Section 3  
Efforts toward Project Management, etc.

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Project Management throughout Its Life Cycle

1 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, for important defense equipment, the Department of Project Management was set up in ATLA to realize the most efficient acquisition in accordance with operational needs by managing the costs and schedule throughout the life cycle of equipment.

In November 2015, to realize the efficient acquisition of equipment that will enable effective and efficient operation and maintenance, the MOD selected 12 equipment for project management and designated a Project Managers (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, for the equipment of project management, the MOD prepared the Acquisition Strategy 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 this Strategy 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. ATLA also carries out a comparison between these statuses and the Acquisition Strategy, and reviews the Acquisition Strategy as necessary. In the case where a significant excess of life cycle costs is expected, appropriate measures will be taken including a drastic review and termination of the project.

In FY2017, ATLA is conducting a review of the Acquisition Strategy such as updating the standards of life cycle costs to meet mass production specifications, as Medium range SAM (improved version) has now moved from the development phase to the mass production and deployment phase. Regarding equipment that has not yet been selected for project management, ATLA is also considering designating them as new project and semi-project.  

See Fig. III-4-3-1 (Equipment for 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 equipment, the MOD promotes the introduction of the cost and schedule management method for visualizing the progress by each Work Breakdown Structure (WBS), to detect early the signs of cost increase and schedule delay so that swift measures can be taken.

(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.

(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

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 costs, schedules and other risk factors.

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.
those who engage 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.

**Effective and Efficient Acquisition from a Comprehensive Perspective**

Acquisition of defense equipment based on a comprehensive perspective is required to build a Dynamic Joint Defense Force.

So far, based on the integrative point of view, the Ministry has been striving to reduce development, acquisition, and maintenance expenses through (1) making the equipment function integrated, and (2) procuring common equipment and supplies in bulk, standardizing some components, and development of product families, etc.3

Hereafter, the Ministry will have the viewpoint of project management from the planning stage of defense equipment to promote effective and efficient acquisition throughout the life cycle of the equipment. This will be done by conducting research on cases where existing technologies to promote the development of product families of equipment were applied to cases in other fields, and considering the reduction of acquisition costs, while at the same time giving consideration to the network trends.

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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.
2 Improving the Contract System and Other Related Matters

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 has been adopted in order to surely embody the review results.

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 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

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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.

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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 predictability, which is peculiar to the defense industry.

For this reason, 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 the FY2017 budget, six GSDF CH-47JA transport helicopters are to be procured in bulk based on a long-term contract.

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 planned during FY2018 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.

**3 Decrease Procurement Cost and Improve Companies’ Incentives to Reduce Cost**

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 conducts a review of 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.

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 the FY2017 budget, some cost reductions are expected by reviewing the method of maintenance and development of transport helicopter engines.

In addition, the MOD embarks on the introduction of Performance Based Logistics (PBL) from the perspective of improving the equipment availability ratio and long-term cost reductions. In the FY2017 budget, cost savings as well as improvement of equipment availability and securing of preparedness for timely and appropriate parts supply can be expected by concluding PBL contracts on the maintenance of MSDF transport aircraft (C-130R) and other aircraft.

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. In the FY2017 budget, reduction of development expenses is expected by developing new ship-to-air missiles based on surface-to-air missiles as an effort to promote product families of equipment.

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 FY2017 budget, some reduction in expenses is expected due to a bulk purchase of high-performance 20mm autocannons for destroyers, computer software licenses, and other equipment.

In addition, the MOD plans to immediately facilitate 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.

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8 PBL is a contract method that involves payment of compensation according to the level of equipment performance achieved, in terms of availability ratio and stable stock. It has achieved positive outcomes upon application to the maintenance and servicing of equipment in Western countries.
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 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 product 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, etc., by establishing the inspection and audit department, and through deliberations in the Defense Procurement Council, which consists of inspectors and 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.

However, despite these efforts, it was revealed through the special defense inspection conducted by the Inspector General’s Office of Legal Compliance in December 2016 that fairness was not sufficiently ensured in the procedure of selecting a model of the MSDF multipurpose helicopter (ship-based). The MOD conducts reviews of its checking function with respect to model selection and has made the model selection procedure notification process more rigorous, etc., as measures to prevent the recurrence of the scandal, and strives to further enhance fairness and transparency.

Fig. III-4-3-3 (Inspection and Audit Functions regarding the Procurement of Defense Equipment)

Unlike the automatic bid system which focuses only on price, this is a system which the successful bidder is determined on the basis of a comprehensive evaluation that includes both the price and other elements. This method is adopted when it is appropriate to carry out such procedures as evaluating the technological elements.