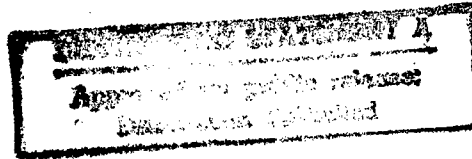


264082

JPRS 81403

30 July 1982



Japan Report

No. 157

19980909 146

FBIS FOREIGN BROADCAST INFORMATION SERVICE

5
40
AD3

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

30 July 1982

JAPAN REPORT

No. 157

CONTENTS

MILITARY

Panel Discussion on Defense Spending (Kazuo Okamura, et al; NHK TELEVISION NETWORK, 18 Jul 82)	1
Military R & D Programs for FY 1982 (JPE AVIATION REPORT-WEEKLY, 17 Mar 82)	17
JDA May Start Laser Radar Development in FY 1983 (JPE AVIATION REPORT-WEEKLY, 21 Apr 82)	23
MITI Reluctant To Release Advanced Technologies (JPE AVIATION REPORT-WEEKLY, 12 May 82)	24

SCIENCE AND TECHNOLOGY

Japan To Develop Remote Sensing Technology (JPE AVIATION REPORT-WEEKLY, 20 Jan 82)	26
NASDA To Study Space Materials Production Tests (JPE AVIATION REPORT-WEEKLY, 3 Feb 82)	27
NTT Wants To Use Space Shuttle for Satellite Launching (JPE AVIATION REPORT-WEEKLY, 10 Mar 82)	29
S.E. Asia Hopes for Japan's Aid for Space Development (JPE AVIATION REPORT-WEEKLY, 24 Mar 82)	30
Space-Related Firms Number 92 in Japan (JPE AVIATION REPORT-WEEKLY, 14 Apr 82)	31
TR&DI Wants To Launch Radar Development in FY '83 (JPE AVIATION REPORT-WEEKLY, 19 May 82)	32

Japan To Speed Up Rocket Development (JPE AVIATION REPORT-WEEKLY, 26 May 82)	33
MITI To Develop Earth Resources Satellite (JPE AVIATION REPORT-WEEKLY, 9 Jun 82)	34
Construction of ACTR Demonstration Model To Begin (KYODO, 16 Jun 82)	35

MILITARY

PANEL DISCUSSION ON DEFENSE SPENDING

OW191408 Tokyo NHK TELEVISION NETWORK in Japanese 0000 GMT 18 Jul 82

[Panel discussion entitled "How Should Defense Spending Be?" moderated by NHK commentator Kazuo Okamura; with Asao Mihara, chairman of the LDP Defense Affairs Research Council; JSP Vice Chairman Masashi Ishibashi; Ko Maruyama, military commentator and former defense agency administrative vice minister; and military commentator Haruo Fujii]

[Text] [Okamura] While working on next year's proposed budget ceilings, the government decided to accord special treatment to defense spending, along with several other fields, in next year's budget despite the serious financial situation. At the same time, the LDP's defense-related departments, including the Defense Affairs Research Council, formulated a recommendation at their joint meeting last Wednesday, expressing the view that it cannot be helped if defense spending is increased by over 1 percent in the near future.

The question of how to deal with defense spending is very important in compiling future budgets and defense programs as well as in planning Japan-U.S. relations. In this context, today we are going to present a panel discussion by four experts on the subject of "How Should Defense Spending Be?" To begin with, in dealing with next year's proposed budget ceilings the government has decided to cut most budget items by 5 percent. However, the government has also decided to accord special treatment to defense spending by increasing its ceiling by 7.346 percent. I would like to first hear your views on this decision. What do you think, Mr Mihara of the LDP?

[Mihara] In view of the serious financial situation, as you have just pointed out, the defense budget cannot be a sanctuary. Therefore, we are determined to tighten the defense budget as well. We particularly note that the mass media frequently talk about a marked increase in defense spending despite difficult internal situations. This is likely to lead the general populace to believe that defense spending alone is increasing. The people in general feel that welfare and education outlays have been reduced because of some special treatment for defense spending.

Under such circumstances, we--who are dealing with defense affairs--have now been striving to implement the national defense program outline formulated in 1976 in a steady way. When President Reagan and Prime Minister Suzuki met

last year, they talked about implementing this national defense program outline on a steady basis and as speedily as possible. In this connection, we have thus far made constant efforts to implement the 1978 midterm defense buildup plan. Taking those efforts into consideration, we hope that people will understand our position of assigning a separate framework to the defense budget although we do not consider it to be a sanctuary. Of course, this special treatment will cause some problems among government ministries and agencies, but we hope that special consideration will be given to defense spending.

Thus, as you have mentioned, our party decided last week to increase defense spending by 7.3 percent, or 190 billion yen. In this connection, I have received seven telephone calls regarding my position on defense spending. The callers all expressed the fear that the boost in defense spending might lead to war or cutbacks in welfare expenditures for aged people. I told them that such things will not happen.

In view of this deep popular concern and the current difficult financial situation, I perceive these special ceilings for defense spending with a strict sense of responsibility. I believe that we should use moderation in pushing ahead with Japan's defense buildup. Accordingly, I also believe that we should maintain a strict attitude in dealing with upcoming defense budget requests based on these ceilings.

[Okamura] Mr Ishibashi of the JSP, what do you think about the special treatment decision on defense spending?

[Ishibashi] This is not the first time it has occurred. The trend toward special treatment on the defense budget has become increasingly conspicuous in the past 3 years or so, I believe. Mr Mihara sounds as though he is trying to say that such special treatment is a matter of course under the present circumstances. They are trying to get the people to become gradually accustomed to it, and I think it is a very dangerous trend. I have been saying that the present situation is reminiscent of the prewar days. It is indeed reminiscent of the 1930's. First, there is economic stagnation, which is pushing state finances to the brink of collapse and into massive deficits. Nevertheless, the military budget alone continues to increase. In addition, in terms of political corruption, there is a striking resemblance between the present situation and that of the 1930's.

What did those combined factors lead to in the past? They led to the 1940 war, which ended in the nation's tragic defeat. The first thing that comes to my mind is the fear that we may see history repeated.

Another thing I would like to point out is related to the speech Prime Minister Suzuki made at the recent UN special session on disarmament. It was a great speech indeed. He called for mutual trust to be restored among nations, a curb on the endless arms race and for the realization of disarmament. More importantly, he even suggested that the money thus saved be generously spent to aid the developing countries and underdeveloped nations. Now, the special

treatment decision on defense spending came on the heels of that speech. In this situation, we cannot help but feel that the prime minister uttered a transparent lie. While paying lip service to disarmament, he is actually increasing the military budget and promoting the military buildup. This kind of behavior will lead to further erosion of public confidence in the government, I fear.

[Okamura] Mr Maruyama, you once served as director of the defense bureau of the defense agency, then as administrative vice minister of the same agency. What is your view about the special treatment accorded the defense budget estimate for the next fiscal year?

[Maruyama] The whole issue boils down to how the budget should be compiled at a time when the government is in such fiscal trouble as it is now. In the past days of high economic growth, no special consideration was given to the defense budget, which stayed at 0.8 percent of the GNP. However, our country, in conducting state affairs, has made clear its position as a member of the West. In this situation, it becomes necessary for the nation to show to the world that it is making efforts for its own security--efforts commensurate with its position--and to win international recognition of this posture.

The United States, our ally, and those West European countries which are also members of the western alliance have heretofore been highly critical of our defense [word indistinct], to say the least. In order to survive as a member of the international community, we are required to make efforts commensurate with our resources. What kind of a budget should we come up with to show that we can do at this time of fiscal difficulty? This is one of the problems.

Another problem stems from the fact that the Japanese defense budget for a given fiscal year has so many items incorporated in it that appropriations for many of them are spread over the budgets for the following year or years. This fact, which results from various strict limitations imposed on the budget compilation work, represents a major characteristic of our defense budget. Consequently, the budget approved by the Diet will contain contract appropriations that will be carried over into future budgets. The government eventually is required to pay for the contracts. As much as 6 percent of the projected increase in the defense budget is for such payments. Besides, the inevitable rise in personnel expenditure takes up 1.3 percent of the projected increase. Combined, these two factors alone represent 7.3 percent of the projected increase. The proposed budget, therefore, is a skeleton one and includes almost no new contracts or new projects. This problem reflects the characteristics of our defense budget.

[Okamura] Mr Fujii, what is your view of this issue of special treatment for the defense budget?

[Fujii] The present situation, I think, indicates the future trend of budgetary increases. In terms of the rate of growth, the defense budget 2 years ago beat the education budget, then the welfare budget last year. In the budget for the current fiscal year, the margin of the defense budget over other budgets

became even larger--considerably larger. It is going to be even larger in the future than now, with a 5-percent cutback projected for next year on all budgets except defense. Furthermore, as Mr Maruyama has just pointed out, payment has to be made from the national treasury for things that were purchased on credit.

All this indicates that the government is headed in a wrong direction. On the question of welfare, for example, the constitution clearly states in Article 25, section 2 that the state shall use its endeavors for the promotion and extension of social welfare and security, and of public health. On the other hand, the constitution has no provision--no provision at all--concerning the nation's defense spending. In reality, however, the item that has no place in the constitution is receiving a preferential treatment while such things as welfare are subjected to cutbacks despite provisions in the constitution. This means that what the government is doing is a departure from the constitution. Is it allowed to do this? The government and the Diet are required to abide by the constitution; in reality, however, the government is doing things against the constitution. This is a problem.

In short, I cannot but say that the three major principles upheld by this country since World War II--namely, the livelihood and welfare of the people, democracy and basic civil rights, and peace--are now faced with a grave problem.

[Okamura] We have just heard the basic views of the four guests. Comparison is often made between the defense and welfare budgets as we have just seen it in Mr Fujii's opinion. Is the growth rate of the defense budget really exceptionally high? To find an answer, let us look at the budget for the current fiscal year. It indeed shows a 7.754 percent increase in defense expenditures against a 2.8-percent gain in social security expenditures. Meanwhile, in terms of actual amounts, the budget earmarks 9 trillion 84.8 billion yen for social security, and 2 trillion 586.1 billion yen for defense. This means that the social security budget is 3.5 times as large as the defense budget.

Now, Mr Mihara, in connection with the exceptionally high growth rate of the defense budget, what balance do you think there should be between defense and social security expenditures when the defense budget is compiled? Or, is defense spending a question that totally transcends such considerations?

[Mihara] This is quite a controversial point. Mr Fujii has even extended his views of the constitution regarding this subject. Such a question indeed involves endless arguments. Answering your question, Mr Okamura, we believe that it is a questionable practice to draw comparisons between defense and social security expenditures. Though high in growth rate, defense spending is less than one-third of the social security budget in terms of actual amounts. Therefore, it is unreasonable to claim that the defense budget is exceptionally high. Apart from such numerical arguments, I would like to point out that maintenance of national peace is the most important element of welfare and leads to educational promotion.

In this context, I hope that people will understand that the development of the self-defense forces and the compilation of the defense budget have a connection with the question of peace, social security and education. I believe that the current peace and order in our nation stems largely from our self-defense capabilities and a system which allows no one to make little of us. In this sense, we require [words indistinct] weapons, more or less. Nevertheless, it is our hope that we will be able to keep our defense outlays at the lowest possible levels. However, we are urged to tackle the issue of developing self-defense capabilities in view of our international relations and the stern world situation. We should consolidate our defense system so that we can promote welfare and education in peace. This is how we would like to handle the issue of developing our self-defense capabilities.

In addition, I would like to have the people understand that we are maintaining self-defense capabilities to promote peace. It is totally wrong to think that an increase in self-defense capabilities and defense spending leads to war--a notion that has already been expressed in this program. I would like to have the people understand this. I think that we should strive to promote this understanding in the future.

[Okamura] Mr Ishibashi, I know well of your personal and party views on the constitution and of your support for the demilitarization and neutrality positions. What is your actual view about defense and social welfare expenditures?

[Ishibashi] As has been pointed out by Mr Fujii, the constitution stipulates that all people shall have the right to maintain the minimum standards of wholesome and cultured living. I think that the government had this stipulation in mind at least until a few years ago. The social welfare budget had been treated rather well, in terms of absolute amounts, until then. However, this budgetary stress on social welfare was reversed in 1981 and military spending began to receive special treatment.

As I pointed out then, a very subtle trick was played in the compilation of the fiscal 1981 budget. The rate of increase in social welfare outlays was set at 7.6 percent and that in defense expenditures at 7.61 percent, thereby shifting the budgetary stress from welfare to defense for the first time. When we pointed out this reversal, the government and the ruling party evasively said that the gap is only 0.01 percent. This was indeed a cunning trick. This gap became surprisingly larger in the fiscal 1982 budget with military spending rising by 7.75 percent and social security expenditure increasing by 2.8 percent. Perhaps this gap will become even greater in the fiscal 1983 budget. It is this trend that I would like to call into question. Military expenditures will continue to rise at a greater rate than budgets for social security and education. It is important for us to understand this shift in budgetary emphasis which has already begun.

In view of the current aggravation of state finances, it is impossible to accord special treatment to military spending without sacrificing some other areas. The areas that are actually sacrificed are those of which people

entertain the greatest expectations. It is this trend that I would like to call into question. The government has decided to increase next year's ceilings for defense spending by 7.35 percent, while raising no ceilings for other budgetary items. I believe that the 7.35 figures are not final and that defense ceilings will be further increased as we saw last year. In order to meet requests from the United States and hawkish elements inside the LDP, the rate of increase will further be raised. At this stage of the deliberations on the proposed budgetary ceilings, the rate of increase has been set rather reservedly at a lower level. This is a really artful trick. I believe it is a terrible trick.

[Okamura] Mr Maruyama, as you have just heard, Mr Ishibashi says that the government and the LDP shifted their budgetary stress from social security to defense expenditures in 1981. What is your view of the relations between defense and social security outlays?

[Maruyama] As Mr Ishibashi has said, the rate of increase in defense spending topped that of social security expenditure in the fiscal 1981 budget. Before discussing this greater boost in the rate of increase in defense spending, I would like to make a general review of how the defense budget has been treated thus far. In 1952, defense spending occupied 20.76 percent of the general account. Of course, the defense budget then included different items such as the defense share outlay, compared with the present budget. Nevertheless, this rate of defense spending in comparison to the total amount of the general account continued to decrease year after year from this 20.76 percent in 1952. In other words, the rates of increase in defense spending were continuously lower than those in the amount of the general account. This trend continued under the financial policies of the government and the ruling party. As you might know, the rate of defense spending compared to the amount of the general account now stands at slightly above 5 percent. Concerning defense spending in fiscal 1981, which Mr Ishibashi just mentioned, I would like to point out that its rate in comparison to the amount of the general account fell to 5.13 percent, the lowest since the end of World War II. This rate rose slightly in fiscal 1982 to 5.21 percent. Thus, as I have said, defense spending has increasingly been curbed under the basic policy of setting the rate of increase in defense spending at a lower level than one in the amount of the general account. I believe that this trend should be corrected some time. I know that there are people who are opposed to this stand, asserting that this permanent downward trend should never be corrected.

However, what we are dealing with is a vitally important issue that affects the nation's security. Any attempt to impose a fixed ceiling, such as 1 percent of GNP or the like, on such an important matter would look rather awkward internationally. More importantly the nation must consider and decide what kind of equipment is required now. In my view, the substance of the budget is more important than the size of it.

[Okamura] Mr Fujii, you earlier referred to article 25 of the constitution. However, as Mr Maruyama has just said, it can be said that generally, the growth rate of the general account or social security expenditure in the past was larger than that of the defense budget--I mean except for the past year or two. Would you like to comment again on defense spending in comparison with the social security budget?

[Fujii] Mr Mihara mentioned peace. Basically, no one can deny the importance of peace. But, how has peace been preserved? It is a fact that we have so far managed to maintain peace. Has it been the nation's defense capabilities that has maintained that peace? This is the point where different views come in. I personally believe that it has not been our defense capabilities that have maintained peace for us. This should be clear to all the Japanese people who experienced the tragedy 36 years ago. The lesson was that peace is not defended by defense capabilities or by military forces. Then, what defends peace? One thing clear is that it is by no means a military force. Accordingly, it is wrong to try to preserve peace through a military buildup. Such a buildup could lead to war. Then, what should be done for peace? The answer is the United Nations and our constitution. We should work for peace through the United Nations and through a peace diplomacy conducted in the spirit of the constitution. Furthermore, citizens should join in antiwar movements in grassroots levels. Peace cannot be preserved without these activities. I, therefore, believe that the concept of defending peace through an armed force is something like putting the cart before the horse. We must correctly grasp this point. What I am driving at is that welfare and peace are one thing and military buildup has its place exactly in the opposite direction.

[Okamura] Mr Mihara, according to Mr Maruyama, the substance of the defense budget is more important than the size of it. Aside from domestic arguments in this country, there have been strong and continued U.S. requests for Japan to build up its defense. For example, a resolution passed by the Senate calls for defense spending in excess of 1 percent of the GNP. In your view, is the United States asking for spending of a new size--say 1 percent of the GNP--or is it seeking some specific buildup?

[Mihara] Concerning our defense buildup efforts, other guests here have expressed their concern that the nation might again end up as a military power, or that it is pursuing a line of military expansion. Their concern is unfounded. The fact is the peacetime level of the nation's defense capabilities was set 6 years ago, which was then approved by the Diet. We have been striving to reach that level on a year-by-year basis. What we are doing is in keeping with that peacetime-level policy. In implementing that policy, we decided to put a brake on defense spending by keeping it below 1 percent of the GNP. I feel that we should continue to abide by that policy decision. Nevertheless, it is a related factor. One may argue that defense spending should be more than the equivalent of 1 percent of the GNP, but more importantly, as Mr Maruyama pointed out, we must implement the 1976 defense buildup outline. Six years have passed under this program, and we now have 4 or 5 years to reach the level set forth in it. We have never thought of Japan becoming a military power. In formulating the yearly defense budget, we are still striving to respect the 1 percent of GNP limit. But our efforts are inevitably affected by prices and other economic factors. The GNP itself is affected by these factors. Our future efforts will be guided by the same yardstick--the 1 percent of GNP--but fellow citizens are asked to understand that it is a policy decision that was adopted in the past. We are exercising

moderation in implementing the defense buildup program. All the charges that we are trying to turn Japan into a military power, that we are pursuing a line of military expansion or that we are even preparing for war, are totally unfounded. I would be happy if you would keep this in mind when you view the relationship between the defense buildup issue and the 1 percent of GNP question.

[Okamura] The Carter administration put strong pressure on Japan to build up its defense. The Reagan administration is doing the same. In this connection, Mr Ishibashi, what do you think the United States is seeking?

[Ishibashi] What the United States sought was clearly indicated during the Suzuki-Reagan talks last year, and subsequently in the joint communique issued after the talks. The joint communique defined for the first time Japanese-U.S. relations as an alliance. The United States demanded that Japan recognize its status as a member of the West, and that its defense efforts not be limited to the defense of Japan but be made on a broader scale and commensurate with its status. Mr Suzuki accepted the demand, to cause the whole problem. At a budget committee session of the Diet, we asked the prime minister when Japan had become a 51st state of America. A bill was introduced in the U.S. Congress demanding an increase in Japan's defense spending to an equivalent of 2 percent of the GNP. Another resolution introduced in the same congress demanded a spending in excess of 1 percent of the GNP. All this shows that the United States regards Japan literally as its 51st state. It is more than interference in our domestic affairs. We asked Mr Suzuki if he regarded it as interference. He answered that he did not regard it as interference.

Mr Suzuki's answer indicates that he sees the situation in a different light. The way Mr Suzuki sees it, I believe, is that inasmuch as Japan had made a commitment, Japan is now under pressure to fulfill that commitment. The way we see it is that the United States is engaged in outright interference in our domestic affairs. The kind of resolution introduced in the U.S. Congress shows that the United States regards Japan as nothing more than a satellite country. Frankly speaking, it is preposterous indeed that people argue about the nation's security without understanding this fact.

[Mihara] Let me say a word about Mr Ishibashi's comment to the effect that regarding the defense buildup with the taxpayer's money, the United States is treating Japan as a satellite country. I think that the underlying factor in Japanese-U.S. relations is the two nations' perception of the world situation. I must add here that Messrs Reagan and Suzuki shared the same view about the present world situation and agreed to strive jointly for world peace and prosperity. The world alliance should be interpreted in this sense.

Another thing I would like to point out is that the nation's defense buildup efforts are being made, from the beginning of the end, under the limitations imposed by the constitution. In terms of its proportional percentage, our defense budget is so meager that we cannot compare it with those of other countries. We are trying to meet the nation's defense requirements with a small budget. Incidentally, the budget is naturally not intended for any

overseas invasion, absolutely not. The budget is absolutely for the defense of Japan. In the event of an invasion of this country by an outside force, we will try to repel it with the minimum self-defense forces we have; in case we fail to do so, we must rely on the United States for assistance as provided for in the security treaty. The United States has such a role to play in our joint operations for the defense of Japan, and for this reason, I think that U.S. views about defenses of this country should be respected.

Nevertheless, as Prime Minister Suzuki said, it is our position that while listening to any U.S. request with an open mind, we maintain an independent posture as regards the nation's defense buildup business. The satellite-country charge is absolutely unfounded.

[Ishibashi] It is a fact that an outrageous bill demanding Japan's defense spending to be increased to the equivalent of 2 percent of the GNP was introduced into the U.S. Congress. About this fact, I would like to hear some clear-cut comment worthy of a Japanese. Furthermore, there is the resolution introduced in the same congress demanding that Japan should spend more than 1 percent of the GNP for defense. These things involving Japan were introduced in the parliament of another country. Could the government feel nothing about this fact? Does it yet find itself qualified to talk about the nation's security? Those are my questions.

Mr Suzuki says that he does not see the U.S. demand as interference in our domestic affairs. The reason is that he made a commitment. But the substance of the commitment he made is a total violation of the Japanese constitution. The government has been saying that what it seeks is to build capabilities for purely self-defense purposes, and that this stand is constitutional. Now, both President Reagan's demand and Mr Suzuki's commitment have gone beyond the boundary of this alleged constitutionality. They agreed that Japan can defend a 1,000-mile long sealane, or that Japan has the obligation to do so. It is simply impossible for anyone to find any clause in the Japanese constitution to justify that kind of an agreement. Such being the situation, we can say definitely that what the government is doing now is not for mere self-defense. It has become clear that Japan will be dragged into a war launched by the United States. This is the point I would like to make.

[Okamura] Mr Maruyama, regarding the Levin resolution, calling for Japanese defense spending to exceed 1 percent of the GNP, Secretary of State-designate Shultz recently took a stand against it. What do you think is the background of this type of resolution? What is it that the United States is expecting of Japan? Do you see the Japan-U.S. joint communique of 8 May last year of Prime Minister Suzuki's speech during his U.S. visit as factors prompting such a resolution?

[Maruyama] I often discuss the issues of defense and trade imbalance with Americans. I personally view the two issues as being totally separate. I believe that they should be separate issues, but from the American point of view, they are not necessarily so. The Americans would say that they view them both in the same economic light. That is what they say, but my view is that the two issues basically belong to different orders.

I completely agree with Mr Ishibashi concerning U.S. congressional moves about Japan's defense spending or about a so-called defense tax on Japan. It is unjustifiable indeed for the parliament of one country to attempt to pass legislation concerning the security of another country.

For several years now, for the last 2 or 3 years rather, prevailing public opinion has had it that Japan should increase its defense spending because the United States says so. My opinion is that Japan's defense should be planned by the Japanese themselves, and that, since the nation's defense is their own business, the Japanese themselves should be more responsible for it. Japan indeed maintains an alliance with the United States under the provisions of the security treaty. It is defended by collective security arrangements with the United States. These arrangements represent one of the major pillars of the nation's security policy. The policy calls for a gradual buildup of the nation's own defense capabilities and, at the same time, maintenance of collective security arrangements with the United States. I feel that, under these arrangements, Japan is required to make its share of the joint defense efforts with the United States, its ally. Nevertheless, I insist that we must not forget that Japan's defense is the business of the Japanese people themselves. In my memory, the prime minister has also made remarks to that effect more than once before the Diet. I think that the controversial defense spending versus GNP issue, like other defense issues, should be considered from this point of view.

[Okamura] Mr Fujii, what is your view of the background of the U.S. demand for Japan's defense buildup?

[Fujii] In its defense report 4 years ago, the United States called for a gradual and prudent--not abrupt--adjustment of responsibilities for collective security. The United States has since been moving along this line. In this connection, I fear that Japan has increasingly been getting stuck in this U.S. effort, playing into the hands of the United States. It seems that the United States has been carrying out very crafty psychological operations to manipulate the Japanese people. It will bring serious consequences if they really get caught in such U.S. maneuvers. In short, I would like to say that Japan has its own stand and position and should not think about the security of the United States. In other words, Japan should think about its own national security from its own standpoint. For example, what is called the 1,000 nautical mile defense is impossible, meaningless if possible, and even risky. This is clear from our past World War II experience. It is obvious that Japan should not follow such a defense formula. Nevertheless, the prime minister made a promise regarding the formula while visiting the United States. As a result of this promise, Japan's defense range commitment doubled. Further, this has given rise to the need to double its defense capabilities.

In this context, the idea that the two countries share the same view, as said earlier in this program, is basically wrong. I believe that we should clearly mention the difference of views between the two countries.

[Okamura] Let us turn to another subject. Mr Mihara, at national defense council and cabinet meetings on 5 November 1976, the government decided to make it a longstanding principle not to allow defense spending to exceed 1 percent of the GNP. A recommendation was adopted at a joint meeting of the LDP's security affairs research council, defense affairs department, and

special committee on military bases on Wednesday last week. In the recommendation, it was said that it cannot be helped if defense spending exceeds 1 percent of the GNP during the new 1983-1987 midterm defense buildup plan period. When do you think defense spending will actually top the 1 percent level?

[Mihara] We still make it a rule to stick to the policy established in 1976. The question, however, is soaring prices and the difficult growth of the GNP as has already been mentioned. In addition, the new midterm defense buildup plan is going to be implemented shortly. In the process of planning under such circumstances, we cannot rule out the possibility that defense spending might exceed 1 percent of the GNP although we are intent on preventing this from happening. When this becomes a possibility, however, I think that we should have full discussions at the national defense council and the Diet to listen to the voice of the people. The possibility also should be discussed at various party organizations. We are not saying that we will increase defense spending above the 1 percent level as soon as we feel the need to do so. We have to maintain proper defense capabilities somehow. When we face the need to increase defense spending by more than 1 percent of the GNP due to various affecting factors, we will act prudently and seek popular understanding. We will refer the issue to the national defense council for discussions based on the principle of civilian control over the military. This possible increase in defense spending by more than 1 percent of the GNP was mentioned in the above-mentioned recommendation on the basis of surveys of 5-year and longer-term plans. I believe that when such an increase in defense spending becomes a necessity, we cannot but take such measures in order to cope with the new situation. In such a case, however, we should always curb excessive increases.

[Okamura] Mr Ishibashi, I believe that you are not approving even the current increase of 0.93 percent of the GNP. Nevertheless, do you believe that the principle of 1 percent of the GNP will continue to curb excessive increases in military spending? At its joint session, the LDP expressed in its recommendation the view that it cannot be helped if defense spending exceeds 1 percent of the GNP during the new midterm defense buildup plan for the 1983-1987 period. What do you think?

[Ishibashi] It has not curbed, nor do I believe it will curb [excessive increases in military expenditures]. At an interpolation session of the Diet in October last year, Mr Mihara said that the 1 percent principle would be observed. I remember that disbelieving his remarks, I then asked if he meant to say that the principle will be observed at least under Suzuki's government. However, Mr Suzuki himself has now begun saying it cannot be observed. Citing the growth rate of 5.1 percent envisaged in the new 7-year economic and social plan, he says that if this growth rate continues, defense spending will be held under 1 percent of the GNP for some time, but that if this growth rate of 5.1 percent is not attained, defense spending could exceed the 1 percent level. It is now a matter of common sense that the 5.1 percent growth rate is impossible. Japan attained a growth rate of 2.7 percent last year. Our common sense tells us positively that the growth rate this year will be somewhere between 2 and 3 percent. In this context, it is clear that in his above remarks Mr Suzuki himself has admitted that it is impossible to hold defense spending under 1 percent of the GNP. This means that our assertions and concerns

regarding this question have always been right. Nevertheless, the government and the ruling party continue to quibble and cheat the people until the very moment the truth is completely revealed to the public. This is a big problem indeed.

In my opinion, military strength is bound to multiply on its own at a rapid pace as long as we agree to its existence. This is an essential feature of military strength. I do not believe it can be curbed at any certain point. Nevertheless, we have to do something about curbing it in order to prevent Japan from becoming a military power. In this context, we have to use the principle of 1 percent of the GNP as a means to restrain the military buildup. We can restrain the acts of the government at least momentarily by recalling it to its pledge that it will not increase defense spending to more than 1 percent of the GNP or that it will not issue deficit any further bonds. In addition, we have the three arms export principles and the three nonnuclear principles. Although we do not believe that the government and the ruling party will observe those principles, they have curbing effects to some extent. Therefore, we continue to urge them to observe these principles.

However, we know that as our reality shows, it is impossible to completely observe these principles under the rule of the LDP government. I believe that actual developments have already begun to show this.

[Okamura] Mr Maruyama, you were a vice minister of the defense agency in November 1976 and I think that, at that time, the then defense agency director General Sakata and Finance Minister Ohira exchanged heated debates as to whether the defense spending should be within or about 1 percent. In so doing, they used the phrase "for the time being." Until what time did they specifically mean by that phrase? Did they mean that it is unavoidable now?

[Maruyama] For the time being? For the time being is for the time being.
[laughter] Our perception was that it meant the earliest possible time. Once a decision is made on something at a cabinet meeting, it somehow takes its course all by itself. This is why they are still saying that defense spending should not exceed 1 percent of the GNP. The two cabinet members exchanged those heated debates at that time because it was immediately after the 1973 oil crisis and--as you know--Japan's high economic growth stopped then and there. So, we were on the threshold of a new era. Until then defense spending accounted for about 0.8 percent of the GNP but, since the denominator at the time was large, defense spending, in fact, showed increases. But we are ushering in a very difficult time now. The financial authorities were of the opinion that the defense budget should still not exceed the limit of 1 percent of the GNP. For these reasons the two cabinet members of that time exchanged very heated debates as to whether the 1 percent ceiling could be topped depending on circumstances and whether this possibility should be taken into consideration or not. That is what I remember. In conclusion, I would say that, although the cabinet meeting at issue decided that defense spending should not exceed the 1 percent ceiling, when we find the GNP in a situation like the current one, those who insist that the GNP should be used as a yardstick must change their way of thinking. They say that [defense] spending is a most vital question to the nation. Why should they set such limits when thinking about this important question? I have a hard time understanding this point.

[Okamura] I see. Mr Fujii, what do you think of Mr Maruyama's idea about a so-called 1 percent of the GNP yardstick? Or do you still think that the 1 percent ceiling will serve as a restraint?

[Fujii] Well, at the time when it decided on the outline of the defense program in question, the government wanted to stop the defense buildup around there as far as the quantity was concerned. It wanted to make rapid improvements in quality but to check the buildup in quantity. But now the government wants not only to strengthen defense in terms of quality but also to remove the restraint on quantity. Kubo, former defense agency director general and the present national defense council secretary general, who drafted the basic defense buildup plan which served as the basis for that outline, held the view that it is better to have as little armament as possible and that disarmament is more desirable. But this view cannot be found in the least among the present defense authorities. Thus there has been a marked change. Mr Kubo and other officials were of the opinion that it is better to have as little armament as possible and it is even more desirable to have no armament. In other words, they carried out their duties using the principle of the constitution as their guideline. But, in a total departure from this, the authorities now are trying to remove that restraint permanently. On the basis of the outline of the defense program, the 1978 and the latest 1981 mid-term work estimates were compiled. Since the 1981 work estimate was mapped out in accordance with the outline, some officials now even go so far as to say that the outline of the defense program itself should be changed. Put simply, arms expansion will go on boundlessly. I am afraid that this is the present situation.

[Okamura] I see. Mr Maruyama, Mr Fujii has just talked about the outline and your predecessor, former defense agency administrative vice minister Kubo. To be sure, the present outline of the defense program was adopted while you served as administrative vice minister. But lately, even the United States has been calling for a review of this outline. I will get to this question later on but some quarters within the LDP are also calling for its review. As the official in charge of the preparation of the outline, Mr Maruyama, do you think that the outline of the defense program is all right as it is?

[Maruyama] As far as I am concerned, I think that it should be reviewed.

[Okamura] Ah, is that so?

[Maruyama] You just heard Mr Kubo's name mentioned, but it is not necessarily a question involving Mr Kubo alone. What served as a draft here was the regular 1971 Diet session, I believe. Since it was before I assumed the defense agency post and because I did not experience it personally, I only learned about it by hearsay. The opposition had a demand at that time. It asked the government to show a ceiling, or limit, to Japan's defense buildup, assuming that the Far East situation--mainly centering around U.S.-Soviet relations and Sino-Soviet relations--would not change drastically. It asked that the government set a limit to Japan's peacetime defense capabilities assuming that the

situation surrounding Japan would change peacefully. So the prime minister-- I heard it was Prime Minister Tanaka--issued instructions. On the basis of his instructions, the defense agency worked and came up with a quantitative limit. As a matter of fact, there were many complications and no report on it has been made to the Diet after all. Anyway, this became the ground-work. It is written in an attached table that the ground forces, for example, would be 180,000 men in 13 divisions. This is a numerical limit set during that time.

As I said just now, these limits were set on the assumption that the international situation surrounding Japan would not change drastically. However, since then quite severe international developments have taken place even in areas surrounding Japan. For instance, the Sino-Vietnamese conflict was a question which had not been even anticipated at that time. This conflict and other developments occurred. Has the government reviewed this outline of the defense program to cope with the changed situation? No, not even once. I am not saying that the outline should be revised. But I think that politicians should meet and review it when there has been a change in the international situation, which is a precondition for the outline, and especially when a question arises which might seriously affect Japan. To my regret, there has been no such review made to date.

[Okamura] Mr Mihara, at a joint meeting of the LDP's security-related councils held last Wednesday, it was decided that a review of the outline would be commenced at once for working out the 1981 mid-term work estimate, which covers up to 1987, was it not?

[Mihara] Yes.

[Okamura] Does the word "review" mean literally a review or does it mean a revision, after all?

[Mihara] Since our LDP is broad in composition, some of its members call for a review of the outline, some others say that a view is not necessary, and still others call for a revision. Mr Maruyama has just spoken about a limit on defense potentials and I want to add one thing. Prime Minister Suzuki has established a so-called ministerial council on comprehensive security affairs. In thinking about Japan's defense, that sort of buildup in self-defensive potentials is, of course, necessary. But I also think that we should at the same time think about the benefit of extending economic developmental assistance for the peace, security and prosperity of the world as a whole. Of late, a peace movement has been launched and an anti-nuclear movement for disarmament carried out. At this juncture, I think it is a high time for us to form a new conception based on the position that Japan is a special country--we strongly believe that Japan is an ideal country.

The gentlemen here have been talking about various things including an arms race and a war. But I think that it is time now to form a new conception about the defense of Japan. I think that politically Japan in the 1980's

needs to judge the world situation on a global basis--without being concerned with only itself--and think about how to cooperate for world peace and how to deal with those various potentially dangerous zones in the world. In this sense, we need to think about how Japan's peace strategy should be, what Japan should do under such a severe situation, what degree of self-defensive potential Japan should possess, and what role Japan should play. Proceeding from this kind of conception, I think that it is time now to review the outline of the defense program which was worked out in 1976. This work may take 1 year, 2 years or even 3 years. Anyway, I think that we must commence the work.

[Okamura] Mr Ishibashi, it is written in the outline of the defense program prepared in October 1976, that it is most appropriate for the self-defense force [SDF] to have the capability of coping with a limited, small-scale invasion. As Mr Fujii pointed out, our understanding was that the SDF would not be expanded so much quantitatively. Now, even Mr Maruyama, who was administrative vice minister at that time, calls for a view of the outline and the LDP plans to commence reviewing it. Does the JSP regard the outline of the defense program as a restraint?

[Ishibashi] No, as I gave our conclusion earlier, there is no restraint at all under the LDP government. The government is using the outline as only a tool to cheat the nation, as a stopgap. The so-called 1 percent of the GNP is no exception. They are already saying that that ceiling cannot be observed. The subcommittee on defense buildup, which is under Mr Mihara's security affairs research council, is clearly asserting that defense spending must surpass the 1 percent ceiling. Adept Mr Mihara only changed words to make it look soft to outsiders. [laughter]

The outline of the defense program also falls in the same category. Actually, that outline is already completely disregarded. In a sense, the present outline of the defense program shows signs of paying deference to the constitution. For instance, I could see in it the hues of defense exclusively for self-defense. But these signs and hues cannot be seen in the least now. What reference is made in the 1981 mid-term work estimate? Nothing. There is only an attached table. Therefore, they themselves are realizing the contradiction of having to start the work of reviewing and revising the 1981 estimate as soon as it is completed. But, since they cannot say that they are disregarding the estimate, they say that once the preparation of the 1981 mid-term work estimate is completed, they will commence reviewing the outline of the defense program immediately. This is a big fraud.

The so-called outline of the defense program, which was adopted at a cabinet meeting, is disregarded. Then, on what basis is the government reinforcing defense potentials now? The Suzuki-Reagan joint statement. Japan has started building up its defense capabilities to keep its promise to the United States. That is our conclusion. I want to add that that clearly shows what goals the Japanese SDF has now.

[Okamura] Mr Fujii, as I have already mentioned, at a joint session of the LDP's three security-related organizations last Wednesday, it was decided that a review of the national defense program outline would be commenced. What do you think of this decision?

[Fujii] In the past, it was said that Japan's defense was aimed at checking limited, small-scale aggression. However, it is now claimed that Japan should be able to cope with global-scale disputes. That is, Japan is now moving towards assuming a role in the new U.S. strategy of multiple retaliation. This is a very risky move. In short, a larger defense buildup will presuppose a larger-scale war. That means we will have to fight a larger war. Therefore, the decision to review the outline is a dangerous move, indeed.

[Okamura] Mr Fujii has just said that the decision is a very dangerous move. Mr Mihara, you said that the work of reviewing the outline might take 2 or 3 years. May I interpret the work of reviewing as that of revising?

[Mihara] Whether the work of reviewing the outline will lead to its amendment or not, we will neither play what you call a trick nor cheat anybody. We do not have the kind of notion which Mr Fujii has just talked about. Perhaps, we have not made enough effort to have ourselves fully understood. Mr Fujii, I would like to stress that the LDP and the government are not seeking what you call uncurbed military buildup nor attempting to turn Japan into a military power.

[Okamura] Thank you very much.

CSO: 4105/147

MILITARY

MILITARY R & D PROGRAMS FOR FY 1982

Tokyo JPE AVIATION REPORT-WEEKLY in English No 563, 17 Mar 82 pp 4-9

[Text] Japan's FY 1982 (April 1982-March 1983) funding for military research and development programs will total ¥50,611 million -- ¥28,507 million in FY 1982 expenditure and ¥22,104 million in follow-on disbursement, up 14 percent over FY 1981. Major R&D items include the MT-X intermediate trainer aircraft, the XSSM-1 ground-launched antiship missile, the Chu-MAT intermediate range antitank missile, the portable surface-to-air missile, the new main battle tank, the high-speed homing torpedo, the deep-sea minesweeping system, the towed array surveillance system (TASS) sonar, the electronic countermeasure (ECM) systems and the electronic warfare simulator.

An outline of major R&D items for FY 1982 follows:

(Aircraft)

MT-X Intermediate Trainer

The MT-X development program started in FY 1981 with Kawasaki Heavy Industries Ltd. (KHI) named prime contractor. Work on a basic MT-X design is now under way with FY 1981 funding. The Japanese Defense Agency's (JDA) Technical R&D Institute (TR&DI) has earmarked ¥7,000 million in the FY 1982 budget for preparation of a detailed design, fabrication of a mockup and a front fuselage section for tests, and other development activities. The TR&DI plans to fabricate four prototypes for flight tests, one for static strength tests and another for fatigue tests under the FY 1983 budget. The MT-X development program would be completed after flight tests between FY 1985 and 1987. The current basic design work was undertaken by a KHI-led engineering team set up last October. In April, it will be joined by engineers of Shin Meiwa Industry Co., Japan Aircraft Mfg. Co. and Ishikawajima-Harima Heavy Industries Co. (IHI), which will undertake development of the outside fuel tank, the pylon, and the powerplant respectively. Other new participants will be

developers of the landing gear and the ECS system. Candidates are Sumitomo Precision Product Co. and Kayaba Industry Co. for the landing gear developer, and Shimadzu Corp. and Teijin Seiki Co. for the ECS system developer. As the MT-X powerplant, the TR&DI is testing the XF-3-30 small turbofan, developed by IHI, as a candidate. The XF-3-30 is certain to be adopted for the MT-X by October. Meanwhile, KHI is expected to select an ejection seat system for the MT-X from four candidates, including the ACES 2 and S3S-3ER, by April. Developers of MT-X avionics, including the headup display (HUD), will be named by October.

Hoping to develop the HUD are Mitsubishi Electric Corp., Shimadzu, Nippon Electric Co., Tokyo Keiki Co., Toshiba Corp. and Mitsubishi Precision Co.

Aircraft System Simulator

The FY 1982 budget includes ¥50 million for research on the aircraft system simulator with combat simulation capability, which the TR&DI wants to use for design and development of small aircraft in the future. The TR&DI plans to prepare a design in FY 1982 and fabricate the simulator, the cockpit and the display section between FY 1983 and 1985. Thus, the overall system would be completed by FY 1985.

(Guided Weapons)

XSSM-1 Antiship Missile

The XSSM-1 for the Ground Self-Defense Force (GSDF), based on the ASM-1 air-to-surface missile for the F-1 support fighter, would be launched from inland or coastal areas to attack intruding enemy ships. Fabrication of a full system will start in FY 1982 with funding totaling ¥5,600 million. Compared with the ASM-1, the XSSM-1 would have an improved guidance system. A jet engine would be used instead of a rocket engine for propulsion, although a booster rocket would undertake launching. The fabrication will be completed by FY 1985, followed by tests in FY 1985 and 1986. The new missile's service entry certification is expected for FY 1987.

Chu-MAT Antitank Missile

The Chu-MAT would be a lightweight, small and accurate medium-range antitank missile for the GSDF, carried by both vehicles and infantrymen. The first-phase full-scale fabrication will begin in FY 1982 with funding totaling ¥620 million after component-by-component fabrication ending in FY 1981. The development of the Chu-MAT will be completed by FY 1986 for start of deployment within the FY 1983-87 period for a new defense program.

Air Combat Missile

The TR&DI plans to develop an advanced air-to-air missile for fighter aircraft dogfights. In FY 1982 and 1983, it will conduct work on a system design and fabricate a homing system with ¥540 million earmarked in the FY 1982 budget. The TR&DI intends to fabricate a pre-development system from FY 1983 to 1984 prior to full-scale development work starting in FY 1985.

Portable SAM

The TR&DI has earmarked ¥230 million in the FY 1982 budget for fabrication of test equipment in FY 1982-83 to prepare for full-scale development of a new portable surface-to-air missile which would be an image homing type for head-on attack. The U.S. Army Stinger, which the three Japanese services have adopted, is an infrared missile for tail homing attack. The new portable SAM's development is expected to start in FY 1984 if so requested by the three services.

Precision Guidance Simulator

The TR&DI will complete the precision guidance simulator in FY 1982 for system research and evaluation of future missiles using electron optics. For this project, ¥220 million is earmarked in the FY 1982 budget. So far, key components have been fabricated.

Scanner for Tan-SAM Guidance

The scanner for improvement of the guidance system of the Model 81 Tan-SAM short-range surface-to-air missile is a new research and development item. The FY 1982 budget includes ¥120 million for fabrication of the scanner.

(Ground Equipment)

New Main Battle Tank

The TR&DI/GSDF new main battle tank development program will enter a full-scale fabrication stage in FY 1982. The year's budget will include ¥131 million for preparation of a basic design and fabrication of the turret and munition. The TR&DI intends to obtain funding for fabrication of two prototype tanks in FY 1983-84 in order to complete the first phase of full-scale fabrication. In the second phase, four prototypes would be assembled in FY 1985-86. Mass-production is expected to start in FY 1988. The new tank for the 1990s would weigh 46 to 48 tons and be powered by a 1,500-horse-

power diesel engine. It would have a 120mm smooth-bore gun, an advanced fire control system, a laser finder, a night sighting system and other advanced systems. A composite armor structure would be adopted along with a new stabilizer for boosting firing capability during operation. One problem encountered with the new tank development program is whether to adopt a domestically developed 120mm gun. There is a possibility of the U.S. Army M-1 tank's Rheinmetall 120mm gun being adopted for the new Japanese tank.

AW-X Antiaircraft Gun

The AW-X is a self-propelled 35mm antiaircraft gun. A full system will be fabricated from FY 1982 to 1984 with ¥3,090 million earmarked in the FY 1982 budget. The AW-X will consist of a Model 74 tank chassis, a 35mm gun (the Swiss Oerlikon KDA) and an advanced fire control system. A mass production program would be prepared by FY 1986.

Aircraft-Dropped Mine

The TR&DI will complete development of the new aircraft-dropped mine with ¥230 million earmarked in the FY 1982 budget for final-stage fabrication of the mine. So far, it has fabricated prototype mines, dropping equipment, mine supports, bomb racks, dumpers, emergency dropping systems and controls. The new mine's service entry is expected for FY 1983.

20mm Ammunition for CIWS

The 20mm ammunition, made from nickel, chrome and tungsten materials, will be fabricated for the CIWS with ¥60 million set aside in the FY 1982 budget. Its entry into service could be realized by FY 1983.

(Naval Equipment)

GRX-2 High-Speed Homing Torpedo

The GRX-2 is an advanced rocket-propelled homing torpedo for submarines to accurately attack deep-cruising, high-speed enemy submarines. FY 1982 funding totaling ¥1,510 million will enable two-year final-stage fabrication of the new torpedo. It will be tested in FY 1983-84 prior to mass-production starting possibly in FY 1985.

S-7 Minesweeping System

Development of the S-7 deep-sea minesweeping system will begin in FY 1982 with ¥220 million earmarked in the annual budget. The TR&DI plans to fabricate a sailing vessel and

towing cable in FY 1982, plus a platform and equipment for towing ships in FY 1983. The S-7 for new-model minesweepers would eliminate deep-set sunk and moored mines.

Torpedo Evaluation System

Research and development of the shallow-sea torpedo evaluation system will be launched in FY 1982 with funding amounting to ¥530 million. The system will detect and evaluate torpedoes in shallow seas through acoustic sensors dispersed in the water. The system would contain a microwave receiver, acoustic source and auxiliary devices for the underwater division, with an input and output processing device, acoustic wave receiver and control display for the onshore division.

TASS Towed Passive Sonar

The TR&DI will launch full-scale fabrication of the TASS (towed array surveillance system) passive sonar in FY 1982 with the year's funding standing at ¥620 million. The TASS, to be mounted on 2,900-ton DD destroyers, would make up for the vulnerability of the active sonar. Evaluation tests of the passive sonar would be conducted from FY 1983 to 1984.

(Avionics)

XJ/ALR-1 ECM System

The XJ/ALR-1 ECM (electronic countermeasure) system is designed to collect various microwave data. The FY 1982 budget includes ¥450 million for fabricating the equipment necessary to install the ECM system in YS-11 turboprop for application tests.

XJ/ALQ-5 ECM System

The XJ/ALQ-5 would be mounted on the C-1 transport to jam ground radar systems. Its development will enter the final phase in FY 1982 with expenditure of ¥1,260 million approved. FY 1982 fabrication work will involve the antenna, transmitter and other components.

ALQ-8 ECM System

The ALQ-8 ECM system is designed for the F-15 fighter aircraft, following the ALQ-2 for the T-33A trainer, the ALQ-4 for the F-104J fighter and the ALQ-6 for the F-4EJ and F-1 fighters. In FY 1982, the TR&DI will assemble equipment for remodeling the F-15 airframe to accommodate the system. The year's funding totals ¥70 million. Remodeling work will

begin FY 1983. The ECM system's mass-production phase is expected to start in FY 1984. The TR&DI intends to equip almost all F-15s with the ALQ-8 systems.

Electronic Warfare Simulator

The TR&DI will complete the electronic warfare simulator within three years, starting in FY 1982, under the year's funding of ¥1,290 million. The simulator, starting test operation in FY 1984, will be used to develop advanced ECM and ECCM technology.

Infrared CCD

FY 1982 funding totals ¥800 million for pre-development research on an infrared charge coupled device (IRCCD) for an infrared detection system. Partial fabrication of the device was previously funded in FY 1981. The FY 1982 research work would establish the technical feasibility for the system's full-scale development to possibly start in FY 1987.

CSO: 4120/325

MILITARY

JDA MAY START LASER RADAR DEVELOPMENT IN FY 1983

Tokyo JPE AVIATION REPORT-WEEKLY in English No 568, 21 Apr 82 pp 8-9

[Text] The Japanese Defense Agency (JDA) plans to launch development of a laser radar system jointly with three electronics manufacturers in FY 1983 on the basis of basic research over the past three years.

In the basic research, the JDA's Technical R&D Institute (TR&DI), Nippon Electric Co., Fujitsu Ltd. and Mitsubishi Electric Corp. have confirmed the feasibility of the new radar system being developed. The JDA may seek funding for full-scale development of the system in its FY 1983 budget request to be submitted in late August.

The JDA wants to initiate the new radar development by building on the laser technology now spreading throughout Japanese industry for medical and other equipment. According to the TR&DI, the current radar system's microwave emission angle is two to three degrees, far more than only 0.5 degree for the laser beam. Thus, the laser radar can locate an object more accurately than the microwave radar.

The laser radar, if used for the fire-control system of an anti-aircraft gun or a missile, could improve the hit ratio. Problems with the laser radar development, however, include how to deal with heat resulting from laser beam generation, reduce the size and weight of the laser beam generator, and keep the wave length of the laser beam at a certain level. No country seems to have solved those problems.

In the development, the JDA intends to fabricate a radar system with a small, lightweight laser beam generator for tests aboard anti-aircraft guns and other weapons systems. It wants to develop the new radar system in two years for deployment starting in FY 1985 or after.

Prior to the development project, the JDA is expected to name one of the three companies as prime contractor, in a departure from its joint research with all of them.

MILITARY

MITI RELUCTANT TO RELEASE ADVANCED TECHNOLOGIES

Tokyo JPE AVIATION REPORT-WEEKLY in English No 571, 12 May 82 pp 8-9

[Text] The Japanese Defense Agency (JDA) plans to exempt some advanced electronics and other technologies from the candidate technology items to be selected for Japan-U.S. joint research and development, because the industry sector does not want to release some of the advanced technologies to foreign countries, sources say.

The candidate items, which would be presented to the Americans at a regular Japan-U.S. consultation on defense equipment and technology in June, include logistic support facilities, pre-cooked instant food, special winter and water-proof wear, and antiaircraft and antiship missiles, they say.

The United States has strongly demanded joint arms research and development as well as Japan's fast defense buildup. But Japan bans arms and military technology exports.

Irritated by the military technology export ban, the United States has informed Japan that it might suspend military technology transfer to Japan unless advanced Japanese technologies are released to the Americans. Specifically, a U.S. act was enacted last Dec. 15 to ban foreign countries' license production of U.S. gun barrels for 203mm self-propelled howitzers.

The U.S. move has encouraged Japanese quarters concerned to advocate promotion of Japan-U.S. joint research and development of arms technologies because the United States' suspension of military technology transfer to Japan could endanger the Japanese defense industry depending on arms production under U.S. license.

But the Ministry of International Trade and Industry (MITI) is reluctant to release key advanced technologies to foreign nations, because it gives priority to protection of domestic industries from foreign competition. The industry

sector also wants to keep very large-scale integrated circuit (VLSI), fine ceramics and other key technologies in secret at present.

The JDA plans to take the industry sector's hope into account in selecting the candidate items for Japan-U.S. joint research and development.

Among the items, the JDA attaches importance to pre-cooked instant food and winter and waterproof wear, which it says the United States cannot afford to develop.

It also intends to make effective use of its past experience in developing unique logistical support facilities, such as the self-propelled pontoons of Hitachi, Ltd.

As for missiles, the JDA thinks it would be significant for Japan to develop anti-aircraft and anti-ship missiles jointly with the United States, which has made no sufficient effort to develop such missiles in the absence of the danger of direct airborne attack on its homeland. The Americans are quite interested to a ground-launched anti-ship missile now under development by Mitsubishi Heavy Industries Ltd.

CSO: 4120/325

SCIENCE AND TECHNOLOGY

JAPAN TO DEVELOP REMOTE SENSING TECHNOLOGY

Tokyo JPE AVIATION REPORT-WEEKLY in English No 555, 20 Jan 82 pp 8-9

[Text] The Science & Technology Agency plans to develop remote sensing technology for earth observation satellites in five years, starting in the current fiscal year. The FY 1981 budget sets aside ¥110 million for this project.

The remote sensing, which enables wider and repeated earth observation from satellites, would be used for maritime observation, agricultural survey, land utilization study, resources prospecting, environmental surveillance and other studies.

Under the five-year project, the agency, in cooperation with governmental research institutes concerned, will first develop techniques for analysis of geological and biological data which could be collected by satellites through remote sensing. It will also compare satellite observation data with ground observation data to integrate data processing and analyzing techniques. Thus the basic software will be established for remote sensing observation.

Besides the software, the agency will research future sensors aboard satellites for remote sensing, including electronic scanning radiometers and synthetic aperture radar systems, to establish basic data processing techniques.

In the software research, the agency will cooperate with the Geographical Survey Institute, the National Institute of Resources, the National Research Center for Disaster Prevention, the Environment Agency, the Hokkaido Development Agency, the National Institute of Agricultural Science, the Electrotechnical Laboratory, the National Institute for Environmental Studies, the Forestry Experiment Station and other institutes.

Participants in the sensor research will include the National Aerospace Laboratory and the Radio Research Laboratory.

The Science & Technology Agency intends to spend the first three years on development of the separate techniques and the remaining two years on their integration.

SCIENCE AND TECHNOLOGY

NASDA TO STUDY SPACE MATERIALS PRODUCTION TESTS

Tokyo JPE AVIATION REPORT-WEEKLY in English No 557, 3 Feb 82 pp 8-9

[Text] The National Space Development Agency (NASDA) will fabricate a prototype system for future materials production tests aboard the U.S. Space Shuttle, and study techniques for such tests in FY 1982. The government's FY 1982 budget proposal includes ¥431,716,000 for the project.

The Space Activities Commission decided, in August 1980, on a plan to have Japanese scientists conduct materials production tests on the Space Shuttle in the latter half of the 1980s.

Japan's materials production test system for the Space Shuttle would be equipped with two double racks for materials production tests and one double rack for life-science tests.

The NASDA has been conducting materials production tests on the TT-500 rocket, prior to the tests on the Space Shuttle. Final tests on the rocket are expected for this summer.

H-1 ROCKET PROTOTYPES TO BE FABRICATED IN FY '82

The NASDA plans to fabricate a ground test vehicle and a test flight prototype of the H-1 rocket in FY 1982 with ¥20,474,645,000 set aside in the budget for the new fiscal year. In addition, ¥22,425 million is earmarked in the budget for disbursement in the following years.

The ground test vehicle will be used for adjusting the H-1 rocket to the launching facility in the summer of 1985. In FY 1982, the NASDA will manufacture its first-stage booster (an airframe and an engine), second-stage booster (an airframe and a gas jet system), nose fairing, electronics systems, manufacturing test equipment and launching equipment.

As for the test flight prototype for launching in the

winter of 1986, the NASDA will fabricate its first-stage booster (an airframe and an engine), second-stage booster (an airframe and a gas jet system) and nose fairing in FY 1982.

At the H-1 rocket launching site on the southwestern Japanese island of Tanegashima, the NASDA will design and construct a launching facility during the year. For ground tests of the H-1 rocket, it will continue construction of inertial navigation test equipment and other test systems at the Tsukuba Space Center and high-altitude combustion test equipment and other test systems at the Kakuta Rocket development Center.

In connection with the H-1 rocket development program, the NASDA will also develop and test the liquid oxygen and hydrogen tank, the liquid oxygen and hydrogen engine, the liquid oxygen and hydrogen booster system, the third-stage booster motor, the inertial navigation system, electronics systems, the second-stage booster airframe, electric components and other parts in FY 1982.

CSO: 4120/324

SCIENCE AND TECHNOLOGY

NTT WANTS TO USE SPACE SHUTTLE FOR SATELLITE LAUNCHING

Tokyo JPE AVIATION REPORT-WEEKLY in English No 562, 10 Mar 82 p 9

[Text] The Nippon Telegraph and Telephone Public Corporation (NTT) wants to use the U.S. Space Shuttle instead of Japanese-developed rockets for launching communications satellites in the future, according to its communications satellite development program which will be studied by the Space Activities Commission soon.

Under the commission's original plan, the NTT would launch the 550-kilogram CS-3 communications satellite with the Japanese-developed H rocket in FY 1987 after the 350-kilogram CS-2 satellite in February 1983. The CS-3 is designed to transmit about 10,000 telephone circuits.

But communications service using the CS-3 whose capacity would be half that of a foreign full-scale communications satellite is estimated to cost much money.

The NTT intends to use the U.S. Space Shuttle for the CS-3 in order to reduce both launching and service costs. It estimates the Space Shuttle to launch a communications satellite with a larger transmission capacity of 20,000 to 25,000 telephone circuits at one-sixth of the cost for the Japanese-developed three-stage rocket. Furthermore, the satellite would be able to mount two times more fuel for its attitude control rocket. As a result, the satellite's service life would double to 10 years, reducing communications costs sharply. If transmission range exceeds 1,000 kilometers, satellite communications costs would become lower than those for ground telephone circuit communications.

Thus the NTT suggests that Japan's communications satellite program be separated from its rocket development program in FY 1987.

The NTT also plans to launch a four-ton communications satellite with a transmission capacity of more than 100,000 telephone circuits in FY 1995.

SCIENCE AND TECHNOLOGY

S.E. ASIA HOPES FOR JAPAN'S AID FOR SPACE DEVELOPMENT

Tokyo JPE AVIATION REPORT-WEEKLY in English No 564, 24 Mar 82 pp 9-10

[Text] Southeast Asian nations want Japan to give them economic and technical assistance for space development and launch communications, broadcasting and meteorological satellites for Southeast Asia, according to a survey report compiled by the Society of Japanese Aerospace Companies (SJAC). The SJAC sent a mission to Singapore, Indonesia, Australia, Thailand and India from Sept. 26 to Oct. 15 last year to survey their space industries.

According to the report, only India out of the five nations plans to develop a rocket for launching a satellite. Observation rockets are planned by India and Indonesia, and under study by Australia and Thailand. India has launched SITE, STEP, APPLE and INSAT satellites. Indonesia has also lofted the PALAPA satellite. Australia plans a satellite named DOMSAT. No other countries have satellite-launching projects.

All of the five countries have ground facilities for receiving data from spacecraft, proceeding with communications, meteorological observation and remote sensing through satellites. Indonesia, Australia and India have rocket launch facilities. But Australia, which has no large rockets to launch, expects other countries to use its facilities.

India has the most advanced space technology among the five nations, SJAC reports. Other nations would have to make considerable efforts to increase technological capabilities, the report says. India is, however, far behind Japan in the field of space equipment manufacturing technology.

All of the five nations want Japan to extend technical assistance for space development. Japan should meet the request in order to promote international cooperation as well as space development, according to the SJAC report.

SCIENCE AND TECHNOLOGY

SPACE-RELATED FIRMS NUMBER 92 IN JAPAN

Tokyo JPE AVIATION REPORT-WEEKLY in English No 567, 14 Apr 82 p 9

[Text] The number of Japanese companies involved in space development stands at 92, according to a survey by the Society of Japanese Aerospace Companies (SJAC).

In the survey, the SJAC sent questionnaires to companies concerned with space development activities in FY 1980. As a result, 75 firms responded that they were engaged in such activities in the fiscal year, and 17 said they experienced space development business before the year.

The Japanese space industry's sales in FY 1980 aggregated ¥126,400 million, increasing over the previous fiscal year, according to the SJAC survey.

Of the FY 1980 sales, exports, centering on ground equipment, accounted for 20.3 percent, and represented a slight increase over the preceding fiscal year.

Imports of space development equipment, which slipped below exports, suffered a small decline. But satellite equipment imports rose conspicuously, indicating Japan's dependence on overseas satellite technology.

The industry's research and development expenses in FY 1980 amounted to ¥6,200 million, corresponding to 5 percent of sales. Such expenses for satellite components came to ¥1,500 million, equal to 15.1 percent of satellite equipment sales.

Space industry personnel in FY 1980 stood at about 6,000 persons, up 1,300 persons or 22 percent over FY 1979. Personnel for the ground equipment field scored a sharp 100 percent increase.

CSO: 4120/324

SCIENCE AND TECHNOLOGY

TR&DI WANTS TO LAUNCH RADAR DEVELOPMENT IN FY '83

Tokyo JPE AVIATION REPORT-WEEKLY in English No 572, 19 May 82 pp 9-10

[Text] The TR&DI and ASDF are expected to request the start in FY 1983 of a five-year program for developing a new anti-aircraft warning radar system to meet the ASDF's plan to launch procurement of the new radar in FY 1990.

The new radar with an advanced electronic counter counter-measure (ECCM) capability will replace the outmoded FPS-20 search and FPS-6 height finding radars at eight of the ASDF's 28 radar sites throughout Japan. The remaining 20 radar sites have already been equipped with J/FPS-1 (F3D) or J/FPS-2 (improved F3D) fixed three-dimensional radars developed by the TR&DI. The new radar may be an advanced version of the existing models.

If the TR&DI is authorized to start the new radar development project in FY 1983, it would request developer candidates for proposals and select one prime contractor in that fiscal year.

New radar development proposals would probably be submitted by Toshiba Corp., Nippon Electric Co. and Mitsubishi Electric Corp.

CSO: 4120/324

SCIENCE AND TECHNOLOGY

JAPAN TO SPEED UP ROCKET DEVELOPMENT

Tokyo JPE AVIATION REPORT-WEEKLY in English No 573, 26 May 82 p 9

[Text] The Science and Technology Agency plans to develop a rocket for launching large application satellites four to five years ahead of schedule. Specifically, it intends to complete development of the H1-B rocket for an 800-kilogram satellite by around 1990.

The advancement of rocket development would meet increasing domestic demand for larger satellites. For example, the Nippon Telegraph and Telephone Public Corporation (NTT) is considering the launch of a one-ton communications satellite with the United States' Space Shuttle. The agency intends, by all means, to develop a rocket for such large-capacity satellites on its own, in spite of the NTT plan, which has yet to be authorized by the Space Activities Commission, Japan's highest decision-making body for space programs.

In Japan, the National Space Development Agency (NASDA) has developed the N-II rocket to launch a 350-kilogram satellite into a geostationary orbit.

It is now developing the H1-A rocket as a follow-up to the N-II. The H1-A for a 550-kilogram satellite would be a three-stage booster using liquid oxygen and hydrogen as fuel. The H1-B rocket would be developed after the H1-A.

CSO: 4120/324

SCIENCE AND TECHNOLOGY

MITI TO DEVELOP EARTH RESOURCES SATELLITE

Tokyo JPE AVIATION REPORT-WEEKLY in English No 575, 9 Jun 82 pp 9-10

[Text] The Ministry of International Trade and Industry (MITI) intends to develop an earth resources satellite for launching in the late 1980s, acknowledging the United States, which has given top priority to military aspects in space development programs, could not supply Japan with sufficient resources data collected by satellites in the future.

MITI will seek funds in its FY 1983 budget request for preliminary design work on the new satellite to launch the development in that fiscal year. It completed a conceptual design for the satellite in FY 1980 and tried in vain to obtain funds for development in FY 1981 and 1982.

The earth resources satellite is designed to be capable of identifying 20-meter-or-longer objects on the earth at an altitude of 500 kilometers. Thus it will have the world's highest performance. The United States' Landsat-4, to be launched this year, is able to identify 30-meter-or-longer objects.

It will also feature a microwave radar system for resources prospecting instead of the Landsat solar ray system which could be affected by clouds, especially in Southeast Asia.

MITI plans to develop the earth resources satellite in five years at cost of ¥100,000 million.

The satellite would be launched in late 1987 at the earliest with the H-1 rocket, now under development by the National Space Development Agency.

CSO: 4120/324

SCIENCE AND TECHNOLOGY

CONSTRUCTION OF ATCR DEMONSTRATION MODEL TO BEGIN

OW161141 Tokyo KYODO in English 1117 GMT 16 Jun 82

[Text] Tokyo, June 16, KYODO--The Federation of Electric Power Companies Wednesday accepted a government request for its cooperation in constructing a demonstration model of the advanced thermal converter reactor (ATCR), a Japanese-developed nuclear reactor, on condition the government will positively back the project.

Presidents of the nine regional power utilities making up the federation also decided it would be most desirable to appoint the government-owned Electric Power Development Co. as the chief promoter of the project.

The presidents also reconfirmed the necessity for the power companies to continue their joint study on the use of plutonium as fuel for the existing light water-cooled reactors parallel with the construction of the demonstration ATCR.

The conditional acceptance of the government request by the electric power companies paves the way for the full-fledged development of the reactor, expected to become the mainstay reactor in Japan before the development of a fast-breeder reactor (FBR) for practical use.

The FBR is a nuclear reactor under development in many advanced nations as the reactor for the 21st century. It is designed to fuel itself and, at the same time, produce fuel for other reactors.

The ATCR has been developed by the governmental Power Reactor and Nuclear Fuel Development Corp. A prototype of the reactor, dubbed "Fugen," is already in operation in Fukui Prefecture on the Sea of Japan coast.

The government and the Atomic Energy Commission asked the power companies last January to cooperate in construction of a demonstration ATCR, that burns plutonium recovered from spent nuclear fuel.

CSO: 4120/316

END