

Launching a Dream to Attract Young People!

– Back-Street Factories Challenge the Artificial Satellite –

Interviewer: Kitazawa Akira

TO what extent does the skilled processing technology of back-street factories hold good in the state-of-the-art space industry? Craftsmen have got together to take on the major challenge of launching an artificial satellite in Higashi-Osaka, where about 8,000 small and medium-sized factories are concentrated. Behind the bold challenge lies the fact that the manufacturing sector has languished under the weight of cost-cutting pressure from competitors in China and other Asian countries. Ten SMEs have now joined the Astro Technology SOHLA (Space Oriented Higashiosaka Leading Association), set up in December 2002, aiming to put the satellite into commercial use around 2010. Aoki Toyohiko, president of aircraft parts maker Aoki and has been led the plan to launch a satellite, speaks about the plan and the problems facing Japanese manufacturers.



SOHLA is developing its first satellite, a 50 x 50 x 50 cm, 50-kg octagonal satellite, named "Maido No. 1,"* and plans to put it into orbit during FY 2005 with the aim of commercializing it in the future. The Maido No. 1 is to conduct experiments on the satellite's key functions and weather observation sensors. Is the project making good progress?

Aoki: We have completed an outline design and fabricated the main body of the satellite. We will consider how to

Photo: Kyodo News



install electrical equipment from now on and repeatedly carry out ground tests. The overall picture has now appeared in sight. While experts remain cautious about the outlook for our plan, the on-site manufacturing experiences I have amassed so far indicate we will be able to complete the satellite during FY 2005. We have worked in the world of craftsmanship that requires sharp feelings of touch and keen eyesight. But the manufacture of artificial satellites requires expertise and data in addition to these feelings and senses. We need to go through all sorts of hardships. That is why the satellite project is worth trying. Design is particularly hard, and we are now supported by a university. In the future, however, I would like to set up a school in Higashi-Osaka so that we will be able to design satellites on our own.

The general view is that artificial satellites are developed under a grand national project. Why do you want to enter this sector?

Aoki: The most difficult problem the Japanese manufacturing sector faces now is the lack of young force at production sites. Manufacturers find it difficult to secure their successors. We hope the display of manufacturers' power will help to attract young workers. The launch of a satellite is not the purpose but means of attracting young people. Moreover, production of a single satellite is the kind of job that fits for smaller

businesses. We plan to use the satellite to forecast thunder storm. This is because semiconductor products will become defective if a factory is hit by lightning and suffers a fall in power voltage. Our business opportunities will expand significantly if we can forecast thunder. Given the limited number of rivals, the satellite business is the most appropriate new area for SMEs in Higashi-Osaka.

We are planning to mount a camera on the satellite to take photos of the Earth. The data sent to a ground station from the satellite will be aired on the Internet. It will not make profits but we expect to stimulate children's interest in outer space. That is our main purpose. The Japanese space and nuclear power industries are dominated by intellectual people, causing a sense of a closed world. They are not aggressive enough to prompt the government to set aside a large amount of funds for their projects. I believe our success to put the satellite into orbit will invigorate Japanese people. We will be able to show the strength of small and medium-sized businesses to the world.

Young people's avoiding the manufacturing sector is such serious?

Aoki: Young people have lost interest in the manufacturing sector, which is now described as a demanding, dirty and dangerous job. In addition, the sector's wages are too low. The cardinal rule

*Note: Maido is a greeting used among business community in Osaka area.

among us was that we must yield profits three times higher than our wages for the sake of companies. Labor-intensive industries cannot produce big profits. In fact, since we started working on a satellite, students have helped us but this is on a voluntary basis; they aren't paid.

Presidents and craftsmen at SMEs used to be more energetic about handing down techniques to young people, sharing a sense of satisfaction in so doing. A craftsman who was headhunted by a Chinese firm says he faces a barrage of questions from young Chinese people even during lunch breaks such as "Please tell me how to sharpen blades" or "Tell me how best to deal with this job, please." Their strong enthusiasm encourages him to hand down more know-how to them, the craftsman says. Young Japanese don't seem so hungry.

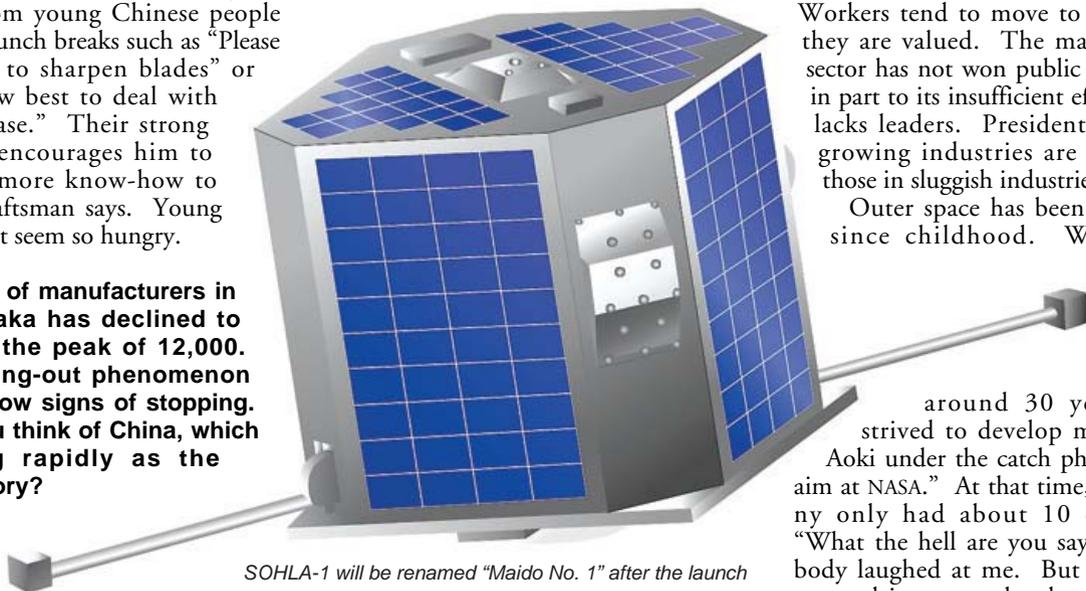
The number of manufacturers in Higashi-Osaka has declined to 8,000 from the peak of 12,000. The hollowing-out phenomenon does not show signs of stopping. What do you think of China, which is growing rapidly as the world's factory?

Aoki: It is only natural that jobs that require high labor costs should be transferred to China. Japanese manufacturing industry needs to add more value to products. But it seems no easy task. I am afraid that we may not be able to create new goods in the future even if we try to do so. Japan won a number of gold medals at the WorldSkills Competition 30 years ago. Today, we face difficulties in winning gold. South Korea and Taiwan are strong now. China will soon catch up with them. As there is a wide wealth gap in China. Some Chinese workers receive ¥10,000 in monthly pay while expensive Japanese-grown apples, priced at ¥800 apiece, are sold out instantly. The gap may continue to help stimulate Chinese

people's willingness to work. I want to be on good terms with Chinese people. To that end, I myself need to be attractive. As labor costs in China are undoubtedly lower than in Japan, Japan should seek to develop its own uniqueness. A Chinese company recently announced to acquire IBM's personal

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SOHLA ONE



SOHLA-1 will be renamed "Maido No. 1" after the launch

computer division. Some Japanese businesses are financially strong enough to buy it, but can we find Japanese who have the courage to embark on the acquisition? I see a wide gap between Japanese and Chinese businesses.

What do you think Japanese manufacturers should do to raise added value to their products and restore competitiveness?

Aoki: Japan's technology is outstanding. This fact is better understood by foreigners than by Japanese themselves. Therefore, foreigners come to Japan to headhunt craftspeople. Even though the Japanese technological level is high, the number of foresighted corporate man-

agers who can make adequate investment is limited. Under such circumstances, Japan cannot make full use of its technological power.

Adults fail to relate dreams to young people. The fact is that young people are not shying away from manufacturing industry but that adults have lost their self-confidence. In no way can adults build up self-confidence even after brushing up their techniques for 30 to 40 years at a time when the fledgling Internet businesses produce huge profits. Workers tend to move to areas where they are valued. The manufacturing sector has not won public support due in part to its insufficient efforts. Japan lacks leaders. Presidents in rapidly growing industries are visible, but those in sluggish industries are not.

Outer space has been my passion since childhood. When I was

around 30 years old, I strived to develop my company Aoki under the catch phrase of "Let's aim at NASA." At that time, the company only had about 10 employees. "What the hell are you saying?" everybody laughed at me. But we are now engaged in space-related work 30 years after the establishment of the company, prompted in part by romanticism. Japan has lost pride, which I see as the most valuable quality for a nation. Japan has no great ideas for national projects, nor does it have leaders who are competent enough to make a pitch for such ideas. I think young people will be attracted to the manufacturing sector if we present a success story. I would like to arrange an environment where enthusiastic young people will be able to open the way for future development when they really feel like working. **JS**

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