



Missile defense drags

**Splitting the pie among
several producers to
spread seed technology
causes output delays**

by Stuart Griffin

Japan's third defense build-up program, due to be finished in the 1971-1972 fiscal year, consists largely of the production of defensive surface-to-air missiles based on U.S. blueprints. To spread some of the business, the Japanese Defense Agency has split the pie among two major producers.

But the joint operation has not been a happy one, and Defense Agency officials are bothered that rivalry between the two firms, Mitsubishi and Toshiba, will delay the production of the missiles they feel they need badly.

The missiles being produced are the Nike-Hercules and the Hawk. The Defense Agency commissioned Mitsubishi Heavy Industries (MHI) to turn out the Nike-Hercules missiles themselves. But not wishing to give the powerful Mitsubishi group a clear monopoly on defense weapons output, the agency split the contract for production of the Hawk, with 70 percent going to Mitsubishi Electric and 30 percent to Tokyo Shibaura Electric Co. (Toshiba).

The idea behind splitting the missile pie was to open the way for Japan's own defense industry to advance to new levels of technological sophistication and to be able to meet modern warfare requirements without having to rely, as it has in the past, on the United States.

The Mitsubishi group was chosen to build Nike-Hercules because it is the nation's largest heavy industrial concern, turning out aircraft, warships, tanks and other weapons for Japan's Ground, Air and Maritime Self Defense Forces.

Normally, Mitsubishi Electric would also have been given the Hawk production contract, too, especially because of its relationship with the U.S. firm, Raytheon, which both developed the Hawk and holds production patents concerning the missile. Raytheon and Mitsubishi are affiliated in a technical licensing tie-up.

But other companies objected.

"One industrial group (MHI) should never monopolize production of key defense weapons," said Toshiba Vice President Junji Hiraga, and Defense Agency Director Kaneshichi Masuda agreed. Toshiba was given the contract to produce the radar installations that direct the Hawks to intercept approaching hostile aircraft, and MHI was assigned the job of building the missiles themselves.

Now defense officials along with representatives of the Ministry of Interna-

tional Trade and Industry, the Finance Ministry and the Science and Technology Agency, which are all involved, are worried that all is not well with the Hawk missile production schedule, and the reason is inter-company friction. The Mitsubishi group has never been happy with the situation, and one MHI executive has complained huffily of the Defense Agency decision to "allow a rival firm to cut impudently into our long-acknowledged territory."

Indications are that the joint company production schedule has slipped, as a result of the failure of the two giants to cooperate adequately.

The Hawks were scheduled to be in production in late summer of this year, with full-scale output by late in the winter of 1970 or early spring. The first domestically produced Nike-Hercules missiles, produced by MHI alone, will apparently be turned out in the near future, on schedule.

What defense officials are facing is that they will have to do without the Hawk missiles for a dangerously long period, or will have to buy them from the United States, at the cost of much-needed foreign exchange.

The threat of going abroad to buy the Hawks has apparently had some galvanizing effect on the rival companies, who protest that they are pushing the missile production as fast as they can and hope to be able to meet their schedules with at most three to six months delay.

The big issue is not only money. The Mitsubishi company points out Defense Agency contracts, including the Hawk and Nike-Hercules programs, account for only five percent of the MHI total production.

More important is the chance to participate in highly technical production operations, and apply the lessons learned to production of peaceful products, not just defense items.

Both of the giant firms have a large number of satellite firms, involved in civilian production. Among them are Nippon Electric, Japan Radio, Daicel and Nissan Motor, linked to Mitsubishi Electric, and Fuji Heavy Industries and Tokyo Precision Instruments, which have ties to the Toshiba complex.

These firms, and smaller subcontractors also involved in the missile production, are looking to improve their own levels of technology, both to meet domestic competition and to reach international standards as well.