

The Significance of Establishing Guidelines for Responsible AI Application

- Research & Development of AI-equipped defense systems needs to be in compliance with international and domestic laws, as well as consistent with international discussions, particularly, those regarding “Lethal Autonomous Weapon Systems” (LAWS) and “Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy”. This approach aims to ensure better predictability for R&D partners and further promote the use and application of AI in future defense equipment.

R&D of AI-equipped defense systems at MOD/SDF



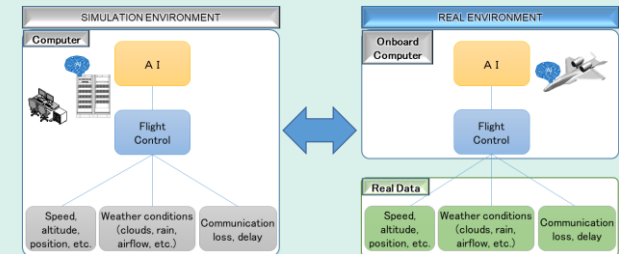
Combat Support USV
(JFY2024~2030)



Long-endurance
UUV
(JFY2019~2024)



UGV system
(JFY2025~2027)



AI for UAV
(JFY2022~2027)



Rules are needed for R&D of AI-equipped defense systems.

International discussions regarding LAWS etc.

- Application of international humanitarian law (IHL) to all weapon systems (Avoiding superfluous injury and unnecessary suffering, distinguishing military objectives, precautionary measures to minimize damage to civilian objects, etc.)
- Ensuring appropriate human involvement etc.

Responsible AI Application Guideline : Purposes and Structure

- ❑ In July 2024, MOD launched its first AI Strategy to serve as a compass for the promotion of use of AI.
 - The Guideline has been formulated and published in accordance with the AI Strategy.
- ❑ Consisting of five chapters, the Guideline highlights the concept of responsible AI application in R&D of MOD/SDF defense systems.

Strategy

MOD Artificial Intelligence Strategy (July 2024)

Part 3 Initiatives to Promote the Use of AI

4. Research and Development of AI-based Equipment

In the future, **in the context of research and development**, we will consider how Japan should implement the series of commitments ...and will **formulate guidelines for the MOD/SDF**.

Implementation

Newly
Formulated

Responsible AI Application Guideline (June 2025)

Guideline

Chapter 1

Background of
Formulating the
Guideline

- Introduces **international initiatives** such as LAWS and responsible AI.

Chapter 2

Scope of the
Guideline

- Clarifies **phases and AI technology** subject to this guideline

Chapter 3

Requirements in
R&D of AI-
Equipped Defense
Systems

- Sets **requirements** AI-equipped defense systems must comply with.
- Outlines legal/policy and technical requirements

Chapter 4

Measures to
Implement in R&D
of AI-Equipped
Defense Systems

- Outlines **classification of systems, legal/policy review, and technical review**
- Describes the review criteria and structure

Chapter 5

Conclusions

- Guarantees **updating** as a living document **in responding to changes in circumstances**

Measures to Implement in R&D of AI-Equipped Defense Systems

- ❑ Based on the Guideline, properly manage AI risks throughout the R&D processes by taking three step measures :
1. Classification of AI-Equipped Defense Systems, 2. Legal/Policy Review, and 3. Technical Review.

1. Classification of Systems

Outline

Classifies AI-equipped defense systems into high and low-risk ones

Points

High-Risk

AI-derived output affects functions with destructive capabilities

Intensive Risk Management

2. Legal/Policy Rev.
3. Technical Review

Low-Risk

AI-derived output does not affect functions with destructive capabilities

Basic Risk Management

Self-assessment of AI risks

2. Legal/Policy Review

Outline

Reviews the project appropriateness from legal/policy perspectives

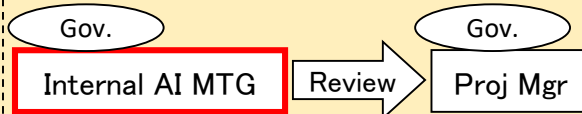
Points

Ensure it is not a project that is non-compliant with Int'l Law, incl. IHL, and domestic law

Legal/Policy Requirements

Ensure it is not an autonomous weapon with lethal force that operates completely without human involvement

Review Structure

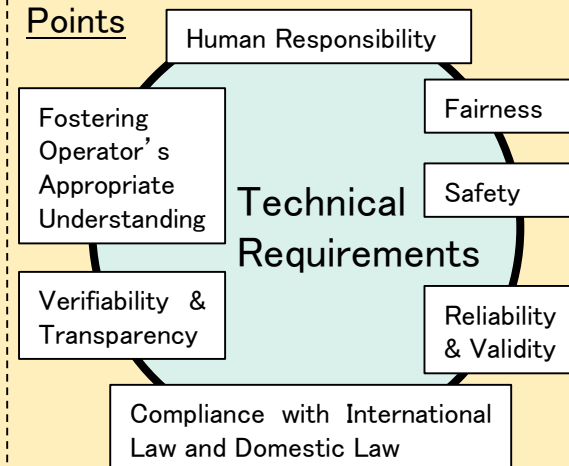


3. Technical Review

Outline

Reviews project risk management from technical perspective

Points



Review Structure

