

Acquisition Reform Project Team

# Report

March 2008

Ministry of Defense

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## **I. Preface**

In September 2003 Comprehensive Acquisition Reform Committee was organized with the then Director General of the Defense Agency serving as Committee Chairman. Based on the outcomes of acquisition reform and other measures to date, the Committee has proceeded with reviewing comprehensive acquisition reform centered on measures and policies to streamline procurement. The same Committee has been steadily putting the reviewed measures and policies into effect and has released mid-term reports concerning the progress of its review on 2 occasions, in July 2004 and March 2005.

In the interim, recent changes have been seen in the circumstances surrounding equipment acquisition.

First, as equipment becomes more sophisticated and complex, there is a tendency for the unit price of equipment to rise even as Japan's financial circumstances are growing in severity. Under these circumstances, the rise in equipment acquisition costs leads to a decrease in acquisition quantity, creating a type of negative spiral that is associated with a greater increase in acquisition costs. Therefore, the further promotion of all cost control measures has become an urgent issue, and it has become necessary to strengthen lifecycle cost management of from conception to disposal.

Second, greater improvement in transparency and impartiality is being sought after now more than ever. The procurement of defense equipment is restricted to corporations that possess manufacturing capabilities, and as a result, difficulties exist such as numerous private contracts and the necessity for security. Although the Ministry of Defense (MOD) has been striving to make information about equipment acquisition public, hereafter there is a call for even more accountability, including in procurement procedures.

Procuring equipment of even higher quality, even more cheaply has been a consistent theme in comprehensive acquisition reform, but given the changes in circumstances noted earlier, it has become necessary to push harder toward comprehensive acquisition reform. On October

18, 2007, Defense Minister Ishiba issued a Ministerial Directive for the Acceleration of Comprehensive Acquisition Reform, and the Acquisition Reform Project Team was organized with Parliamentary Secretary for Defense Terada at the helm.

After its establishment, the Project Team has held meetings on 9 occasions based on the Ministerial Directive and has repeatedly discussed a variety of issues, including dealing with import issues, particularly after several instances such as padded-billing related to imports were uncovered. This report is a compilation of the measures and policies that to date have been discussed at the Acquisition Reform Project Team Meetings.

#### Ministerial Directive for the Acceleration of Comprehensive Acquisition Reform

Given the recent trends in military science and technology, there is a need to effectively and efficiently acquire equipment that accurately responds to advances in joint operations and troop needs.

In addition, in this severe financial situation, there is a call for acquiring even better equipment, even more cheaply, and building fair and transparent systems that result in greater accountability toward the citizens of Japan.

Therefore, the Acquisition Reform Project Team will be established to accelerate comprehensive acquisition reform. The Project Team will immediately review the items below and by the end of March 2008 will report on the outcomes of that review and issues that require further examination.

##### 1. Strengthening Life Cycle Cost Management

To carry out uniform cost management, the lifecycle cost over the lifecycle of equipment, from conception, to development, mass production, operation, and disposal, will be specified, and at each point of the acquisition process decisions will take place that accurately evaluate factors such as performance and cost. At the same time, an examination of system establishment that carry out appropriate follow-up review will be conducted. Moreover, the underlying framework and the nature of human resource development will be reviewed.

##### 2. Review the State of Effective and Efficient Research and Development (R&D)

There is a need to carry out effective, efficient research and development in agreement with defense initiatives while taking into consideration the recent trends in military science and technology and international circumstances involving R&D. Therefore, a review will be carried out to determine whether R&D equipment is sufficiently effective, and the future direction of R&D will be examined.

##### 3. Strengthen Measures Aimed at Streamlining Procurement and Maintenance

From the standpoint of joint operations, promote greater innovation and efforts toward streamlining equipment procurement and maintenance through bulk acquisition, utilization of commercial products and technology, expansion of outsourcing to private companies, and

further improvements in Foreign Military Sales (FMS). Study measures including establishing specific achievement goals in order to control lifecycle cost.

In addition, examine improvements in cost calculation methods and expansion of incentive contracts to encourage efforts to streamline the commercial sector.

#### 4. Review Central and Local procurement

Review central and local procurement to further improve the transparency of procurement practices and implement efficient procurement that conforms to the reality of troop operations.

#### 5. Review Division of Labor for the Planning and Procurement Phases

Reconsider how jobs are assigned between the planning phase and procurement phase of equipment acquisition.

## II. Summary of Project Team Meetings

	Date	Location	Topics of Discussion
1 <sup>st</sup> meeting	2007 October 18 <sup>th</sup> (Thursday)	1 <sup>st</sup> Ministry Meeting Room	Outcomes to date and future initiatives  Upcoming schedule
2 <sup>nd</sup> meeting	November 26 <sup>th</sup> (Monday)	1 <sup>st</sup> Ministry Meeting Room	Upcoming schedule  Current state and problems with Commercial Imports
3 <sup>rd</sup> meeting	December 13 <sup>th</sup> (Thursday)	1 <sup>st</sup> Ministry Meeting Room	Goals for cost reduction  Review status of lifecycle cost management
4 <sup>th</sup> meeting	December 19 <sup>th</sup> (Wednesday)	1 <sup>st</sup> Ministry Meeting Room	Goals for cost control  Immediate steps for Commercial Imports  Review of Aircraft Selection process
5 <sup>th</sup> meeting	December 26 <sup>th</sup> (Wednesday)	1 <sup>st</sup> Ministry Meeting Room	Issues related to technology R&D for equipment

6 <sup>th</sup> meeting	2008 January 18 <sup>th</sup> (Friday)	1 <sup>st</sup> Ministry Meeting Room	Incentive contracts  3 <sup>rd</sup> party audit for local procurement
7 <sup>th</sup> meeting	January 30 <sup>th</sup> (Wednesday)	1 <sup>st</sup> Ministry Meeting Room	Measures for problems related to problems in Import  Further improvements of FMS
8 <sup>th</sup> meeting	February 15 <sup>th</sup> (Friday)	Joint Staff Office  1 <sup>st</sup> Main Conference Room	Promotion outsourcing private companies  PFI operations in defense facilities  New R&D evaluation process
9 <sup>th</sup> meeting	March 10 <sup>th</sup> (Monday)	1 <sup>st</sup> Ministry Meeting Room	New R&D evaluation process  Strengthening the lifecycle cost management (review framework and human resource development)  Review central and local procurement  Equipment acquisition from a joint operation perspective  Review division of labor between the planning and procurement phases in equipment selection
10 <sup>th</sup> meeting	March 28 <sup>th</sup> (Friday)	1 <sup>st</sup> Ministry Meeting Room	Deliberation over the Acquisition Reform Project Team Report

In addition to the above, on January 31<sup>st</sup> and February 4<sup>th</sup> in 2008 discussions took place concerning stringent evaluations and future initiatives for R&D projects underway.

Furthermore, on February 14<sup>th</sup> Parliamentary Secretary for Defense Terada held a hearing on project management methods presented by Prof. Toshihiro Nishiguchi from Hitotsubashi University Institute of Innovation Research.

A homepage has been set up for Acquisition Reform Project Team within the Ministry of Defense website (<http://www.mod.go.jp/j/info/sougousyutoku/index.html>).

### **III. Countermeasures**

#### **1. Dealing with Commercial Import Issues**

##### **(1) Recent Incidents Related to Commercial Imports**

###### **(a) Padded-billing by Yamada Corporation**

① On November 22, 2007, it was ascertained that Yamada Corporation had engaged in excessive contract\* billing in 2 cases where imported equipment was supplied to the MOD.

\* Propeller maintenance equipment for US-2:

Contract sum: approx. 9 million yen

Manufacturer's estimate: approx. 5.2 million yen

Estimate submitted by Yamada Corporation: approx. 8.3 million yen

Aircraft components for the SH-60K:

Contract sum: approx. 4 million yen

Manufacturer's estimate: approx. 2.9 million yen

Estimate submitted by Yamada Corporation: approx. 3.5 million yen

② As a result, business with Yamada Corporation was suspended. All other contracts with that corporation dating back to 2002 are being investigated and the authenticity of estimates and other documents are being directly confirmed with overseas manufacturers.

③ A sampling survey is being conducted for trading companies other than Yamada Corporation. Through the sampling survey, it was determined that fabricated estimates for a total of 6 contracts were drawn up by Kyokuto Boeki Kaisha in relation to communications antennae for submarines, and among those, 5 exhibited padded-billing. On January 7, 2008 business with that company was suspended, and that information publicized. As a result, all other contracts with that company dating back to 2002 are being investigated and the authenticity of estimates and other documents are being directly confirmed with overseas manufacturers.

**(b) Revised contracts for chaff/flare launchers**

① While there were suspicions that Yamada Corporation falsified estimates from the US manufacturer British Aerospace (BAE Systems) and engaged in padded-billing of procurement contracts for chaff/flare launchers in FY2000, ultimately the Defense Agency at the time was unable to determine deliberate, contrived padded-billing, and merely took the step of reducing the sum of the initial contract.

② Investigations are being conducted into the series of events that led to a reduction in the contract sum, rather than processing it as a case of padded-billing by Yamada Corporation. Investigators are carefully examining relevant materials from that period, interviewing employees, and reviewing information provided by BAE.

**(c) Selection and procurement of the C-X engine**

① A selection procedure was conducted to choose from proposals submitted by 3 companies\* in response to a bid request for an engine used in a Japan Air Self-Defense Force (JASDF) next-generation transport aircraft (C-X). The US company General Electric (GE) was selected after deliberations took place at an August 2003 equipment review meeting.

\* General Electric Company (Representative office: Yamada Corporation), Pratt & Whitney (Representative office: Mitsubishi Corporation), Rolls Royce, PLC. (Representative office: Shintoa Corporation)

② Five test model C-X engines were provided in FY2004 and FY2005 by Yamada Corporation, which was the representative office and sales agent for the US GE-manufactured engine mentioned above. However, procurement of the 6<sup>th</sup> engine was halted this fiscal year after Yamada Corporation was discovered to have engaged in padded-billing.

#### **(d) Problems with night-vision goggle**

It was discovered that night-vision goggle delivered for security at JASDF bases differed from the equipment that had been contracted for in March 2006 through open bidding. As a result, the contract was canceled and trade with the dealer, Science Technology Trading, was halted.

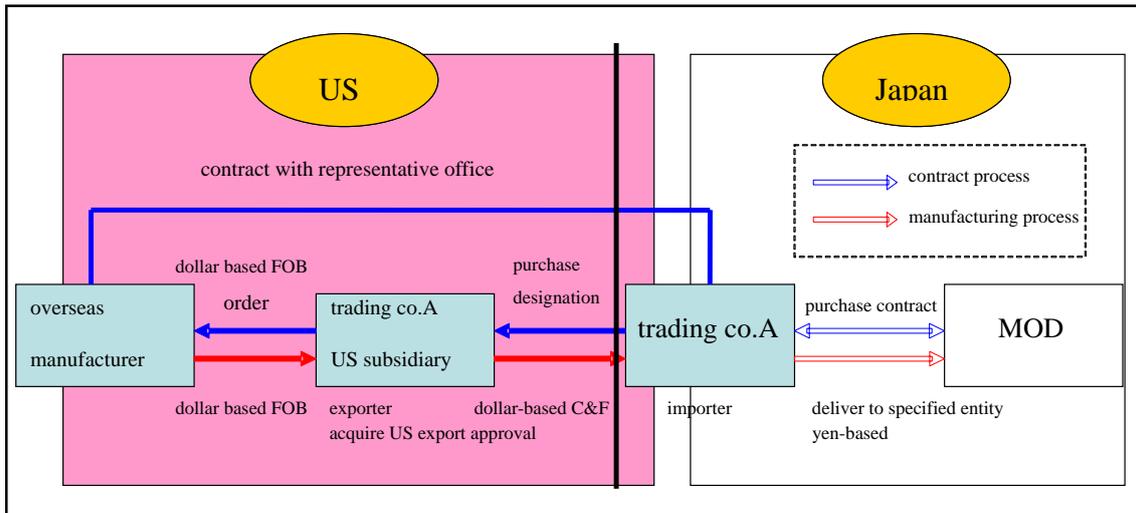
#### **(2) Measures**

##### **(a) Strengthen check functions**

##### **① Direct inquiry of estimates, etc. to overseas manufacturers**

Because padded-billing of Commercial Imports occurred through fabrication of overseas manufacturer estimates, the most assured way to confirm the authenticity of estimates is making direct inquiries to overseas manufacturers. Therefore, from December 2007, when contracting for the purchase of import goods, measures will be taken to confirm the authenticity of estimates and other monetary sums by directly contacting the overseas manufacturer.

**Figure 1. Import Procurement System (typical case)**



②

**Newly establish contract provisions**

On the other hand, the direct inquiry to overseas manufacturers noted above is only a voluntary investigation since the aforementioned manufacturers have not entered into contract with the MOD and there are no particular agreements with the contractual party, the trading company (see Figure 1). From FY2008 measures have been adopted to heighten the effectiveness of this investigation in the future. These measures include newly established contract provisions drawn up with trading companies that stipulate the obligation to submit estimates and other documents from overseas manufacturers when documents such as estimates from overseas manufacturers are originally submitted, making direct inquiries to overseas manufacturers concerning these documents, and in the case of using overseas distributors as intermediaries are the same measures.

**③ Introducing import procurement investigations**

Since 1999 a system of investigation has been implemented for domestic manufacturers for the purpose of confirming the suitability of cost calculations, such as checking the number of man-hours. This investigative system has been yielding consistent results in detecting padded-billing. However, this type of investigation has not been carried out on Commercial Imports. Therefore, from FY2008 trading companies that become contractual parties to import

procurement will also be subject to an import procurement investigation that employs outside specialists, such as certified public accountants, which looks into in-company fraud prevention measures and legal compliance systems, and at the same time crosschecks records kept in the trading company's accounting system with estimates submitted to the MOD.

#### **④ Direct inquiry into certificates of conformance**

The MOD is reviewing private contracts for direct commercial sales and on the whole is shifting toward open bidding. At the same time, however, there is also a need to strengthen monitoring, as illustrated by incidents where erroneous items were delivered, such as in the case noted earlier concerning night-vision goggle. Therefore, the decision has been made to establish new contract provisions that clearly stipulate the practice of making direct inquiries to overseas manufacturers about documents, such as certificates of conformance. In addition, all packaged equipment will be opened, or in a similar manner, and checked without fail, using a system based on the new contract provisions to be implemented from FY2008.

#### **⑤ Clarification of main unit price framework**

In the chaff/flare launcher incident noted earlier, Yamada Corporation claimed the cost of services (technical support) was not clarified within the main unit price for the import purchase contract. As a result, it was handled by an agreement amendment to reduce the contract sum. This incident illustrates the need for the MOD to clarify the structure details of the main unit price for equipment. Therefore, the Director General, Bureau of Finance and Equipment issued a notice to relevant Ministry employees that from FY2008 the main unit price and fees related to cost of services must be separately calculated. Explanations have been provided to corporations, and they have been requested to provide a cost breakdown in submitted estimates.

#### **⑥ New establishment of a special section in the Import Procurement Section**

In the past, there was section in the Equipment Procurement and Construction Office (EPCO; formerly the Central Procurement Office) that was in charge of direct commercial sales, but currently the organization is structured according to equipment type (aircraft, etc.) and no

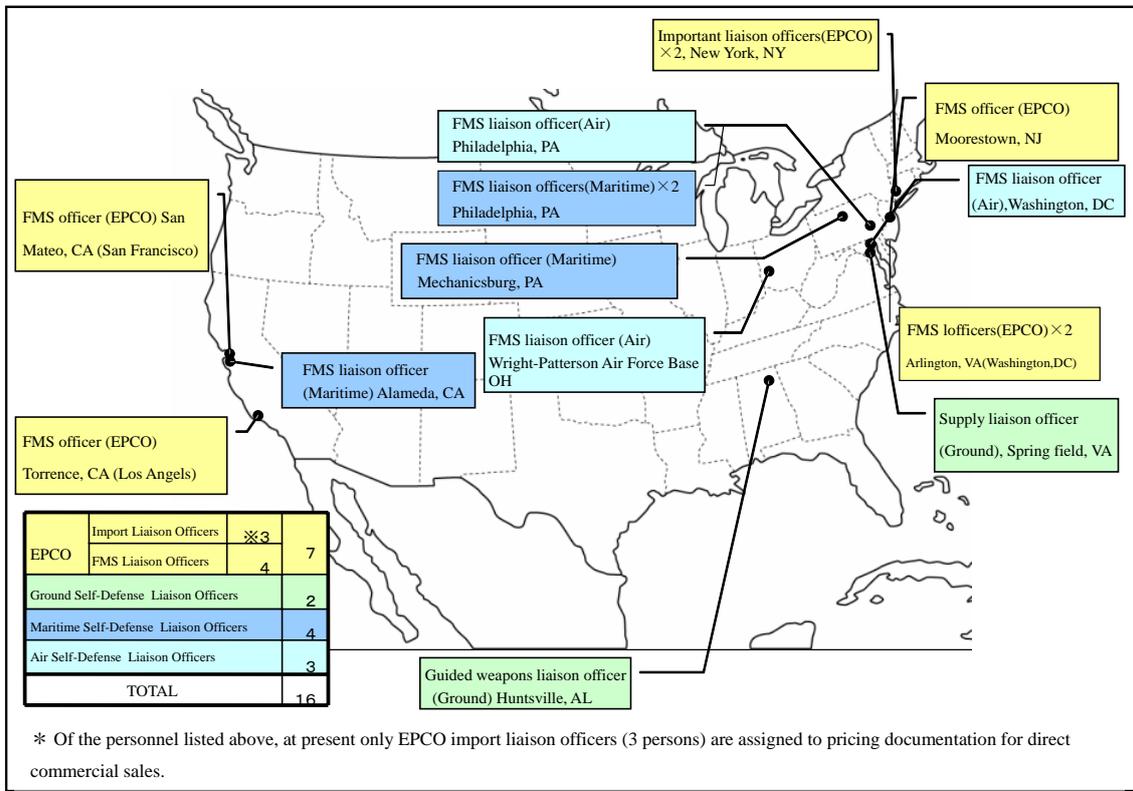
special section exists in the EPCO. Therefore, since verification of facts related to recent commercial import procurement cases and planning/implementation of countermeasures have not always been executed smoothly, a special section of the Commercial Import Procurement Office will be newly established in EPCO, with budget requests for FY2009 to take place. In addition, within EPCO a multi-tiered monitoring system of mutual checks and balances will be built by strengthening intra-departmental monitoring of imports through an audit section and giving control of investigations into the aforementioned matters to deputy directors who are not EPCO deputy director assigned to commercial imports.

**(b) Strengthen the function of investigation**

**① Increase the number of EPCO import liaison officers**

EPCO import liaison officers (3 persons in the US) visit overseas manufacturers and conduct investigations to verify price validity (investigation). However, at present those investigation cases account for roughly less than 10% of all contracts, and because it is necessary to strengthen investigation, there are plans to increase the number of import liaison officers to 7 persons in FY2008. Moreover, FMS officers from EPCO will be used in the aforementioned investigations (see Figure 2).

**Figure 2. The Placement of MOD Liaison Officers engaged in procurement in the US (FY2007)**



**② Utilize each of the SDF’s liaison officers engaged in procurement**

Starting in FY2008, investigation of direct commercial sales will be enhanced and strengthened and Self-Defense liaison officers engaged in procurement who reside in the US will be used in local procurement, which in the past has not carried out investigation because overseas manufacturers overlap with central procurement.

**③ Obtaining information on foreign procurement trends**

Previously, information about procurement trends in other countries, including the US, has not always been gathered organizationally, but the volume of foreign procurement has a huge impact on import procurement costs regardless of whether the issue is Commercial Imports or FMS. Therefore, from FY2008 relevant information will be gathered through EPCO liaison officers (import liaison officers and FMS officers) and SDF’s procurement liaison officers from all branches residing in the US. At that time, efforts will be made to acquire information

not only from the US Department of Defense, but also from Foreign Procurement Group (FPG: an organization from Washington, D.C. whose members are foreign procurement personnel from nations that participate in FMS) member nations.

#### **④ Utilize FMS Audit System**

As part of commercial import price validation, review utilization of the framework that makes it possible to request the US government to audit US manufacturers in accordance with the FMS service contract.

#### **(c) Strengthen punitive measures against cases of padded-billing**

Presently, in cases of padded-billing violators are charged damages for breach of promise equal in amount to the paid excess, in addition to restitution of the amount paid in excess. However, damages will be doubled from FY2008 to further increase the effectiveness of the sanctions against incidents of padded-billing.

Also, the method for calculating damages will continue to be reviewed in order to quickly and reliably determine and collect the penalty charge.

#### **(d) Promote direct contracts with overseas manufacturers**

##### **① The current situation**

The MOD is reviewing the practice of private contracts. Presently, in principle, direct commercial sales as a whole is being shifted toward open bidding. Therefore, under the current system it is quite possible for procurement procedures to be carried out with the direct participation of overseas manufacturers rather than being based on intermediary trading companies. However, at the moment the majority of bidding is conducted by trading companies that possess the right to represent overseas manufacturers. It is considered preferable to expand the possibility of entering into direct contracts with overseas manufacturers and choose the best course of action while comparing procurement costs.

##### **② Hold hearings with overseas manufacturers etc.**

Given the situation outlined above, the first step by the MOD was to hold hearings with overseas manufacturers with offices in Japan (7 overseas manufacturers with Japan offices in January 2008) about the possibility of direct contracts and whether there are obstacles to entering the market. As a result, although there were corporations that indicated a desire to conduct direct contract without a trading company, others expressed the opinion that there is no merit to the MOD entering into direct contracts because using a trading company (representative office) as an intermediary has cost advantages and simplifies dealing with accounting laws and sales activities suited to trade practices in Japan. Moreover, problems that impede entering the market were pointed out, such as the need to prepare an English context and differences in accounting laws and trading practices, including prepayment and a period of warranty against defects.

In addition to the hearings noted above, direct contract approaches were examined using examples from overseas and private enterprise in Japan (see Figures 3 and 4).

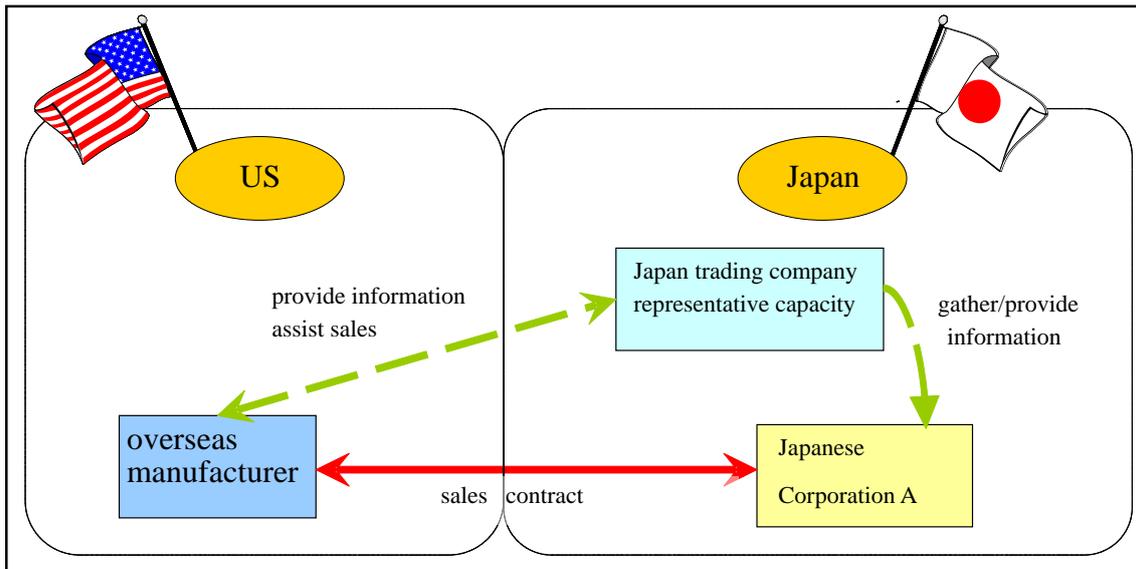
### **③ Preparing for direct contracts**

The results of the hearings with overseas manufacturers with offices in Japan led to the decision to develop an environment that makes it easy for overseas manufactures to enter the market. For the time being, the Ministry will move ahead with producing bid participant guidance in English, creating an English version of notices to bidders, and holding explanatory meetings. In addition, the issues of prepayment and a period of warranty against defects, which are related to entering the market, will be handled when necessary through budgets for the former and insurance for the latter. Furthermore, reorganization (newly establish a special section of the Import Procurement Section in EPCO, as previously outlined), the development and acquisition of human resources, and utilization of outside specialists such as persons with commercial trade experience will all be employed to pave the way for implementing direct contracts.

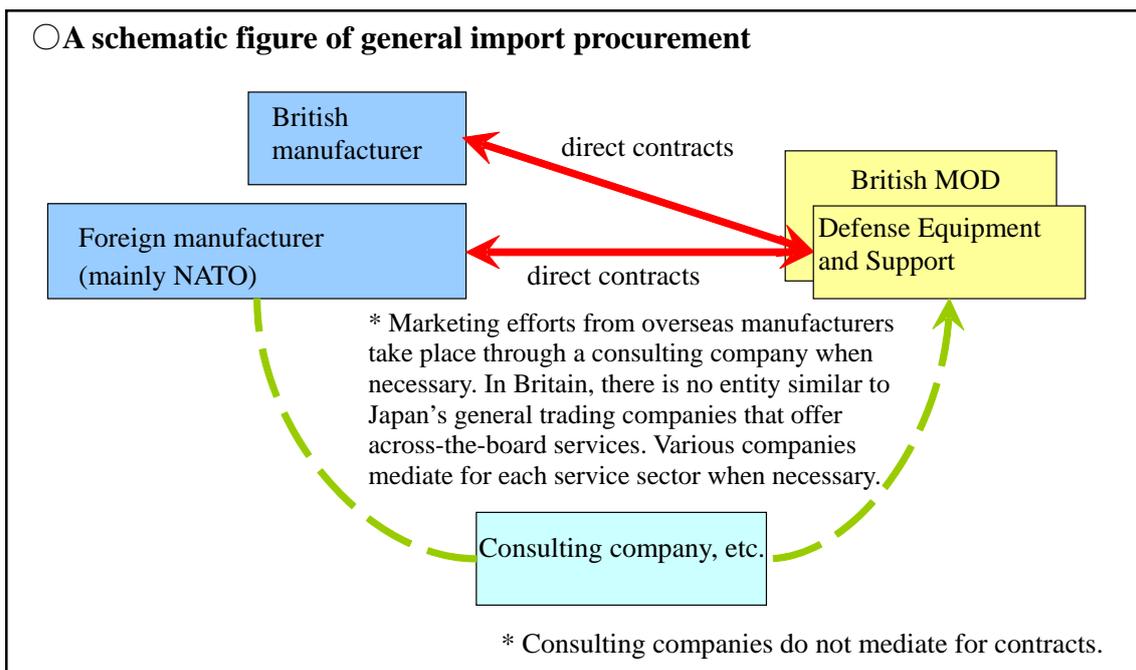
### **④ Review types of direct contracts**

In the future, when the MOD enters into direct contracts with overseas manufacturers, from the standpoint of efficiency it will compare the total cost of various types of direct contracts, including outsourcing a portion of the tasks as necessary in accordance with direct contracts. In FY2008, the MOD plans to implement a cost-benefit analysis on types of direct contracts for Commercial Imports.

**Figure 3. Import Procurement System for Japanese Corporation A**



**Figure 4. Import Procurement System for British MOD**



### **(e) Strengthen human resources development for procurement employees**

The skill level of employees engaged in procurement must be constantly improved to deal with acquiring increasingly complicated equipment. There is also a need to continually promote the reinforcement of employee compliance awareness in order to absolutely ensure fairness and transparency. Therefore, the entire conventional training system at EPCO will be reexamined, focusing particularly on expertise, and a compliance course related to procurement will be introduced in June 2008.

Moreover, an educational program on expert knowledge necessary to import procurement will be created that includes specialized knowhow crucial to promoting direct contracts with overseas manufacturers and language skills essential to import liaison officers.

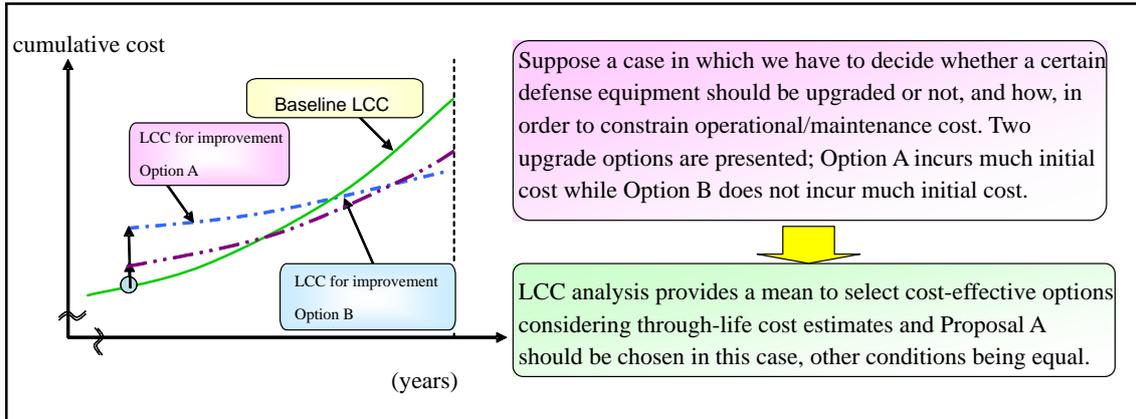
## **2. Strengthen Life Cycle Cost Management**

### **(1) Current Issues**

Defense equipment usually have a long service life for decades of years after the production following concept and R&D phases, which also take a long period of time and sizable cost. Although cost of defense systems is in most cases assessed by unit production cost in MOD, life-cycle cost (LCC) , which covers concept, R&D, production, operation(including maintenance, repair and upgrades) and disposal of defense equipment, if managed properly, provide a useful tool not only to select the most cost-benefit options at major milestones of acquisition phases such as development and production, but also to improve cost accountability. (see Figure 5).

Though LCC management in MOD to date has been conducted on an ad-hoc basis for a limited number of major defense equipment, now it is imperative to implement LCC management by immediately establishing a ministry-wide LCC management system with standardized LCC calculation method and other associated measures.

**Figure 5. Merits of Utilizing LCC**



## (2) Future Initiatives

### (a) Establishing a LCC management system

① LCC management system with major items listed below will be stipulated and implemented at the end of JFY2008.

- Provide LCC estimate as an integral part of reviewing options at major acquisition milestones such as R&D and production phase.
- Conduct annual assessment by tracking LCC estimates (replacement of estimates with actual values). The outputs will be reported to the Minister of Defense in the form of annual report and shared ministry-wide.
- Set up the Coordination Committee (provisional name) as a cross-organizational coordination body to promote ministry-wide LCC management, utilizing the IPT\* project management method used by the private sectors and foreign counterparts of MOD. The state of LCC management report, particularly when serious discrepancies arise in LCC estimates, will be submitted for review to the Defense Procurement Council—a panel made up of external experts.

- Furthermore, establish working-level teams under the Coordination Committee, consisting of personnel from the Committee member agencies.

\* Integrated Project Team (IPT): A cross-organizational consultative body (team) that coordinates and shares information among relevant organizations and stakeholders in order to effectively design a specific problem resolution for a particular project. This system is utilized in defense acquisition in the United States and European countries as well as projects such as plant constructions and information system developments in the private sector.

② EPCO is scheduled to make a budget request for setting up a section which specialize in collecting and storing relevant LCC data as well as tracking, analyzing and verifying LCC management in JFY2009.

**(b) Establish a uniform LCC calculation method**

Until now, LCC analysis has been conducted on a ad-hoc basis by respective agencies in the MOD. In order to solve the current problem of lacking ministry-wide, uniformed LCC calculation methods, it is necessary to establish uniformed LCC calculation procedures and other associated measures. For this purpose, overarching LCC cost calculation methods based on standardized cost breakdown structures for major defense system categories will be introduced at the end of JFY2008(see Figure 6).

**Figure 6. Cost Breakdown Structure for an Aircraft (model**

LEVEL 1 item name	LEVEL 2 item name	LEVEL 3 item name
Conceptual phase	conceptual study	research and review select direct investigation/research select type
	technology research	Research and trial production (trial production costs) development testing costs other (transport costs, etc.)
Development phase	trial production	prototype costs direct procurement model
	technological testing	development testing costs other (transport costs, etc.)

	practical testing	basic operation costs aircraft repair costs ammunition purchasing costs reference instruments purchasing cost
	testing facility	testing facility set up testing facility maintenance/repair
Mass production phase	Aircraft	airframe
		engine
		on-board equipment
		first test flight

LEVEL 1 item name	LEVEL 2 item name	LEVEL 3 item name
Operation/Maintenance	auxiliary goods	initial auxiliary goods auxiliary engine auxiliary on-board equipment maintenance parts for airframe
	upgrades/repair	airframe repair (periodic repair)
	convoy upgrades/repair	upgrade costs repair costs
	Reconditioning	countermeasures against component wear
	tools for upgrades	tools for aircraft upgrade
	ammunition, etc.	ammunition, etc.
	auxiliary tools	ground auxiliary tools
	Facilities	facility upgrades
		facility maintenance/repair
	education/training	training tools
		education/training facilities
fuel costs, etc.	aircraft fuel	
	oil	
technical support costs	maintenance outsourcing costs, etc.	
Disposal phase	Aircraft	aircraft disposal
	Facility	facility disassembly

**(c) LCC trial management**

MOD will launch LCC trial management on all major defense equipment at the end of March 2008, increasing the number of managed major defense equipment as needed. The LCC

management is scheduled to be fully implemented by the end of JFY 2009 after reviewing the LCC trial management system during the period.

#### **(d) Human resource development**

LCC management requires broad range of knowledge and know-how on defense equipment and project management including risk management, without mention of defense contracting and cost accounting. Mere educational training is not sufficient to bolster those kind of knowledge and skills. Rather, a coherent, systematic and professional training curriculum is essential to accumulate relevant knowledge and know-how of LCC managements.

In an attempt to share LCC management know-how throughout the ministry, MOD held a series of presentations with particular focus on cost management methods employed by private enterprises such as Toyota Motor Corp.

EPCO will review overall defense procurement training curriculum, utilizing external expertise in JFY 2008. From JFY 2009, EPCO will initiate full-scale LCC management training curriculum and associated measures including assigning mandatory curriculum to candidates for a certain level of positions related with LCC management.

### **3. Cost Reduction Goal**

#### **(1) Numerical Goal**

The Mid-Term Defense Program (FY2005-FY2009) states that “Specific achievement goal will be set and initiatives will be further reinforced to control the lifecycle cost of equipment, including the control of procurement costs.” Accordingly, numerical goal for cost reduction that must be achieved through various efficiency measures were established for the first time.

Specifically, compared with FY2006, reduce\* costs 9% by FY2009, which is the final year of the Mid-Term Defense Program, and 15% within 5 years (until FY2011; review the possibility of achieving the goal at the end of the current Mid-Term Defense Program) by implementing various efficiency measures targeting equipment-related projects (R&D, production and maintenance/repair projects spanning the lifecycle of equipment). Such

measures include reexamining maintenance/renovation methods (upgrade/intermittent review, etc.), reutilizing components/tools, using commercial products/commercial technologies, blanket order (buy en masse), etc., shifting to multiyear contracts, sharing/commonality of some specifications, and review of specifications.

\* Cost reduction ratio = cost reduction sum / (equipment related costs + cost reduction sum)

Cost reduction sum = initial necessities (theoretical value prior to implementation of efficiency measures) – actual sum

## **(2) Future Initiatives**

Specific measures will be steadily implemented to achieve these numerical goal. In particular, blanket order and intensive procurement among three services (ground, maritime and air )of the SDF are effective measures for reducing costs and will be proactively promoted without being hampered by walls between defferent services of the SDF. In addition, efficiency measures (including measures that give incentive to corporations work toward economizing) will be added as necessary.

While using these initiatives to moving ahead with cost control, the MOD will secure expenses related to acquiring equipment for meeting new needs and will promote equipment acquisition that is on the whole effective and efficient.

## **4. Expand Incentive Contracts**

### **(1) Current Issues**

When costs calculated at the time of contract with the MOD lack sufficient information for man-hours or other matters separate to the contract, there are a number of instances where the sums paid out are confirmed after monitoring of the actual costs based on execution of the contract. In this instance, even if costs are reduced through corporate efforts to make the contract execution process more efficient, the outcome of the cost reduction is not returned to the company because the sum is reduced. Furthermore, there is little desire on the part of the

company to reduce costs because contract sums and profit sums are lower in later contracts. On the other hand, even if expenses are excessive, because the sum contracted for does not increase, companies are greatly dissatisfied.

The incentive contract system attempts to lower procurement costs for equipment and actively encourages cost reduction actions by motivating companies through an offer of increased profit. Corporate cost reduction actions contribute to improved productivity and the strengthening and promotion of low cost structure, and thus are thought to be linked to bolstering the defense production technology base. Europe and the US indemnify costs incurred, and when cost reductions are achieved they utilize cost compensation contracts that award supplementary profit, and firm fixed price contracts that anticipate self-reliant efforts from companies.

In 1999 the MOD also introduced a system to reduce costs, expanded the system in 2002, and is utilizing a revised version as an incentive contract system. In the past 9 years, however, it has only been applied in 2 cases.\* As it is difficult to say that procurement cost reductions have been achieved, the current system is being reviewed and efforts are being made to build a new, effective framework.

\* ① The current incentive contract system

- Utilizes the technology and production knowhow of companies to achieve reduced cost
- Awards 1/2 the sum of the reduced expense as a technological proposal fee over a 5-year period
- Carries out verification tests etc. on technical proposals based on the opinions of outside committee members

② Some of the reasons stated by companies for not utilizing the current incentive contract system are that conditions limit application to technological proposals, it is difficult to reflect the daily efforts of the company, application of the technology from the production

stage is complicated, the screening procedure is complex and the criteria unclear, and the guarantee of profit and award method offer few advantages.

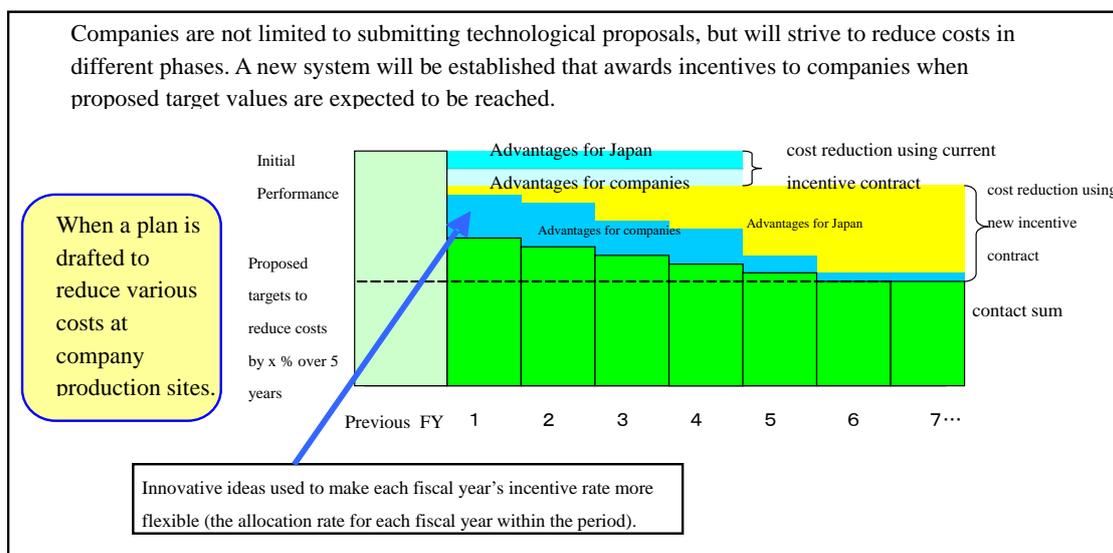
## **(2) Future Initiatives**

### **(a) Adoption of a new incentive contract system**

- ① A new incentive contract system will make improvements in the areas of proposal requirements, scope of utilization, incentive volume, and screening procedure (see Figure 7).
- ② Proposals are not restricted to technological proposals but include plans that offer immediate cost reduction, such as adoption of new production systems and new facilities, or plans that offer progressive cost reduction, such as efficiency programs for production sites. Numerous cost reduction efforts will be considered.
- ③ The scope of utilization includes systems that will achieve cost reduction throughout the lifecycle of equipment. For repetitive, continuous contracts targeting phases such as production, the company's efficiency scheme will be adhered to and a firm fixed price contract will be carried out at an early stage. In contracts for high-risk phases such as R&D or initial production, cost incentives will be given for company inventiveness. When applicable technology or creative knowhow is established for the transfer to mass production, the current technology proposal system will be used and cost reduction will be applied from the initial production stage.
- ④ To make the size of the incentives even more appealing, within a 5-year period innovative ideas will be employed to make each fiscal year's incentive rate more flexible.
- ⑤ To improve the screening procedure, redundant screening by various MOD departments will be eliminated and various procedures will be simplified, such as inspection/verification of production sites and completion of document screening. In addition, procedural purposes will be stipulated and clarified.
- ⑥ When adopting a new incentive contract system, it is necessary to verify whether the company proposal is appropriate for an incentive contract. A uniform criterion will be drafted

for sharing information from the private sector concerning cost structure. Guidelines will gradually be prepared for minute cost calculations for the purpose of reviewing company cost reduction schemes for the mass production phase, and to review structures for managing the manufacturing process and cost during development and the initial production phase.

**Figure 7. A New Incentive Contract System (example)**



## (b) Future plans

A new system in line with the above policies will be adopted in FY2008, and as it is put into operation, a follow-up will be implemented based on the state of corporate initiatives and the opinions of the Defense Procurement Council.

## 5. Expand Outsourcing to Private Companies

### (1) Current Issues

The MOD has been outsourcing to private companies to streamline business in so much as it does not interfere with executing the duties of the SDF. In addition, presently the MOD is trying to expand the scope of outsourcing to reduce overall personnel costs (plans to expand

food services in the Ground Forces, supply/maintenance services etc. in the Maritime Forces, and assistance with document management, etc. and entry/exit management in the Air Forces) and is steadily working toward reform.

Meanwhile, there is a limit to the conventional method of outsourcing to private companies by reviewing outsourcing on a case-by-case basis. In the future, to respond to advances in equipment and diversification of duties, it will be necessary to utilize new methods to further expand outsourcing to private companies while analyzing the cost-benefit performance that includes grasping the total cost from the perspective of comprehensive acquisition reform.

## **(2) Future Initiatives**

In an effort to expand outsourcing to private companies in the future, in addition to the above, the MOD is further promoting Private Finance Initiatives (PFI) that utilize private capital, management skills, and technological capabilities in facilities improvement, etc. The MOD is also encouraging voluntary reform/streamlining activities in the private sector and considering reexamining the possibility of using Performance Based Logistics (PBL) methods that target improvement in operation rate of equipment and long-term cost reduction.

① Previously, MOD has selected PFI projects individually each fiscal year. From now on, however, to further promote the application of PFI, and as a part of initiatives based on “The 2<sup>nd</sup> Report on the Promotion of Regulatory Reform” (Council for Regulatory Reform), policies open to the private sector and mid-term plans that target all defense facilities will be drawn up in 2008, and steadily implemented (see Figure 8).

**Figure 8. JMSDF Kure Museum Implemented Through PFI**



② PBL are contracts for business related to equipment supply/maintenance whereby private enterprises guarantee comprehensive trust and availability, rather than contracts that are entered into as individual production requirements arise. There is great expectation for efficiency/streamlining of said business, but certain facets unfamiliar in Japanese contractual systems are included, such as multiyear contracts and flexibility in budget system. To understand the matter, therefore, investigative research must be conducted on overseas cases. In the future, if utilizing PBL in Japan is indeed possible there are plans to design a system after FY2009.

## **6. Equipment Acquisition from the Viewpoint of Joint Operations**

### **(1) Initiatives to Date**

Based on joint integrated operations of SDF, thus far ① equipment specifications have been adjusted so that Ground/Maritime SDF helicopters can be loaded onto escort ships, etc., ② equipment has been shared to improve inter-operability through commonly used parts as a way to reduce costs, ③ the foundation of joint operations has been strengthened by integrating the command and service-related systems for all SDF services, and ④ initiatives

have been carried out, such as the promotion of R&D, that takes numbers ①–③ above into consideration.

## **(2) Future Initiatives**

Based on the assignment of roles for the 3 SDF services and the state of the equipment, a review will be made of cost-reduction outcomes in joint operations garnered by sharing specifications for similar equipment and systematic, blanket order among all SDF services. Further review of areas including rescue, medic, transport, and surveillance, will be promoted for appropriate equipment that aids joint operations.

In addition, relevant personnel, such as joint operations staff and staff from all SDF services will carry out a comprehensive discussion and coordination of issues such as operative concepts, commonality/grouping, and joint operation needs in order to construct a joint system that achieves a newly established framework, evaluates R&D projects from the viewpoint of joint operations, examines the grouping of vehicles/guided missiles in R&D, and provides information on inventory and specifications for equipment/parts from all SDF services (with the aim of launching system operations from FY2010).

## **7. Further Improvement in Foreign Military Sales (FMS)**

### **(1) Current Issues**

FMS procurement is based on the US Arms Export Control Act and supplies defense articles and services for profit to eligible foreign purchasers. Pricing and execution period are estimated by the US, and conditions, such as payment in advance, are applied to all purchasers.

Because of this type of basic system forming the context, problems arise like that delivery of items exceeds the target date, a long period is needed until the US calculates the cost, and disclosure of cost breakdown is not sufficient. A variety of initiatives have been implemented to improve the situation.

## **(2) Initiatives to Date**

### **(a) Adopting new calculation methods (AACP; FY1997)**

The price for an FMS case (contract) is an estimate, and after completion of delivery the US carries out calculations to confirm the cost. Generally, calculations are made over a long period for large cases that include numerous items and for cases that include items which the US forces and most other countries purchase simultaneously in their own cases .

Accelerated Case Closure Procedures (AACP) is a system that tentatively confirms price and closes the case (fulfills the contract) at an early stage by aiming to calculate costs within 2 years after completion of delivery. Japan began participating in FY1997. As a result, within the last 5 fiscal years, the amount of late close cases where calculations are still incomplete more than 2 years after finalization of delivery have greatly been reduced from 40.7 billion yen at the end of FY2002 to 20.4 billion yen at the end of FY2006.

### **(b) Establishing the Interest Bearing Account (IBA) (2005)**

FMS payments are paid in advance as a rule, and prepayment is deposited into the US Federal Reserve bank. Conventionally, the prepaid sum from Japan has been deposited into a non-interest earning account (trust fund), but MOD negotiated to establish the interest bearing account in March 2005. As a result, in FY2005, 2.1 billion yen and in FY2006, 5.8 billion yen in interest was placed in the Japan National Treasury.

### **(c) Increase price transparency**

To increase transparency of prices, the estimates for Aegis (missile guidance system) equipment from FY2002 and FY2003 included a price breakdown acquired for each component (principal composition parts), and each item was calculated to achieve cost reduction. In addition, MOD has acquired price breakdowns for a portion of the cases since FY2005 by participating in drafting of the agreement (original draft of the contract), and since FY2006 has received data sheets noting production costs and travel expenses for cases involving compensation for services.

#### **(d) Early delivery of repaired parts**

Basically, when equipment is repaired the same part is repaired and returned. From 2003, however, for some repaired parts a method has been utilized whereby the part returned is identical to the one submitted for repair, has already been fixed, and was in the possession of the US forces—thus making early delivery possible.

#### **(3) Future Initiatives**

The MOD is looking to continue improving all systems for FMS, such as cutting down on late delivery and delayed cost calculations, and obtaining more price breakdowns. In particular, presently the majority of price breakdowns are cases for services, but in the future efforts will center on getting more price breakdowns for articles as well.

### **8. Strengthen Evaluations of Technology Research and Development**

#### **(1) Current Issues**

① For effective and efficient execution of Research and Development (R&D), the MOD conducts evaluations at every stage of a project i.e. prior, interim, ex-post and follow-up. These evaluations, though, have some challenges because they are not always sufficiently carried out from the standpoint of comprehensive acquisition reform which includes control of development and production costs. Also, the results of evaluations are not always shared in a timely manner among responsible individuals of the Ministry including political appointees, and are not always sufficiently reflected in decision-making processes such as those of budget requests.

② Furthermore, in recent years, other nations have engaged in a great deal of international cooperative defense equipment R&D, though the MOD has promoted international cooperative projects only with the U.S. The majority of international cooperative projects have occurred in Europe due to deepening cooperation among NATO nations and the trend toward unification in Europe, as well as the progression of defense industry toward a

multinational basis due to some background including the end of the Cold War era. While there are merits in international cooperative projects, such as the reduction of development costs by sharing financial burden, mitigation of technological risks, and reduction of procurement costs by economy of scale, there are some difficulties such as the complexity of coordinating performance requirements among participating nations, negotiating cost share and work share of the production, and the risk of program changes by partner nations.

## **(2) Future Initiatives**

### **(a) Establishment of an R&D evaluation system**

To respond to the issues related to R&D evaluation, the Technology Evaluation Committee has been established with the Parliamentary Secretary for Defense as its chairperson since Japanese fiscal year 2008, and is intended to conduct a new, efficient and effective evaluation system. The Technology Evaluation Committee assesses development projects and major research projects in budget requests. In the early stages of examination and coordination of budget requests in the Ministry, the Committee makes an assessment, taking a joint operation perspective as a part of their consideration, as to whether the technologies being applied, project costs, and duration of projects are appropriate for the goals that are to be achieved in individual projects as well as for the procedure toward achieving the goals. It evaluates the relative merits of a project while emphasizing the perspective of comprehensive acquisition reform including holding down development and production costs. Efficiency of R&D is intended to be achieved through necessary project optimizations including reexamination of costs based on the assessment of the Technology Evaluation Committee.

### **(b) Promotion of technology exchange**

① Technology exchange with various nations is intended to be energized to promote international cooperation that contributes to efficient and effective R&D. Exchange with the U.S. will be deepened further in search of new R&D proposals, promotion of Exchange of Engineers and Scientists Program, etc. And technology exchange with nations other than the U.S., such as cooperative testing, long term visit to counterpart organization and information

exchange of published papers, etc., will be promoted with dual-use technology as a foothold. In addition, technology investigation concerning the trends of technologies and R&D in various nations will be conducted.

② Furthermore, in order for the MOD to promote international cooperation that contributes to effective and efficient R&D, further studies on the background, merits and demerits of international cooperative R&D are essential.

## **9. Review Central and Local procurement**

### **(1) Current Issues**

In the MOD, EPCO principally procures items that are commonly used by the SDF units and major pieces of equipment such as military vessels, aircraft, munitions, and vehicles. Each of the SDF branches and other organizations primarily acquire items closely related to executing the duties of the SDF units. The former is called central procurement and the latter local procurement.

Given the nature of both types of procurement, there are differences in procedures and items used, but in recent years there has been a call for even greater transparency in procurement procedures and for quick response to SDF actions in diverse situations or overseas. Based on that perspective, it is necessary to reexamine procedures related to central and local procurement.

### **(2) Future Initiatives**

#### **(a) Further improve procurement transparency**

##### **① Implement 3<sup>rd</sup> party monitoring of local procurement**

Within the MOD, the Defense Procurement Council was established as a 3<sup>rd</sup>-party monitoring organization for equipment procurement, but in November 2007 at a liaison conference of relevant ministries and agencies where the appropriateness of public procurement was discussed, it was declared that as a rule, a 3<sup>rd</sup>-party monitoring organization should be established not only in headquarters of ministries, but also in regional branch bureaus whose

amounts of procurement are sizeable. As a result, all contracts will be monitored and there will be a review of bidding monitoring committees (a 3<sup>rd</sup>-party monitoring organization consisting of outside experts), which are organized in every regional defense bureau and which previously monitored contracts for construction ordered from regional defense bureaus.

### **② Ministerial approval for expensive private contracts**

From FY2008, approval from the Minister will be necessary for expensive private contracts in local procurement as well within the same scope (contracts of principal equipment over 150 million yen) as the present central procurement, while taking work efficiency into consideration.

### **③ Unified management of procurement data**

A unified management system for procurement data that includes local procurement will be prepared and budget appropriations will be submitted for FY2009 (the data management will be manually conducted in FY2008, a system designed in FY2009, and the system set up with FY2010 budget requests). As a result, transparency and efficiency in procurement is expected to significantly improve in areas such as immediate retrieval of procurement data when needed, simplifying implementation of various procurement analyses, and facilitation of research on identical procurement for bulk purchase.

### **(b) Immediate response to diverse situations and SDF activities overseas**

In FY2008, to ensure readiness and flexibility to operational requests emergency overseas dispatch, emergency repair and critically urgent safety measures will be added to the cases in which local procurement can be permitted for an urgent need, besides the current ones such as disaster relief..

## **10. Internal Division of Labor between the Planning and Procurement Phases in Equipment Selection**

### **(1) Current Issues**

At present, the division of duties related to the selection and procurement of equipment between the Bureau of Defense Policy and Bureau of Finance and Equipment is different depending on types of equipment and acquisition. There is, therefore, also a difference in division of responsibilities for external explanations, cost reduction, and expansion of competitiveness. In addition, the MOD must make the decision-making process for equipment selection even more transparent. Meanwhile, considerable efforts are devoted to the evaluation of details concerning equipment selection, such as additional function/performance.

## **(2) Future Initiatives**

① From the standpoints of clarifying responsibility for selecting/acquiring individual equipment and increasing transparency of that process, specific measures for improving competitiveness, transparency, and efficiency of the equipment selection process will be explored by a cross-organizational work team organized from personnel selected from the Bureau of Defense Policy, Bureau of Finance and Equipment, all staff offices, Technical Research and Development Institute, and EPCO (the work team will strengthen partnership among relevant personnel and when decisions must be made, work outcomes will be reported to principal staff and relevant bureaus, such as the appropriate ministers, and judgments will be sought).

② After carefully studying an even more transparent and efficient equipment selection process, division of duties in which the Bureau of Defense Policy bears primary responsibility for requirements/functions and the Bureau of Finance and Equipment bears primary responsibility for types of equipment and methods of acquisition will be tested. Such test will be conducted upon the next-generation rescue helicopter (UH-X, the replacement for the Maritime/Air SDF rescue helicopter UH-60J), for which the examination of requirements/functions and selection process will soon start earnestly, or other appropriate equipment. A cross-organizational work team will also be organized to carry this out.

③ Parallel to the measures noted above, the procedure for selecting aircraft type will be reexamined for systemization of public notice for bidding participants, further explanation of reasons for selection, and expanding application of the competitive bidding system.

④ Based on the test run for individual equipment and the review of the selection process of aircraft type, further investigation will be conducted on how to divide jobs between the planning/procurement stages and on how to devise highly transparent, reasonable selection procedure.

#### **IV. Conclusion**

Though planning reform measures and policies is important, clarifying the course of action taken to steadily carry out those measures is paramount.

Therefore, the Acquisition Reform Project Team has particularly focused on the swift and detailed execution of reforms, and has to the best of its ability made a detailed record of the implementation schedule for each measure in individual categories.

Based on this schedule, necessary examinations on the progress of the measures will be carried out at each principal juncture since matters involving budgetary measures and implementation of step-by-step policies are crucial. Through these kinds of initiatives and by achieving the goals stated in this Project Team Report, efforts will be made to promote comprehensive acquisition reform that moves forward, not backward.