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POLITICAL AND SOCIOLOGICAL

OHIRA'S POPULARITY FALLS; PUBLIC FAVORS LDP

Tokyo MAINICHI DAILY NEWS in English 10 Sep 79 pp 1, 12 OW

[Text] Thirty-one percent of the people do not support Prime Minister Masayoshi Ohira's cabinet, while 26 percent support it and a high 40 percent remain indifferent to it, the MAINICHI newspapers nationwide public opinion poll disclosed.

Although the MAINICHI poll confirmed the declining popularity of the Ohira cabinet, it showed the accelerating popularity of the ruling Liberal-Democratic Party (LDP) with 44 percent giving solid support to the party, up 6 percent from the previous MAINICHI poll in March and equaling the peak popularity of Eisaku Sato's cabinet which continued for a record number of years.

The Ohira cabinet won public support in the phase of diplomacy as seen in the Tokyo summit meeting while discontent was expressed for its stand on inflation, economic policy and Lockheed Aircraft sales scandal.

Among the opposition forces, the popularity of the Japan Socialist Party (JSP) and the Komeito Party increased by 15 percent and 6 percent, respectively, from the previous March poll, while the Democratic Socialist Party (DSP) and the Japan Communist Party (JCP) showed a slight 3 percent rise each. The popularity of the new Liberal Club (NLC) slipped from its peak 10 percent support to a mere 2 percent due to the party's internal schism.

The latest poll clearly showed a very rapid and widespread rival of conservatism, especially among nonpolitical young people in stark contrast to the waning popularity of the Ohira cabinet. At the time of the poll (1-3 September), the conservative forces enjoyed a clear political supremacy.

Popularity at Variance

The discrepancy in popularity between the Ohira cabinet and the LDP, and the tax increase issue, which will be one of the focal points of the general election, may well establish the political framework for the 1980s.

When compared with the previous March poll, the Ohira cabinet became an unpopular cabinet as nonsupport outstripped support by more than 5 percent. Support declined from 37 percent to 26 percent while nonsupport increased from 24 percent to 31 percent.

Political indifference declined by 5 percent from the all-time high of 45 percent in the previous poll. But the percentage still remained high.

The unpopularity rate of the Ohira cabinet closely matches the 35 percent of the Takeo Fukuda cabinet which remained unpopular throughout its term of office. That cabinet obtained 27 percent support and 35 percent indifference in the poll of September 1977.

Intraparty Conflict

By party support, LDP supporters who also back the Ohira cabinet fell below the 50 percent mark to 47 percent. LDP supporters who do not support the cabinet increased from 11 percent to 16 percent, exposing deep-rooted intraparty conflicts and the fragility of the present cabinet.

Among the supporters of the opposition parties, nearly 30 percent of the DSP and NLC used to support the cabinet but the figure slipped by about 10 percent each in this poll, while nonsupporters of the cabinet increased between 9-20 percent, with a 20 percent increase among NLC supporters. This indicates opposition to Ohira's intention to increase taxes and an approaching showdown between the government party and opposition parties.

By age groups, the cabinet supporting ratio increased in proportion to age--from 14 percent of those in their 20s to 39 percent of those in their 60s. The cabinet nonsupporting ratio swelled by 9 percent both among those in their 30s and 50s.

Respondents were asked to evaluate the merits and demerits of Prime Minister Ohira on 11 counts. Twenty-seven percent of those sampled listed as "merits" the prime minister's "personality" and "diplomatic posture," followed by 14 percent for his "modernization of political parties," and 10 percent for his "power of execution." Nine percent listed "simplification of administrative and fiscal policies" and "measures to cope with resources and energy" respectively as his merits. Only two percent referred to "investigation into the aircraft scandals."

As demerits, 44 percent pointed out his "policy for prices," followed by 31 percent for "business policy," 27 percent for "investigation into the aircraft scandals," and 5 percent respectively for "prime minister's diplomatic stance" and "prime minister's personality."

The prime minister's "diplomatic posture" at the time of the Tokyo summit was rated high, as evidenced by the fact that some 20 to 30 percent of those supporting the opposition parties listed it as his "merit."

Some 30 percent of the respondents seemed to like the prime minister's personality, regardless of their sex, age and parties supported.

Of all the respondents, 40 percent failed to pinpoint the merits of the prime minister while 82 percent listed one or more of his demerits. The wide gap indicates the increasing trend of the people not supporting the present cabinet and reflects the critical atmosphere prevailing among the people toward Ohira politics.

The trend of increased support for the LDP is seen at all levels. It is conspicuous that more young people expressed their support for the LDP. Among men in their 20s, the ratio of support increased from 18 percent to 35 percent.

By profession, the support ratios of salaried workers, housewives and students increased by 9 percent, 8 percent and 5 percent, respectively.

The support ratio of the Socialist Party had remained at a low 12-14 percent in the past year. But the ratio has shown a sign of increase lately. The trend indicated that JSP is also supported by men and women in all walks of life.

The support ratio of the Komeito Party increased by 2 percent while those of the Democratic Socialist Party and the Japan Communist Party remained unchanged.

Those who do not ordinarily support any party were asked which party they would support if they were to vote, with their support included, the LDP is supported by 51 percent, JSP (19 percent), the Komeito Party (6 percent), DSP and JCP (5 percent respectively), NLC (3 percent) and the United Democratic Socialist Party (2 percent).

CSO: 4120

POLITICAL AND SOCIOLOGICAL

'ASAHI' COMMENTS ON OHIRA'S POLICY SPEECH

Tokyo ASAHI EVENING NEWS in English 5 Sep 79 p 2 OW

[ASAHI SHIMBUN 4 September editorial: "Ohira's Policy Speech"]

[Text] Prime Minister Ohira has delivered a policy speech in the extraordinary Diet. It is customary for the head of a government to announce at the outset of a Diet session his policies for running the government, but the latest speech was different from an ordinary premier's address. Ohira's policy speech was tantamount to a declaration for disbandment of the Diet because the dissolution of the House of Representatives within this week is seen certain. For this reason, we listened carefully, but Ohira failed to even mention dissolving the lower house.

For the past few months, Ohira and his aides continuously devoted themselves to make the planned disbandment an accomplished fact. Even at the stage when the schedule dissolution was only a few days away, the prime minister failed to speak straightforwardly to the people about this important decision. This is very unnatural. This may pass with political professionals in the Diet but is incomprehensible to the people. We would like to point out first of all that such an ambiguity has made the premier's speech sound as if it was made under false pretenses and in turn has undermined the people's trust in their government.

In his speech, Prime Minister Ohira discussed three problems--the energy issue, the reconstruction of state finances and the establishment of political ethics--as urgent matters.

He particularly stressed the need to solve the energy problem and improve state finances. With respect to the energy issue, he emphasized short-term measures aimed at curtailing oil consumption by five percent and mid- and long-term measures designed to lower the rate of the nation's dependence on petroleum from 75 percent at present to 50 percent 10 years hence. However, while talking about the development of energy sources to take the place of petroleum, he failed to outline where the money for such development projects would come from. With the Ministry of International Trade and Industry already

studying the need for such measures as creating a new tax on petroleum, the obtainment of funds for the development of energy sources is the crux of the problem.

The same can be said of steps to rebuild the state finances in that specific policy decisions were blurred. We understand why the premier wants to put government finances back in the black. Nonetheless, there are problems involved in attaining that goal. As concrete measures, the prime minister listed the use of taxes resulting from natural increases in reducing the volume of national bonds, a fairer distribution of the tax burden and higher taxes. As for administrative reforms to correct the unfair taxation system and to reduce state expenditures--something the people want to see happen--he merely said that he would work hard toward that end. We would like to know whether he really has the determination to carry out what the government should do before raising taxes, even if it means defying the opposition of government offices and the resistance of those with vested interests.

Concerning the increasing of taxes, the premier said that he would try his best to cut down government expenditures, but he added that it would be inevitable for him to ask the people to bear a new burden with their understanding in order to cope with the shortage of funds. However, if the prime minister really wants to seek the understanding of the people, he should show an indomitable resolve concerning the reduction of expenditures and seek the confidence of the people by frankly telling them what their new burden will actually be--whether it will be the introduction of a general excise tax or an increase in the income tax. He should have given a clear-cut explanation on this matter because the prospect of higher taxes after he wins a majority in the general election is obvious. He may point out that he has been entrusted with a carte blance concerning the issue since he touched on the matter in his policy speech in the extraordinary Diet.

We believe that the establishment of political ethics is the biggest challenge facing politicians in this country amid the succession of scandals involving the introduction of aircraft. However, in his speech, the premier merely touched on this question in a rather casual manner after talking about the energy problem and the rebuilding of state finances. What he actually said was that he would ask the Diet to study the proposals to be made by the council of measures to prevent aircraft scandals, which is the prime minister's private advisory organ.

The Ohira cabinet's way of dealing with political scandals seems to be symbolized in the premier's mode of expressing himself. We have never detected any willingness on the part of the prime minister, a political leader, to reflect on his conduct or to persuade the Liberal Democratic Party to reform itself.

That the LDP's practice of hiding scandals caused the confusion in the recent ordinary Diet session is an undeniable fact. We would like to remind

the LDP that the political posture of the prime minister, who is its leader, is being questioned.

Premier Ohira also talked about Japan's diplomacy and its role, but what he said was too flat to appeal to the people. We wanted to hear what the prime minister really had in mind about specific issues. Being merely a medley of compositions penned by bureaucrats, his speech is hardly worthy of comment.

CSO: 4120

POLITICAL AND SOCIOLOGICAL

LDP VICTORY DEPENDS ON HOW DISENCHANTED REACT

Tokyo ASAHI EVENING NEWS in English 13 Sep 79 p 1 OW

[Text] A Liberal-Democratic Party victory in the 7 October Lower House general election will depend on how the politically disenchanted, who form the second largest bloc, will vote, an ASAHI SHIMBUN study shows.

The study is based on an analysis of the latest ASAHI public opinion poll which took place in late August and surveys done over the past 10 years. The study shows that the politically disillusioned tend to react to the political situation at a given time and vote accordingly, and that their increase is inversely proportional to a shift in popular support away from the LDP.

The politically disenchanted--people who say they do not support any party or will not reply to a question on party preference--accounted for 34 percent ASAHI survey, compared with 42 percent who expressed support for the LDP and 13 percent who liked the Japan Socialist Party.

According to the study, salary earners in their 20s with university diplomas and women over the age of 60 are typical disillusioned voters.

According to the study, the disenchanted account for 46 percent of voters between 20 and 24, as against 31 percent who support the LDP. Their ratio is 37 percent among voters between 25 and 29, as against 34 percent who support the LDP. They remain on top with 39 percent among those between 30 and 34, compared with 38 percent who support the LDP.

Then a reversal of rates occurs. The disillusioned decrease to 33 percent among those between 35 and 39 and keep falling in the older age brackets. On the other hand, support for the LDP keeps rising from 42 percent among those in their 40s to 54 percent among those over the age of 60.

While the number of disillusioned men keeps falling from the age of 40 on, the ratio among women stays at 35 percent.

The disenchanted also form the largest bloc in major cities.

The ASAHI study shows that the disillusioned were the largest bloc from the days of wild inflation in 1973 to the days following the outbreak of the Lockheed payoff scandal in 1976.

Disillusion with the LDP government increased the number of those who do not support any party, rather than increasing support for the opposition parties.

The conservative resurgence began a year after the inauguration of the Takeo Fukuda cabinet. Popular support for the LDP exceeded 40 percent at the time of primary elections for the party's presidency in October 1978, whereas the disenchanted dropped to 29 percent.

CSO: 4120

POLITICAL AND SOCIOLOGICAL

LDP FACTIONAL ACTIVITIES GEARED TO FALL GENERAL ELECTION

Main-System Factions' Activities

Tokyo SANKEI in Japanese 19 Aug 79 p 1-2

/Text/ Ohira Faction Rapidly Increasing Candidates. Intermediate Factions Slowing Down and Being Rearranged into Five Major Factions and Nakagawa Faction.

With the mood rising towards dissolution of the Diet and a general election, the political parties are virtually plunging into the election campaigns, and the rivalry is especially intense between the Liberal Democratic Party factions.

Although the three non-mainstream factions--the Fukuda, Nakasone and Miki factions--are opposed to dissolution, they are as busily engaged in election preparations as the mainstream faction, because a loss of members by an faction in the general election would be reflected directly in the party presidential election slated for late next year. An analysis of the action going on within the LDP would indicate the following: (1) A further realignment of potential candidates for the general election is taking place, with the intermediate Shiina, Funada, Mizuta and Ishii factions being disbanded and reorganized into five major factions plus the new Nakagawa faction (JIYU KAKUSHIN DOYUKAI-Liberal Reform Friends Society). (2) Expansion of the Ohira faction is especially conspicuous. It is embaracing most of the successors to deceased and retired Dietmen and is thus laying the groundwork for Ohira's re-election to the party presidency. (3) Post-war leaders like former Prime Minister Nobusuke Kishi and former House speaker Naka Funada have retired or passed on, and a broad change of generations is in the offing in the 1980's. Such are the apparent trends.

Although it is customary for the LDP to decide on their official candidates on the day of the Diet dissolution, in actuality each faction is already making concrete preparations for the general election separately from the party's formal selections. The reason is that the general election will bear the earmarks of a factional election due to the medium-size election district system, which differentiates it from the Upper House election.

CANDIDATES OF LDP FACTIONS
(Sankei Shimbun Survey)

(Faction)	(Incumbent)	(Former)	(New)	(Total)
Ohira	33	5	21 plus alpha	59 plus alpha
Fukuda	49	7	10 plus alpha	66 plus alpha
Tanaka	43	6	5	54
Nakasone	43	5	7	55
Miki	33	4	5	42
Nakagawa	8	1	4	13

Note: "Former" includes former Lower House and Upper House Dietmen. The Nakagawa faction includes many members whose names are duplicated in the Fukuda faction. However, only bona fide members of the Nakagawa faction have been listed here.

The breakdown is as shown in the table. Especially noteworthy is the advance by the Ohira faction, which with the Miki faction had claimed the least members among the five major factions. The Ohira faction's strategy calls for a need to develop into the leading party faction, in order to wrest the leadership held in the past by such non-mainstream factions as the Fukuda faction, not only vis-a-vis interim policy for next year's party presidential election, but also regarding the forming of the Cabinet and the appointment of the secretary general and the Lower House speaker. The faction is therefore endeavoring to attract the newcomers and the successors to deceased and retired Dietmen of other factions. It is cooperating with the friendly Tanaka faction in order to fill such blank areas as Tokyo, where Ohira's men have hitherto been non-existent.

Meanwhile, the Fukuda faction--the largest faction (with 52 members, among which 3 will retire)--will set up approximately 66 candidates (more than the Ohira faction), seeking further expansion. However, since it embraces a number of elderly Dietmen and unsettled younger members, it cannot escape the disadvantages in comparison to the mainstream faction which has access to the party organization and funds. Therefore, it faces the danger of slipping from its position as the largest faction.

Compared to the Fukuda faction, the Tanaka, Nakasone and Miki factions are all on more solid ground with a strategy for expansion by 10 members each, via the comeback of former Dietmen and the seating of newcomers. However, since the Nakasone faction is pushing Nakasone himself, and the Miki faction has its eye on party policy chief Komoto, as party presidential hopefuls, it is imperative that both factions increase their memberships in order to be within second place in the presidential primary. The competition between the two is thus far greater than the table of candidates indicates.

The impact of the five major factions is seen in the disintegration of the intermediate factions--the Shiina, Mizuta and Ishii factions. In addition to zero prospects of increasing their numbers, there is a conspicuous switching of incumbents to the mainstream faction. Meanwhile, moves by former Agriculture Minister Ichiro Nakagawa stand out. His faction has not only added four new members, but the view is that eight of the present 19 incumbents of the JIYU KAKUSHIN DOYUKAI, who are not members of the five major factions, will make a new start as members of the Nakagawa faction. Thus, the general election will determine whether he will achieve power, albeit as the leader of a minor faction.

It is estimated that the official LDP roster for the general election will total between 320 to 330 candidates, and that the competition between the party factions will influence the increase of winners. The mainstream faction with a conservative outlook thinks the party will be able to garner a comfortable majority of 271 seats (it won 261 seats, including addition of former independents, in the 1976 general election).

Ohira Faction Aims for Fifty-member Increase. Tanaka Faction Works Hard for Comeback

Ohira Faction: Although it is the party leader's faction, it is a "minor" faction with 33 members, similar to the Miki faction. Therefore, its main strategy points to a gain of at least 15--if possible, 20 or more--members and to become the party's major faction overnight.

At present its slate includes 21 new candidates (plus two other Ohira-affiliates), as well as five Ohira-affiliates who are planning to comeback. Of the total of 28 hopefuls, 26 are considered to be probably winners. Among the new faces, the convergence of so-called "second generation candidates" or the sons of former incumbents aspiring to become the "backbone of the party leader's faction," is noteworthy. Ritaro and Jiro, the sons of Soichi Kamoda (Saitama 3rd district-Funada faction, deceased) and Shuji Kawasaki (Mie 1st district, deceased), respectively; Takeshi, son of former Justice Minister Seigo Hamano who will retire; Motoo, the son of former party vice president Etsuzaburo Shiina (Iwate 2nd district, retired); and Hajime, grandson of former Lower House speaker Naka Funada (Tochigi 1st district, deceased) are viewed by certain sources as candidates from the Ohira faction.

Additionally, in the case of Kosuke, son of the deceased former Lower House Speaker Shigeru Hori (Saga prefectural district), the situation is somewhat complicated. He is "farmed out" to the Tanaka faction and his campaign funds are paid by the Ohira faction, since he will run from the same district as the incumbent Keniichiro Otsubo of the Ohira faction.

Also, from the standpoint of filling the blank areas and presenting an array of candidates worthy of a party leader's faction, there is considerable cooperation with the Tanaka faction. For instance, Akira--the younger

brother of former Diet woman Hide Awayama (Fukushima 1st district)--although a member of the Shiina faction was close to the Tanaka faction, and Sadatoshi Kozato (Kagoshima 2nd district) is a newcomer affiliated with former party Secretary General Susumu Nikaido of the Tanaka faction. They are both clarifying their support for the Ohira faction. Also, a special case is seen in Fukujiro Kikuchi, an incumbent who recently bolted from the New Liberal Club and is campaigning as an independent. He has decided that, if he wins, he would return to the LDP fold and join the Ohira faction. In the selection of Ohira faction candidates, there are numerous cases which are in competition with the other factions. However, in the case of Taro Aso who is a potential newcomer in the Fukuoka 2nd district, he has the support of former agriculture minister Ichiro Nakagawa--a pillar of the non-mainstream, and his moves will be watched with interest in the event that he is elected.

Tanaka Faction: It presently boasts 43 members. In the upcoming general election, it will ambitiously present, in addition to its incumbents, a dozen or more new and old faces as candidates and aim for 50 winners. In the previous election, former deputy chief Cabinet secretary Seiroku Kajiyama (Ibaraki 2nd district), Ryohei Tamura (Kochi prefectural district), Yukio Yamamoto (Mie 1st district), Kishitaka Ihara (Ehime 2nd district) and Kanezo Muraoka (Akita 2nd district) were defeated as a result of the Lockheed scandal. Full efforts are being made for their comeback, as well as that of Shinjiro Yamamura (Shiina faction-defeated in the Chiba 2nd district) who has switched to the Tanaka faction.

Needless to say, utmost care is exercised to prevent other incumbents from defeat. For instance, when it became apparent that Saburo Toida of the Hyogo 4th district would encounter difficulty by losing a large bloc of votes to party policy chief Komoto, former prime minister Tanaka, party vice president Nishimura, Susumu Nikaido, Noboru Takeshita and other cadres of the "Tanaka army" convened at the "support Toida rally" held at an Osaka hotel (6 August) to encourage the candidate. However, there are some worrisome problems. The leader of the faction, party vice president Nishimura (Oita 2nd district), is 81 years old and is pressured by three new independents and former bureaucrats with conservative affiliations who are seeking a "change of generations." Moreover, since one of them is a former member of the Tanaka faction, Tanaka faction cadres feel rather glum about the situation. Former Prime Minister Tanaka himself has reportedly decreed "not to let the vice president be ousted." Moves to acquire new members are rather negligible, perhaps due to the emphasis on support for former and present incumbents. From the standpoint of "strengthening the mainstream Ohira faction" there are cases where newcomers like Kozato of the Kagoshima 2nd district are registered under the Ohira faction, and also cases like Kiyoshi Ozawa (Tokyo 7th district) who are endorsed jointly with the Ohira faction. Inside the party it is called the "Ohira-Tanaka alliance."

Therefore, the bona fide newcomers of the faction are limited to five. They are Shinjun Oshiro (Okinawa prefectural district), Tadakuni Iwanaga (Nagasaki 1st district), Masahiko Yamada (Nagasaki 1st district), Yukio Miyauchi (Nagasaki 2nd district) and Eijiro Hata (Oita 1st district).

There is also Tomizaburo Hashimoto of the Ibaraki 1st district who is a faction member, albeit as an independent. In his case also, he faces difficulty due to the candidacy of two new independents from the conservative wing in the same district and he is receiving support from faction cadres. In any case, the plan is to form an election policy committee by the end of the month (August), with Masatoshi Tokunaga, chairman of the LDP Upper House Dietmen, as "election policy chairman." The Upper House members will support the Lower House members by forming a concrete election winning system.

Non-Main-Stream Factional Strife

Tokyo SANKEI in Japanese 20 Aug 79 p 2

/Text/ Fukuda Himself Takes Command. Miki Faction to Maintain Status Quo Rather Than Seek Expansion

Fukuda Faction: Speaking of the Fukuda faction, its attempts at expansion during the previous general election have not been very aggressive, but the situation is different with the coming election. With a sense of impending crisis in the words of Mr Fukuda that "if the Fukuda faction were to lose any seats, it would mean the weakening of the advocates for interparty reform and modernization," the faction is gathering around Mr Fukuda and campaign organizer Shintaro Abe, preparing to go all-out in support of its candidates.

Of the present 52 faction members, three veterans--former Prime Minister Kishi, Kaneshichi Masuda and Kazuomi Fukunaga--will retire. However, the faction will appoint three successors: Akira Suita (Yamaguchi 2nd district), Nobuhiko Masuda (Nagano 4th district) and Kosuke Fukunaga (Kumamoto 2nd district) as candidates. The faction has been intently seeking out newcomers and, in addition to Masami Tanabe (Aomori 1st district) and Akio Karino (Ibaraki 1st district) who were barely defeated in the previous election, it is supporting Sohei Miyashita (Nagano 3rd district), Takashi Uchiyama (Shizuoka 3rd district), Tohru Nogami (Toyama 1st district), Saburo Fujiwara (Hyogo 5th district) and Shizuka Kamei (Hiroshima 3rd district) who are entering their first race. It also has an eye on several new potential candidates in Saitama, Toyama and Shiga prefectures. Reflecting on its defeat in last year's party presidential election, it is attempting to fill the "vacuum areas" of the Fukuda forces.

In addition to backing newcomers, the faction is boosting its freshmen Diet members whose bases still require solidification. Furthermore, its goal is to emphasize support for the comeback of seven of its former Dietmen, including Ichiro Sato (Kanagawa 4th district) who switched from the Upper

House as a new candidate for the Lower House, and to secure at least 55 or 56 seats. Former Prime Minister Fukuda has been actively campaigning in Hokkaido and Nagano since early summer. However, there is no denying the existence of numerous young and new candidates who are borderline cases. He will start on a nationwide stumping tour in September and take command in the campaign.

Nakasone Faction: In the previous election, the faction took a great leap forward by garnering 12 seats with new candidates. However, this time it is limiting its new candidates to seven and concentrating on winnable candidates. Nevertheless, it is true that there is the underlying factor of its "sad inability to compete as a non-mainstream faction with the mainstream faction in capturing new members," (according to a cadre of the election policy committee). Among the "big new fish that got away" was Kosuke Hori of the Saga prefectural district. The faction campaigned vigorously, counting on the relation between cadre Tadashi Kuranari and the deceased former Lower House speaker Hori, but it lost him to the "Ohira-Tanaka allied forces." Eijiro Hata (running from the Tanaka faction), successor to Masao Hirose (Oita 1st district) who will retire soon, is a similar case. The faction has given up any notion of putting up new candidates in the Yamagata 2nd and Iwate 1st districts, since it has no prospects of receiving party endorsement. On the other hand, its seven new candidates all have good potential for winning. Especially due to efforts by top cadre Sadanori Yamanaka, Sukeya Nagano (Kagoshima 1st district) and Saburo Kowatari (Okinawa prefectural district) were won over after competing with other factions.

Among the previous losers, former Ohira faction member Sadayoshi Yata (Fukushima 2nd district) will run this time from the Nakasone faction because of his previous competition against Masayoshi Ito of the same Ohira faction and the vacant seat left by the deceased Tetsuro Minato of the Nakasone faction. He will receive all-out support by Nakasone and his cadres who have stated that "his switch from a ruling faction to our faction is a sumbolic event."

The faction seeks to expand its present 43 members by 5, but since some dropout of the incumbents is anticipated it takes the position that "any increase is a blessing. Our goal is 45 seats. (election policy committee cadre)"

Miki Faction: Faction leader and former prime minister Miki confronted Prime Minister Ohira with a personal draft on a "Special Measures Law for the Purification of Elections" and is applying the brakes on a Diet dissolution without proper justification. The faction is therefore not in a position to prepare openly for the coming election. However, there is of course no member who stands by idly.

Those who are definitely running include, in addition to the 33 incumbents, four who are seeking a comeback. They are Goro Ito (Yamagata 2nd district), Hyosuke Niwa (Aichi 2nd district), Kazuho Tanigawa (Hiroshima 2nd district)

and Munenori Akagi (Ibaraki 3rd district). There are also five new faces--Hideo Usui (Chiba 1st district), Akio Hisama (Nagasaki 1st district), Kuro Matsuda (Nagasaki 2nd district), Keijiro Nishiyama (Hyogo 5th district) and Ayahiko Matsumoto (Tokyo 9th district). A total of 42 candidates will run from the Miki faction. Among the new members, Matsumoto is secretary to Hirohide Ishida, while the other four are receiving earnest backing by Toshio Komoto. An especially torrid race is shaping up in the Nagasaki 1st and 2nd districts and, in order to strengthen his influence within the faction, Komoto is going all-out to win seats for the new members under his aegis.

The faction as a whole seems to be avoiding a profusion of candidates. From the standpoint of preventing defeats by the incumbents, the minimum goal appears to be the maintenance of the status quo and the avoidance of a rash expansion policy.

Nakagawa Faction and Others: Among the intermediate factions, Etsuzaburo Shiina, leader of the Shiina faction, has decided to retire, while Naka Funada and Mikio Mizuta are both deceased. Therefore, many members of these factions are faced with the choice of either joining the major factions or starting anew under their own power. Under these circumstances, the Nakagawa who organized the JIYU KAKUSHIN DOYUKAI, the coming general election provides an excellent opportunity to consolidate the foundation of the Nakagawa faction. The JDK consists of 19 incumbent Dietmen. In addition, there are former Dietmen Yasuo Shimada (Tottori prefectural district) and Hiroshi Nakao (Kagoshima 2nd district) and eight newcomers. Among the incumbents and those who lost in the previous election there are many who belong to the Fukuda and Nakasone factions, while half of the members are "owned jointly" by the Fukuda faction.

The new faces who are considered to be directly affiliated with Nakagawa are Yoshio Uekusa (Hokkaido 2nd district), Tatsuo Takahashi (Hokkaido 4th district), Takeo Hiranuma (Okayama 1st district) and Yoshio Skiyoshi (Oita 2nd district). The faction is also enticing Taro Aso (Fukuoka 2nd district), who is said to be a member of the Ohira faction.

5884
CSO: 4105

POLITICAL AND SOCIOLOGICAL

'JPS' PROTESTS JSP'S USE OF TRADE UNION SUPPORT

Tokyo JPS in English 0918 GMT 10 Sep 79 OW

[Text] Tokyo, 10 Sep, JPS--As the General Council of Trade Unions of Japan (SOHYO) came out for election cooperation in the general election with the Komei Party, AKAHATA carried an editorial on 9 September entitled: "Socialist Party Makes Duplicate Use of Trade Union as Its Own Effects." The editorial said that this, the election cooperation between the JSP-supporting SOHYO with the Komei Party, "is a double or triple use of trade union as the personal effect of a specific political party." The gist of the editorial follows:

"(The SOHYO-Komei election cooperation) will force SOHYO unionists in certain constituencies to support Komei candidates. In exchange of getting Komei support for socialist candidates in the election, in which SOHYO is compelled to 'support only the JSP,' this is really the worst type of making the trade union the personal effect of the Socialist Party."

"In the local government head elections in Kyoto, Osaka and Yokohama, the union members who were compelled to support the JSP, had to follow the JSP's restlessness unlikely of the progressive forces, and its betrayal of the progressive cause by taking side with the LDP and the anti-communist centrist' parties to divide the progressive forces and to subvert the progressive local governments.

"Drawing no severe class-conscious lessons from this, SOHYO is going to make 'election cooperation' with the Komei Party, which is advancing on the way of anti-communist, anti-progressive line to become a new ruling party. This is very serious."

"Moreover, in the light of the basic line of SOHYO, it is clear that no basic agreement exists between SOHYO and the Komei Party on the major [word indistinct] in the national administration."

For the Japanese trade union movement to carry out the historic task for the victory of the progressive forces in the 1980s, "the error of the compulsive

'support for a specific political party' must be decisively swept away. It has become an unavoidable urgent task to establish, in the name and reality, the principle of the trade union's independence from capital and political party, to uphold the class-conscious self-reliance of the trade union."

CSO: 4120

POLITICAL AND SOCIOLOGICAL

'AKAHATA' HITS KOMEI-DSP COOPERATION

Tokyo JPS in English 0919 GMT 13 Sep 79 OW

[Text] Tokyo, 13 Sep, JPS--The Komei Party and the Democratic Socialist Party agreed on 11 September to effect election cooperation in 28 constituencies in the general election. AKAHATA carried an article on 13 September sharply commenting on it.

The "agreement paper" for the election cooperation says that it is aimed at "defending the one-party rule by the Liberal-Democratic Party," or "prospecting the course for the establishment of a progressive coalition government." This, AKAHATA article says, "is a preposterous make-believe. This is a selfish calculation to get a ministerial seat or two in the coalition government with the LDP, to push ahead with the reactionary line."

The article goes on to say, "their real aim is to check the advance of the Japanese Communist Party, the driving force for the progressive change in the national administration, and to render devoted service to the LDP."

CSO: 4120

MILITARY

JAPAN'S WEAPONS RESEARCH AND DEVELOPMENT ANALYZED

Development Contrary to Constitution

Tokyo ASAHI JANARU in Japanese 3 Aug 79 pp 10-17

[Article by ASAHI SHIMBUN editor Shoji Takase: "Japan's Weapons Development Revealed"]

[Excerpt] When peace is discussed as a plus symbol, there is not much discussion on war as a minus symbol. To be sure, the concerned parties are tight lipped about discussing the weapons that are the implements of war, and the actual situation is not well known.

In the category of weapons are the aircraft and missile industries whose technological development has been questioned as future industries of the information gathering type. This is why an inquiry was made of the present status of development and its problem areas based mainly on conversations with on-site technologists to probe just what is being developed at the present time.

Japan is a country that has chosen to exist as a peaceful nation. Development of weapons and their production are, first of all, contrary to the constitution and are under the stern eyes of world opinion and legal restrictions, and it is a fact that these factors are a deterrent to development in this area at the present time.

One wonders whether there is not the need to reassess both the present restrictive situation and the principle as well as its true intention, even if just to understand the weight of peace in daily life.

This is the rationale for introducing the present status of weapons development in Japan.

(Editorial Department)

The experimental sea zone established in the Sea of Japan to the north of Wakasa Bay on 13 June was the scene of a concentration of Marine Self Defense Force ships and helicopters, and there was an unexpected sense of tension.

This was because the air-versus-ship missile that the Defense Agency has been developing since JFY 1973 was undergoing its first actual firing tests in a very secret manner under the strictest security conditions.

This domestically produced missile with the exact name of "short-range air versus ship-guided missile" (XASM-1) is one type of warship attack missile that has suddenly come to be regarded as an effective marine weapon, since the Egyptian Navy ship-versus-ship missile "Staix" (supplied by the Soviets) succeeded in sinking an Israeli destroyer and a commercial ship with but six missiles during the third Middle East War in 1967. Where the Soviet "Staix" is launched from a high speed missile is an air-versus-ship affair, which means it is launched from one of our own aircraft.

Speaking more specifically, a missile is loaded under each wing of the Air Self Defense Force F1 support fighter plane and is used to attack any enemy vessel that invades the seas off Japan. It is fired a few kilometers away from the target by the pilot's operation. Although its range is classified "Top Secret" and is not publicized, it may be safe to assume that it has nearly the same range as the French "Egzose M39," which is an air-versus-ship missile of about the same scale and has a range of 50 kilometers. The problem here is the precision of the guidance technology that directs a missile fired several dozen kilometers away to home in on the heart of the ship under attack, and this is the ultimate factor that determines the missile capability.

The actual firing tests of the XASM-1 have been under way since May of this year in the Sea of Japan, using the deregistered ship "Kaya" (1500 ton) as actual target. In the May test the warhead was replaced by a telemeter equipped instrument in the missile used, which was launched from a modified T-2 high level trainer used by the Air Self Defense Force, and three such missiles were directed at the "Kaya." Starting with the accuracy of the guidance system, items such as the damage to the target and effectiveness against evasive measures that are indices of the missile performance and reliability were subjected to a severe check.

Based on the results of this first series of tests, the firing tests in June involved the use of missiles with actual warheads and were designed to test actual total performance, including target destructive force, and to serve as the final tests.

As the experimental personnel watched intently, the first XASM-1 missile fired from the experimental craft maintained a horizontal attitude as it dropped close to the sea surface and assumed a low altitude trajectory over the sea. It is the usual practice of sending anti-ship missiles on this low altitude course of the order of 10 m above the sea surface as they search and approach the target in order to avoid radar detection. The XASM-1 that had pursued such a low altitude path for several minutes and had come in close proximity to the target ship abruptly vibrated its nose upward and climbed sharply. This was the final flight maneuver called "pop up" that is designed to evade enemy fire while enhancing the power of the warhead. In the next instant the climbing missile described a shell trajectory as it made its way directly to a point about one-third from the stern of the target ship "Kaya" where the warhead exploded.

According to the comments of the observers at this test, the results of the firing test far exceeded expectations. "A missile that is in no way inferior to the American anti-ship missile "Harpoon" both in performance and reliability has been developed," and the technologists who had participated in the development were elated. According to the report from the observation ship positioned to examine the power of the actual firing test, it was stated that the "Kaya" which had begun to sink as a result of the direct hit by the first missile, capsized early in the morning of the 15th day, 2 days after the initial hit. As a result, the planned three firings to this round of tests was terminated by a "cease firing" after the first shot.

According to Sagao Uehara, chief of the Guilded Weapons Laboratory of the Equipment Bureau of the Defense Agency, the results of technical tests to date will be the basis for actual use by the defense troops this year for conducting various tests. Should these tests go in an expected manner, it is expected that this missile will become a formal weapon of the Air Self Defense Force next Japanese fiscal year.

As may be surmised from the emphatic statements of the developmental technologists that "this missile is not inferior compared to the American 'Harpoon'," there are foreign air-versus-ship missiles that are very similar in size, shape, and performance to this XASM-1 missile. The French "Egzose AM39" and the American "Harpoon" come under this category. Both of these ship-versus-ship missiles equipped with solid fuel boosters, and the version in which the booster is removed is used as the air-versus-ship missile (see special table on next page).

The basic features such as size, cruising speed, and guidance system of these three types are remarkably similar. Their external appearances also are very similar in that they have pencil shaped slim bodies from which emerge shark fin like forward wings at the center section and an after wing at the tail. The forward wing is used to stabilize the flight attitude, while the after wing is used for steering in an assembly that is very similar in all three missiles.

One major difference is the use of a turbojet engine on the American Harpoon making it a so-called "cruise missile." Now by what mechanisms does this air-versus-ship missile home in on its intended target?

The first step starts with the support fighter carrying this missile calculating the exact position of the target enemy ship. Since the target search and track radar installed aboard an F1 fighter plane has a range (discriminating distance) of about 100 km, the location and movements of any ship within this range can be readily established aboard this plane.

Delicate Guidance System of the Anti-Ship Missile

This target data then are loaded into the "inertial guidance device" loaded into the ASM-1 suspended under its wing and stored there. Here a small high performance digital computer is in operation which calculates instantaneously what direction and what distance the target is from the point of launch, what speed and direction the target is taking, and to what direction the missile should be guided in order to strike the target, and the flight direction of the missile is indicated. The third step is that in which the missile launched from aboard a plane follows the path of flight so indicated and approaches to within a few kilometers of the target guided by an inertial navigation method. Here the precision of the inertial guidance facility becomes a problem, and it must be able to guide the missile directly to the initially prescribed direction no matter what kind of crosswind is operating.

As mentioned before, this cruising flight by the inertial navigation method must be along a low altitude course about 10 m above the sea surface to avoid detection by enemy radar. To this end there is an electromagnetic wave altimeter installed within the missile that constantly transmits electromagnetic waves directed to the sea surface to measure altitude and make any adjustments while this horizontal flight continues. The guiding of this missile is accomplished through four steering tabs located on the after wing.

When the missile comes to within a few kilometers of the target (about 10 km in the case of "Egzose"), the guidance mode shifts from the first stage inertial guidance to the second stage active radar homing. This is step 4.

What is called active radar homing is a guidance mode in which a radar homing head installed on the forward end of the missile transmits radar waves in a forward direction, receives the waves reflected back from the target enemy ship, calculates the direction and distance to the intended target, adjusts the flight direction based on this information, and tracks the target. While this device has the feature of accurately tracking the target, it transmits radar waves and can thereby become a victim of radar waves transmitted by the enemy and other evasive tactics.

There are a number of counterproposals that have been advanced in order to overcome enemy interference and evasive tactics, and the fastest is to provide the enemy no time to calculate the position and direction of the missile in

the event it is detected by their radar. To this end the time of transmission of these radar waves is cut down to very short intervals and in a very intermittent manner in a method that has been devised and is being used in a number of active homing devices.

The final flight step of this missile is the quickly rising "pop up" course as the missile nears the target. Should by some long chance the radar be damaged at this stage, there is the advantage that once the pop up stage is entered, the missile follows a shell trajectory to home in on its target. This type of upward climb followed by a dive from a shallow angle is called the "shallow dive" mode, and this is a very effective approach to attack the nerve centers of the enemy ship such as the bridge or the control tower.

It was the aforementioned incident of the third Middle East War in 1967 that was the start of this earnest effort on the part of different countries to develop air-versus-ship missiles. Among the different countries, the French Navy was among the first to start development, and by 1972 it had already completed firing tests by the maker of the missile "Egzose," and the 1974 French naval firing tests attained the remarkably good record of 91 percent hits. These tests were the object of considerable interest on the part of other countries. In another direction, studies on the American missile Harpoon were initiated in 1968, and research was started in earnest in 1971 with Mac-Donnel Douglas Company being the prime contractor. Firing tests were begun in 1974, and a plan to set off at least 300 firings a year was started in fiscal year 1977.

In Japan the Fourth Defense Plan (1972-1976) research and development program included an "eyeball product" project in which development on the XASM-1 was started in Showa 48 (1973). A development fund of 10.9 billion yen was allotted along with 1.4 billion yen for firing test costs for a total of 12.3 billion yen. This was a large budget that did not take a back seat even to aircraft development. The party assigned the responsibility of conducting this development was Mitsubishi Heavy Industries, and a number of parts makers cooperated under the overall management of this prime contractor.

The development of the solid fuel rocket motor was assigned to Nissan Motor, which has the longest experience in the area of solid fuel rocket motor development. The development of the inertial guidance navigation facility, which is the first stage of this complex guidance system, was assigned to Nippon Aircraft Electronics, which has been involved in the production of inertial navigation equipment for aircraft, and the second stage active homing head was assigned to Mitsubishi Electric Corporation. The electromagnetic wave altimeter for enabling low altitude flight over the sea was consigned to Japan Radio, and the development of the warhead using high performance explosive was left to Daikin Industry.

Mitsubishi Heavy Industries was in charge of design of the missile main body, assembly, and flight tests along with the production of the equipment necessary to load this missile on the F1 fighter, and was also given the responsibility

of rounding out the complete XASM-1 system. The site that was to be the stage for this development was the Oye Plant of the Nagoya Aircraft Production Plant, which is the major aircraft production plant of Mitsubishi Heavy Industries.

How Does One Produce a Low Cost Weapon?

There is an industrial belt where exhaust gas from tank lorries and noise of large trailer trucks continue incessantly, located in the southern section of Nagoya. The Nagoya Aircraft Production Plant of Mitsubishi Heavy Industries is located in one corner of this industrial park.

The office reminds one of a town hall of a few generations back. Its external appearance still shows the burned out remnants of the "war." It is a far cry from the smart plants of the American space craft makers with their broad expanses of green.

As one enters the office building, one sees a display of models of the various airplanes produced by this company over the past half century at this Oye Plant. Mixed in with the F104 and F4 phantom fighters, both powered with jet engines, the domestically produced F1 support fighter, and the commercial MU2 multiple purpose plane, all produced under post war license, are models of famous planes of the past such as the "Zero" and the "Shinshitei," the low wing monoplane "Kamikaze" that linked Tokyo and London in 1937, and the twin engine "Nippon" that succeeded in making a world circumnavigation in 1939. In this manner, the long history of Japanese aircraft is displayed.

While there is no comparison alongside aircraft, there is also a missile display. There is the Nike J ground-versus-air missile which was license produced for the Air Self Defense Force, the domestically produced AAM1 that is a true facsimile of the air-versus-air Sidewinder missile, and the N rocket produced for the National Space Development Agency.

Within the 95 billion yen sales volume of the Nagoya Aircraft Production Plant for JFY 1977 the production of aircraft bodies accounted for 50 percent, and the 13 percent that was accounted for by space rocket and missile related items is no small fraction.

The Nagoya Aircraft Production Plant boasts that it is "the top maker in the air and space industry which it has maintained with an iron grip." We went to the main technology building of this plant, which is commonly referred to as "Nako," and directly made inquiries on the XASM-1 development and looked up the program areas from an on-site inquiry.

We spoke to department head Itsuo Masuda of the Second Technology Department which is in charge of new aircraft and missile development. This man has a background that includes design of the T2 and F1 as well as the engineering of aircraft engines developed here in the past. There is another person who served as design team leader for XASM-1 design and who was directly involved in missile development in the person of flight industry chief Yoshihisa Karino.

Looking at the development schedule, basic design and related experimental research were conducted between February 1973 to 1974, and test production of the constitutive parts was initiated in 1974 with all the aforementioned makers involved. The period between the middle of 1976 to 1979 was taken up by missile assembly and test production. In the interim, the simulated target test in which two firings were made was conducted at the sea area north of Wakasa Bay where the experimental warhead firing test was conducted previously in the latter part of 1977. Since then 12 additional firings were made between the summer of last year and March of this year, and valuable data were obtained.

There were two barriers that had to be overcome in this missile development. The first was the technological problem that involved performance, and the second was just how to minimize production cost, and it was a design versus cost relationship. As far as the technologists were concerned, the latter hurdle was by far the more difficult to negotiate.

There were a number of men among the ranks of the technologists who had experience in Nike production and domestic missile development, and a cruising type missile did not require very modern hardware. For example, the same type equipment used on airplanes could be used for the inertial guidance of the missile. So it was said.

The few problems that remained in this area were the effect of differences in sizes of the target vessels and just at what part of the ship to aim. Was the objective to sink a ship as in the case of a torpedo, or was it the mission to demolish the command and control nerve centers of the ship to blind its capabilities? In the course of establishing this level of attack, considerable time was taken up in the analysis of software. According to the Defense Agency side of the story, it was decided to work toward an attack aftermath that would damage the command system.

The second problem in the technology area is the adoption of a thorough "design concept which incorporates developmental capability in consideration of Japan's situation in which there is no opportunity for continuous development of new missiles such that there must be ways of introducing new technology so that the missile developed with so much effort does not become 'out of date' too quickly."

For example, it should be possible when a new homing device or new missile motor of high performance is developed that just this new part be installed into the missile in the modular concept that has been adopted. At the same time, there have been provisions made for the use of certain parts whose cost at the present time have prohibited their use but which may in time become available more readily. In addition, there are considerations introduced for continuity and developmentability of technology such as the installation of a booster enabling conversion to a missile which can be fired from the ground.

Department head Masuda emphasized rather tartly the effort at keeping cost low. He had reason for this behavior. This Nagoya Aircraft Technology Department succeeded several years ago in the development of a new type air-versus-air missile AAM2, but it lost in a price battle with the American-made "Sparrow," and he had the bitter experience of seeing this missile production eliminated as a result. "Japan's air and space industries, because they cannot go into mass production of weapons for export, have small volume of orders as a result of which they must depend on the Defense Agency for orders. In order that they can exist in this situation, they must be able to mobilize the superior technological development power of Japan and compete with the foreign weapon makers who have the advantage of mass production not only in performance but in price as well." This was the first major problem faced by department head Masuda when he set out on this XASM-1 development.

A technologist is concerned most of all with performance in the development of aircraft and missiles, and tends to overlook cost and development time factors. This is why he took in the "cost versus effect" concept and introduced cost as a parameter of the same level as performance into his calculations. Then the optimum combination was selected from a varying number of time, cost, and performance combinations. More specifically speaking, this involved choices such as "this part does not have to be machined too precisely. A metal plate can be used instead of machining down" were made in the production of each part in order to keep cost as low as possible. In order to achieve this situation, specialists in the finishing area had to be called in from the initial design stage to check the degree of finishing required of the various parts.

The results immediately reflected back to the anticipated mass production cost of the XASM-1. At the present time, it is estimated that a single missile will cost an average of about 100 million yen, assuming production of 500-600 milliles. When compared to the 140 to 170 million yen per missile required to produce the American Harpoon, which is already in mass production at the rate of 300 per year, this is a rather remarkable price. The Nagoya Aircraft Production people say "our final cost represents roughly a 20-30 percent reduction from the initial estimated cost as they talk about the "battle results" in this lowering of cost campaign

The 6 years of missile development had its peaks and troughs. The man who was in the top position of responsibility on-site and who took the nerve challenging role of directing the overall development was department head Masuda, who now displays a bright and relaxed exterior.

"It is very important in missile development that there be a balance when a number of systems are compiled into one overall system. We as the prime contractors had to be well acquainted with the inner workings of subsystems such as the homing device which the different vendors (equipment and parts makers) produced. This was because we had to exercise prime authority and

allot costs to these different makers. Fortunately, there was good cooperation on the part of the vendors and good direction by the Defense Agency Headquarters that enabled us to come up with a product we could be proud of, and we were able to make maximum implementation of this very infrequent chance at missile development."

There was a design team of more than 100 people at the height of this development period. The nucleus of this team consisted of young technologists close to age 30 who were the aircraft and electronics technologists. There were times when the cause of accidents could not be located, and people stayed overnight using simulators in reliability analysis. Now that the development is nearing its end, these people are gradually leaving the project just as an ebbing tide.

"Unless work is provided in essentially continuous manner, the development staff will rot away. When a specific development target is not established, the technological accumulation that was so carefully realized will fade away just as an improperly cared for treasure, and a stratum of people with no experience in development will be developed among the ranks of the technologists. This is what we are afraid of most." This was department head Karino's concurring statement. During the 2 blank years between the cutoff of the AAM2 development and the start of this XASM-1 project, there seems to have been a long period of "endurance" in which there were alternate periods of foraging and exasperation among the technologists.

At the present time, the missile development group at Nogoya Aircraft is expecting to receive work on a new development in the form of a long-range ground-versus-ship missile that is an extension of the XASM-1.

This is already an item of 870 million yen for technological research on "ground-versus-ship guided shell" for use by the Ground Self Defense Force in the 1979 budget framed by the Technology Research Headquarters of the Self Defense Agency. These plans propose the initiation of development in JFY 1982 and expect the project to be essentially completed in JFY 1985.

This is a missile intended to attack enemy ships along the coast from points about 100 km inland, and unlike missiles fired from airplanes, a booster will be installed to facilitate the ground launching. Since the range has to be more than 100 km, it is naturally expected that a small type jet engine will be used in place of the solid fuel rocket, and a truly cruise type missile will be born as far as systems are concerned.

Technology Development Can Only Depend on Defense Needs

"If we had at that time promoted domestic production of the PXL (next stage antisubmarine patrol craft) according to plans, there would have been no administrative scandal to cause great uproar, and there would now be domestically produced planes flying the skies over Japan." This is the bitter statement

of Keiji Uchino, who is presently the assistant chairman of the board of directors of the "Commercial Transport Plane Development Association" (the Japanese counterpart for the YX development) formerly of Kawasaki Heavy Industries, and who is considered one of the "three wise men" of the Japanese aircraft industrial world.

On the other hand, there was the indignant statement, "The position of Japan's aircraft industry is that of a fourth level country on a world wide basis and possibly only of a level with the developing countries" attributed to director Kengo Ikeda of Mitsubishi Heavy Industries, who is head of the Aircraft and Special Military Industries Headquarters. When one looks at the import-export balance in aircraft for the various countries, the United States, France, and the United Kingdom have export tipped balances, while Japan is aligned with the maximum importing countries of West Germany and Canada. Such being the case, one wonders when one hears of "the emergence to a knowledge gathering type industry." Headquarters head Ikeda said, "The United States is in a situation in which NASA (National Air and Space Administration) and the Defense Department have the feeling of being duty bound to nurture the space and aircraft industries and are putting vast sums into budgets to develop various new equipment and craft in joint manner. The Defense Agency, which is the topmost user in Japan, has no firm commitment to nurture Japan's aircraft industries, and in fact, it has passed over any such role to the Ministry of International Trade and Industry. In another direction, the Ministry of Transportation, which oversees the users of private planes, does not even direct any consideration to planning some joint development for passenger plane production in Japan. In view of this loose situation involving these ministries and this agency, the private sector does not feel motivated to engage in aircraft development with its high risks. While it is not too desirable to have the country as parent, in the final analysis, the Defense Agency has to assure the foundation for defense production and serve to lead technological development, and there is no other way."

Vice-Chairman Uchino, who manages the YX, had this to say about the future of the aircraft industry. "The development of commercial planes will probably all be under international development just as with the YX. On the other hand, the technology and facilities Japan possesses today will not allow Japan to assume the major authority in the case of joint development. The leading aircraft production companies including those of the United States, France, and the United Kingdom have a number of subcontracting companies for engines, equipment, parts, instruments, and tools which comprise a thick stratum, and these makers comprise a broad foothold for the aircraft industry. There is need for Japan to build itself up starting from a foundation of these foothill industries.

"On the other hand, the technology and knowhow that serve as this foundation cannot be developed through joint development in response to private demands. This is something that can only be developed by requests from the Defense Agency hierarchy. It is this government demand that must pull up the technological foundation through domestic development in response to private demands."

In relation to private and government demands, director Hachijojitsu Nishi of Shimadzu Seisakusho, which company has a direct contract with Boeing as maker of YX aircraft equipment and who is head of the Aircraft Production Equipment Industry Headquarters, said, "Safety predominates in the development of private planes, and newly developed parts and equipment cannot be used even though purchased. This is why it is a development that does not contribute greatly to reinforcing developmental strength. In contrast, the demands of the Defense Agency give room for recognition of independent improvisations and developments, and one begins to depend on its technological development capability. Even when such is the case, it is a problem in that research and development funds of the Defense Agency remain essentially out of the hands of the parts makers. There should be more funds allocated to the parts makers entirely separate from the aircraft body makers."

In this manner, he complained of the actual situation in which technological development on the parts makers side had to depend on the defense demands.

The Aircraft Industry Is Inferior to Even a Single Department Store

Now there are very few industries such as the aircraft industries of Japan in which the external appearance and inner workings are so different. It uses such leading material as carbon composites and technology such as super large integrated circuits in the realm of electronics at its beck and call, it has high employment absorbing capability, and it is an information gathering type industry and also a future industry. On the other hand, it is of very small scale as industries go, and it has very small influencing power.

Even looking at the annual production figures this industry did a business of a total of 280 billion yen in 1977, which was rather unexpectedly high. The industry is said to be of the same scale as the automobile industry, but comparisons, say, with the Mitsubishi Department Store sales of 460 billion yen reveal the very sad position of the aircraft industry.

"As is readily evident when one looks back at the Lockheed incident or the Grumman incident, the government administrators will meddle into imports of airplanes, but they will give no sign, not even a change in facial expression, that they are aware there is an industry that is involved in about 300 billion yen of business per year. There is another concern completely separate from this in that the government administrators are removing themselves further from this aircraft industry through their repeated distrusts of the aircrafts, and this gives us uneasy feelings." This is the type of self ridiculing statement made by an industry related person.

When one looks at the ratio of requests of the aircraft industry between the defense people and commercial sources (see figure), there is seen a major imbalance in that more than 90 percent of the industry's efforts go to fulfill defense demands. It is said that the military demand dependency in the leading countries of the West is between 60 and 70 percent, and here again one must regard Japan as belonging to the developing nation class. There was a temporary rise in the commercial area demands in 1968, and this was because of the domestic production and export of the YS11.

Last year the YX plan was started with the Boeing Company of the United States as an international joint development, and mass plane body production will be started next year by the three companies of Kawasaki Heavy Industries, Mitsubishi Heavy Industries, and Fuji Heavy Industries. The involvement of the Japanese industries will amount to approximately 800 million dollars or 160 billion yen.

Such being the case, the method for increasing production that has been left to the aircraft industry is to pursue even more projects involving production of commercial planes through joint development or to depend more heavily on the defense demands even though it will make the imbalance even more acute. It may be said that the former course is tied in with the concept of producing the next stage commercial transport plane (YXX, 120 passenger) that is being deliberated by the Aircraft and Machine Industry Council, which is the inquiry organ of the Ministry of International Trade and Industry.

The problem rests with the latter course, and the major fraction of the demands of the aircraft industry in defense related matters is the licensed production of the F15 fighter and the P3C antisubmarine patrol plane, whose production may continue for the next 10 years.

It is expected that demand for the F15 will total 100 plus 15 planes (15-16 plane production per year) while P3C production will total 45 planes (5-6 planes per year). Assembly operations will begin next year at the plant, but it is anticipated that familiarity with this production will be realized in 4 to 5 years which together with the production base being established, will mean that there will be an inverse reduction in the work volume and the number of operational steps.

Looking from this standpoint, in the final analysis, there is no other way but to consider the domestic production of defense aircraft as new development in order to increase the aircraft needs of the Defense Agency, which is the so-called "government needs." Not only that, if there should be any chance of exporting domestically produced airplanes overseas as is the case with the United States, France, West Germany, and the United Kingdom at the present time, the demand will increase still further. Should such come to pass, the name "country with status of a developing stage in aircraft production" as dubbed by department head Ikeda of Mitsubishi Heavy Industries can be revised.

Let us now place aircraft research and development involving the Defense Agency as a subject for later consideration and, first of all, consider the export problem of planes developed by such a program.

Weapons Export That Will Become a Future Subject

Near the end of 1975 President Koyoshi Yomoto of Kawasaki Heavy Industries (at that time) who also was president of the Japan Air and Space Industrial Association sent a statement of request to the government in which he asked that "the multiple purpose aircraft (US1), medium jet transport (C1), and the various helicopters be considered for export." These all were aircraft that had been developed with the Defense Agency in mind. This was the opening wedge for the request made to Prime Minister Miki and Minister Kawamoto of the Ministry of International Trade and Industry to relax the weapons export policy submitted by three key personnel of the industrial and financial world in the persons of President Shigeo Nagano of the Japan Chamber of Commerce and Industry, President Bunichiro Tanabe of Mitsubishi Corporation, and consultant Fumihiko Kawano of Mitsubishi Heavy Industries in the early days of 1976.

Some factors thought responsible for this development that come to mind are the following. 1) The post oil shock inflation depressed the equipment purchasing tempo of the Defense Agency, and the post Fourth State Defense weapons accumulation plan became clouded. 2) The domestic economic recovery was sluggish, and export became the only path to economic recovery. 3) There was a reassessment of plant export to the Middle East and oil import from the Middle East in which there was expressed a desire for obtaining weapons through the medium of barter as a result of which the thinking arose in the industrial and trade world that Japan should also enter this weapons export business.

Now this weapons export problem became a point of controversy in the Lower House Budget Committee meetings, and there was considerable criticism from various circles. As a result, Premier Miki acted as though pushed to the brink by the opposition and announced in February 1976 that not only would the "three laws on weapons export" of 1967 not be relaxed, but there would be further reinforcement through a statement on "concerning weapons export" in which he stated the government's unified reevaluation.

This result was completely opposite to the wish of the defense industrial world which had sought greater relaxation of weapons exports, and the result was as though one had ventured into the wilds and encountered a snake, but there was a voice that said, "Is this not the best policy when one considers Japan's national situation?" This was the statement of Noboru Hatayama, head of the Aircraft Weapons Department, Ministry of International Trade and Industry.

"It is a fact that there is a type of allergy against weapons export evident in Japan's constitution and its people's sentiments. This must be thought responsible for the government's reassessment attitude.

This is why restrictions to weapons export will continue as long as there is no drastic change in national opinion. There has recently been increasing sentiment for limiting weapons export in the Third World even at the United Nations, and Japan, which is an arms export restricting country, needs to voice its opinion more emphatically on the international stage. Japan is presently the target of criticisms from foreign sources because of its favorable trade balance, and is there any need to try to acquire more dollars through weapons export?" When the defense industries upper echelon heard this statement, they burst out in expletives.

At the present time, there seems to be some sort of concensus that has developed with regard to weapons export within the aircraft industry. This is something akin to wisdom acquired through long life in that even though the industry should struggle against national opinion, "it would be ineffective," and it seems to be on the verge of resignment. There is one type of terminal decision that to counter the unified view of the government and wave the flag for relaxation of weapons export will not draw any cheers.

In this respect there are, at the present time, no planes available for placing on a foreign market which buyers can take immediately, and this caused some uneasiness. Take, for example, the medium jet transport C1. There were inquiries about this plane from abroad, but these inquiries were ended with the statement "if it were at least 500 million yen cheaper." In this manner, it is said that the price barrier could not be breached. This is why one wonders whether any future export of military planes should not be resolved beforehand through consideration of the Japanese aircraft industry's ability to compete both in performance and in cost at the stage a decision is to be made whether to enter the international market.

Now a possible future reevaluation may be necessary if, for example, Japan enters into a joint development of military aircraft such as tactical transports, fighters, and helicopters, and Japan's weapons export restriction policy cannot help but be facing an entirely new situation. There is the example in which West Germany has a self imposed restriction on weapons export at the present time, but a German missile company formed a joint missile development company with outfits in France in which production took place mainly under West German management, while France was in charge of the sales end in order to enter trade in missiles. Should Japan engage in joint international cooperation, the problem will become even more complex, such as just how Japan's export restrictions would be tangled into this situation.

The weapons export problem was a subject recently discussed by Foreign Minister Sonoda after he had participated in the ASEAN (Southeast Asian Countries Alliance) Conference at the survey meeting on domestic and foreign situations. The foreign minister said, "the ASEAN countries are in trouble because they cannot purchase weapons from Japan. At the same time, China has said that it will buy tanks and rifles if only Japan is ready to sell."

During last year's special international conference on arms reduction, the Japanese government took up the problem of the export of ordinary arms directed at the Third World countries that is increasing each year and pointed out the importance of studying regulatory methods. This was done by none other than Foreign Minister Sonoda. To be sure, the foreign minister was not saying, "Should not Japan gradually be relaxing its weapons embargo policy?" On the other hand, this viewpoint is not in line with the tenor of the Japanese government's presentation to the United Arms Reduction Conference.

On the other hand, Yasunari Kikuchi, head of the Arms Reduction Department of the Foreign Ministry said that he could not confirm the contents of the foreign minister's statement and would not make any comment and had to decline. On the subject of import-export (transfer) of ordinary weapons, which is the item of controversy, he did not refute the view held by Americans that questions extreme involvement of Japan in this problem. What is meant here is that there is presently discussion between the United States and the Soviet Union on the transfer problem of ordinary weapons, and the United States does not want to receive too much flak from the Japanese until the goal of these negotiations is attained.

There are considerations that need to be directed to American policy as described above, and it appears that Kikuchi was taking the attitude that he would shun as much as possible any discussion on any detailed comment of the unified government evaluation such as on the countries to which weapons export is prohibited and the definition of weapons. There are very contrasting attitudes between this view and the systematized path for export restriction which the minister of international trade and industry followed based on the government's unified assessment.

The aircraft industry at the present time does not want to become too involved in the export of aircraft, and it does not even mention it. This is because the domestically developed planes are limited to the two products of the C1 and the higher level trainer T2 (support fighter F1), and the actual capability for military plane development in Japan is known most reliably by those tied in with the development.

Now when department head Masuda of Nagoya Aircraft came upon the scene as man in charge of missile development after having been in charge of the T2 and F1 development, it was because the F1 fighter development was the last, after which no development of fighter planes would take place.

"On the other hand, we are constantly exploring with our fingertips new needs (demands). We are carrying on out of the ordinary research and preparations to be able to cope with orders to build any type of airplane immediately," according to Masuda. "For example, if we should be ordered to produce a next generation light fighter plane, we have the determination to embark on the project even the very next day."

Two years ago, the second generation fighter plane for the Air Self Defense Force was assigned to the MacDonnell Douglas Company of the United States. The also-ran was the F16 light fighter, which was bid by Genreal Dynamics.

"At that time we had already designed and had in hand a light plane named the FXX. This latter is a type of airplane with performance and firepower much further advanced from the F16. If the Defense Agency by chance inclined toward the F16, we had been thinking of taking the FXX and making a comparison with the F16." This was a recollection by director Ikeda, man in charge of aircraft at Mitsubishi Heavy Industries.

It is said that the fighter of the future will be a combination "high-low mix" between a heavily equipped and high cost plane (F15) and a lightly equipped but low in cost fighter plane (F16). The FXX has engaged the F15 in several simulated dogfights using computers. The results showed that the FXX is not inferior to the F15 in the various aspects of aerial combat, but the large difference in firepower caused it to be shot down even before it entered into combat.

At the present time, it is said that Mitsubishi Heavy Industries has designed a next generation fighter plane even newer than the FXX which is already claimed to be undergoing wind tunnel tests. The designer must take into account what capabilities a fighter plane should have as given by the men who actually fly the planes, while preparing himself for making suitable technological proposals in determing what performance the fighter of the future should possess.

"Innovative technology in the United States has always arisen from Defense Department or NASA development. This is the kind of establishment of innovative technology we are expecting in the form of technology research and development by the Defense Department of Japan." These words from headquarters head Ikeda described just what the defense industry is comtemplating and anticipating.

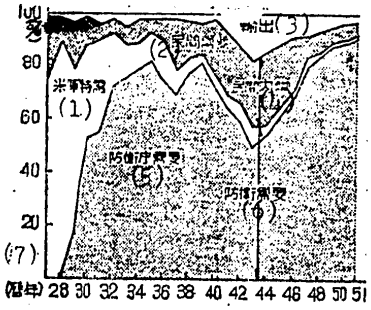
There seems to be another "takeoff" in the offing for the defense industry of Japan, which is equipped with the booster called technological development strength.

Comparison Between Specifications for Air-Versus-Ship Guided Missiles

	XASM-1(日)(1)	エグゾセAM39(仏)(2)	ハープーン(米)(3)
(4) 全長	4 m	4.69m	3.84m
(5) 胴径	35cm	35cm	34cm
(6) 重量	600kg	650kg	522kg
(7) 巡航速度	(8) 亜音速	(9) マッハ 0.93	(8) 亜音速
(10) 射程	(11) 数十km	50km	(12) 90km以上
(13) 推進方式	固体ロケットモーター(14)	(15) 同左	ターボジェット巡航エンジン(16)
(17) 誘導方式	慣性誘導とアクティブ・レーダー・ホーミングとの複合誘導(18)	同左(15)	同左(15)

Key:
1. XASM-1 (Japan)
2. Egzose (France)
3. Harpoon (USA)
4. overall length
5. body diameter
6. weight
7. cruising speed
8. subsonic
9. Mach 0.93
10. range
11. several dozen km
12. more than 90 km
13. thrust mode
14. solid fuel rocket motor
15. same as 14.
16. turbojet cruise engine
17. guidance mode
18. inertial guidance and active radar homing device type double guidance

Ratio of Aircraft Industry's Business According to Demand



Key:
1. American army needs
2. commercial needs
3. export
4. domestic commercial needs
5. Defense Agency needs
6. defense needs
7. year

Research, Development Budget Low

Tokyo ASAHI JANARU in Japanese 3 Aug 79 pp 17-20

[Interview by ASAHI SHIMBUN editor Shoji Takase with Tetsuya Senga, executive director of Japan Federation of Economic Organization: "Business Leader Urges Independent Weapons R and D"]

> [Text] This is a weird age. Take weapons export for example. The concerned parties in the defense industry seem to have lost their strong spirits and recently have been mouthing nothing but repressed statements. On the other hand, the emissary of Japanese peace negotiations, the foreign minister, has taken a complete turn in assuming a pose of favoring arms export to China and Southeast Asia.
>
> Now why has such a turn in events actually started? We went directly to the watchdog of the industry in the person of Tetsuya Senga, executive director of the Japan Federation of Economic Organizations to discuss the new problems the defense industry is facing. (Editorial Department)

--Where the defense industry is concerned, it underwent a so-called "honeymoon period" of a favorable industrial atmosphere during the Third Stage Defense (1967-1971) when a number of large type projects of national development took place. In the succeeding Fourth Stage Defense (1972-1976) and the oil shock era followed by the post Fourth Stage Defense period, those areas that had been depending on defense production saw their foundations sink lower year by year. Is that not the situation?

Senga: Looking at 1972, that was the first year of the Fourth Stage Defense and leaving aside the scale of the budget, the fiscal disbursements in the defense budget; facility costs, cost plus research and development projects, and cost plus facilities and equipment costs; were of the order of 30 percent. This ratio began to fall even more with the advent of the oil shock, which caused abnormal increase in prices. Headed by manpower costs which went up by close to 30 percent, running disbursements went up enormously, as a result of which capital disbursements cracked 20 percent in 1976. Frankly speaking, this was a terrible situation for the industry. This is why we were overcome with a feeling of uneasiness and peril should this trend continue as to just what would happen to defense production.

At the present time, at the terminal stage of the Fourth Stage Defense we are in a state where there is a mountain of plans for ships, airplanes, land based firepower, and tanks, and the planned attainment rate for this Fourth

Stage Defense was between 60 and 70 percent. If such a situation is allowed to continue, the Self Defense Force faces the danger of having to degrade into bamboo spear wielding units. As long as national concensus approves the presence of a self defense organization--opinion surveys indicate 80 percent of the people feel the necessity for a self defense force--there is need to put the brakes on this trend, and we made a request to the government to aim for a goal of raising capital disbursements for defense funds up to 25 percent immediately.

Furthermore, even with regard to the fraction of defense costs in proportion to the GNP (gross national product), Premier Miki stated at the final national defense conference of 1975 that this ratio was set at 1 percent or less of the GNP. Since he stated 1 percent or less, I would like to say that can we expect it can go as high as 1 percent. Since this figure is about 0.9 percent at the present time, this would mean an increase of 0.1 percent. Even 0.1 percent would mean 200 billion yen when calculated on the basis of GNP.

Raising capital disbursements in the defense budget to 25 percent and increasing the ratio of defense costs to 1 percent of the GNP, the inclusion of both of these items in a package situation is what we are aiming for.

Giving some specific figures, the fraction of capital disbursements for defense costs is 22.6 percent in the JFY 1979 budget. Since this ratio was 20.5 percent in the previous year of 1978, this means an increase of 2 percent. There is one fly in the ointment here. The limiting age for self defense officers was raised from 55 to 58, so that there was a reduction in the retirement funds disbursed (laughter), and there was a stabilization in prices.

Allot 2 Percent of Defense Budget to Research and Development Costs

--Specifically speaking, requests for what kind of facilities should be requested in order to attain such an objective.

Senga: For example, F15 and P3C are produced by the aircraft industry, even though by licensed production. At the same time, budgets are being drawn up for the post-Hawk ground-versus-air missile. In addition, there are the modernization of the AAM (air-versus-air missile) Sparrow or the advancement in domestic production of short SAM (ground-versus-air missile).

Another item is the modernization of radar sites which is the problem of modernizing the electronic information system through the renovation of the Badge system (semiautomated air defense alert control system). Finally, there is the reinforcement of naval ships. Speaking in terms of tons, ship construction that has been of the order of 10,000 tons per year will be increased to 15,000 tons in our expectations. This should be raised to 20,000 tons. These will be required to defend the 200 nautical sea miles

economic ocean area and to give a depth reinforcement to the defense systems of the three straits that face the Sea of Japan, and these are the directions on which emphasis will be taken.

--Licensed production of the F15 and the P3C is not objectionable, but the aircraft makers claim that the disappearance of domestic plane projects following the domestic production of the F1 support fighter and the C1 transport under the Third Stage Defense has become a major problem. If domestic production of the Fourth Stage Defense PXL (next generation anti-submarine patrol plane) had proceeded according to plan at that time, these planes would presently be flying the skies over Japan, according to their lamenting statements.

Senga: To be sure the PXL has gone into licensed production because of this chain of events, and the AEW (early warning plane) has been dropped from domestic production. In other words, plans related to equipping became twisted as the result of administrative factors and have been postponed for further action.

--Haven't the large projects under the Fourth Stage Defense research and development been canceled and the ratio of research and development funds allocated to the defense budget not decreased ever since the Fourth Stage Defense Plan?

Senga: That is so. Since that time, research and development funds as far as budget is concerned have been lowered way down to 1 percent of the defense budget. There is no other country in the world in such a situation. The fraction of the American defense funds taken up by research and development is close to 7 percent, and even Germany allots more than 5 percent. France is even higher being close to 10 percent. Japan has but a mere 1 percent. This is why we have set up another target aiming for an increase in research and development funds of 2 percent of the defense budget within the next 5 years.

Speaking about just what research and development involves, the most important item is basic research, and there is a theme titled "propositional research" that has been submitted in the JFY 1979 budget.

There are three items in propositional research, and one of these is CCV. This is research to improve operational performance of supersonic planes. The next is a portable SAM (ground-versus-air missile). The final item is laser radar which uses laser in place of electromagnetic waves. These are he three items that have been introduced.

Now what other new propositional researches are in the offing from here on? I feel that there should be at least three or four such items, including elctronics and lasers.

There is the missile bearing high speed boats in the area of ships. This is something that has to appear eventually as a single system. Then there are new type torpedoes. At the same time, a fruitful propositional research is in the area of powders.

The Ministry of Finance insists that once the Defense Agency has completed research and development, mass production should be started at once, and this is why research and development is not well regarded. This is why we explain to the Ministry of Finance that we do not intend to enter into immediate provisioning, but that technology of this type is indispensible to the future purely defense equipping system. When one looks at this situation from a long-term viewpoint, we will go along with provisioning, but we have also provided a leeway of at least 5 years and as much as 10 years.

Export of Weapons "Technology" to China

--Does the Ministry of Finance comprehend this targeted 2 percent for research and development costs?

Senga: We had many discussions with the Ministry of Finance in drawing up the JFY 1979 budget, and we feel that we were able to achieve some degree of comprehension in considering research and development in a better light compared to before. They asked what do you mean considering research and development costs as ordinary running costs? When we told even the finance minister in rather terse terms that if you say that Japan is to convert to a production structure to make it a leading technological country and to an information gathering industrial state, you have to put your money in this direction. Putting money into research and development is based on such a concept. This resulted in a somewhat more forward looking attitude on the part of the finance minister. To be sure, we are still at the stage of just having knocked on the door, but we intend to push on relentlessly from here on.

--I heard that with the disappointments encountered in defense production expectations according to the Fourth Stage Defense along about 1976 international joint development of weapons became a popular subject, and there even had been some inquiries from Europe. What has been the story since then?

Senga: As you well know, Japan cannot export weapons. Such being the case, the main point is evident. The problem here is just how much of the superior foreign technology we import. The American Department of Defense has become very strict recently, and we cannot import anything too crucial. Even when we enter into licensed production, the important thing is the black box, and we have to look inside and see for ourselves. This situation has become much more critical than in the past.

When it comes to a stage in which technology introduction cannot be realized in a simple manner, the first thing Japan has to do is to increase its basic fundamental technology and develop a leading technology of its own.

If we do not establish an autonomous technology of this type, we will not be able to face an adversary with the confidence that he will have to import this from us, this is something that we can make ourselves, or improvements along this line would be desirable in case import is comtemplated.

--On 10 July, Foreign Minister Sonoda spoke at the Foreign and Domestic Situation Survey and stated that there had been requests from the ASEAN (Southeast Asian Alliance) and China whether Japan would export some of its weapons. Is that a fact?

Senga: It is a fact.

--When Foreign Minister Sonoda made such a statement, did he have some specific reason?

Senga: I am in the dark as to why he made such a statement.

--Do you have any thoughts on allowing a little more latitude in the weapons export problem?

Senga: Before we come to that, could we ask for a little more latitude on weapons that do not slaughter.

--According to the unified outlook of the government with regard to weapons export, there is the statement "anything that can be directly used in battle." Would this not cover a myriad of categories?

Senga: This is all inclusive. Even a jeep becomes a lethal weapon if a machine gun is mounted. This is the problem. Would an ordinary jeep suffice?

When the Foreign Ministry is concerned, it is more strongly concerned with foreign requests. This is very evident even in the case of China. This is why we say that if we stay away from hardware in the area of military supplies but turn to export of software in the form of technology, this type of export should be possible to China in some form or other. On the other hand, it is possible that export of technology to Southeast Asia may not be assimilateable. We feel that China will be able to assimilate this software, and should we not at least try it? This is a very interesting situation.

--Is there considerable volition on the Japanese side for export of technology to China?

Senga: China is planning to have the United States launch a broadcast satellite for them in the near future, and Japanese technology may become necessary for the reception facilities and computers. This is why it may be said that there will be a number of areas that will be opening up from here on.

--Such being the case, can you say that the framework of weapons export limitations of the Ministry of International Trade and Industry can remain unchanged?

Senga: This is why we must first study just what can be done within the limits before any change is made, and this is what we intend to do. To be sure, I am of the feeling that export of hardware is still out of the question.

Development Should Be Aimed at High Quality Products Rather Than Mass Production

--Along about the end of 1975 the Japan Air and Space Industrial Association and financial people such as President Shigeo Mizuno of the Japan Chamber of Commerce were beating the drums for relaxing the three laws on weapons export presently on the books, but the net result was that Parliament in February 1976 accepted the government's unified outlook, and the laws became even stricter than before.

Senga: This was truly a snake in the grass, and it was just like awaking a sleeping child.

I have been against weapons export for some time now.

--You did not seem that way around the end of 1975.

Senga: No, I had given my opinion to newspapers and magazines long before that time. This was because it raises a question of the attitude of Japan's defense only concept and it was contrary to the constitution.

Another item here is that weapons are administrative products. Its status differs from truly ordinary private use intended products such as televisions, electric washing machines, or automobiles. When I say administrative product, I mean that a number of factors of administrative nature in various senses enter the picture. This is why export is bad. The country in question may say its imports will be used solely for defense, but there can be change in authority which can lead to unknown uses of these weapons. The problem arises in that any change can result in misdirected use.

--In this sense, does this mean that one proceeds from the outset with the premise that domestic mass production is difficult?

Senga: That is so. I would want to say to produce intense and high level technology in its place. What I intend to say is that there is a spinoff effect in the form of technology level-up, and fields of application will also appear. This is why I feel that somewhat greater cost can be rationalized.

--The government has introduced a goal of raising taxes including general consumption taxes. This indicates the increasing severity in reassessing fiscal disbursements, and have there not been critical comments on the rise in cost of domestically produced weapons?

Senga: Countries such as the United States put out vast sums for research and development, and they can amortize these at the mass production stage. This is not possible in Japan, as a result of which research and development costs run higher when seen from an overall viewpoint. On the other hand, Japan shows much lower cost when the absolute cost of research and development is considered.

I feel that we can produce to the stage that the United States will inquire whether it is possible that we can produce so cheaply. This is why I would like to say that research and development costs must be considered under a special accounting. If this is done, the very low cost of Japan's research and development can be demonstrated very clearly.

In any event, we have entered an era in which we must strive on our own to raise our technology development level so that we can best the United States in the future. The United States no longer exports any of its leading technology to Japan. Should we wish to purchase such products, we cannot help but accept their terms. These problems will appear. Thus is why I say that nurturing research and development strength is most important at the present time.

2267
CSO: 4105

ECONOMIC

'ASAHI' URGES REDUCTION IN BUDGET SIZE FOR FISCAL 1980

Tokyo ASAHI EVENING NEWS in English 15 Sep 79 p 2 OW

[Editorial in ASAHI SHIMBUN, 13 September: "Fiscal 1980 Budget"]

[Text] The work of compiling the budget for fiscal 1980 is now at the stage in which finance ministry officials are receiving explanations for the requests made by the ministries and agencies last month. The finance ministry authorities will then assess these demands. We propose that the authorities first decide on a general framework for the budget.

According to Finance Minister Ippei Kaneko's report to a cabinet meeting on Tuesday, the general account demands total more than $43.9 trillion, showing a 13.7 percent increase over the original budget for the current fiscal year. The amount demanded for government investment and loans indicates a rise of 41.0 percent over the program for the current fiscal year. These rates of increase are the lowest ever.

This can be taken as the emergence of an atmosphere of austerity with the severe financial situation being felt by all the government offices. However, to extricate itself from its dependence on a huge volume of national bonds and to take a sure step toward rebuilding state finances, the government must reduce the size of the budget even more.

To do so, the government must rectify its customary practice of deciding on the scale of the budget after accumulating the factors for expenditures and of issuing national bonds to make up for revenue shortages. On the revenue side, it is necessary for the government to make a switch to the practice of compiling the budget based on the amount of money available.

Even if the proposed general excise tax is introduced next fiscal year, tax revenues for the initial year will not amount to much taxes resulting from the rectification of the unfair taxation system can naturally be appropriated in the budget as revenue, but increased issuance of national bonds should be avoided. Rather, a reduction of these bonds is necessary. Prime Minister Ohira has announced that priority would be given in using tax revenues from natural increases to cut down on the volume of national bonds.

From the standpoint of such restrictions on revenues, in compiling the budget for next fiscal year, the maximum amount available should be announced first and expenditures be set within that limit. If this is done, it will not be easy to appropriate the funds for new policies in the budget unless progress is made in the slashing of existing expenses.

In compiling the budget for the current fiscal year, the finance ministry authorities made "scraping down to the bone" their watchword, this time, going a step further, they are said going to "rake out even the bone marrow." Although they should be lauded for showing such ardor, there will be no progress if they only chant such phrases like prayers. To make a deep probe into the mechanism of expenditures which has swollen on the basis of abundant tax revenues resulting from natural increases during the age of high economic growth, the start-from-scratch principle--reviewing the need for all the expenditures and distributing the funds in accordance with the order of priority of the policies--is ideal. Yet, when it comes to the introduction of this principle, vast data will be needed and a considerable period of time will be required for making preparations.

If such is the case, in the compilation of the budget for next fiscal year, the second best step is to conduct a check of each expense from the standpoint of the above-mentioned principle. Naturally, some organizations are expected to vigorously oppose the use of the scalpel on systems and practices that have turned into vested rights. The setting beforehand of the budget framework may help to curb such resistance.

The reviewing of government expenditures is attended by many problems concerning subsidies. We would like to know why the authorities do not discontinue granting subsidies to the organization that is promoting the new life movement of doing away with formalities and to projects for improvement of the life of farmers. If they cannot conduct such cutbacks on the ground that these are negligible in amount, how can they deal with such major issues as the 3Ks ("kokutetsu"--the Japanese national railways; "kome"--rice; and "kenpo"--health insurance)?

We would like the authorities to take resolute steps with regard to administrative reform. In Fukuoka City, Kyushu, last month, Premier Ohira talked about "a reform that reaches the bones after cutting away the flesh," giving the impression of having changed his former negative posture. However, the only thing worthy of note in the policy speech he delivered to the extraordinary DIET session was that the program of reducing the fixed number of government employees would be worked out again and that their reassignment would be promoted.

This would merely be like slicing a little bit of the skin. It is hardly cutting to the bone. Now is the time for the government to perform such a drastic surgery as the abolition of special corporations, including the Japan Railway Construction Corp. whose improper accounting practices have been exposed.

CSO: 4120

ECONOMIC

GOVERNMENT APPROVES STATE-RUN FIRM TO STOCKPILE OIL

Tokyo MAINICHI DAILY NEWS in English 14 Sep 79 p 5 OW

[Text] A plan for the nation's first state-run oil stockpile company has been given the go-ahead. The volume of the contemplated stockpiles will be on the largest scale in Japan to date, and one of the aims will be to stimulate the local economy, a government source disclosed Thursday.

The company planned by the Japan Petroleum Corporation is an oil reserve firm in the Mutsu-Ogaware area, Aomori Prefecture, Northern Honshu, which will go into operation in the spring of 1983 with 51 tanks, each to contain 5.6 million kiloliters of oil.

The total construction cost is estimated at up to 1135 billion yen. The oil base covering an area of 250 hectares will be primarily controlled by the Semi-Governmental Public Corporation.

Several private oil refineries will, however, share part of the capital totaling 10 billion yen.

The Mutsu-Ogaware oil reservoir will be the first of four projects mapped out by the Ministry of International Trade and Industry in line with the strategy to promote state-led oil stockpile projects.

The project is expected to give impetus to the local economy in the district whose activities have remained sluggish since the 1973 oil crunch and the subsequent recession.

The Japan Petroleum Corporation initially intended to control the oil base singlehandedly. But because of problems stemming from the government policy not to increase public corporation's total employees, it has decided to ask private companies to join it.

Inauguration of the company is planned on 20 December.

CSO: 4120

ECONOMIC

OIL PRICES TO INCREASE SUPPLY FREED

Tokyo THE DAILY YOMIURI in English 22 Aug 79 p 2 OW

[Excerpt] The International Trade and Industry Ministry (MITI) has decided to stop administratively intervening in the prices of domestic oil products and advising the industry not to buy crude oil at high prices in a bid to increase the supply of crude oil to Japan by letting market forces work.

The ministry's decision is expected to force households to practice economy because the more oil they use the more they will have to pay.

MITI has concluded that its continued intervention in the prices of domestic oil products would produce many adverse effects, damaging the domestic market function and supply and demand pattern.

The ministry also thinks that continued intervention would also impede the stable supply of oil, the structural switchover to energy-saving industries, the spread of frugality among the spread of frugality among the people and the development of alternative energy sources.

The government continued to give virtual administrative guidance to domestic oil companies to cope with the oil crisis triggered by the revolution in Iran to ease the upswing of international prices of crude oil.

It instructed oil companies to refrain from buying crude oil at high prices and to peg the prices of kerosene for home use.

But the restrictions on the purchase of crude oil at high prices acted to check an increase in the imports of crude oil.

The imports of crude oil to Japan during the year were almost the same as the corresponding period last year, and the imports during the April-June period showed an increase of only a little more than three percent over the same period last year.

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ECONOMIC

OFFSHORE OIL SOURCES TAPPED TO MEET NEEDS

Tokyo MAINICHI DAILY NEWS in English 8 Sep 79 p 7 OW

[Text] Japan is going to press ahead with an ambitious five-year plan to bring up oil and gas believed deposited offshore.

An organization named Nihon Kaiyo Sekiyu Shigen Kaihatsu (Japan Ocean Petroleum Resources Department) Company will take charge of the project with a total cost of about 200 billion yen.

Its goal over the five years starting in fiscal 1980 is to find wells producing about 96 million kiloliters of crude oil and natural gas.

The amount, if found, would still be a drop in the bucket, considering Japan's annual oil consumption alone totals nearly 300 million kiloliters.

Success, however, would affirm Japan's determination to reduce its dependence on imported oil for energy. Japan relies on oil for most of its fuel needs and 99.7 percent of its oil comes from overseas.

This country produces only 0.3 percent of its crude oil domestically. Success in the project, due to get underway next year, would bring this up to 1 percent, meaning a little less dependence on imported oil.

Japan has proposed to China that the two nations jointly develop continental shelf oil in the waters of Senkaku, an island group north of Taiwan claimed by both the Beijing and Tokyo governments.

It may take time before this scheme is actually put into effect, since Taiwan also claims ownership of the uninhabited island group.

The planned oil and gas development program will be launched on the basis of a recommendation made in July by a panel advising the Ministry of International Trade and Industry.

This panel, the development section of the oil deliberation council, believes there are about 370,000 square kilometers of basin suitable for oil and gas exploration in the continental shelf surrounding Japan.

It is not known yet where the project will actually get underway. But the Japan Ocean Petroleum Resources Development Company has successfully developed oil and gas in an offshore well in the Japan Sea off Niigata Prefecture.

The well is about 11 kilometers in the Japan Sea off the mouth of the Agano River in Niigata Prefecture. It produces 260 kiloliters of crude oil and 1.35 million cubic meters of natural gas daily.

The company also found a deposit off the northern island of Hokkaido last February. If all goes well, that well will go into full production operation six years from now.

The company is aiming at oil drilling exploration somewhere in the Japan Sea, about 5,000 meters below the surface of the water.

Officials concerned believe the project will be worth putting into practice in view of the oil crisis triggered in 1973 and also in the wake of the era of $20-per-barrel crude oil.

They said domestically produced oil has a low sulfur content and is of light quality suitable for production of gasoline. The natural gas produced is said to be clean energy.

Japanese oil industry sources say that about 1.3 billion kiloliters of oil and gas may be exploitable in the sea regions surrounding Japan, although they don't say whether this has been scientifically substantiated.

Some officials, meantime, said that a future Japanese oil development project that is likely to pay off is the continental shelf in the Senkaku Island area.

The area being considered is a 200,000 square kilometer Okinawa-East China Sea region.

The United Nations Commission for Asia and the Far East (ECAFE), a predecessor of the UN Economic and Social Commission for Asia and the Pacific, reported in 1968 that "there is a strong possibility of oil and natural gas deposits in this region."

It is said to be the only single area where as much as 800 million kiloliters of oil may be found, according to officials.

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SCIENCE AND TECHNOLOGY

MITI TO START LARGE SCALE MANGANESE NODULE R&D PROJECT

Tokyo NIKKAN KOGYO SHIMBUN in Japanese 2 Aug 79 p 1

[Text] On 1 August the MITI (Ministry of International Trade and Industry) Agency of Natural Resources and Energy decided on a mining system for manganese nodules lodged in the ocean depths as the theme of the Science and Technology Agency's large scale 7 year project (starting date --1980). It has firmed up its intention to embark on research and development of the said system and has begun the final intra-ministry coordination effort. The Western developed nations are moving toward the development of manganese deposits by forming international consortia (cartels). Manganese nodule development is the focal point of international oceanic resources development in the future, even among the developing nations. Thus, the MITI decided that Japan, too, must establish an independent mining system. Accordingly the plan will extend over the next 7 years (a period ending in 1986) during which time 20 billion yen will be poured into research and development. The research/development will focus on collection and hauling systems, hauling duct facility, deep water equipment control, underwater equipment handling system for the two [established] mining techniques--air lift method and pump suction method. And based on the results thus obtained, Japan will move toward commercialization of manganese nodules by 1990 and thereby stabilize and guarantee the metal resource supply.

Commercialization by 1990

Manganese nodules scattered in the ocean depths generally contain nickel, copper, cobalt as well as the chief component, manganese. The estimated size of the deposit is said to be close to 1 trillion 700 billion tons. Development of the deposit has been the topic of debate at the United Nations Oceanic Conferences; and it is the most important international topic in the oceanic resources development sector.

Since 1974 the Agency of Industrial Science and Technology, Environmental Protection/Natural Resources Research Laboratory has been conducting research on mining technology centered around the air lift method. At the same time, using geological survey ship "Shiramine maru" owned by the Metallurgical Mining Corporation, the Society for Ocean Floor Mineral Resources Development (Chairman: Kenjiro Kawakami)--a civilian body--has been consigned the task of conducting exploratory activities on behalf of Japan in waters south of Hawaii. In addition, in May of next year, "Second Shiramine maru"--a manganese nodule survey ship--is scheduled to be commissioned and the Japanese exploratory activities are expected to get fully under way.

But as the nodules are found in the ocean depths of about 5,000 meters, actual mining operation will involve technical difficulties. Therefore the Agency of Natural Resources and Energy has decided that along with exploratory research, a state funded research development of mining system based on a long-term plan is necessary; and it has resolved to take the existing mining system research one step further and decided to make it the Agency of Industrial Science and Technology's large scale project theme. Speedy intra-ministerial coordination is being sought.

The plan's time table is as follows: The basic policy and design for the said system will be constructed during the first year. From 1981 to 1984 total system or partial system research will be implemented. During 1985 and 1986 maritime testing phase will begin and thereafter, technological evaluation will be made. Spending of approximately 20 billion yen over the 7-year period is anticipated for this project. The initial year's budget is thought to be about 50 million yen.

In concrete terms the research/development will focus on two mining systems: air lift method and pump suction method. In both instances, a long pipe is lowered to the ocean bottom with collection equipment attached to its end, and manganese nodules are pumped up (haul mining) thereby. In the case of the air lift method, compressed air is injected midway in the pipe and its rising force is employed in the pumping up operation. The pump suction method employs a pump midway in the pipe and manganese nodules are sucked up along with sea water. Within the framework of these methods, research/development for high efficiency collection system, hauling system, hauling pipe equipment (pipe and connectors) will be conducted.

In thus establishing an independence Japanese technology the Agency of Natural Resources and Energy is seeking to consolidate a manganese deposit development format in order to stabilize the supply of nonferrous metal resources, land supply of which is gradually diminishing. The agency also holds that the establishment of an independent technology will have great significance relative to international cooperative efforts in the development of oceanic resources in the future.

Note: [Excerpt] Currently on the international scene, there are four international consortia--INCO, KENECOT [transliterations], U. S. Steel, Lockheed--and two groups involved in developing manganese nodules. Japan is a participant in INCO and KENECOT consortia.

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SCIENCE AND TECHNOLOGY

BRIEFS

SRC-II JOINT VENTURE--According to a source, a nonpublic meeting will be held on 13 and 14 September in the United States to be attended by representatives of Gulf Oil, Ruhr Khole, Mitsui Mining, and Japan's Agency of Natural Resources and Energy [ANRE], MITI. Topics to be taken up will be organization of the joint venture and patent matters. A proposal is being studied for a subsidiary to be set up by Gulf, Ruhr Khole, and Mitsui Mining--one parent company in each country--but as two additional Mitsui companies have tie-ups with Gulf on the SRC-II process, the proper form of Mitsui group participation is still open to debate. Japanese oil, electric power, coal, and other companies are seeking a piece of the action, and apart from this negotiations on patent management, royalties, and patent use are not going smoothly. Further, the allocation of government and private funding is yet to be decided. After discussion of these problems at the meeting, a proposal will be drafted and presented to the Japanese SRC-II Policy Committee, chaired by the ANRE Coal Department chief, at the end of September. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 12 Sep 79 p 7]

AUTO PATENT STRATEGY--Patent and utility model applications by Toyota and Nissan Motor have soared over the past 2 years, and suspicions are that the Japanese auto industry will use industrial property litigation to entangle U.S. and European firms and disadvantage them in the small car competition. Nissan's 1,000 patent applications in 1978 was double its 500 in 1977, and January-June 1979 applications totaled 690, well ahead of Toyota's 430. Toyota's utility model applications more than compensated and gave it the lead in combined figures, with each company's combined total figure topping 1,500 for January-June 1979. Toyota's current application rate is 3.5-fold its 10-year average for patents and 10-fold its 10-year average for utility models. The increase in Nissan applications is smaller but still dramatic. Toyo Kogyo, Mitsubishi Motors, and Isuzu patents are up, though nowhere near as dramatically, and Honda's applications are momentarily down but expected to pick up shortly. Toyota is giving first priority in investment to new technology research and new product development, so continuation of the "patent offensive" seems to be shaping up. Many of the applications are for new technology that at first glance appears worthless, but are being filed as a defensive move. [Tokyo NIKKEI SANGYO SHIMBUM in Japanese 8 Sep 79 p 1]

MITSUBISHI DIESEL CAR--Mitsubishi Motors is reportedly investing 1.3 billion yen for equipment to make diesel engine cylinder heads, cam shafts, and such and will add equipment on hand to set up a diesel engine line at its Tokyo plant. Noise and vibration have reportedly been brought down on line with that of gasoline engines, and Mitsubishi intends to use fuel-saving diesels to capture a larger market share. The engine will go into the Gallant Sigma and is expected to be in the 2,000 cc class. Estimates are that initial production will be 1,000 per month. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 11 Sep 79 p 9]

HYDROGEN AUTOMOBILE--Professor Furuhama of Musashi Institute of Technology has started development of Musashi No 4. The goal is a 1100-cc two-cycle hydrogen-fueled engine of over 70 horsepower, heat efficiency 15 to 30 percent better than an equivalent gasoline engine, NOx emissions on par with that of a gasoline engine, and no CO, CO_2, or hydrocarbon emissions, fueled from an 80-liter hydrogen tank that will fit in the car's luggage compartment. Major research topics include the fuel tank, an improved fuel pump, and the fuel injection method. Professor Furuhama intends to present a paper on results of these current efforts at the "International Hydrogen Energy Conference" to be held in Japan in June 1980. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 31 Aug 79 p 5]

NEW FUEL CELL--The Agency of Industrial Science and Technology Electrotechnical Lab has developed a Zirconia (zirconium oxide) fuel cell that in tests generated 12 watts and operated continuously for 50 hours. The fuel cell is a stack type, with 12 fuel elements inserted in a basic cell tube 70 cm in length. Manufacturing technology for the fuel cell is adjudged established, as existing manufacturing methods are suitable for the greater length and capacity. Development of an 8-stack fuel cell system with an output of about 100 watts by mid-1980 is planned. This will be a major step toward the goal of a 5 to 10 KW fuel cell. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 23 Aug 79 p 5]

ZIRCONIA TOOL--The Nagova Government Industrial Research Institute and Nippon Kagaku Togyo have developed a tough, high density sintered zirconia cutting tool (patent applied for). A solid solution of 99.9 percent pure zirconia powder and 3.5 mol percent yttria power at room temperature is formed in a metal mold and sintered in an electric furnace at 1,500°C. Tool bending strength is 80 kg/mm^2, specific gravity 6, crystal grain diameter about 1 micron, and durability (flank wear) almost equal to that for sintered diamond. Since forming and sintering are accomplished in conventional fashion, the cost is low, and the tool is suitable for aluminum alloys and such. Due to poor heat transmission, the zirconia tool is not suitable for cast iron. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 11 Sep 79 p 5]

NEW ALUMINUM COMPOSITE--Tokushu Muki Zairyo Kenkyujo [Specialty Inorganic Materials Lab] has developed an SiC fiber reinformed aluminum composite with tensile strength of 62-84 kg/mm^2, bending strength 105-110 kg/mm^2, specific gravity of 2.5-2.6, and tensile elasticity factor of 9-11 ton-mm^2. The bending strength does not drop at temperatures up to 400°C, and application of the material in aircraft and in high-temperature environments is anticipated. [Tokyo NIKKAN KOGYO SHIMBUN in Japanese 4 Sep 79 p 5]

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