SPECIAL REPORT

Japanese Space Industry FY2008 Annual Survey Report

-Summary-

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he Society of Japanese Aerospace Companies (SJAC) has been implementing the "Space Industry Annual Survey" every year, in order to grasp the actual status of space industry in Japan. The result of the survey is published under the title of "Japanese Space Industry Annual Survey Report". This survey has been achieved by compiling the answers for the questionnaires to the related companies, and is the only material to overview the status of Japanese space industry. Hereunder, the outline of the survey is provided.

The space related industry is categorized in four groups;

- Space Industry,

manufacturing satellites, launch vehicles, space station, ground facilities and their equipments / components / parts / material / software

- Space Utilization Service Industry,

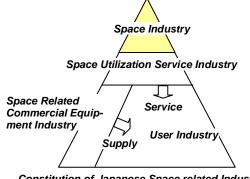
providing services utilizing space infrastructures such as satellite communications / broadcasting /positioning / earth observation and satellite launch service

- Space Related Commercial Equipment Industry,

manufacturing the hardware necessary for utilization of above services such as, BS (broadcast satellite) / CS (communication satellite) TV tuner, car navigation unit, GPS cellular phone, satellite phone, and etc.

-User Industry,

implementing their business by purchasing and utilizing the services provided by space utilization service industry



Constitution of Japanese Space related Industry

and space related commercial equipment industry such as satellite broadcasting content service, weather forecasting service, used car information service, convenience store information service, GPS cellular phone map information service, ship navigation & communication service, and etc.

This survey is concentrated in the above first category; space industry.

(1) Sales Amount in Fiscal Year 2008

The sales amount of space industry in FY 2008 was b\(\frac{1}{2}\) (billion-yen) 259.1 (3,048M\(\frac{1}{2}\) at the exchange rate of 85Yen/US\$). This amount is b\(\frac{4}{32.7}\) higher (14\% up) than the previous year. Sales amount for each segment of space industry is shown in Fig. 1 and Fig. 2.

In space vehicle segment, total sales amount was b\(\frac{4}{2}02.5\), with the increase of b\(\frac{4}{2}6.9\) (15\%). In break-down, satellite, space station and space shuttle / orbital plane increased b\(\frac{4}{27}\).1, b\(\frac{4}{20}\).8 and b\(\frac{4}{15}\).5, respectively. On the other hand, b\(\frac{4}{2}\).4 decrease was shown in launch vehicle segment. In satellite segment, system/bus components show large increase of b\{\frac{1}{2}}18.1.

In FY2008, the first domestically built commercial satellite SUPRBIRD-7 (SUPERBIRD-C2) for domestic satellite operator was launched by European launch vehicle. Furthermore, the green-house observing satellite "IBUKI" (GOSAT) was launched by H-II A launch vehicle No.15. In the ground fa-

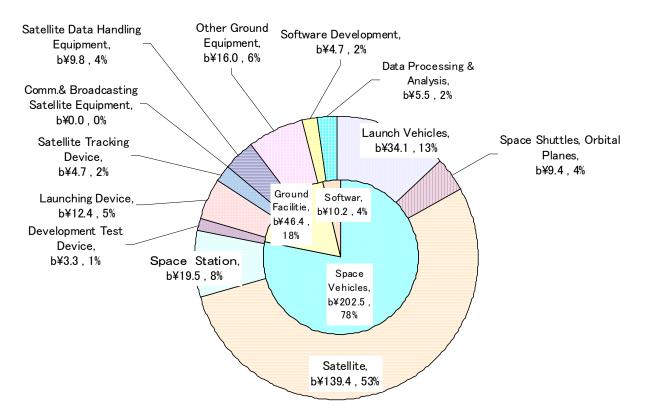


Fig. 1 Space industry sales amount for each segment.

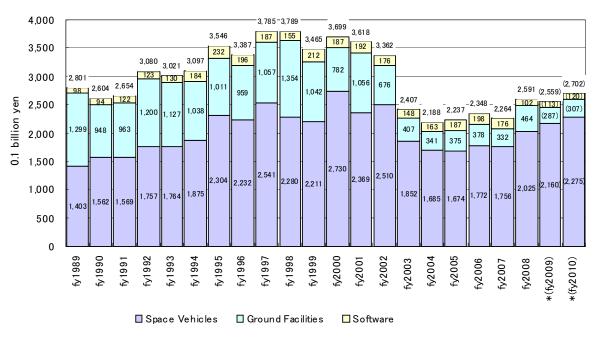


Fig. 2 Space industry sales trends for each segment.

cilities segment, sales amount was b\(\frac{\pmathbf{4}}{4}.4\) with b\(\frac{\pmathbf{1}}{1}3.2\) (40%) increase than the previous year. In the software segment, b\(\frac{\pmathbf{1}}{1}0.2\) was the sales amount with the decrease of b\(\frac{\pmathbf{7}}{7}.4\) (42%).

(2) Ratio of Domestic Demand and Export to Total Sales

The amount of the domestic demand in the total sales of b \pm 259.1 in FY 2008 was b \pm 243,1 with the increase of b \pm 25.3 (12 %) than the previous year. The export amount was b \pm 16, with b \pm 7.3 (84%) increase than the previous year. The domestic demand and export ratio is shown in Table 1 and Fig. 3. The export percentage became 6% with the increase of 2 % than the previous year.

Table 1 Ratio of domestic demand and export to total sales (unit: M-yen)

	FY2008 (A)		(Ref.) FY2007 (B)		Ratio
	Sales amount	Ratio(%)	Sales amount	Ratio(%)	(A)/(B) (%)
Domestic	243,057	93.8	217,724	96.2	112
Export	16,029	6.2	8,701	3.8	184
Total	259,087	100	226,425	100	114

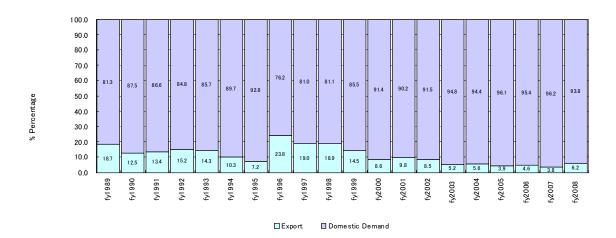


Fig. 3 Radio trends of domestic demand and export

(3) Sales Breakdown of Domestic Demand by Client

The sales of the domestic demand in correspondence with the customer (Fig. 4) shows that the sales for Japan Aerospace Exploration Agency (JAXA) was b¥136,6 with b¥6.8 increase (5%) than the previous year, and 56% in total domestic demand with 4% decrease than 60% of the previous year.

The sales increase was b¥6.1 (79%) for the other government agencies, and b¥0.4 (36%) for the space related organizations. In total, b¥13.3 increase was achieved in whole government related demands.

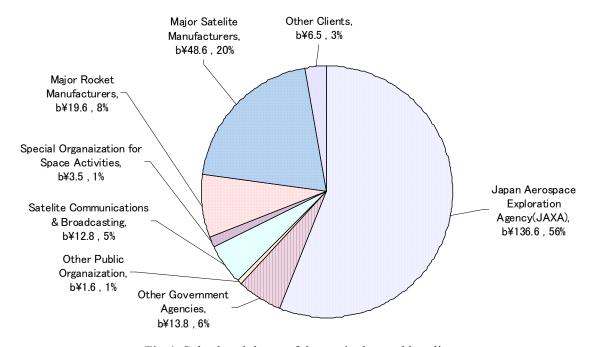


Fig.4 Sales breakdown of domestic demand by client

The sales amount for satellite communication / broadcasting related companies became b\(\frac{4}{12.8}\) with increase of b\(\frac{4}{10.5}\) (443 %). In FY2008, the first domestically built commercial satellite SUPERBIRD-7 (SUPERBIRD-C 2) ordered by a domestic satellite operator was launched by European vehicle.

(4) Export Amount

The export amount in FY2008 became b\(\)\(\)16 with the increase of b\(\)\(\)7.3 (84\%) than the previous year (Fig.5). It is expected that the downward trend since FY1997 will change. Most of the increase is contributed by satellite segment (b\(\)\(\)7.8), particularly, b\(\)46.4 increase in mission equipments. The amount of export on satellite area was b\(\)\(\)15.9, occupying 99\% of the whole export, 6\% higher than 93\% of the previous year.

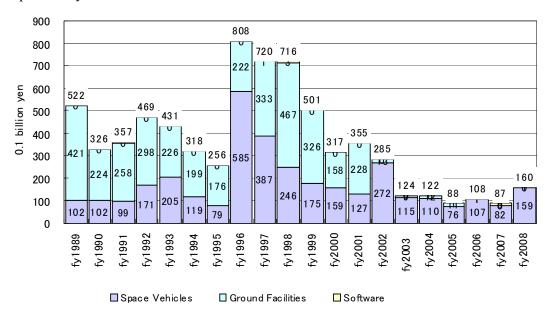


Fig.5 Export trends in space equipment industry segment

The export of the ground facilities segment area was zero, same as the previous year. b\(\frac{4}{5}\)(5\%) decrease was observed in the software segment, and b\(\frac{4}{5}\)0.1 was the total.

The amount of export by region is shown in Fig. 6. Export for North America decreased b¥0.2 (3 %) than the previous year, and the percentage in total export amount became 41%, 36% decrease than 77% of the previous year. Export for Europe increased b¥3.8 (284%), with the percentage increase of 17% from 15% to 32%. Export for Asia became b¥4.4 by the increase of b¥3.7 (573%), with the percentage increase of 20%, from 7% of the previous year to 27%.

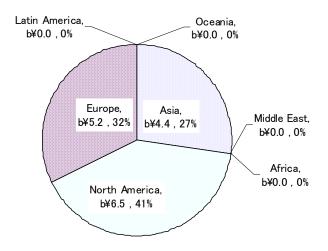


Fig. 6 Export by region

(5) Import Amount

The import amount in FY2008 became b¥37.7 with b¥15.1 increase from the previous year. (Fig.7) Most of the import amount is in the space vehicle segment, consisting of 99% of the total. Particularly, the satellite segment occupied 72%. The amount of import by region is shown in Fig.8. The amount of import from North America became b¥24.2, with the increase of b¥6.2 (34%) than the previous year, Import from Europe was b¥13.5, increase of b¥8.9 (196%). As in the past, the percentage of the amount of import from North America and Europe is almost 100%. It is observed that the import of space related goods to Japan come from very limited area.

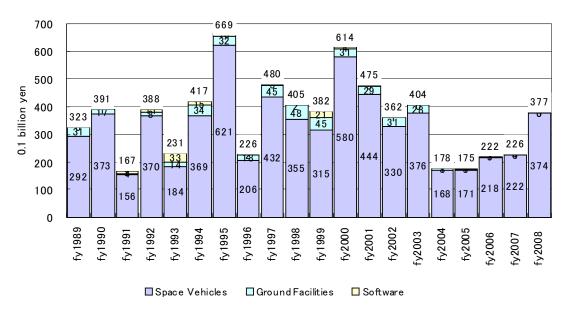


Fig.7 Import trends in space equipment industry segment

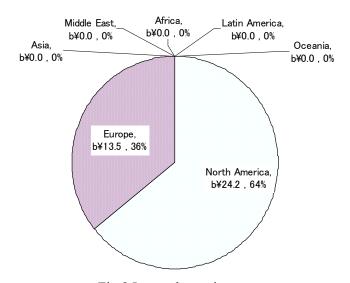


Fig.8 Import by region

(6) Postscript

Although it was not described this time, the sales amount of the industries under the category of "User industry" is about b\(\frac{4}{3}\),000 (82B US\(\frac{5}{3}\)).

From that view point, Japan can be called as the advanced country in space utilization. On the other hand, the space industry, which should be the basis of whole space related industry, has been sluggish presently. Although this trend has been gradually improved recently, the establishment of competitiveness in the world space systems market should be essential.