

Global Combat Air Programme (GCAP): Background and Prospects

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Abstract

In December 2022, Japan, the United Kingdom (UK), and Italy announced the Global Combat Air Programme (GCAP), a plan to jointly develop a fighter jet to replace Japan's F-2 and the UK and Italy's Eurofighter by 2035. In December of the following year, in 2023, the GIGO Establishment Convention was signed to establish an intergovernmental organization for managing the GCAP between the three countries, and the framework for development is currently being created. In fiscal year 2024, the three countries are expected to engage in difficult negotiations to determine the required performance, work distribution, and other factors in parallel with the design work of the fighter jet. Additionally, future points of discussion surrounding the GCAP may include the export of fighter jets to third countries, information security systems, the possibility of new participating countries, and the start of introduction by 2035. In this paper, we will confirm the history and background of the GCAP, provide an overview of the currently envisaged intergovernmental organization and joint business construct, and provide an overview of the design and development process. We will then summarize the future outlook from a policy perspective while including the main points of discussion.

Introduction

The Global Combat Air Programme (GCAP) was announced in December 2022 as a joint development plan between Japan, the United Kingdom (UK), and Italy for developing Japan's next fighter aircraft. The plan is to develop a successor to Japan's F-2 and the UK and Italy's Eurofighter by 2035. In December of the following year, in 2023, a convention was signed to establish an intergovernmental organization for managing the GCAP for the

three countries, and the countries are currently working on creating a framework for its development.

In this paper, we will confirm the history and background of GCAP, provide an overview of the currently envisaged intergovernmental organization and joint business construct, and provide an overview of the design and development process. We will then summarize the future outlook from a policy perspective while including the main points of discussion.

I History of the GCAP

1 Main history of the GCAP

(1) Consideration of the development policy in Japan

Japan currently owns three fighter aircraft models: F-15, F-2, and F-35 (the number of aircraft owned as of March 2023 is 200, 91, and 33, respectively)⁽¹⁾. The F-2 is a fighter aircraft that was jointly developed by Japan and the United States (US) based on the US F-16, with development commencing in Fiscal Year (FY)1988 and ending in FY2000 (the final aircraft was delivered in FY2011)⁽²⁾. The F-2 is scheduled to begin its retirement around 2035, and the next fighter aircraft is expected to be its successor.

Since around 2007, the development of the next fighter aircraft has been seriously discussed as the end of F-2 production approached, with the issues of fighter-related technology transfer and human resource retention raised in the Japanese defense industry⁽³⁾. In June 2009, the Meeting on the Nature of Production and Technological Bases for Fighter Aircraft was established within the Ministry of Defense to exchange opinions with experts on issues such as technology transfer. The interim report released by the Meeting in December of the same year stated the need to promote research and development so that the “development of fighter aircraft can be considered an option.” The report also stated that the Ministry of Defense and the Self-Defense Forces should formulate a research and

* The last access date for the online information in this article was May 1, 2024.

(1) 防衛省『日本の防衛—防衛白書— 令和5年版』日経印刷, 2023, 資料編 p.107 (Ministry of Defense, *Defense of Japan: Defense White Paper 2023*, Nikkei Printing Inc., 2023, reference p.107). The F-15, which was introduced the earliest, is being upgraded or updated to the F-35A/B.

(2) 「主要装備 F-2A/B」 航空自衛隊ウェブサイト (“Major equipment: F-2A/B.” Air Self-Defense Force website)

(3) 森本敏「次期戦闘機開発の経緯と展望—将来における空の戦闘を決める重大な選択—」『改革者』750号, 2023.1, pp.36-39 (MORIMOTO Satoshi, “History and prospects of the development of next fighter aircraft: Crucial choice that will determine future air combat,” *Reformer*, No.750, January 2023, pp.36–39); 「「F2」戦闘機 生産終了間近 国内基盤、空白の危機に」『日経産業新聞』2009.12.11 (“F2 fighter aircraft nears end of production, domestic base in danger of disappearing,” *Nikkei Business Daily*, December 11, 2009).

development vision for future fighter aircraft and share it with the defense aircraft industry⁽⁴⁾.

In August 2010, the Ministry of Defense published the R&D Vision on the Future Fighter Aircraft⁽⁵⁾. This Vision outlined seven future fighter aircraft concepts, including fire control technology, stealth, radar, and engines, as well as the research items required to achieve them. In response to these results, the Ministry of Defense's Technical Research and Development Institute (currently the Acquisition, Technology & Logistics Agency⁽⁶⁾) began full-scale research into the future fighter aircraft concept and technical feasibility around 2009. It conducted research and prototype production of the Advanced Technological Demonstrator-X (X-2) (first flight in 2016) and a fighter engine system (XF9-1) (delivered in 2018)⁽⁷⁾.

Japanese policy regarding the development form of the next fighter aircraft has been to retain the option of its independent development⁽⁸⁾. However, in the Medium Term Defense Program (FY2019–FY2023) in December 2018, a policy was issued that “new fighters that are capable of playing a central role in future networked warfare” would be acquired by the time the F-2 is retired and that they would “launch a Japan-led development project at an early time with the possibility of international collaboration in sight”⁽⁹⁾. In October 2020, the Acquisition, Technology & Logistics Agency signed a contract with Mitsubishi Heavy Industries to develop the aircraft⁽¹⁰⁾. An engineering team consisting of 8 companies

(4) 「戦闘機の生産技術基盤の在り方に関する懇談会 中間取りまとめ」2009.12, pp.16-19. 防衛省ウェブサイト (“Meeting on the Nature of Production and Technological Bases for Fighter Aircraft: Interim Report,” December 2009, pp.16–19. Ministry of Defense website)

(5) 防衛省「将来の戦闘機に関する研究開発ビジョン」2010.8.25 (Ministry of Defense, “R&D Vision on the Future Fighter Aircraft,” August 25, 2010).

(6) In October 2015, the Acquisition, Technology & Logistics Agency was established as an external agency that consolidated and reorganized the Ministry of Defense's research and development as well as procurement departments.

(7) 森本敏・岩崎茂編著, 山崎剛美ほか『次期戦闘機開発をいかに成功させるか—2035年悲願の国産戦闘機誕生へ—』並木書房, 2021, pp.52-53 (MORIMOTO Satoshi and IWASAKI Shigeru, eds., YAMAZAKI Takayoshi et al., *How to succeed in the development of Next Fighter Aircraft: Toward the birth of the long-awaited domestic fighter aircraft by 2035*, Namiki Shobo, 2021, pp.52–53).

(8) The Medium Term Defense Program (FY2011–FY2015) in December 2010 stated that “strategic consideration will be given to prepare the future fighter development as one of the alternatives for F-2 fighter replacement,” and the Medium Term Defense Program (FY2014–FY2018) in December 2013 stated that “[the MOD will] promote strategic studies...so as to keep an option for development of next-generation fighter aircraft including the possibility of international joint development of an aircraft to replace the F-2 when it is time to retire it.”

(9) 「中期防衛力整備計画（平成31年度～平成35年度）」（平成30年12月18日国家安全保障会議決定・閣議決定）内閣官房ウェブサイト (“Medium Term Defense Program (FY2019–FY2023),” adopted by the National Security Council, approved by the Cabinet Decision on December 18, 2018. Cabinet Secretariat website)

(10) 防衛省「次期戦闘機（F-X）の令和2年度事業に関する契約締結について」2020.10.30 (Ministry of Defense, “Conclusion of contract for FY2020 project for next fighter aircraft (F-X),” October 30, 2020). Regarding the development system, a single-prime system was adopted in

including Mitsubishi Heavy Industries and other domestic companies (e.g., IHI, Mitsubishi Electric) was organized, where the conceptual design of the entire system was implemented⁽¹¹⁾.

The Japanese government and related companies have been engaging in international collaboration through discussions with the US since around January 2020, to receive technical support from US companies, with Japan–US cooperation at the core. However, according to reports, the proposal (for adopting the F-35’s characteristics based on the F-22) from Lockheed Martin, a leading US fighter jet developer, was difficult for Japan to accept from a Japan-led perspective. In addition, there were other problems such as the US side remaining cautious about disclosing information on advanced technology and the timing of development between Japan and the US not matching⁽¹²⁾. In December 2020, the Ministry of Defense announced in a document about the direction of international collaboration that it had selected Lockheed Martin as the candidate for an integration support company out of three US and UK companies that had provided information⁽¹³⁾. It was stated at this time that discussions would continue with the US and UK regarding each system, such as engines and avionics (onboard electronic devices), and that the possibility of cooperation would be pursued.

Japan began considering the possibility of cooperation with the UK at the sub-system level, such as for engines, in March 2017⁽¹⁴⁾. At the Japan–UK defense ministers’ meeting in July 2021, the members agreed to accelerate discussions for pursuing cooperation at the sub-system level, with a focus on engines⁽¹⁵⁾. In December 2021, the Ministry of Defense published a document on international collaboration for the next fighter aircraft, where they

which the company designing the aircraft would oversee the integration of the entire fighter aircraft and take the lead in development. Subcontracting would be undertaken with the company designing the engine and the company designing the mission and avionics (on-board electronic devices) (excluding contracts related to engine development work). 防衛省「次期戦闘機 (F-X) の開発体制について」2020.7.31 (Ministry of Defense, “Development structure of next fighter aircraft (F-X),” July 31, 2020).

(11) 防衛省『日本の防衛—防衛白書— 令和 3 年版』日経印刷, 2021, p.403 (Ministry of Defense, *Defense of Japan: Defense White Paper 2021*, Nikkei Printing Inc., 2021, p.443).

(12) MORIMOTO, *op.cit.*(3); MORIMOTO and IWASAKI, eds., *op.cit.*(7), pp.65–79; 竹内修「F-X 令和の零戦 航空自衛隊次期戦闘機最新リポート」『丸』920 号, 2022.12, pp.100-105 (TAKEUCHI Osamu, “F-X Reiwa Zero Fighter: Latest report on Japan Air Self-Defense Force’s next fighter aircraft,” *Maru*, No.920, December 2022, pp.100–105).

(13) 防衛省「次期戦闘機 (F-X) のインテグレーション支援に係る情報収集の結果及び次期戦闘機の開発に係る国際協力の方向性について」2020.12.18 (Ministry of Defense, “Results of information gathering related to integration support for next fighter aircraft (F-X) and direction of international collaboration related to development of next fighter aircraft,” December 18, 2020).

(14) 防衛装備庁「将来戦闘機における英国との協力の可能性に係る日英共同スタディに関する取決めの締結について」2017.3.16. 防衛省ウェブサイト (Acquisition, Technology & Logistics Agency, “Conclusion of agreement on Japan–UK joint study on possible cooperation with the UK on future fighter aircraft,” March 16, 2017. Ministry of Defense website); MORIMOTO, *op.cit.*(3)

(15) 防衛省「日英防衛相会談後の共同記者発表」2021.7.20 (Ministry of Defense, “Joint press conference after Japan–UK defense ministers’ meeting,” July 20, 2021).

announced that Japanese and UK defense authorities would launch the joint engine demonstrator program in January 2022 and also consider the feasibility of further cooperation at the sub-system level⁽¹⁶⁾. At the Japan–UK summit meeting in May 2022, both countries shared the view to reach a mutual understanding on the overall picture of cooperation regarding future fighter aircraft programs by the end of 2022⁽¹⁷⁾. Since May of the same year, reports citing government officials have indicated that the direction has shifted from Japan–US cooperation to joint development led by Japan and the UK⁽¹⁸⁾.

(2) Activities by the UK and Italy

In the Ministry of Defense’s *Combat Air Strategy: An Ambitious Vision for the Future* (“*Combat Air Strategy*”) of July 2018, the UK announced that it would commence with plans for acquiring a successor aircraft (“*Tempest*”) to the Eurofighter, which was scheduled to be retired from service in the late 2030s or later, as part of the Future Combat Air System (FCAS), which envisions cooperation between fighter jets and unmanned aircraft⁽¹⁹⁾. A policy for selecting an international joint development partner was also announced at that time from the perspective of cost containment and other factors⁽²⁰⁾. British companies were said to have been in contact with Japan with the aim of joint development even before this announcement⁽²¹⁾.

In September 2019, Italy announced its participation in the UK’s *Tempest* development plan⁽²²⁾. In December 2020, the UK, Italy, and Sweden signed a trilateral memorandum of understanding (MoU) regarding cooperation in the research and development of the

⁽¹⁶⁾ 防衛省「次期戦闘機（F-X）に係る国際協力について」2021.12.22 (Ministry of Defense, “International collaboration related to next fighter aircraft (F-X),” December 22, 2021).

⁽¹⁷⁾ 「日英首脳会談及びワーキング・ランチ」2022.5.5. 外務省ウェブサイト “[Japan–UK Summit Meeting and Working Lunch](#),” May 5, 2022. Ministry of Foreign Affairs website)

⁽¹⁸⁾ For example, see the following: 「F2 後継機 日英で共同開発 防衛省調整 米ロッキードから転換」『産経新聞』2022.5.14 (“F2 successor aircraft jointly developed by Japan and the UK, coordination with the Ministry of Defense, shifting from Lockheed in the US,” *Sankei Shimbun*, May 14, 2022); 「次期戦闘機、英と開発 F2 後継 政府調整、BAE 参画」『日本経済新聞』2022.5.15 (“Next fighter aircraft developed with the UK, F2 successor, government coordination, BAE participation,” *Nihon Keizai Shimbun*, May 15, 2022).

⁽¹⁹⁾ UK Ministry of Defence, *Combat Air Strategy: An ambitious vision for the future*, 2018, pp.4, 7–8, 30. The Eurofighter is a fighter jet that was jointly developed by four European countries (UK, Germany, Italy, and Spain), and as of December 2022, the UK has procured 144 units of the aircraft. 「日英伊、次期戦闘機の共同開発で合意 2035 年に配備開始」『ロイター』2022.12.12 (“Japan, the UK, and Italy agree to joint development of next fighter aircraft, deployment to begin in 2035,” *Reuters*, December 12, 2022).

⁽²⁰⁾ UK Ministry of Defence, *ibid.*, pp.7, 21–23, 30.

⁽²¹⁾ MORIMOTO, *op.cit.*(3)

⁽²²⁾ Gareth Jennings, “DSEI 2019: Italy joins Tempest,” September 11, 2019. Janes website. As of December 2022, Italy procured 94 units of the Eurofighter. *Reuters*, *op.cit.*(19)

Tempest⁽²³⁾ (there is information that Sweden later decided not to participate⁽²⁴⁾). At the Japan–Italy defense ministers’ meeting in April 2022, the Italian side expressed interest in jointly developing the next fighter aircraft⁽²⁵⁾.

(3) Decision of joint development by Japan, the UK, and Italy and subsequent actions

In December 2022, the leaders of Japan, the UK, and Italy met and announced the Joint Leaders’ Statement on the GCAP, which was a plan for jointly developing a next-generation fighter aircraft by 2035⁽²⁶⁾. The GCAP was positioned as a program that would further deepen the partnership between the three countries. The acceleration of military capability and technological advantage, the deepening of defense cooperation, science and technology cooperation and integrated supply chains, and the further strengthening of the defense industrial base were cited as the program’s benefits to the three countries. It was stated that the program would not only support jobs and livelihoods in the three countries through economic and industrial benefits but also attract investment in research and development in digital design and advanced manufacturing processes, providing opportunities for the next generation of engineers and specialists. The essence of the GCAP that was emphasized was that it “[has been] designed with our Allies and partners at its very heart” and that a central concept is future interoperability with partners worldwide.

Japan, the UK, and Italy began negotiations in January 2023 to establish an international organization for managing the GCAP, and in December 2023, they signed the Convention on the Establishment of the “Global Combat Air Programme – GCAP International Government Organization” (GIGO Establishment Convention) to establish the GCAP International Government Organization (GIGO)⁽²⁷⁾ (see Table 1 for the main events in Japan to date).

The GIGO was expected to be established in 2024 after ratification procedures in each country⁽²⁸⁾. The Japanese government submitted to the 213th Diet (regular session),

⁽²³⁾ Luca Peruzzi, “Italy, UK and Sweden sign MoU on development of Tempest,” January 5, 2021. Janes website

⁽²⁴⁾ Gareth Jennings, “IFC 2023: Sweden charts next-generation fighter development,” November 8, 2023. Janes website

⁽²⁵⁾ 「防衛大臣臨時記者会見」2022.4.12. 防衛省ウェブサイト (“Extraordinary Press Conference by the Minister of Defense,” April 12, 2022. Ministry of Defense website)

⁽²⁶⁾ 「グローバル戦闘航空プログラムに関する共同首脳声明 仮訳」2022.12.9. 外務省ウェブサイト (“Joint Leaders’ Statement,” December 9, 2022. Ministry of Foreign Affairs website)

⁽²⁷⁾ See below for the text of the GIGO Establishment Convention. 外務省「(仮訳文) グローバル戦闘航空プログラム (GCAP) 政府間機関の設立に関する条約」 (“Convention on the Establishment of the “Global Combat Air Programme - GCAP International Government Organisation.”” Ministry of Foreign Affairs website)

⁽²⁸⁾ 「次期戦闘機開発へ国際機関 日英伊合意 2035 年配備目指す」『産経新聞』2023.12.15 (“International organizations agree on next fighter aircraft development, aiming for deployment in 2035,” *Sankei Shimbun*, December 15, 2023).

convened in January 2024, a proposal to obtain approval for the conclusion of the GIGO Establishment Convention (submitted on February 20, 2024, Cabinet Article No.1). The government also submitted a bill to amend the Act on Treatment of Personnel of the Ministry of Defense Dispatched to International Organizations, etc., to add joint development of equipment to the list of purposes of dispatch so that Ministry of Defense personnel could be dispatched to the GIGO (submitted February 9, 2024, Cabinet Article No.14).

Table 1. Main developments surrounding the GCAP in Japan

Month and year	Main developments surrounding the Global Combat Air Programme (GCAP)
December 2009	The Meeting on the Nature of Production and Technological Bases for Fighter Aircraft announces an interim report →Stated that the Ministry of Defense should formulate a vision for the research and development of future fighter aircraft
August 2010	The Ministry of Defense publishes R&D Vision on the Future Fighter Aircraft →Sets out seven future fighter aircraft concepts
October 2015	The Acquisition, Technology & Logistics Agency established as an external bureau of the Ministry of Defense
December 2018	Medium Term Defense Program (FY2019–FY2023) decided →Announcement of a policy to “launch a Japan-led development project at an early timing with the possibility of international collaboration in sight”
October 2020	The Ministry of Defense contracts with Mitsubishi Heavy Industries as the company responsible for the integration of the entire body of the next fighter aircraft
December 2020	The Ministry of Defense publishes a document on the direction of international collaboration for the next fighter aircraft →Decision made to select Lockheed Martin as the candidate company for integration support.
December 2021	The Ministry of Defense publishes a document on international collaboration for the next fighter aircraft →Japanese and UK defense authorities indicate their intention to launch a joint engine demonstrator programme in January 2022 and consider the feasibility of further cooperation at the sub-system level.
December 2022	Japan, the UK, and Italy announce the GCAP in a joint statement at the summit to develop the next-generation fighter aircraft.
December 2023	Japan, the UK, and Italy sign the Convention on the Establishment of the “Global Combat Air Programme - GCAP International Government Organisation” (GIGO Establishment Convention)

(Source) Created by the author based on various materials.

2 Background of the joint development decision by each country

(1) Japan

The Ministry of Defense cited the following reasons for the decision regarding the significance of the joint development between Japan, the UK, and Italy: (1) development costs and technical risks will be shared between the three countries while bringing together their respective technologies; (2) defense production and technological bases can be maintained and strengthened by increasing the number of mass-produced next fighter aircraft, training next-generation engineers, and appropriately sharing production, and a wide-ranging ripple effect on society as a whole can be expected; and (3) it will serve as a foundation for broad cooperation with the UK and Italy and contribute greatly to peace and stability in the Indo-Pacific region and Europe⁽²⁹⁾.

Other factors behind the joint development with the UK include the fact that Japan and the UK were aiming to introduce future fighter aircraft in almost the same time frame, difficulties in coordinating with the US company Lockheed Martin, and the prospect of greater disclosure of information and greater freedom of modification if a British company was involved⁽³⁰⁾.

(2) UK

In its Combat Air Strategy of July 2018, the UK stated that the country has a history of developing fighter jets such as the Tornado and Eurofighter through international collaboration and that it will continue to base its policy on international collaboration in this field⁽³¹⁾.

Officials from the UK government and UK companies indicated that the benefits of joint development by Japan, the UK, and Italy include the significance of “symbolizing and strengthening the solidarity of the three countries that are part of the G7 and share liberal democratic values,” the guarantee of freedom of modification, mutual benefits from collaboration on important technological development, and cost reduction effects from mass production⁽³²⁾. It was also said that UK companies are hoping to come into contact

(29) 「次期戦闘機の開発について」 2024.3.26. 防衛省ウェブサイト (“Development of next fighter aircraft,” March 26, 2024. Ministry of Defense website)

(30) MORIMOTO, *op.cit.*(3); *Nihon Keizai Shimbun*, *op.cit.*(18); 「(解説) 日英伊で共同開発 次期戦闘機 改修の自由優先」『読売新聞』2023.7.28 (“(Commentary) Joint development of the next fighter aircraft by Japan, the UK, and Italy, freedom of modification prioritized,” *Yomiuri Shimbun*, July 28, 2023); 第 213 回国会参議院予算委員会会議録第 4 号 令和 6 年 3 月 5 日 (岸田文雄首相答弁) (Minutes of the 213rd Diet Budget Committee, House of Councillors, No.4, March 5, 2024. (reply by Prime Minister KISHIDA Fumio)).

(31) UK Ministry of Defence, *op.cit.*(19), pp.5, 7, 18, 21.

(32) 「戦闘機 日英伊の連帯象徴 駐日英大使 ジュリア・ロングボトム氏」『読売新聞』

with and acquire certain technologies in which Japanese companies have strengths (e.g., super heat-resistant alloys, composite materials, ceramics, advanced integrated sensor systems, and fighter engines)⁽³³⁾.

(3) Italy

Italy has no plans to independently develop a new fighter jet to succeed the Eurofighter, is not participating in the joint development plan⁽³⁴⁾ for the Next Generation Fighter being implemented by three European countries (France, Germany, and Spain), and has previously participated in the joint development of the Eurofighter with the UK, so it could be said that Italy had been considering participation in the development of the UK's Tempest from the outset⁽³⁵⁾.

Officials from Italian companies have stated that the advantages of joint development between Japan, the UK, and Italy. These include increased "strategic significance of Europe and Japan strengthening cooperation in the domain of security" given the backdrop of changes in military situations such as closer ties between China and Russia; cost reduction effects of mass production, including exports to third countries other than Japan, the UK, and Italy; maintenance and strengthening of the country's defense industrial base through the training of engineers and economic ripple effects; and the effectiveness of Japan–Europe cooperation in not relying on a specific country for the procurement of defense equipment⁽³⁶⁾.

2022.12.10 ("Fighter aircraft symbolizes solidarity between Japan, the UK, and Italy: UK Ambassador to Japan Julia Longbottom," *Yomiuri Shimbun*, December 10, 2022); 「次期戦闘機開発「日英で密接連携を」 英国防省課長 リチャード・バーソン氏」『産経新聞』2020.9.24 ("Next fighter aircraft development: 'Close collaboration between Japan and the UK,' UK Ministry of Defence Director Richard Berthon," *Sankei Shimbun*, September 24, 2020); 「日本の次期戦闘機に意欲 ロールス、英機向け技術「応用可能」」『日経産業新聞』2020.11.19 ("Eagerness for Japan's next fighter aircraft, Rolls-Royce's technology for UK aircraft is 'applicable'," *Nikkei Business Daily*, November 19, 2020).

⁽³³⁾ *Nikkei Business Daily*, *ibid.*; 秋元千明『復活！日英同盟—インド太平洋時代の幕開け—』CCC メディアハウス, 2021, pp.198-202 (AKIMOTO Chiaki, *Revival! Anglo-Japanese Alliance: Dawn of the Indo-Pacific Era*, CCC Media House, 2021, pp.198–202).

⁽³⁴⁾ France, Germany, and Spain are planning the joint development of the New Generation Fighter (NGF) by 2040 as part of the Future Combat Air System (FCAS). Although the name is identical to the UK FCAS, this is a different initiative.

⁽³⁵⁾ TAKEUCHI, *op.cit.*(12). When asked why they chose to participate in the development of the UK's Tempest rather than the French, German, and Spanish NGF, the Italian air force chief of staff stated that they felt that they could play a larger role in the Tempest ("FCAS, Tempest fighter jet programmes will merge - Italy's air force chief," *Reuters*, November 24, 2021).

⁽³⁶⁾ 「(グローバルオピニオン) 日英伊連携、アジアに安定を 伊防衛大手レオナルド上級副社長 グリエルモ・マビリア氏」『日本経済新聞』2023.3.23 ("(Global Opinion) Japan–UK–Italy collaboration to bring stability to Asia: Guglielmo Maviglia, Senior Vice President of Italian defense manufacturer Leonardo," *Nihon Keizai Shimbun*, March 23, 2023).

3 Relations with the US

In December 2022, on the same day as the issuance of the Japan-UK-Italy Joint Leaders' Statement on the GCAP, a joint announcement was also made by the Japanese Ministry of Defense and the US Department of Defense⁽³⁷⁾. The statement announced that the US “supports Japan’s security and defense cooperation with likeminded allies and partners,” including the GCAP, and that both Japan and the US have commenced with important collaboration relating to “autonomous systems capabilities, which could complement Japan’s next fighter program among other platforms.” Following this, in December 2023, Japan and the US signed a project arrangement for Japan–US joint research on AI technology to be applied to unmanned aircraft that would work with the next fighter aircraft⁽³⁸⁾.

For Japan, the GCAP was the first opportunity to develop defense equipment fully jointly with a country other than the US. According to reports, the Japanese government has “thoughtfully and carefully prepared” laid the groundwork for high-ranking officials in the US government and military so as to gain their understanding for the joint development of the next fighter aircraft with the UK⁽³⁹⁾. The US’ position on the matter was that the development plan for the Next Generation Air Dominance (NGAD) fighter aircraft it is currently pursuing is significantly ahead of Japan’s development plan for the next fighter aircraft⁽⁴⁰⁾. In addition, Lockheed Martin was not particularly keen on being involved in Japan’s development plan, given that Japan had rejected the company’s proposal⁽⁴¹⁾.

(37) 「〔仮訳〕次期戦闘機に係る協力に関する防衛省と米国防省による共同発表」2022.12.9. 外務省ウェブサイト (“U.S. Department of Defense and Japan Ministry of Defense Joint Statement on Cooperation for Japan’s Next Fighter Aircraft,” December 9, 2022. Ministry of Foreign Affairs website). When asked about the background to the shift from cooperation with US companies to joint development between Japan, the UK, and Italy at a press conference on the same day, Defense Minister Hamada Yasukazu stated, “we would like to continue working closely with the US, including to ensure interoperability”. 「防衛大臣記者会見」2022.12.9. 防衛省ウェブサイト (“Defense Minister’s Press Conference,” December 9, 2022. Ministry of Defense website)

(38) 防衛省「防衛省及び米国防省による「無人航空機へ適用する AI 技術に係る日米共同研究」に関する事業取決めの署名について」2023.12.22 (Ministry of Defense, “Regarding the signing of the project arrangement for joint research on AI technology applied to unmanned aerial vehicles (joint research on “Overwhelming Response through Collaborative Autonomy”) by the Ministry of Defense and the US Department of Defense,” December 22, 2023).

(39) *Yomiuri Shimbun*, *op.cit.*(30)

(40) Details about the NGAD and its specific development status have not been disclosed, but a technology demonstrator is known to have already been flown by at least September 2020. Valerie Insinna, “The US Air Force has built and flown a mysterious full-scale prototype of its future fighter jet,” September 16, 2020. Defense News website

(41) 高橋浩祐「あえて英国と組んだ次期戦闘機の共同開発」『週刊東洋経済』7063号, 2022.7.16, pp.60-61 (TAKAHASHI Kosuke, “Intentional joint development of next fighter aircraft with the UK,” *Weekly Toyo Keizai*, No.7063, July 16, 2022. pp.60–61); MORIMOTO, *op.cit.*(3).

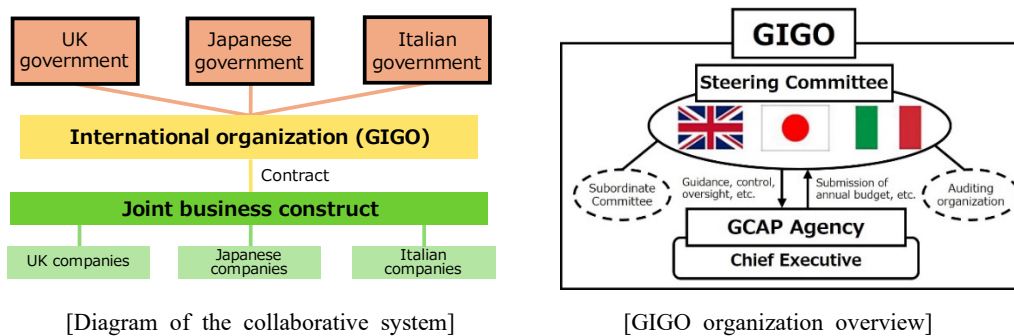
II GIGO and joint business construct

1 Overview of the GIGO

The GIGO Establishment Convention is an agreement that stipulates the establishment of the GIGO as an international organization based on an international agreement to establish an efficient collaborative system for the implementation of the GCAP. Specifically, the conclusion of the treaty is expected to establish a system for centralized management and operation of collaboration between the three governments, as well as between those governments and private companies, which is expected to contribute to the smooth implementation of the GCAP⁽⁴²⁾.

The overview of the GIGO as envisaged at present has been confirmed based on the contents of the convention (see the figure for a diagram of the collaborative system).

Figure. Diagram of the collaborative system and overview of the GIGO organization



(Source) Created by the author based on the diagrams published in the following. 「次期戦闘機の開発について」 2024.3.26. 防衛省ウェブサイト (“Development of the next fighter aircraft,” March 26, 2024. Ministry of Defense website)

(1) Status and mission of the GIGO

The GIGO is an international organization that was established to pursue the guidance, direction, control, supervision, and management of the GCAP (Article 1). It is composed of the Steering Committee that consists of the Parties (i.e., Japan, the UK, and Italy) and the GCAP Agency (“Agency”) that acts according to the guidance, direction, control, and supervision of the Steering Committee for the benefit of the GCAP, and it has international legal personality and full legal personality within the jurisdictions of the Parties (Article 3). The official language is English (Article 4). The headquarters of the GIGO are located in the UK, and it may also have branches in the territory of the Parties (Article 10).

⁽⁴²⁾ 外務省「グローバル戦闘航空プログラム (GCAP) 政府間機関の設立に関する条約の説明書」 2024.3.18 (Ministry of Foreign Affairs, “Explanatory document of the Convention on the Establishment of the “Global Combat Air Programme - GCAP International Government Organisation,” March 18, 2024).

The Steering Committee consists of the representatives of each Party, and the Committee is chaired by a Head of Delegation according to a rotating mechanism among the Parties (Article 6). The Steering Committee represents the highest governance forum and maintains oversight of the GIGO, and its responsibilities and decision processes are detailed in a further arrangement (Article 7). The Steering Committee establishes a security governance subordinate committee and a conciliation subordinate committee that settles disputes arising from contracts concluded by the GIGO (Articles 52 and 58). Furthermore, the Steering Committee may unanimously decide to establish subordinate committees where necessary to support the delivery of its responsibilities (Article 8).

The Agency assumes the management, coordination, and execution of all phases of the GCAP, including disposal, under the strategic direction and oversight of the Parties through the Steering Committee (Article 9). The Agency is led by a Chief Executive elected by the Steering Committee (Article 14), and the personnel are primarily composed of government officials drawn from the Parties (Article 16). It fulfills tasks related to the overall management of the GCAP, placement of GCAP contracts, examination and resolution of problems concerning the delivery of the GCAP's technical and program requirements, submission of an annual budget to the Steering Committee, and the management and support to GCAP exports (Article 12). Additionally, GCAP contracts with industries are negotiated, concluded, and managed by the Agency on behalf of the GIGO, and the Agency is responsible for supervising and monitoring industry activities (Article 13).

(2) Obligations of Parties

Regarding import, export, or transfer between Parties, the Parties, in accordance with legal obligations and regulations, and with due consideration of the direct interests of national security, “shall support, to the maximum extent possible...the import, export or transfer of all items and information generated within the GCAP between the Parties in all phases” (Article 5).

The Parties will contribute to the funding of the GIGO (Article 18). The GIGO and its personnel will enjoy certain privileges and exemptions to the extent necessary (Articles 28–47). Unanimous consent of the Parties is necessary to take a final decision about any non-Parties acceding to this Convention (Article 49).

Regarding export and transfer to additional Parties, each Party, in accordance with legal obligations and regulations, and with due consideration of the direct interests of national security, “shall support, to the maximum extent possible...the intention of one of the Parties to export or transfer items and information generated within or through the GCAP to non-Parties.” In addition, should one of the Parties be concerned about the possibility of exports, then “the Parties shall initiate high-level consultations without undue delay in order to exchange their assessments and find appropriate solutions” (Article 50). The Parties will

also create and maintain a common mechanism for facilitating exports to non-Parties (Article 51).

Regarding the protection of information, the Parties and the GIGO will protect classified information, in accordance with the provisions that will be detailed in a further arrangement between the relevant authorities of the Parties (Article 53). Regarding withdrawal from the Convention, it will take effect 12 months following the date when the notification is received, and the withdrawing Party will fulfill all its commitments up to the effective date of withdrawal (Article 65).

(3) Other

The first chief executive officer of the GIGO will be dispatched from Japan⁽⁴³⁾. Several hundred personnel are also expected to be dispatched from the three countries⁽⁴⁴⁾.

2 Overview of the joint business construct

For the system of the companies that serve as the counterparts of the GIGO, adjustments are being made to establish a joint venture (JV) as a private joint business construct, centered on the three major companies expected to be at the core of development: Mitsubishi Heavy Industries of Japan, BAE Systems of the UK, and Leonardo of Italy⁽⁴⁵⁾. The GIGO will determine the requirements for the aircraft, whereas the joint business construct will be responsible for the design and manufacturing upon receiving orders from the GIGO⁽⁴⁶⁾. The headquarters of the joint business construct is in the UK, and the first chief executive officer will be dispatched from Italy⁽⁴⁷⁾.

In September 2023, the three major companies from Japan, the UK, and Italy agreed to

⁽⁴³⁾ 「GCAP 三カ国防衛大臣共同声明」 2023.12.14. 防衛省ウェブサイト (“GCAP Trilateral Defence Ministerial Joint Statement,” December 14, 2023. Ministry of Defense website)

⁽⁴⁴⁾ 「戦闘機開発 日英伊が署名 米以外で初 2035 年配備へ政府間機関」『朝日新聞』 2023.12.15 (“Japan, the UK, and Italy sign fighter aircraft development agreement, first with a country other than the US, intergovernmental organization to deploy in 2035,” *Asahi Shimbun*, December 15, 2023).

⁽⁴⁵⁾ *ibid.* An Acquisition, Technology & Logistics Agency official mentioned the possibility as of March 2024 of the selection of a suitable corporate system, such as a joint venture (JV) or consortium. 高橋浩祐 「日英伊共同開発の次期戦闘機計画、防衛装備庁担当者が明かした今後のスケジュールや目標配備機数とは？」 2024.3.26. YAHOO! JAPAN ニュースウェブサイト (TAKAHASHI Kosuke, “Next fighter aircraft plan jointly developed by Japan, the UK, and Italy: What is the future schedule and target number of aircraft to be developed, according to an Acquisition, Technology & Logistics Agency official?,” March 26, 2024. YAHOO! JAPAN News website)

⁽⁴⁶⁾ 「日英伊 戦闘機開発 日本人トップ 来秋に共同機関 英国に本部」『読売新聞』 2023.9.26 (“Japan, the UK, and Italy fighter development, Japanese heads, joint agency to be headquartered in the UK next fall,” *Yomiuri Shimbun*, September 26, 2023).

⁽⁴⁷⁾ “GCAP Trilateral Defence Ministerial Joint Statement,” *op.cit.* (43)

a trilateral agreement for continuing discussions on the long-term work structure of the GCAP and the clarification of its concept and required performance⁽⁴⁸⁾. From December 2023 onward, the three companies have been continuing discussions on the future joint business construct⁽⁴⁹⁾. As of December 2023, the GCAP is expected to have around 9,000 personnel worldwide from the private sector and over 1,000 companies across the three countries (see Table 2 for the main companies expected to participate in the development).

Table 2. Main companies expected to participate in the GCAP development and the division of development

	Japan	UK	Italy
Airframe, overall management	Mitsubishi Heavy Industries	BAE Systems	Leonardo
Engine	IHI	Rolls-Royce	Avio Aero
Avionics (On-board electronic equipment)	Mitsubishi Electric	Leonardo UK	Leonardo, Elettronica

(Source) Created by the author based on various reports and presentations from related companies.

3 Future design and development flow

The details of the design and development schedule are currently being examined by the three countries. Explanations by personnel from the Acquisition, Technology & Logistics Agency as of March 2024 indicated that the project is gradually moving from conceptual design to preliminary design, which will determine the shape of the fighter, and this will be followed by detailed design, which includes the manufacturing process⁽⁵⁰⁾. As

⁽⁴⁸⁾ 「グローバル戦闘航空プログラムの産業界パートナーが次世代戦闘機提供の協力で次のステップに合意」2023.9.12. 三菱重工ウェブサイト (“[Global Combat Air Programme industry partners agree next steps on collaboration to deliver next generation combat aircraft](#),” September 12, 2023. Mitsubishi Heavy Industries website)

⁽⁴⁹⁾ 「日・英・伊の各国政府によるグローバル戦闘航空プログラムに関する条約について」2023.12.14. 三菱重工ウェブサイト (“[National industry leaders welcome Japan, the UK & Italy government agreement on the next generation Global Combat Air Programme](#),” December 14, 2023. Mitsubishi Heavy Industries website)

⁽⁵⁰⁾ TAKAHASHI, *op.cit.*(45); 立石顕「【最新情報】どうなる次期戦闘機？ 日英伊共同開発担当者に直撃」『NHK 政治マガジン』2023.4.25 (TATEISHI Akira, “[Latest information] What will happen to the next fighter aircraft? Interview with Japan–UK–Italy joint development official,” *NHK Political Magazine*, April 25, 2023); 「防衛大臣記者会見」2024.3.26. 防衛省ウェブサイト (“Defense Minister’s Press Conference,” March 26, 2024. Ministry of Defense website). Production of the prototype aircraft is said to begin around 2026. 「次期戦闘機 26年にも試作 日英伊、まず調整機関」『日本経済新聞』2024.4.26 (“Next fighter aircraft: Prototype to be made as early as 2026, Japan, the UK, and Italy to form coordination agency first,” *Nihon Keizai Shimbun*, April 26, 2024).

the design progresses, the project will determine which of the required performances of each country will be emphasized, and the design content will be solidified. Design work is expected to progress over the next five years (until around 2029), and prototypes will be manufactured, ground tests will be conducted, and flight tests will be conducted to complete the development and deploy the first aircraft in 2035.

III Future outlook

1 Determination of required performance

A general assumption in the joint development of defense equipment is that the participating countries have similar performance requirements and operational concepts⁽⁵¹⁾.

What Japan emphasizes in terms of the capabilities required for the next fighter aircraft is “superior air-to-air capabilities that can counter enemy fighter aircraft that outnumber them, while preventing attacks at sea and at large distances to the extent possible, while considering Japan’s geographical environment, and maintaining air superiority into the future”⁽⁵²⁾. Specifically, Japan is seeking advanced network combat capabilities, advanced stealth capabilities, advanced sensing technology, and a long flight range⁽⁵³⁾. There are also views that Japan and the UK have many common features in their required performance, including the consideration of cooperation with unmanned aircraft and the UK’s need for a long flight range given their status as a maritime nation⁽⁵⁴⁾.

⁽⁵¹⁾ 井上孝司「日本の次期戦闘機開発に秋波をおくる 防衛省も関心、日英共同開発なるか イギリスの新世代戦闘機「テンペスト」」『軍事研究』53 巻 11 号, 2018.11, pp.92–103 (INOUE Koji, “UK making eyes at Japan’s next fighter aircraft development: Ministry of Defense also takes interest, possible UK–Japan joint development, the UK’s new generation fighter ‘Tempest’,” *Japan Military Review*, Vol.53, No.11, November 2018, pp.92–103).

⁽⁵²⁾ 「GCAP に係る完成品の我が国から第三国への直接移転に関する閣議決定」2024.3.26. 防衛省ウェブサイト (“Cabinet Decision on the transfer of finished products from Japan to countries other than partner countries of international joint development and production,” March 26, 2024. Ministry of Defense website)

⁽⁵³⁾ *ibid.*; 第 213 回国会参議院予算委員会会議録第 4 号 前掲注(30) (岸田首相答弁) (Minutes of the 213rd Diet Budget Committee, House of Councillors, No.4, *op.cit.*(30) (reply by Prime Minister KISHIDA Fumio))

⁽⁵⁴⁾ TAKAHASHI, *op.cit.*(41); 小野正春「「わが国主導」と「国際共同開発」の狭間で揺らぐ次期戦闘機の開発形態」『航空ファン』69 巻 7 号, 2020.7, pp.58–61 (ONO Masaharu, “Wavering between ‘Japan-led’ and ‘international joint development’: Development form of next fighter aircraft,” *Aviation Fan*, Vol.69, No.7, July 2020, pp.58–61); 横山恭三「ついに輸出容認が決まった日本の次期戦闘機、航空産業復興へ大きな一歩 開発計画の詳細な経緯と国際共同開発の課題」2024.3.14. JBpress ウェブサイト (YOKOYAMA Kyoza, “Japan’s next fighter aircraft finally approved for export, big step toward revival of aviation industry, detailed history of development plan and issues of international joint development,” March 14, 2024. JBpress website)

2 Decision on development cost and work distribution

As a certain path forward has been established in the creation of a framework for development, including the establishment of the GIGO, full-scale negotiations between the three countries regarding development cost and work distribution were scheduled to commence in April 2024⁽⁵⁵⁾. In December 2023, the defense ministers of Japan, the UK, and Italy confirmed that “the work distribution will be proportionate to each country’s contribution by financial and technical means”⁽⁵⁶⁾.

Reports on development cost distribution have stated that the most likely proposal in previous negotiations is, for example, for Japan and the UK to each cover 40% of the development costs and for Italy to cover the remainder⁽⁵⁷⁾. Meanwhile, some reports also emphasize the fact that Italy values equal treatment and wants each of the three countries to have a 33% investment proportion⁽⁵⁸⁾.

Difficult negotiations are expected to take place regarding development costs and work distribution, with all three countries aiming to secure benefits for their own countries⁽⁵⁹⁾. Japan is expected to demonstrate its negotiating power against the UK and Italy, which have considerable experience in joint development⁽⁶⁰⁾.

⁽⁵⁵⁾ TAKAHASHI, *op.cit.*(45)

⁽⁵⁶⁾ “GCAP Trilateral Defence Ministerial Joint Statement,” *op.cit.*(43)

⁽⁵⁷⁾ 「次期戦闘機の開発費、日英4割ずつ負担で協議＝関係者」『ロイター』2023.3.16 (“Japan and UK in talks to each share 40% of development costs for next fighter aircraft: Sources,” *Reuters*, March 16, 2023); 「(Views 先読み) 日英伊で次期戦闘機開発 第6世代、AIカギに」『日本経済新聞』2023.6.11 (“(Views (Preview)) Next fighter aircraft development by Japan, the UK, and Italy, AI key for 6th generation,” *Nihon Keizai Shimbun*, June 11, 2023).

⁽⁵⁸⁾ 「イタリア国防相、日英との戦闘機共同開発で平等な扱い求める」『ロイター』2022.12.19 (“Italian Defense Minister seeks equal treatment in fighter aircraft joint development with Japan and the UK,” *Reuters*, December 19, 2022).

⁽⁵⁹⁾ An Acquisition, Technology & Logistics Agency official commented on the difficulty of the negotiations stating, “as an example, who will oversee which parts, such as the forward fuselage, center fuselage, wings, or rear fuselage, as well as the sensors, radars, and engines? Every country greatly emphasizes its own defense industry, and there are areas that each country wants to take in so that they can make modifications and upgrades as their desired timing. We are working hard on those negotiations.” The official stated that the parts that Japan would like to have are “under negotiation” and are listed as the three parts of “lightweight aircraft structure,” “engine,” and “radar.” TATEISHI, *op.cit.*(50)

⁽⁶⁰⁾ 相良静造「GCAPを考える(後編) 英国で進む技術立証機製作の動き—日本ではX-2がすでに飛んでいるが—」『航空ファン』73巻1号, 2024.1, pp.61-63 (SAGARA Seizo, “Thinking about the GCAP (Part 2): UK moving forward with technology demonstrator aircraft development while X-2 is already flying in Japan,” *Aviation Fan*, Vol.73, No.1, January 2024, pp.61-63); YOKOYAMA, *op.cit.*(54); 「(安保の行方 武器輸出を問う) 哲学の問題 憲法の理念 解禁に反対 航空評論家 青木謙知氏」『朝日新聞』2024.3.27 (“(The future of security (Questioning arms exports)) Philosophical issues, constitutional ideals, aviation critic Aoki Yoshitomo opposes lifting of ban,” *Asahi Shimbun*, March 27, 2024).

3 Exports to third countries

In the GCAP, exports of completed fighter aircraft to third countries, that is, the promotion of exports to countries other than the participating countries of Japan, the UK, and Italy, have been viewed as an important element due to the goals of reducing costs and procurement prices through mass production. The GIGO Establishment Convention signed by the three countries also states in its preamble: “recognising the importance of export possibilities for the economic and political success of their industrial and international cooperation.” Article 50 stipulates that the three countries will support each other’s intentions of exporting to third countries to the extent possible, thereby presuming the possibility of future exports.

(1) Exports of finished products from joint development partners and the Japanese government’s response

Under Japan’s Defense Equipment and Technology Transfer System, among international transfers related to international joint development and production, the export of finished products from joint development partners to third countries can, as a general rule, be approved through prior consent⁽⁶¹⁾. However, until December 2023, the Implementation Guidelines of the Principles on Transfer of Defense Equipment and Technology⁽⁶²⁾ did not necessarily clearly provide provisions for such procedures. The December 2023 amendment to the Implementation Guidelines clarified the procedures for prior consent regarding transfers from joint development partners to third countries⁽⁶³⁾. Consideration was also given to the possibility that when the other party transfers finished products that incorporate Japanese parts and technologies to a third country, those parts and

⁽⁶¹⁾ The Defense Equipment and Technology Transfer Agreements concluded between Japan and the UK as well as between Japan and Italy also contain provisions stating that the governments in the agreement shall not conduct transfers to the government of a third country without the prior consent of the other government (Article 3, Paragraph 2 of each agreement).

⁽⁶²⁾ As operational standards for the Foreign Exchange and Foreign Trade Act (Law No. 228 of 1949), the Three Principles on the Transfer of Defense Equipment and Technology and the Implementation Guidelines stipulate the cases in which the transfer of defense equipment (weapons and weapons technology) is prohibited, cases in which transfer is permitted, and the assurance of proper management. See the following for an overview of the Defense Equipment and Technology Transfer System: 小槇祐輝「防衛装備移転制度の概要と見直し議論」『調査と情報—ISSUE BRIEF—』No.1242, 2023.9.26 (KOMAKI Yuki, “Outline of the Defense Equipment and Technology Transfer System in Japan and Discussion on Updating It,” *Issue Brief*, No.1242, 2023.9.26).

⁽⁶³⁾ 「防衛装備移転三原則・運用指針の見直しの概要」2023.12. 内閣官房ウェブサイト (“Overview of the Revision of the Three Principles on Transfer of Defense Equipment and Technology and Implementation Guidelines,” December 2023. Cabinet Secretariat website). It was stated that when the Government has never made a decision to permit similar types of prior consent for transfer to third parties etc., then the National Security Council (NSC) board will deliberate, and when especially careful consideration is required, then the National Security Council will deliberate.

technology may need to be directly exported from Japan to the third country for maintenance and repair. Therefore, amendments were made simultaneously to enable such exports⁽⁶⁴⁾.

Japan's prior consent procedure is expected to be implemented in the future when finished products from the GCAP are exported from the UK or Italy to a third country⁽⁶⁵⁾. Given the problems that emerged between joint development partners regarding the export of the Eurofighter to Saudi Arabia⁽⁶⁶⁾, there are concerns in the UK that problems may arise between Japan and the UK regarding exports to third countries⁽⁶⁷⁾.

(2) Export of finished products from Japan

Among international transfers relating to international joint development and production, whether the direct transfer of finished products from Japan to a third country should be permitted was debated by the ruling party. However, no conclusion was reached by the time of the December 2023 amendment of the Implementation Guidelines, and restrictions have continued to be placed on such transfers⁽⁶⁸⁾. The UK has lobbied Japan to reconsider this restriction, stating that a mechanism for direct transfer to third countries

⁽⁶⁴⁾ *ibid.*

⁽⁶⁵⁾ The Implementation Guidelines after the December 2023 amendment stated that there are cases regarding Japan's prior consent for transfers to third countries where "appropriate control may be ensured with the confirmation of a control system at the destination." The Guidelines cited several conditions as examples of such cases, such as when "[the transfer is] judged to be appropriate for active promotion of peace contribution and international cooperation" and also "when the transfer is in urgent need or highly important from humanitarian perspective." Meanwhile, it was also stated that "even in such cases, for transfer of those with high technical sensitivity, the Government of the recipient country is, in principle, obliged to do so [to gain prior consent of the Government of Japan]" (text in brackets are added by author). Therefore, the Implementation Guidelines are not necessarily clear as to whether prior consent should be required or whether confirmation of the destination's management system should be substituted for the prior consent requirement in cases related to the GCAP.

⁽⁶⁶⁾ Regarding the Eurofighter, which was jointly developed by the UK, Germany, Italy, and Spain, measures were taken by Germany to ban the export of defense equipment to Saudi Arabia (initially a total ban and then later limited to new export cases) due to concerns about human rights issues in Saudi Arabia and humanitarian issues surrounding the airstrikes conducted during the intervention in the Conflict in Yemen. This led to the suspension of plans to export Eurofighters from the UK to Saudi Arabia, which caused friction among the participating countries. In January 2024, Germany retracted its export ban to Saudi Arabia as part of a review of its relationship with the country and indicated its intention to allow the export of Eurofighters. Tony Osborne, "Saudi Eurofighter sale more likely after Germany loosens opposition," *Aviation Week & Space Technology*, January 15-28, 2024, p.38; "Germany makes U-turn on weapons deliveries to Saudi Arabia," January 10, 2024. Deutsche Welle website

⁽⁶⁷⁾ UK House of Commons Hansard, *Global Combat Air Programme Treaty*, Volume 742, December 18, 2023, cols.1136-1138.; Tony Osborne, "'Empowered' agency to develop GCAP into sixth-gen fighter," *Aviation Week & Space Technology*, January 15-28, 2024, p.36.

⁽⁶⁸⁾ 「戦闘機 限定輸出を検討 自民、公明と月内決着を確認」『日本経済新聞』2024.2.22 ("Limited exports of fighter aircraft being considered, LDP and Komeito confirm decision within the month," *Nihon Keizai Shimbun*, February 22, 2024).

from not only the UK and Italy but also Japan is essential for the GCAP⁽⁶⁹⁾. The Japanese government has also explained that unless it can contribute to reducing procurement prices, achieving the fighter aircraft that Japan desires may be difficult⁽⁷⁰⁾, and reports have indicated concerns that Japan will be at a disadvantage in negotiations over the required performance and work distribution⁽⁷¹⁾.

Given this context, in March 2024, the government decided at a Cabinet meeting that it may approve international transfers relating to international joint development and production from Japan to third countries only for finished products related to the GCAP. Furthermore, such cases will not only involve the usual deliberations at the National Security Council but also be decided by the Cabinet on a case-by-case basis⁽⁷²⁾. Simultaneously, the Implementation Guidelines of the Three Principles on Transfer of Defense Equipment and Technology were amended, to allow direct transfer of finished products related to the GCAP from Japan to a third country “only if Japan and the recipient country have concluded an international agreement obligating the use of defense equipment transferred from Japan in a manner consistent with the purposes and principles of the Charter of the United Nations”⁽⁷³⁾ (e.g., Defense Equipment and Technology Transfer Agreement) and if “it excludes the case of the transfer to a country where combat is currently deemed to be taking place as part of an armed conflict.”⁽⁷⁴⁾ Some have welcomed this change since it facilitates Japan to assert its prioritized performance⁽⁷⁵⁾, but there have

⁽⁶⁹⁾ See the following as examples. 「(世界の見方) 安保改革 日本は立ち止まれない ジュリア・ロングボトム駐日英大使」『毎日新聞』2024.2.19 (“(Global perspective) Security reform: Japan cannot stop, UK Ambassador to Japan Julia Longbottom,” *Mainichi Shimbun*, February 19, 2024); UK House of Commons Hansard, *op.cit.*(67), col.1141.

⁽⁷⁰⁾ 第213回国会参議院予算委員会会議録第5号 令和6年3月6日(木原稔防衛大臣答弁) (Minutes of the 213rd Diet Budget Committee, House of Councillors, No.5, March 6, 2024. (reply by Defense Minister KIHARA Minoru))

⁽⁷¹⁾ 「次期戦闘機の限定輸出案 自民内で浮上、公明と協議へ」『日本経済新聞』2024.2.21 (“Proposal for limited export of next fighter aircraft emerges within LDP, to be discussed with Komeito,” *Nihon Keizai Shimbun*, February 21, 2024).

⁽⁷²⁾ 「グローバル戦闘航空プログラムに係る完成品の我が国からパートナー国以外の国に対する移転について」(令和6年3月26日国家安全保障会議決定・閣議決定) 内閣官房ウェブサイト (“(Provisional Translation) Transfer of finished products regarding Global Combat Air Programme from Japan to countries other than partner countries,” adopted by the National Security Council, approved by the Cabinet Decision on March 26, 2024. Cabinet Secretariat website)

⁽⁷³⁾ As of the end of March 2024, Japan has concluded Defense Equipment and Technology Transfer Agreements with 15 countries: the US, Australia, India, Indonesia, Vietnam, the Philippines, Thailand, Malaysia, Singapore, the UK, France, Germany, Italy, Sweden, and the United Arab Emirates (UAE).

⁽⁷⁴⁾ 「防衛装備移転三原則の運用指針」(平成26年4月1日国家安全保障会議決定、令和6年3月26日最終改正) 内閣官房ウェブサイト (“(Provisional Translation) Implementation Guidelines for the Three Principles on Transfer of Defense Equipment and Technology,” adopted by the National Security Council on April 1, 2014, amended on March 26, 2024. Cabinet Secretariat website)

⁽⁷⁵⁾ 「(社説) 戦闘機輸出を国際協調と抑止力の強化に」『日本経済新聞』2024.3.17

also been concerns about future operations, such as “though the claim is that no exports will be made to countries currently engaged in fighting, we do not know when they will be involved in fighting.” There have even been concerns regarding the fact that cabinet decisions are made on a case-by-case basis: “it is not thought that this will function as an effective deterrent without the involvement of the Diet.”⁽⁷⁶⁾

Some UK and Italian officials hope that Asian countries will become export targets through joint development with Japan⁽⁷⁷⁾. Meanwhile, there are concerns in Japan regarding whether their country can be relied upon to export fighter aircraft, including maintenance and parts supply. There are also concerns that the achievement of exports “will depend on Japan’s future diplomatic efforts,” and whether any buyers for the expensive fighter aircraft will even be available to begin with is an open question⁽⁷⁸⁾.

4 Information security system

The GCAP is expected to handle a large amount of sensitive information, such as information about stealth performance, so the government and companies are required to establish advanced information security systems.

Recent reports on Japan’s information security system have indicated Chinese intrusions into the Ministry of Defense’s information system as well as information leaks from the National Center of Incident Readiness and Strategy for Cybersecurity (NISC), raising concerns among government officials in the US and the UK about Japan’s ability to safely handle sensitive data⁽⁷⁹⁾. The GCAP is also expected to use digital design techniques in its design and development, and one of the issues is cybersecurity, which raises concerns about how the cyber domain in Japan could cause tensions between participating countries⁽⁸⁰⁾.

(“(Editorial) Fighter aircraft exports to strengthen international cooperation and deterrence,” *Nihon Keizai Shimbun*, March 17, 2024).

⁽⁷⁶⁾ 「(社説) 戦闘機輸出の閣議決定 平和国家の姿が問われる」『毎日新聞』2024.3.27 (“(Editorial) Cabinet decision on fighter aircraft exports, image of a peaceful nation called into question,” *Mainichi Shimbun*, March 27, 2024).

⁽⁷⁷⁾ “Fighter jet alliance sets sights on ‘door to Far East,’” *Financial Times*, December 15, 2022; *Nihon Keizai Shimbun*, *op.cit.*(36)

⁽⁷⁸⁾ 「(安保の行方 武器輸出を問う) 売り主になれるか 外交努力次第 元空将 山田真史氏」『朝日新聞』2024.3.28 (“(The future of security (Questioning arms exports)) Can Japan become a seller? Former air force general Masashi Yamada states that it depends on diplomatic efforts,” *Asahi Shimbun*, March 28, 2024); 「(時時刻刻) 殺傷兵器輸出 また拡大」『朝日新聞』2024.3.27 (“(Hourly) Exports of lethal weapons expand again,” *Asahi Shimbun*, March 27, 2024); *Asahi Shimbun*, *op.cit.*(60)

⁽⁷⁹⁾ “Japan’s defense networks breached,” *Washington Post*, August 8, 2023; “Japan’s online security agency suffers months-long breach: Hacking,” *Financial Times*, August 30, 2023.

⁽⁸⁰⁾ “Partners set ambitious timetable to deliver world’s next fighter aircraft,” *Financial Times*, September 8, 2023; *Mainichi Shimbun*, *op.cit.*(69)

5 Possibility of new participating countries

No official moves have been made to consider new countries joining the GCAP, but around August 2023, reports suggested that Saudi Arabia was floating the idea of participation in related countries⁽⁸¹⁾. Reports also indicated that although the UK and Italy expressed a positive attitude toward Saudi Arabia's participation, Japan was opposed due to concerns that the joining of more countries would lead to longer negotiations. In addition, humanitarian concerns regarding Saudi Arabia also remained. Reports indicated not only Saudi Arabia but also Sweden and Germany as countries that could potentially participate or be partially involved⁽⁸²⁾.

The Japanese government stated that it was currently not expecting any other countries besides Japan, the UK, and Italy to participate in the joint development of the next fighter aircraft⁽⁸³⁾.

6 Introduction by 2035

Completing the development of the fighter aircraft by 2035 is a basic condition of the GCAP that was agreed upon by the three countries⁽⁸⁴⁾, and this deadline is particularly important for Japan as the country faces the retirement of the F-2 starting in 2035. The UK and Italy need a successor aircraft to the Eurofighter in the mid-2030s, but since the Eurofighter is scheduled to be in operation at this stage⁽⁸⁵⁾, slight delays in development will not have as significant an impact on these two countries as they will on Japan⁽⁸⁶⁾.

The introduction just over 10 years after the project's announcement is a short time

⁽⁸¹⁾ "Saudis push to join fighter jet club," *Financial Times*, August 12, 2023; 「日英伊の次期戦闘機開発 サウジ参画「可能性探る」 英国防省 責任者」『日本経済新聞』2023.9.25 ("Japan, the UK, and Italy's next fighter aircraft development: UK Ministry of Defence official states, 'exploring possibility' for Saudi Arabia's participation," *Nihon Keizai Shimbun*, September 25, 2023).

⁽⁸²⁾ "UK fighter jet alliance on course for 2035 despite Saudi overture," *Financial Times*, August 28, 2023; "Germany denies France snub over £87bn fighter jet project," *Daily Telegraph*, November 3, 2023; Jon Grevatt, "Japan, Sweden sign deal for possible GCAP co-operation," January 26, 2023. Janes website

⁽⁸³⁾ 第 213 回国会衆議院安全保障委員会議録第 2 号 令和 6 年 3 月 12 日 (木原防衛大臣 答弁) (Minutes of the 213rd Diet Security Committee, House of Councillors, No.2, March 12, 2024. (reply by Defense Minister KIHARA Minoru))

⁽⁸⁴⁾ The UK government also recognizes that the introduction of the aircraft by 2035 is based on Japan's fighter aircraft renewal plan and is an absolute backstop. UK House of Commons Hansard, *op.cit.*(67), cols.1139, 1143-1144.

⁽⁸⁵⁾ The Royal Air Force plans to operate the Eurofighter until at least 2040 through an extensive program of upgrades. UK Ministry of Defence, *op.cit.*(19), pp.11, 15.

⁽⁸⁶⁾ 小林春彦「GCAP 政府間機関／共同事業体が発足 欧州勢から「我が国主導」を守れるか?」『次期戦闘機』日英伊共同開発の闇『軍事研究』59 巻 3 号, 2024.3, pp.28-39 (KOBAYASHI Haruhiko, "GCAP intergovernmental agency / consortium launched: Can we defend 'Japan-led' against the Europeans? Dark side of Japan-UK-Italy joint development of 'next fighter aircraft'," *Japan Military Review*, Vol.59, No.3, March 2024, pp.28-39).

frame compared to other international joint development projects of fighter aircraft and is considered “ambitious.”⁽⁸⁷⁾ It has also been indicated that “fighter aircraft development is always beset by delays,” that “joint development takes time for fine-tuning,” and that “deploying the first next fighter aircraft in 2035 as planned will likely be impossible.”⁽⁸⁸⁾ In the UK, some have indicated that the key to meeting the compressed deadline of 2035 is using the lessons learned from the joint development of the Eurofighter and “ensuring that the governmental and industrial organisations have the requisite decision-making authority to manage the programme.”⁽⁸⁹⁾

Conclusion

The GCAP is a massive project that will be implemented over the course of 10 years. Its specific form is expected to gradually become clear with progressive design and development.

As prerequisites for full-scale design and development, the GIGO and the companies will establish a joint business construct in 2024 and hold negotiations in parallel with the design work to determine the development cost and work distributions. There will be increased attention on these trends and the outcome of the negotiations between the three countries in anticipation of the future of the GCAP.

KYUKO Satomi, *Global Combat Air Programme (GCAP): Background and Prospects* (Research Materials), 2025e-1, Tokyo: Research and Legislative Reference Bureau, National Diet Library, 2025.

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⁽⁸⁷⁾ *Financial Times*, *op.cit.*(80); *ibid.* It is said that Eurofighter development took approximately 20 years. Companies associated with the GCAP are considering the use of innovative prototyping and engineering methods, including digital design and 3D printing, to shorten the development time. *Financial Times*, *ibid.*

⁽⁸⁸⁾ *Asahi Shimbun*, *op.cit.*(60)

⁽⁸⁹⁾ Douglas Barrie and Ben Thornley, “GCAP treaty seeks to avoid past development missteps,” January 2, 2024. International Institute for Strategic Studies (IISS) website. Regarding joint development of the Eurofighter, the decision-making authority to manage the program within the intergovernmental organization and joint business construct was not unified in practice but rather exposed to “policy whims” in each of the partner countries, and important decisions were reportedly delayed for years with disputes within the individual governments or between them.