Section 3 Efforts toward Project Management, etc.

1 Project Management throughout Its Life Cycle

Acquisition of Defense Equipment through Focused Project Management

Since defense equipment is becoming more advanced and complex in recent years, the cost of the entire life cycle of the equipment has tended to increase (equipment design, research and development, full rate production and acquisition, and maintenance). For acquiring the necessary number of equipment when it is needed, it is extremely important to streamline the process throughout the life cycle of equipment.

Therefore, the Department of Project Management in ATLA selects important equipment which functions, performance, costs and schedule are managed throughout the life cycle of equipment (project management), and works to realize the most efficient acquisition in accordance with operational needs.

To realize the efficient acquisition of equipment that will enable effective and efficient operation and maintenance, in addition to the 12 equipment for project management selected in November 2015, the MOD selected another equipment for project management as well as 3 equipment for semi-project management in April 2017. The MOD designated a Project Manager (PM) responsible for project management for each equipment. At the same time, the Ministry also established the Integrated Project Team (IPT), which is composed of officials from relevant departments within the Ministry. In 2016 and 2017, for the equipment of project management and the equipment for semi-project management, the MOD prepared the Acquisition Strategy and the Acquisition Plan to state the basic matters necessary to practice project management systematically, such as the purpose of the acquisition program and acquisition policy, and the cost of the life cycle. The MOD practices project management in accordance with these plans and works to realize the most strategically efficient equipment acquisition.

Specifically, in light of acquisition plans prepared by each service and the status of these plans, ATLA checks the progress of each acquisition program and the status of cost from a comprehensive perspective. In 2017, ATLA also carried out a comparison between these statuses and the Acquisition Strategy of the 12 equipment for project management selected in 2016, conducted quantitative and objective analysis and evaluation based on these plans, and reviewed the Acquisition Strategy. Regarding equipment that has not yet been selected for project management or semi-project management, ATLA is also considering designating them as new project and semi-project.

Fig. III-4-3-1 (Equipment for Project Management and Equipment for Semi-Project Management)

2 Initiatives to Promote and Strengthen Project Management

The following initiatives are being conducted to promote and strengthen project management.

(1) Cost and Schedule Management Using WBS

For project management of certain kinds of equipment, especially for the management of cost and schedule of the following initiatives are being conducted to promote and strengthen project management.

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Equipment for Project Management

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<th>Equipment for Project Management</th>
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<tbody>
<tr>
<td>SM-3 Block IIA</td>
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<tr>
<td>Type-03 Medium-Range Surface-to-Air Missile (Improved)</td>
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<td>Global Hawk (Long Endurance UAV)</td>
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<td>AAV7 (Amphibious Vehicle)</td>
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<td>New Destroyer *1</td>
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<tr>
<td>GSDF New Utility Helicopter</td>
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<tr>
<td>Osprey (Tilt-Rotor Aircraft)</td>
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<td>Enhanced SH-60K</td>
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<td>F-1</td>
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<td>C-2</td>
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<td>F-35A</td>
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<tr>
<td>Future Fighter Aircraft *2</td>
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<td>FY2017 Submarine</td>
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*1 New destroyers with combined features of enhanced response capabilities to deal with diverse duties and a compact hull and manpower-saving.

*2 Successor aircraft to F-2 fighter (under study)

Equipment for Semi-Project Management

<table>
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<th>Equipment for Semi-Project Management</th>
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<tr>
<td>a new ship-to-air missile</td>
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<tr>
<td>Type-12 Surface-to-Shield Guided Missiles (Advanced) and New Air-to-Shield Guided Missiles for Reconnaissance Aircraft</td>
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<tr>
<td>the Space Situational Awareness (SSA) System</td>
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1 Semi-project is an acquisition project of specific equipment with a limited application of project management without the designation of PM and IPT, focusing on risks in functions, performance, costs, schedules and other risk factors as in the equipment for project management.
the equipment, the MOD promotes the introduction of the cost and schedule management method for visualizing the progress by each Work Breakdown Structure (WBS),\(^2\) to detect early the signs of cost increase and schedule delay so that swift measures can be taken.

\textbf{(2) Method for More Accurate Cost Estimate}

Costs such as life cycle cost are estimated based on actual cost data of similar equipment developed or introduced in the past. However, as a larger amount of cost data is needed for a more accurate estimate, the MOD has built a cost database and promotes the collection of cost data. Since accumulating sufficient amount of cost data takes time, using statistical methods is also considered.

\textbf{(3) Development and Accumulation of Expertise through Strengthened Cooperation with Research and Educational Institutions, etc.}

For further improving the management skill as of project managers and for developing human resources among those who engages in project management, the MOD strengthens collaboration with research and educational institutions on project management by regular training sessions on project management methods used overseas and in the private sectors.

\textbf{2. Improving the Contract System and Other Related Matters}

\textbf{1. Reviewing Acquisition Systems}

For the purpose of promoting acquisition reform, which is a prompt response to swiftly changing surroundings, the MOD has been holding meetings of the Comprehensive Acquisition Reform Committee since 2007, besides the Contractual Systems Study Groups has been held since 2010 to review acquisition systems. Since FY2016, a special research officer system\(^4\) has been adopted in order to surely embody the review results.

\textbf{2. Long-Term Contracts, etc.}

The production of defense equipment requires a significant amount of time. Therefore, if a certain set amount is to be procured in bulk, in many cases a contract for more than five years is needed. With regard to defense equipment and services, economies of scale\(^5\) tend not to work mainly due to the following reasons: (1) the annual procurement quantity is small; (2) the MOD is the only customer; and (3) companies that provide such defense equipment, etc., are limited. In addition, it is difficult for companies to systematically move forward with their businesses with a high degree of

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\(^2\) WBS is a hierarchical structure used to practice project management that systematically divides the project into manageable units, in which the schedule and cost of each deliverable (components and services) are allocated.

\(^3\) Examples of “procuring common equipment and supplies in bulk,” “standardizing some components,” and “development of product families” are small arms, vehicles, and chemical supplies used by the Ground Self-Defense Force (GSDF), Maritime Self-Defense Force (MSDF), and Air Self-Defense Force (ASDF), short-range surface-to-air missiles used by the GSDF and ASDF, and anti-ship missiles used by all three branches of the SDF, respectively.

\(^4\) This is a system to conduct research, which contributes to the acquisition system of defense equipment, by inviting experts such as associate professors from different universities specializing in the areas of concern in order to review and reconsider an effective procurement system, based not only on the viewpoints of the Ministry of Defense personnel but also on theories that have been proposed in the field of business administration and economics.

\(^5\) Economies of scale refer to the cost advantage that arises with an increased output of a product. For example, costs per unit can be reduced by a bulk purchase of materials.
predictability, which is peculiar to the defense industry.

For these reasons, the upper limit of acts that incur national debt prescribed in the Public Finance Act as within five years in principle was changed to within ten years for specific equipment through the enactment of the Long-term Contract Act. The introduction of this change regarding long-term contracts will make stable procurement possible, leading to the realization of the systematic improvement of defense capability. At the same time, for companies, given that the procurement amount will be assured, the systematic use of personnel and equipment, as well as cost reductions due to bulk orders, will be made possible. Furthermore, this will prevent subcontractors from withdrawing from the defense industry.

In addition, by realizing longer-term multiple-year contracts utilizing the PFI Act, it achieves the planned acquisition and execution of budgets through the standardization of investment amounts of the national expenditure and draws out certain benefits such as cutting equipment procurement costs by reducing risks for those taking orders and by promoting the entry of new suppliers. As projects using the PFI Act, the MOD launched the “project of development and operation of X-band satellite communications” in January 2013 and the “project of operation and management of private ships” in March 2016.

In addition, regarding procurement of certain equipment with which little competitiveness can be expected due to its characteristics, and companies that work on cost reduction using the MOD’s programs, the MOD promotes limited tendering contracts while ensuring transparency and fairness as well as clarifying and putting the subject into patterns, from the perspective of the implementation of smooth and efficient procurement, and the enhancement of the company’s predictability.

Specifically, as a new initiative, in acquiring new destroyers with the combined features of improved capabilities to respond to various missions and a compact hull, the MOD has adopted a procurement method to acquire the new destroyer efficiently equipped with the necessary functions and to maintain and strengthen the construction technology base since February 2017. This is done by selecting a party that has made the best proposal with respect to the MOD’s requirements as a procurement counterparty, with the runner-up also involved in designing and building facilities as a subcontractor. The MOD concluded a proposal agreement in April 2017 and decided on a procurement counterparty and a subcontractor in August 2017.

With regard to the procurement of defense equipment, there is a large variety of equipment without a market price, and therefore, they tend to have high prices. In light of this characteristic, it is necessary to achieve both the reduction of procurement cost and improvement of companies’ incentives to reduce cost simultaneously. Thus, the MOD has been striving to achieve the reduction of procurement prices by confirming the actual costs incurred and ensuring that no excessive business profit will be added after the execution of the contract through cost audit contracts with a special provision requiring respective companies to conduct a review of the contract sum and return any excessive profit (audit contracts incorporating a provision requiring the return of excessive profit).

However, it has also been noted that these contracts diminish the companies’ motivation for cost reduction as they would be required to return excessive profits after the completion of the contract payment at the end of the fiscal year. Therefore, the MOD is developing a new incentive contract system in which public and private sectors jointly carry out the management of contract implementation to minimize the risk of it, and in which a certain percentage will be given back to the companies if the cost reduction has been performed.

In addition, using special research officers and companies with expertise, the MOD conducts examinations of frameworks for reviewing cost reduction measures based on a public-private partnership, and new methods for more efficient and reduced equipment procurement costs by encouraging competition among companies by way of the MOD’s active evaluation of business partners.

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6 “Special Measures Law Concerning the Term of Expenditure Based on the Obligatory Assurance of National Subsidization for Specific Defense Procurement” (enacted in April 2015)
7 Act on Promotion of Private Finance Initiative
3 Initiatives Aimed at Increasing the Efficiency of Procurement, and Other Related Initiatives

1 Effective and Efficient Maintenance and Replenishment

With regard to periodic maintenance checks of defense equipment, the MOD has been working to achieve greater efficiency by extending the interval between the maintenance checks, after making sufficient effort to ensure safety. In addition, the MOD embarks on the introduction of Performance Based Logistics (PBL)\(^8\) from the perspective of improving the equipment availability ratio and long-term cost reductions. In the FY2018 budget, cost savings can be expected due to conclusion of an umbrella agreement regarding maintenance parts for the F110 engine (for fighter (F-2)) and transport helicopters (CH-47JA) and others.

2 Achieving Further Efficiency in the Acquisition of Defense Equipment

When acquiring defense equipment, the MOD aims to reduce development, acquisition, and maintenance expenses by procuring common equipment and supplies in bulk, standardizing some components, and developing product families, etc., in addition to a review of the contract system. The MOD also carries out bulk purchases, seeking greater efficiency by budgeting and entering into contracts for defense equipment, supplies, and components based on the approach of consolidating the quantities required for several years into a single specific fiscal year. In the FY2018 budget, some reduction in expenses is expected due to a bulk purchase of the next-generation IFF equipment for fighters (F-15), computer software licenses, and other equipment.

In addition, the MOD is facilitating the compilation of a database on the breakdown of procurement price and actual price of major equipment in the past. By using this database, the Ministry expects not only to verify the validity of procurement prices, but also to enhance the accuracy and efficiency of life cycle cost estimation for new equipment.

3 Efforts to Increase Fairness and Transparency

The MOD implements measures for making contracts more appropriate and strengthening checking functions to promote the enhancement of fairness and transparency in relation to the acquisition of equipment and materials.

As a part of the effort to “make public procurement more appropriate” across the whole government, the MOD continues to carry out the introduction and expansion of a comprehensive evaluation bidding system\(^9\) and make bidding procedures more efficient. In addition...
to these, based on reflection on the past, strengthening system investigation, reviewing penalties, ensuring the effectiveness of supervision and inspection, and other measures have steadily been carried out in order to prevent recurrence of incidents such as overcharging and falsified results of equipment testing by defense-related companies. Through these measures, the MOD strives to surely prevent recurrence of scandals, enhance fairness and transparency, and make contracts more appropriate.

In addition, ATLA carries out multilayered checks through both internal and external checking systems for stricter checks – namely, ATLA conducts internal inspections, by establishing the inspection and audit department, and through deliberations in the Defense Procurement Council, consisting of external experts, and defense inspection conducted by the Inspector General’s Office of Legal Complaints. Moreover, ATLA has also improved its education department and strives to enhance compliance awareness by providing thorough education pertaining to compliance for ATLA personnel.

Foreign Military Sales (FMS) is the U.S. security program through which the U.S. allies and others can purchase defense equipment and services from the U.S. government based on the Arms Export Control Act (AECA), so it is different from sales for the purpose of economic profits. Between the Japanese and the U.S. governments, FMS is based on the Japan-U.S. Mutual Defense Assistance Agreement. This program allows Japan to procure equipment with a high level of military confidentiality which cannot be generally purchased through Direct Commercial Sales and the higher performance equipment which is only manufactured by the U.S. This is the reason why FMS is very important in strengthening Japan’s defense capabilities, and Japan’s FMS procurement amount has been increasing in recent years.

Meanwhile, there are FMS-related issues, such as late case closures and cost transparency. Japan and the U.S. have been actively engaged in making improvements in these issues, as the result of repeated requests for improvements to the U.S. side based on points raised by indications from the Board of Audits and requests by Defense Minister Onodera to U.S. Defense Secretary Mattis for cooperation in lowering prices in order to build up the most efficient defense capabilities in the current severe security environment.

On June 2018, Minister Onodera and Secretary Mattis held the Japan-U.S. Defense Ministerial Meeting and the ministers welcomed the joint statement on the successful completion of the FY2018 budget process and Japan’s preparations for the FY2019 budget. They also agreed to continue to make efforts to realize Japan’s smooth and timely procurement of U.S.-made assets.

The Ministry of Defense continues make efforts to improve FMS-related issues close cooperation with the U.S.

*In the formulation of the FY2018 budget, the MOD held negotiations with the United States regarding FMS costs and made efforts to reduce expenditure by scrutinizing the cost. For example, for tilt-rotor aircraft (V-22 Osprey), in its negotiations with the United States, the MOD sought to leverage economies of scale through joint procurement of Osprey aircraft with the U.S. Navy (40 aircraft) and to scrutinize minimum initial cost necessary for operations. As a result, the MOD was able to realize a cost reduction of 25.5 billion yen, reducing the cost from 97.1 billion yen, as estimated at the FY2018 budget request stage, to 71.6 billion yen in the actual budget.

**Commentary**

**Improvement of FMS related issues**

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On June 2018, Minister Onodera and Secretary Mattis held the Japan-U.S. Defense Ministerial Meeting and the ministers welcomed improvements in challenges regarding Foreign Military Sales such as strengthening efforts to improve cost transparency and late case closures as well as initiating concrete discussion on more efficient multi-year contracts. The ministers affirmed that both countries would continue to make efforts to realize Japan’s smooth and timely procurement of U.S.-made assets.

The Ministry of Defense continues make efforts to improve FMS-related issues in close cooperation with the U.S.