



防衛装備庁

インド・太平洋地域における 装備技術協力

Defense Equipment and Technology
Cooperation
in the Indo-Pacific Region

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日米装備技術協力

Japan-U.S. Defense Equipment and Technology Cooperation

日米装備技術協力は、自由で開かれたインド太平洋の推進のための中核

U.S.-Japan Defense Equipment and Technology Cooperation is at the core of the promotion of a Free and Open Indo-Pacific.

- ・地域における同盟能力の強化 Strengthening alliance capabilities in the region.
- ・装備品生産・整備の共通基盤強化 Strengthening common infrastructure for defense equipment production and maintenance.
- ・強靱なサプライチェーンの構築 Building a resilient supply chain.
- ・協カフレームワークの強化 Strengthening cooperation framework.

地域における同盟能力の強化

Strengthening Alliance Capabilities in the Region

高性能で優位性のある装備の取得・配備・運用

Acquisition, deployment, and operation of high-performance, superior equipment.

F-35A/B, Aegis Ship, V-22, PAC-3MSE, E-2D, Global Hawk, etc.



戦闘機
(F-35A)



戦闘機
(F-35B)



イージス艦



ティルト・ローター機
(V-22)



早期警戒機
(E-2D)



滞空型無人機
(Global Hawk)



SM-3ブロック
II A

装備品の共同開発・生産 Co-development and production of defense equipment.

SM-3 Block II A

将来装備技術の共同研究 Collaborative research on future defense equipment technology.

- Ensuring interoperability of the next generation fighter (August 2021-)
- Modular hybrid electric drive vehicle system (October 2020-)
- Network interface between Japan and the U.S. (September 2020-)
- Next-generation amphibious technology (May 2019-)
- High heat-resistant case technology (From July 2018)
- Chemical agent color reaction identification device (February 2017-)
- Study of the effects of jet fuel and noise exposure on unit operations (November 2015-)



装備品生産・整備の共通基盤強化

Strengthening Common Infrastructure for Defense Equipment Production and Maintenance

ライセンス国産部品の米国への輸出

Exports of parts manufactured under license to the United States.

- PAC-2 parts
- Software and parts related to Aegis systems
- F-15 equipped F100 engine parts
- Parts for F-15 mounted inertial navigation equipment

共通整備基盤 Establishing common maintenance infrastructure.

- F-35 regional depot (MHI Komaki Minami, IHI Mizuho)
- Japan-U.S. Osprey common maintenance base (Kisarazu)

国内企業による米軍装備品維持整備

Maintenance of U.S. military equipment by Japanese companies.

- Repair of U.S. Navy Aegis ship USS Milius, DDG-69, supply ship USNS Rappahannock (MHI Yokohama Works)
- Maintenance of the U.S. Navy FA 18 (Nippi) , etc.



Launcher of PAC-2
(シーカージャイロはキャニスター内のミサイルの一部品)



イージス艦(ディスプレイシステムは戦闘指揮所等に設置)



F-15搭載F100エンジン
(機体後部より)



空自F-15
(慣性航法装置は当機の構成品)

■リージョナル・デポのイメージ



強靱なサプライチェーンの構築

Building a Resilient Supply Chain

防衛当局間においても緊密に協議を実施中

Close consultations are being held between Japan and U.S. defense authorities.

サプライチェーン調査 Conducting supply chain survey.

米国防省はFragility and Criticality (FaC)分析

U.S. Department of Defense performs analysis of Fragility and Criticality (FaC).

装備庁はキーサプライヤーと外国依存部品を分析

ATLA conducts surveys to identify key suppliers and parts depending on foreign countries.

脆弱性の把握・特定と対応 Understanding, identifying, and responding to vulnerabilities.

調査結果の分析、COTS品把握の問題 Analysis of survey results and understanding problems with COTS product.

目指すは、脆弱性の相互補完 The goal is to mutually complement vulnerabilities.

同盟国・友好国間でも議論 Conducting discussions with allies and like-minded countries.

協力枠組みの強化

Strengthening the Cooperation Framework

S & TF 枠組み S&TF framework

R & Eとの関係強化 Strengthening relationships with R&E.

協力枠組みの深化 Deepening the cooperation framework.

RDP-MOU (June 2016): Buy アメリカン、Buy ジャパニーズの相互免除

Buy American, Buy Japanese Mutual Exemption

今後考えられる日米の協力枠組み Possible U.S.-Japan Cooperation Framework

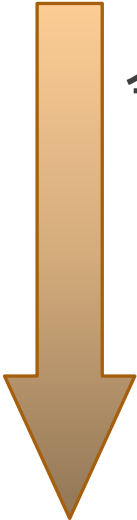
RDT&E-MOU: 共同試験・研究の容易化 Facilitating collaborative testing and research.

TEP-MOU: 各試験の容易化 Simplifying procedures for testing.

Security of Supply Agreement: サプライチェーンの強靱化、部品の優先供給 Strengthening supply chains and prioritizing supply of parts.

Industrial Security Agreement: 産業界同士の技術情報交換の容易化 Facilitating exchange of technical information between industries.

National Technology Industrial Base (NTIB): 日米生産基盤の相互融通 Mutual utilization of production bases in Japan and the U.S.



地域の平和と安定のための防衛協力的手段

One of the means to promote defense cooperation to promote regional peace and stability.

- ・豪・印との取り組み強化

Strengthening cooperative initiatives with Australia and India.

- ・キャパシティ・ビルディング支援として

AS capacity building assistance initiatives.

- ・今後の戦略(日本版FMSの必要含め)

Future strategy (including the necessity of Japanese FMS).

豪・印との取り組み強化

Strengthening Cooperative Initiatives with Australia and India

豪州 Australia

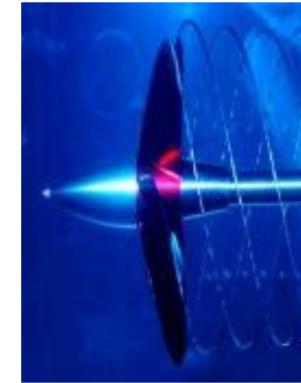
- Agreement concerning Transfer of Defence Equipment and Technology (effective, December 2014)
- Japan-Australia Joint Steering Committee for Defense Equipment Technology Cooperation
(Chairman of The Japanese Side: Chief Defense Scientist. 1st meeting in October 2017 and 2nd meeting in June 2019)
- Japan-Australia Defense Industry Business Forum (March 2018)
- C-2 exhibited at Avalon International Air Show 2019 (February 2019)
- Signed an arrangement on the Japan-Australia Placement of Scientist and Engineer Personnel (PSEP)(November 2019)
- Based on the PSEP arrangement, an ATLA staff (defense engineer) was dispatched to the Defence Science and Technology Group (DSTG) of Australian Department of Defence (From March 2021)

【共同研究(現在2件の共同研究を実施中): Joint research (currently conducting two joint research projects)】

□ Joint research on marine hydrodynamics and hydroacoustics (May 2021-)

□ Joint research on unmanned ground vehicle autonomy technology (May 2021-)

- Agreement concerning the Transfer of Defence Equipment and Technology (effective, March 2016)
- Joint Working Group on Defense Equipment and Technology Cooperation (JWG-DETC) (held five times since March 2015)
- Joint research on image-based position estimation technology for UGV / robotics (July 2018)
- Japan-India Defense Industry Business Forum (1st: September 2017, 2nd: February 2019)



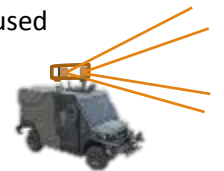
Joint research in the field of marine hydrodynamics.

インド India



Experimental equipment for evaluation

Environments where satellite location information cannot be used



UGV/Robotics Joint research on position estimation technology by images

今後、サプライチェーンの相互補完の強化可能性を視野に

With a view to strengthening mutual complementation of the supply chain in the future

キャパシティ・ビルディング支援として①

As Capacity Building Assistance Initiatives (1)

キャパシティ・ビルディング支援はソフト事業を中心に実施中
Capacity building assistance is implemented mainly in intangible areas.

- 2012年度以降、計15か国・1機関に対して実施。 Implemented in a total of 15 countries and 1 organization since FY2012.
- 必要に応じ、米、豪等の他の支援国と連携した事業を実施。 Collaborating with other countries such as the United States and Australia if

necessary

(As of 2021.10.18)

Target countries (green are ASEAN member countries)	Fields (Blue is underlined, including collaboration projects with other donor countries, is a project implemented in FY 2021)
Mongolia (2012-)	<u>Humanitarian assistance and disaster relief (sanitation), peacekeeping operations (facilities)</u>
Vietnam (2012-)	<u>Diving Medicine</u> , PKO, Flight Safety, Humanitarian Assistance and Disaster Relief, International Aviation Law, Aeromedical Medicine, Aviation Rescue, Cybersecurity, Unexploded Ordnance Treatment, Disposal of Unexploded Ordnance underwater
Timor-Leste (2012-)	<u>Vehicle maintenance and facilities</u>
Cambodia (2012-)	PKO (Facility, Unexploded Ordnance Disposal)
Indonesia (2012-)	Oceanography, International Aviation Law, International Law on the Oceans, Humanitarian and Disaster Relief
Papua New Guinea (2014-)	<u>Humanitarian assistance and disaster relief</u> , <u>military band development</u> , Humanitarian assistance and disaster relief (facility machinery development)
Myanmar (2014-)	Submersible medicine, aeronautical meteorology, humanitarian assistance and disaster relief, international aviation law, <u>improvement of Japanese Language Education Environment</u>
Philippines (2014-)	Humanitarian Assistance and disaster relief, international aviation law, <u>sanitation</u> , ship maintenance, <u>facilities</u> , <u>aeromedicine</u>
ASEAN (2015-)	<u>Humanitarian Assistance and Disaster Relief</u>
Malaysia (2015-)	International aviation law, Humanitarian Assistance and Disaster Relief
Laos (2015-)	<u>Humanitarian assistance and disaster relief (search and rescue, sanitation), humanitarian and disaster relief (facilities), unexploded ordnance disposal</u>
Thailand (2016-)	International Aviation Law, Flight Safety, PKO
Kazakhstan (2016-)	Hygiene
Uzbekistan (2017-)	Hygiene
Brunei (2017-)	Humanitarian and Disaster Relief, Search and Rescue
Sri Lanka (2018-)	<u>Air Rescue</u> , Sanitation

キャパシティ・ビルディング支援として②

As Capacity Building Assistance Initiatives (2)

装備移転の事例は未だ少ないものの、今後積極的に強化

MOD will strengthen efforts to promote defense equipment transfer, though there are still few cases as of now.

フィリピン Philippines



- Agreement concerning the Transfer of Defense Equipment and Technology (effective April 2016)
- Free of charge transfer of five TC-90 training aircraft (March 2018)
- Free of charge transfer of UH-1H parts (March and September 2019)
- Government-Industry Defense Forum (October 2019)
- Conclusion of the contract of Air Surveillance Radar System (August 2020)



TC-90



UH-1H

インドネシア Indonesia



- Japan-Indonesia Defense Industry Forum (August 2017)
- Agreement concerning the Transfer of Defense Equipment and Technology (effective March 2021)



J/FPS-3



JTPS-P14

ベトナム Viet Nam



- Japan-VietNam Defense Industry Business Forum (October 2017)
- Signed a Memorandum on the Orientation of Promotion of Defense Industry Cooperation in order to promote defense equipment and technical cooperation between Japan and Vietnam (May 2019)
- Agreement concerning the Transfer of Defense Equipment and Technology (effective September 2021)

マレーシア Malaysia

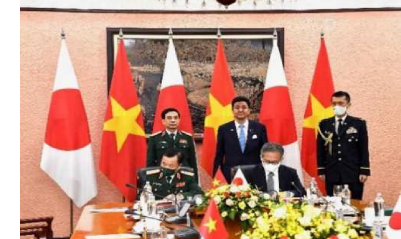


- Agreement concerning the Transfer of Defense Equipment and Technology (effective April 2018)
- Defense Equipment Exhibition – Participation of ATLA in LIMA 2019 held in Malaysia (March 2019)

タイ Thailand



- Defense Equipment Exhibition – Participation of ATLA in D&S held in Thailand, and visited by State Minister of Defense Yamamoto (November 2017)



今後の戦略（日本版FMSの必要性含め）

Future Strategies (including the Need for Japanese FMS)

FMSは米国特有の特殊な制度 FMS is a system unique to the United States

装備品の他国への供与は安全保障政策そのもの

The provision of equipment to other countries itself is a security policy.

高性能・最先端装備品の供与による**西側陣営の能力強化**

Strengthening the capabilities of the Western Bloc by providing high-performance, state-of-the-art equipment.

Share of Global Defense Expenditure (2020)

企業リスクの軽減には有効 Effective in mitigating corporate risks.

日本政府が相手国政府との契約主体になれるか

Can the Japanese government become a main contracting entity with governments of other countries?

企業ビジネスは成り立つか Is corporate business model viable?

企業利益が出るのは欧米向けか

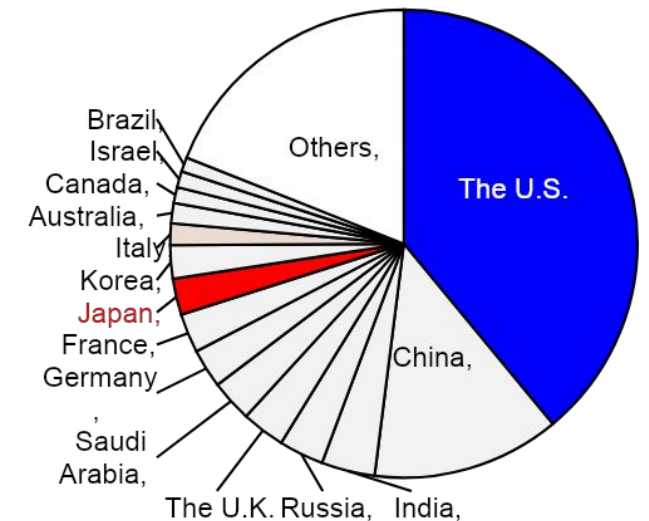
Can we only yield profit from the business with Europe and the United States?

東南アジア諸国等に対しては国主導が必要か

Is it necessary for the government to take the initiative when doing business with Southeast Asian countries?

必要な支援措置は何か（租税免除、ダウングレードコスト負担等）

What kind of support is needed (tax exemption, bearing the down-grade cost)?



今後、上記視点も踏まえ引き続き議論

Discussions will be continued going forward.

(Source) SIPRI Fact Sheet (April 2021)