as leading formations of Pucará light attack aircraft. However, due to limited documentation, the details of the wartime operational circumstances and history of these aircraft remain unclear.¹⁶

It has also been confirmed that the Dominican Republic Air Force operated MU-2 aircraft in 1985. At least one MU-2J model was used as a light transport aircraft by the Dominican Republic Air Force.¹⁷ However, its history is similarly unclear due to limited documentation.

In addition, although there are no cases of MU-2 aircraft being owned and directly operated for military purposes by national militaries, there have been cases of operational contract support (OCS), in which privately owned aircraft operated by private military companies/contractors (PMCs) were used under military command.

In Sweden, cases of military operations involving MU-2 aircraft for OCS by a PMC contracted by the Swedish military can be confirmed from 1985 onward. OCS involving use of PMC-owned civilian aircraft expanded rapidly from the 1990s onward, and Sweden's cases can be considered an early example of this.¹⁸

OCS in Sweden during the 1980s utilized a total of 10 MU-



2 aircraft for target towing and electronic warfare training, operated by two companies: Swedair and Nyge Aero.¹⁹ Among these aircraft, two MU-2s operated by Nyge Aero were lost in training accidents in 1986, one of which was due to a misfire during live-fire training.²⁰

In 1989, the air target equipment division of Swedair was spun off as Air Target Sweden, while the training support aircraft operations division was merged into Saab. Later, in 1999, Nyge Aero was also merged into Saab, an arrangement that continues to the present.²¹

A total of 35 MU-2 aircraft were directly transferred by Japan to 10 European countries, with records of transfers to Sweden dating back to before 1985.²² The MU-2 aircraft operated by Swedair and Nyge Aero included both directly transferred aircraft and those that passed through third countries or multiple nations before reaching Sweden. Due to the varied backgrounds, it is difficult to track the full history of each individual aircraft.

In 1987, there was another confirmed case of MU-2 operations under OCS by a PMC contracted by the U.S. military.

Flight International of Florida operated seven MU-2 aircraft out of Tyndall Air Force Base in Florida from 1987 for training support services.²³ The backgrounds of these aircraft also varied, making it difficult to trace the full history of all units.

On February 28, 1989, one MU-2 aircraft operated by Flight International of Florida was lost in an accident after completing a training support service mission.²⁴

Like the case of the YS-11 aircraft, these cases involving MU-2 aircraft can also be said to be examples of “dual-use good” aircraft transferred abroad that were subsequently re-transferred and utilized for military operations.

With over 700 units sold as civilian aircraft, the MU-2 has a long operational lifespan, and there are many cases of its long-term use while being resold multiple times between companies in multiple countries. Due to this characteristic, comprehensively tracking the complete history of each individual aircraft is impossible.²⁵ Thus, these cases clearly exemplify the inherent difficulty of managing “dual-use goods” after they are transferred overseas.²⁶



Case Involving F-104J/DJ Aircraft

The F-104J/DJ belonged to the second generation of main fighter aircraft of the ASDF. It was introduced

to the ASDF through complete importation, followed by knockdown assembly and licensed production. Mitsubishi Heavy Industries' Nagoya Aircraft Works was the primary contractor for the knockdown assembly and licensed production in Japan. A total of 230 F-104J/DJ aircraft were delivered to the ASDF over a short period between 1962 and 1967.

Financial assistance from the United States was provided for the licensed domestic production of the F-104J. Under the Japan-U.S. Agreement on the F-104J/DJ, funds granted by the U.S. government to the Japanese government were allocated for the purchase of specific goods (such as complete F-104J/DJ aircraft and parts) and services (technical assistance from Lockheed Corporation's resident engineers in Japan). The final cost-sharing ratio between Japan and the United States was about 72% and 28%, respectively.²⁷ In addition, as a result of the progressive shift to local production of parts during licensed production, the final domestic production ratio reached about 65% for the airframe, 80% for the engine, and 76% for electronic equipment. Consequently, the F-104J ultimately differed significantly in detailed specifications from other variants of the F-104 produced in the United States.

The ASDF gradually phased out the F-104J/DJ as the F-4EJ and F-15J/DJ entered service. The last ASDF F-104 squadron was disbanded in March 1986 and all F-104J/DJ aircraft were decommissioned, aside from those converted into unmanned target drones (UF-104J/JA). This case also involved the application of the obligation to return equipment manufactured for and utilized by the SDF with financial assistance from the United States after it was decommissioned. As a result, Japan reimbursed the United States for the corresponding amount of the financial assistance provided for the F-104J/DJ which were decommissioned. While many decommissioned aircraft were designated for local disposal in Japan under instructions from the MDAO, aircraft in better condition were designated to be returned to the United States. The United States has storage facilities for retired military aircraft, such as Davis-Monthan Air Force Base in the Arizona desert. Retired U.S. military aircraft are preserved in a mothballed state and, if needed for foreign military assistance, they are refurbished and transferred to recipient countries.²⁸ The decommissioned F-104J/DJ aircraft of the ASDF were stored at ASDF Gifu Air Base under the management of the 2nd Air Depot until instructions for their return were issued by the MDAO.

The Taiwanese air force was the earliest U.S. ally to adopt the F-104 fighter. From the deployment of the F-104A in May 1960 until May 1998, Taiwan operated numerous variants of the F-104. The aircraft was a mainstay of Taiwan's fighter units from the 1960s to the 1990s, playing a role in Taiwan's air defense for an extended period.

In 1979 under the Carter administration, the United States normalized diplomatic relations with China and severed official ties with Taiwan, while concurrently ensuring continued U.S. security involvement and arms sales to Taiwan under the Taiwan Relations Act. In a list of requested arms sales submitted to the United States in November 1979, Taiwan placed the highest priority on high-performance fighters. The following year, the arms sales to Taiwan announced by the United States were deemed to be "arms of a defensive character" under the Taiwan Relations Act, and the United States provided additional F-104 aircraft to Taiwan to replace the aging F-104s in the Taiwanese air force. Later that same year when it became certain that the U.S. government would transition to the new Reagan administration, Taiwan issued a request to

purchase next-generation F-16 fighters.

Due to the Reagan administration's prioritization of its strategy against the Soviet Union, it lifted restrictions on and began arms sales to China while continuing to provide Taiwan with "arms of a defensive character" based on the Taiwan Relations Act. However, it was not until the 1990s that Taiwan completed the deployment of next-generation F-16 and Mirage 2000 fighters, as well as the Indigenous Defense Fighter (IDF) which was independently developed with U.S. support. Thus, the F-104s provided to Taiwan in the 1980s served as a stopgap. The F-104s supplied to Taiwan comprised multiple variants that had been returned to the United States from various countries after being decommissioned.²⁹ The reason for this lack of standardization was that despite these aircraft being a stopgap, Taiwan needed a large number of them. The United States could not meet this need with just its own retired F-104s, making it necessary to permit provision of multiple variants used in various countries around the world, including Japan.

The Taiwanese air force's acquisition plan for the F-104 was named the "Alishan" plan. Under the "Alishan 8" plan, 66 retired West German air force F-104G aircraft, previously used at training bases in the United States, were sold to Taiwan starting in 1983.³⁰ Under the "Alishan 10" plan from 1988, 18 retired Danish air force F-104G/TF-104 aircraft were sold, and under the "Alishan 11" plan from 1990, 24 retired Belgian air force F-104G/TF-104G aircraft were sold for spare parts.³¹

The "Alishan 9" plan saw Taiwan's acquisition of the F-104J/DJ, with redeployment beginning in 1986. The United States sold 37 F-104J/DJ aircraft (31 F-104J and six F-104DJ) to Taiwan after they had been returned following decommissioning. Of these, 20 F-104J and five F-104DJ were put into service by the Taiwanese air force, while the remaining 12 were used for spare parts.³²

The Taiwanese air force experienced an extremely high accident rate with the F-104. Of the 238 F-104 aircraft in eight different variants, 114 were lost due to accidents. The F-104J/DJ used by the Taiwanese air force had many parts that differed in specifications from the F-104G, which was the most widely operated variant, making it difficult to procure replacement parts. Additionally, since the Taiwanese side could not understand the Japanese language technical manuals, maintaining the F-104J/DJ's maintenance and supply system in its air force proved to be a challenge.



F-104J of the Taiwanese air force
Ogata, *Wings*, 61

The F-104J/DJ aircraft were operated in a single squadron within the Taiwanese air force to prevent mixing with other F-104 variants with incompatible parts. The operational period of the aircraft was limited to only five years, ending in 1991. Despite this short period, five F-104J/DJ aircraft were lost in accidents, with many accidents stemming from parts incompatibility issues.³³

As illustrated above, the case involving F-104J/DJ aircraft differed from general overseas transfers, and entailed decommissioned U.S.-funded equipment being returned to the United States, re-transferred by

the United States, and used for military operations.

Conclusion

This paper introduces cases of Japanese aircraft transferred abroad and subsequently used for military operations in the 1980s. There were no cases found in which aircraft were directly transferred from Japan to foreign military forces. These cases can be broadly categorized into two types: aircraft transferred overseas as “dual-use goods” that were subsequently re-transferred and used for military operations, and decommissioned aircraft that were returned to the United States due to return obligations and later re-transferred by the United States for military operations by other countries/regions. When viewed through the lens of Japan’s current defense equipment transfer framework, neither of these case types completely aligns with defense equipment transfer policy, the “yolk” in the egg metaphor introduced earlier. Among the cases from the 1980s, the most common were those in which “dual-use good” aircraft were transferred overseas by Japan, and later re-transferred and subsequently used for military purposes. It is a noteworthy historic fact that there were so many cases of Japanese “dual-use good” aircraft that were transferred overseas and subsequently found to have “military value” and used for military operations by their destination countries and regions, despite the expectations of Japan given that its defense equipment transfer policy was at its strictest during the 1980s. Currently, the defense equipment transfer debate is premised on domestically developed “military-exclusive” equipment, which is inevitably expensive due to the advanced technological level required.³⁴ However, the 1980s cases suggest that Japan also holds latent strengths in “dual-use goods,” which are difficult to describe as “directly employed in combat.” If such “dual-use goods” are primarily utilized in military operations despite being difficult to call “directly employed in combat,” they could be considered as another option in the main subjects premised for Japan’s defense equipment transfers.³⁵

In addition, the cases involving MU-2 aircraft, which are the most numerous among the cases raised in this paper, suggest the importance of establishing a maintenance system at the recipient location. The MU-2, which has been used for civilian purposes for long periods across numerous countries, has established maintenance systems in recipient countries, with service centers still in operation worldwide. In contrast, domestically developed equipment used exclusively by the SDF inevitably has a maintenance system confined to Japan. Given Japan’s current limited track record of defense equipment transfers, establishing maintenance systems in recipient countries and regions can be a key factor in promoting future defense equipment transfers.

The F-104J/DJ falls into the category of decommissioned U.S.-funded equipment being returned to the

United States, re-transferred by the United States, and used for military operations. It represents a case involving equipment requiring an advanced technological level. From this case, we can infer the requirements necessary for overseas transfer of “military-exclusive” domestically developed equipment, which is the primary premised subject of current defense equipment transfers. The F-104J/DJ had a high accident rate in the Taiwanese air force, had low parts compatibility with other F-104 variants operated by that air force, and faced maintenance difficulties, leading to a relatively short operational period. This case suggests the importance of ensuring interoperability in the transfer of defense equipment which requires an advanced technological level. This includes uniform equipment specifications, standardization of parts specifications, verification of part compatibility, and the international standardization of technical documents. Considering the existing equipment used by the SDF, not only domestically developed equipment but also license-produced equipment may lose commonality with other countries’ counterparts due to modifications such as part changes in the course of licensed production or Japan-specific improvements addressing defects. Currently, the Acquisition, Technology & Logistics Agency (ATLA) is endeavoring to standardize equipment specifications with NATO forces, but it will also be necessary to establish a framework for public-private information sharing regarding interoperability with equipment from other countries.³⁶

¹ The topic of defense equipment transfers has been widely reported both domestically and internationally from 2024 to 2025. Examples include P A C 3 米に輸出へ完成品で初 [PAC-3 to Be Exported to the U.S. for the First Time as a Finished Product], *Yomiuri Shimbun* Tokyo edition, July 29, 2024; 艦艇用アンテナ 輸出で日印合意 [Japan-India Agreement on Export of Shipborne Antennas], *Yomiuri Shimbun* Tokyo edition, November 16, 2024; 「もがみ」型護衛艦、豪で選定なら共同開発容認 政府 [Japan to Approve Joint Development of Mogami-Class Escort Ships If Selected by Australia], *Nikkei*, November 29, 2024; 2年連続で O S A 協力 沿岸監視レーダー、複合艇供与／日本は O S A を通じて総額 16 億円の沿岸監視レーダーや海軍向け高質ゴムボート無償供与 [OSA Cooperation for Two Consecutive Years: Provision of Coastal Surveillance Radar and Multi-Purpose Boats / Japan to Grant a Total of 1.6 Billion Yen Worth of Coastal Surveillance Radar and High-Quality Rubber Boats for the Navy via OSA], *The Manila Shimbun*, December 6, 2024; and 護衛艦『輸出』へ協議 日インドネシア再開 防衛相合意 [Defense Ministers Agree on Japan and Indonesia Resuming Talks on Export of Escort Ships], *Yomiuri Shimbun* Tokyo edition, January 8, 2025.

² “Japan pitches ‘superior’ warships in bid to clinch \$10 billion Australian contract,” ABC News, December 17, 2024, <https://www.abc.net.au/news/2024-12-17/japans-pitch-to-clinch-10-billion-australian-warship-prize/104737686>.

³ As of FY2023, the only confirmed case of defense equipment transfer involving domestically developed equipment was a 2020 agreement to provide an early warning and surveillance radar system to the Philippines. Japan’s defense equipment transfer policy only applies to equipment “directly employed in combat” among the equipment owned by military forces. See 防衛装備移転三原則 [Three Principles on Transfer of Defense Equipment and Technology], Cabinet decision, April 1, 2014.

⁴ The Stockholm International Peace Research Institute (SIPRI) has maintained a database on international arms transfers since 1950. As of January 11, 2025, the database records 40 cases of overseas transfers from Japan. The data collection criteria is set as “major weapons” as stipulated by SIPRI, which include aircraft, naval vessels, air defense systems, and armored vehicles. Since this classification does not distinguish whether an item is “directly employed in combat,” SIPRI’s criteria is considered broader than Japan’s concept of “defense equipment.” See “Arms Transfers Database,” SIPRI, <https://armstransfers.sipri.org/ArmsTransfer/TransferData/transferResults?logic=on>; “Sources and methods”; SIPRI, <https://www.sipri.org/databases/armstransfers/sources-and-methods>.

⁵ The legal structure has its grounds in the Foreign Exchange and Foreign Trade Act (Act No. 228 of 1949) under the jurisdiction of the Ministry of Economy, Trade and Industry (METI).

⁶ In April 1989, the Center for International Security Trade Control (CISEC) was established as a non-governmental and non-profit organization. This constituted the start of the integrated public-private system for Japan’s security trade control.

⁷ 対米武器技術供与についての内閣官房長官談話 [Statement of Chief Cabinet Secretary on Transfer of Military Technologies to the United States], January 14, 1983.

⁸ KUMAGAI Hitori, モスクワよ、さらばーココム違反事件の背景 [Goodbye, Moscow: The Background of the COCOM Violation Incident]

(Bungeishunju, 1988), 10. Kumagai, who exposed the Toshiba Machine Incident, wrote detailed notes on the actual conditions of export companies involved in the incident at the time and Japan's security trade control system. He stated, "It is no exaggeration to say that there was not a single Japanese trading company engaged in Soviet trade that could claim to be 'completely clean,'" highlighting the extremely low awareness of security trade controls among export companies at the time.

⁹ Mutual Defense Assistance Agreement between Japan and the United States of America, Treaty No. 6 of 1954, Article 1.

¹⁰ Airliner Club, 「YS-11 物語 日本が生んだ旅客機 182 機の歩みと現在」 [YS-11 Story: The Journey and Current Status of the 182 Units of Japan's Homegrown Passenger Aircraft] (JTB, 2006), 59.

¹¹ Olympic Airways lost two of its eight YS-11 aircraft (excluding leased ones) due to accidents.

¹² "NAMC YS-11A," Hellenic Air Force, <https://www.haf.gr/history/historical-aircraft/ys-11a/>.

¹³ Mitsubishi Heavy Industries Company History Compilation Committee, 海に陸にそして宇宙へ 続三菱重工業社史 1964-1989 [At Sea, on Land, and into Space: The Continuing History of Mitsubishi Heavy Industries, 1964-1989] (Mitsubishi Heavy Industries, 1990), 725-727.

¹⁴ "MU-2 Authorized Service Centers," Mitsubishi Heavy Industries, https://mu-2aircraft.com/index.php?action=service_centers.

¹⁵ Four MU-2 aircraft were operated under the command of the Argentine Air Force. Three were registered under the "Escuadrón Fénix" with registration numbers "MU2 LV-MOP," "MU2 LV-OAN," and "MU2 LV-ODZ." The final aircraft, "MU2 LV-MCV," was used by a different unit. "Escuadrón Fénix," EscuadronFenix.Org, <https://escuadronfenix.org.ar/escuadron-fenix/>.

¹⁶ Por Escuadr, "Aero y Tripulantes Civiles y Militares Convocados por la Fuerza Aerea Argentina para la Gesta por Malvinas en 1982," EscuadronFenix.Org, last updated July 26, 2019, <https://escuadronfenix.org.ar/cuadros-de-las-cuatro-misiones-de-guiado-del-mitsubishi-mu-2/>.

¹⁷ The British website Aeroflight, in its page on the Dominican Republic Air Force's MU-2, states that the Dominican Republic Air Force introduced an MU-2J in 1982 and sold it in September 1988 under registration number N68DA. It also mentions the use of two additional units, although the operational period is unclear. See "Dominican Republic Air Force Aircraft Types: Mitsubishi MU-2J *Retired*," Aeroflight, https://www.aeroflight.co.uk/waf/americas/dominican_rep/DomRep-af-MU2.htm.

In addition, on the "MU-2" page of the database rzjets.net, which contains information on aircraft, airlines, and airports, there is a record of the 548th unit, with registration number N68DA, being sold to a U.S. airline in 1992. However, no records exist for this aircraft prior to that date. See "Mitsubishi MU-2 production list / Mitsubishi MU-2: 775 frames / Total: 775 frames," rzjets, <https://rzjets.net/aircraft/?page=8&typeid=247>.

¹⁸ In Japan, there have been cases of operation from U.S. Forces, Japan bases of U.K.-manufactured Hawker Hunter fighters by ATAC, which provides training support services to the U.S. Navy. See "ATAC Hawker Siddeley Hawker Hunter (N321AX) 航空フォト" [ATAC Hawker Siddeley Hawker Hunter (N321AX) Flight Photo], Fly Team Aviation Community, <https://flyteam.jp/photo/3946363>.

¹⁹ rzjets.net.

²⁰ On February 16, 1986, SE-IOU was lost in an accident, and on March 15, 1986, SE-IOX was lost in a friendly fire incident at a Swedish military training range. See "ASN Wikibase Occurrence #137033," Aviation Safety Network, <https://aviation-safety.net/wikibase/137033>; "ASN Wikibase Occurrence #28547," Aviation Safety Network, <https://aviation-safety.net/wikibase/28547>.

²¹ As of today, there is one support base for MU-2 aircraft in the European market, which is operated by Saab. In addition, Saab continues to use its own MU-2 and other aircraft to provide target towing and electronic warfare training services for the Swedish military and other European forces. See "Aerial Target Services," Saab, <https://www.saab.com/products/aerial-target-services>.

²² rzjets.net.

²³ Ibid. Furthermore, the training support service using the MU-2 at Tyndall Air Force Base was taken over by the Air 1st Aviation Company in 1998. See "US Air Force Contract," Air 1st Aviation Companies, <https://tyndall.air1st.com/component/content/article/2-general/12-us-air-force-contract.html>.

²⁴ On February 28, 1989, N701DM was lost in an accident off the coast of California after providing airborne intercept training support to the U.S. Navy. See "ASN Wikibase Occurrence #28734," Aviation Safety Network, last updated August 4, 2017, <https://asn.flightsafety.org/wikibase/28734>.

²⁵ Cases that could not be verified through multiple sources and thus lack confirmation include records on the rzjets.net database indicating that the 675th unit (registration number C-FTWO) and the 683rd unit (registration number C-FIFE) were chartered for operation by the U.S. Naval Air Systems Command (NAVAIR). In addition, in an obituary article for the former president, Rear Admiral James A. Robb, USN (Ret.) on the website of the National Defense Industrial Association, it is mentioned that the MU-2 was one of the aircraft he piloted during his service with the U.S. Air Force's 4477 Tactical Evaluation Squadron. Furthermore, although outside the scope of this paper, four MU-2 aircraft registered as U.S. civilian aircraft were purchased by the Royal New Zealand Air Force for use as training aircraft in 2009. See "Mitsubishi MU-2 production list / Mitsubishi MU-2: 775 frames / Total: 775 frames," rzjets, <https://rzjets.net/aircraft/?page=10&typeid=247>; Keith Stalder, "NTSA Mourns the Passing of President, RADM James A. Robb, USN (Ret)," National Defense Industrial Association, <https://www.ndia.org/about/press/press-releases/2023/11/8/radm-robb---farewell>; "NZDF-SERIALS Australian & New Zealand Military Aircraft Serials & History: Mitsubishi MU-2F (Instructional Airframes) 0222G to 0225G," ADF-Serials & NZDF-Serials, <http://www.adf-serials.com.au/nz-serials/nzmu-2f.htm>.

²⁶ The management of "dual-use goods" that have been transferred overseas is extremely difficult. As pointed out by SATO Heigo, it is impossible to fully monitor their military applications. See SATO Heigo, 「武器輸出三原則等」から「防衛装備移転三原則」へ [From the Three Principles on Arms Exports to the Three Principles on Transfer of Defense Equipment and Technology] *Journal of International Security*, vol. 49, no. 4 (March 2022): 82-99.

²⁷ OGATA Makoto, 台湾海峡の守りに就いた航空自衛隊 F-104 [Air Self-Defense Force F-104s That Defended the Taiwan Strait], *Tsubasa*, no. 47 (July 2023): 54-68.

²⁸ C-130R transport aircraft commissioned by the Japan Maritime Self-Defense Force in 2014 fall into this category of refurbished equipment.

²⁹ In the 1980s, production of new F-104 aircraft had already ended, making it impossible to provide newly-manufactured units.

³⁰ Tang Fei, Wang Chang-He, and Ko Hui-Min, 用生命築長城 F-104 星式戰鬥機臺海捍衛史 [Building the Great Wall with Lives: The History of F-104 Starfighters in the Defense of the Taiwan Strait] (SBOOKER Publications, 2021), 53-60.

³¹ Ibid., 63-65.

³² Ibid., 60-61.

³³ Ibid., 61–63.

³⁴ Although Japan's current defense equipment transfer system is regulated by the Three Principles on Transfer of Defense Equipment and Technology as well as the Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology, as noted in footnote 1, the presumed subject raised in recent media discussions is expensive, "military-exclusive" domestically developed equipment requiring an advanced technology level.

³⁵ Preventing the unintended spread of conventional weapons is challenging, and existing international export control regimes such as the Wassenaar Arrangement cannot fully eliminate this risk. Therefore, Japan's current defense equipment transfer policy imposes various restrictions through the Three Principles on Transfer of Defense Equipment and Technology as well as the Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology. Even for "dual-use goods," which are difficult to describe as "directly employed in combat," if they are transferred overseas with the presumption of primarily military operations, they should be subject to the same restrictions as existing defense equipment transfers.

³⁶ Efforts to ensure interoperability with foreign defense equipment, such as participation in the NATO cataloging system, are being led by the ATLA. However, further initiatives, including measures for existing equipment, will be necessary. See N A T O カタログ制度について [NATO cataloging system], Acquisition, Technology & Logistics Agency, <https://www.mod.go.jp/atla/ncs.html>.

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