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Japan: Controlling Technology Leakage to the USSR



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An Intelligence Assessment

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*EA 83-10246
December 1983*

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Japan: Controlling Technology Leakage to the USSR [Redacted]

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An Intelligence Assessment

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**Japan:
Controlling Technology
Leakage to the USSR** [Redacted]

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Key Judgments

*Information available
as of 15 November 1983
was used in this report.*

In a major shift in policy, Japan has taken well-publicized steps to limit Soviet and East European access to advanced technologies and equipment. A series of events over the past year [Redacted]

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[Redacted] have created a receptive environment for the new measures.

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Equally important has been the backing of Prime Minister Nakasone, whose emphasis on a greater international role for Japan has encouraged Japanese participation in the general Western crackdown on technology leakage.

US pressure has been the major element driving the new policy, however, and the Foreign Ministry has taken the lead. The Ministry of International Trade and Industry, whose support is essential, was initially a reluctant participant, but, over the past several months, it has become increasingly involved. Tokyo's tough line has taken several forms:

- Two Soviets were expelled for industrial espionage in June.
- The Foreign Ministry has tightened restrictions on entrance visas and travel for Soviet and East European scientific and commercial delegations.
- MITI has taken the first step toward limiting unauthorized reexports of technology by requiring end-user certificates.
- Japanese Coordinating Committee (COCOM) delegations have been more cooperative during COCOM list review sessions, and MITI has shown a greater willingness to limit exports of COCOM-controlled and some nonembargoed goods.

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[Redacted]

Most large corporations are abiding by the government's stricter policy on export controls, and many have canceled sales and technical exchanges. The firms and MITI—their major spokesman in the government—are keeping a close watch on Allied performance, however. Tokyo will find it difficult to carry on the policy if firms perceive that the new controls have damaged Japanese competitiveness in world markets.

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**Japan:
Controlling Technology
Leakage to the USSR¹** [Redacted]

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Over the past year Tokyo has moved to curb illegal acquisition of Western technology by the Soviet Union and East European countries:

- Soviet officials have been expelled for trying to acquire technology illegally.
- The Foreign Ministry has placed tighter restrictions on Soviet visitors to Japan.
- Tokyo has increased manpower and funds for enforcement of export controls.
- Coordination among all agencies concerned with export control has been substantially improved, and Tokyo is reviewing export license applications more closely.

[Redacted]

Tokyo's Motives

Although illegal technology transfers will probably continue—the Japanese are second only to West Germany as a source of high technology for the Soviets—the enforcement measures represent a dramatic shift in policy. This new campaign is largely the result of concern among Japanese bureaucrats that crackdowns now under way in the United States and Western Europe would leave Japan open to criticism that it was not doing its part. [Redacted]

[Redacted] government officials fear failure to follow the US and West European examples would affect broader relations with Washington.

[Redacted]

[Redacted]

Less Interest in Soviet Business

Japan's efforts to curb technology loss come at a time when Tokyo has shown diminishing interest in greater involvement in the Soviet economy, partly because recession and structural changes in the economy have reduced Japan's raw material and energy requirements. Japanese businessmen have shown little interest in new Siberian resource development projects—once a major component of Japanese-Soviet trade and technology sales. [Redacted]

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The new measures to restrict high-technology sales are unlikely to damage Japanese export trade significantly. Trade with the Soviet Union is growing but is still relatively unimportant to the Japanese economy, accounting for only about 2 percent of the value of Japan's total foreign trade in 1982 and 1983. The Soviet share in any given year has never exceeded 3 percent. In 1982 the total trade between the two countries rose by 16 percent in yen terms and 6.7 percent in US dollars, to \$5.3 billion. This overall growth was not maintained in 1983, when imports rose slightly while exports declined. [Redacted]

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[Redacted] In addition, government officials believe that failure to act could result in unfavorable provisions in the new US Export Administration Act, such as restrictions on Japanese science and technology exchanges with US firms, expanded extraterritorial controls on US technology sales to Japan, and continued restrictions on exports of Alaskan crude oil.

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Prime Minister Nakasone and his Chief Cabinet Secretary have encouraged the bureaucracy to act on technology transfer. Both have publicly expressed

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greater concern than their predecessors over security issues, and they have been receptive to US approaches detailing the strategic implications of unregulated technology transfer to the USSR. [redacted]

[redacted]

The Foreign Ministry was able to use [redacted] disclosures as a springboard for a publicity campaign aimed at increasing public awareness of the strategic significance of technology sales to the Soviets, the extent and effectiveness of the USSR's collection effort in Japan, and the implications for Japan's national security. Press briefings by the Ministry were designed to convince Japanese traders, manufacturers, and colleges to exercise greater care in inviting Soviet visitors to view advanced production or research facilities. In leaks to the media, directed both at an initially skeptical public and a business community reluctant to curb trade, the Ministry noted that Tokyo's efforts to check technology loss were in accord with established international commitments and that Japan was acting in concert with its Western allies. *Nihon Keizai*, among others, billed Tokyo's new measures as efforts to enhance the effectiveness of COCOM. [redacted]

The expulsion of two Soviet diplomats in June was a landmark in the Foreign Ministry's attempts to undercut bureaucratic opposition to tighter controls. The expulsions—the first in postwar Japan—came as a shock to officials in the Ministry of International Trade and Industry (MITI). The Ministry had not been notified of the police investigation of the two Soviets, which was conducted in close cooperation with the Foreign Ministry's Soviet Division. [redacted]

[redacted]

The expulsions also emphasized to Japanese business the extent of Soviet industrial espionage activity, and firms in regular contact with Soviet foreign trade representatives became more cautious. [redacted]

[redacted] the involvement of an official from the Soviet State Committee for Science and Technology (GKNT) alarmed officials in Japanese companies because many had friendship and trade promotion agreements with the GKNT and allowed GKNT officials to work in their offices. Before the expulsions the business community had felt relatively immune from the Soviet intelligence threat. Had a Soviet military attache—who would have been expected to be involved in espionage—been expelled, the reaction from the business community would not have been as strong. [redacted]

The Bureaucracy

The Foreign Ministry—and its Soviet Division in particular—is the most active proponent of the new policy on high-technology exports. It has used repeated US demarches to elevate the technology loss issue from a trade matter strictly in the hands of MITI to a broader foreign policy concern in which it can exert considerably more influence. [redacted]

The Foreign Ministry made the first move in late 1982, when it began to crack down on visas for Soviet science and technology delegations. As of mid-1983 it had denied at least 15 visas because of the possibility of technology loss. In a public address covered widely in the press, Foreign Minister Abe in June 1983 reaffirmed Tokyo's commitment to reducing the illegal flow of technology and equipment to the USSR and Eastern Europe. Using the bluntest public language yet on the issue, he acknowledged the contributions that Western technology has made to Soviet military programs. Although not mentioning specific actions that Tokyo should take, Abe reaffirmed Japan's obligation as a member of the free world to institute tighter controls. [redacted]

The Foreign Ministry's ability to control technology leakage rests with its almost complete authority over visas and travel itineraries for foreign delegations. By restricting visas and travel, the Ministry has been able

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The Visa Squeeze

The Foreign Ministry has almost complete autonomy over visas and travel itineraries for foreign delegations visiting Japan:

- The Ministry is not required by law to announce a reason for denying a visa.
- Granting visas is a discretionary power given to the Foreign Minister and cannot be challenged in the Japanese courts. The latitude afforded the Ministry in its reasons for denial allows it to broaden control over Soviet access to technologies not available for export or to dual-use items considered sensitive by the United States or other Allies but not controlled by COCOM or contained on Japan's export control order. [redacted]

In 1982 the Ministry denied 21 visas to Soviet visitors, including 13 that used the possibility of technology losses to the USSR as the principal reason for denial. During the first four months of 1983, the Ministry denied nine visa requests, two specifically for activities related to S&T collection:

- Six Soviets were denied entry to Ishikawajima Harima, a major industrial firm, because the Ministry believed that they might try to collect information on an oil drilling rig the firm is building for the United States.
- A Soviet delegation was denied entry to a Japan Airlines maintenance facility using fiberscopes to

repair jet engines. [redacted]

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- A delegation from the Soviet Ministry of Transport Construction was denied entry to study Japanese railway technology. [redacted]

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In addition, Tokyo has informally turned aside inquiries from firms on several proposed visits. Now that the Ministry's stricter position on granting visas is well known, firms have become more selective in their requests for visas. [redacted]

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In the few instances in which a denial has been appealed to a higher level in the government, the Ministry has generally taken a strong stance in defending its decision. When pressure from political authorities is brought into play—in most cases because the firm argues that the action will result in a significant loss of business—the Ministry has been able to work out a compromise under which the visit is allowed, but the Soviets' travel itinerary or access to specific technologies is severely restricted. [redacted]

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to show some immediate progress in limiting technology loss. The Foreign Ministry is also responsible for formulating and presenting Japan's COCOM policy, but it usually does not become involved in COCOM implementation or trade administration matters. As a result, it cannot, on its own, restrict exports by adding new categories of technologies and equipment to Japan's export control order. Instead, it must depend on cooperation from MITI, which is responsible for denying export licenses and recommending to Japanese business that care be taken in export of sensitive technologies. [redacted]

The Role of MITI

MITI took a major step toward limiting technology leakage last summer, when it instituted Tokyo's first controls over unauthorized reexports by requiring a "certificate of usage" stating the ultimate end user of a specific product. The Ministry broadened the crackdown on unauthorized reexports in November by placing extraterritorial restrictions on exports of robots from a Bulgarian joint venture with the Japanese

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robot maker, Fanuc. The new restrictions require Fanuc to ensure that no more than 20 percent of the robots produced by the joint venture are sold outside of Bulgaria and that the Bulgarian plant be open to inspection at any time. In addition, Fanuc must supply MITI with complete end-user and customer lists every three months. [redacted]

Other action has included:

- Spearheading the creation of a working-level inter-agency commission comprising MITI, the Ministry of Finance (Customs), the National Police Agency, and the Ministry of Foreign Affairs to supervise strengthening of export controls and developing effective ways to limit the reexport of controlled technologies from third countries to the USSR.
- Expanding its COCOM-related staff from eight to nine in 1983, with a projected increase to 10 in 1984. An additional 150 employees from other sections in MITI periodically are drawn into COCOM affairs.
- Increasing its COCOM-related budget by nearly 75 percent by the 1984 Japanese fiscal year.
- Creating a new trade policy planning section in the export division to handle some COCOM policy matters previously administered solely by the Foreign Ministry.
- Reviewing all S&T exchange and cooperation agreements with the Soviet State Committee for Science and Technology and other Soviet organizations to ensure they do not include potential COCOM violations or unauthorized transfers of technology. [redacted]

MITI remains reluctant, however, to issue extensive formal administrative guidance on the export of advanced technology items not covered by existing COCOM regulations (see the appendix). It prefers to counsel Japanese firms informally on the advisability of a particular export. Consultation with the Japanese Industrial Robot Association and Komatsu, Ltd., for example, enabled MITI to accede to US pressures to establish COCOM control on robots and to restrict some sales until final COCOM guidelines have been established [redacted]

The Ministry has supplemented its informal guidance with a stepped-up disapproval rate for exports of specific technologies or equipment. In May, for example, MITI turned down a \$4 million integrated circuit packaging plant sale by Kyocera, a leading Japanese manufacturer of microelectronics packages and high-performance ceramics. As a result of the disapproval and MITI's overall strengthening of restrictions, the firm has decided to discontinue all plant sales to the USSR, a business worth nearly \$40 million over the past eight years. [redacted]

MITI's cooperation is essential to Tokyo's effort to deny the Soviets access to high technology because the Ministry is responsible for the implementation, coordination, and enforcement of Japanese trade regulations and export controls. It is the sole authority issuing export licenses, including approvals for COCOM-controlled goods. It is also Tokyo's principal channel for guidance to the business community on the technology transfer or any other trade-related issues. [redacted]

The Security Services

The National Police Agency and the Public Security Investigation Agency are not directly involved in formulating or implementing export controls, but they have played a key support role. Both services have expanded their operations against the Soviets and have publicized their findings through appropriate channels in the government and media. [redacted]

We believe that the police have selectively publicized information on cases in unattributed press articles in order to raise public awareness of the technology loss problem, spur action by the bureaucracy, and demonstrate their own competence. In May, for example, *Nihon Keizai* carried an article about Japanese fishermen exchanging microelectronics chips with Soviet border police for fishing rights off Sakhalin. The "fish

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for chips" activity has been under investigation by the police for several years. [redacted]

The Public Security Investigation Agency has also expanded its coverage of the technology loss issue, maintaining extensive files on the activities and backgrounds of Soviet visitors. It does not enjoy as close a working relationship with the Foreign Ministry as do the police but has nonetheless taken steps to publicize its efforts and demonstrate its competence in addressing technology leakage. In June 1983 the Agency published an unattributed 128-page book on Soviet intelligence activities in Japan. It contained sections dealing specifically with KGB and GRU S&T collection activities. [redacted]

The Ministry of Finance

The Finance Ministry plays only a tangential role in administrating export controls. Its chief influence lies in its customs authority, through which it can play a major part in identifying and interdicting illegal shipments of high-technology goods. In response to Foreign Ministry disclosures in September that Cuban trade delegations had purchased high-technology equipment for the Soviets, the Finance Ministry has expressed a greater willingness to support Customs Service seizures of shipments containing restricted as well as other sensitive technologies bound for Cuba and Soviet Bloc destinations. [redacted]

[redacted]

Business Plays Along

In response to the government program, most major trading firms and manufacturers have curtailed some sales of high-technology items to the USSR and have reduced the number and visibility of exchanges and cooperation agreements with the Soviets:

- Several Japanese electronics manufacturers have refused to provide the Soviets with video tape recorder technology.

- The trading firm Matsushita has rejected requests either to hold an electronics show in Moscow or enter into a technical exchange agreement with the Soviet State Committee for Science and Technology.

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- Tokyo Boeki, a trading firm [redacted] recently refused Soviet requests for an optical fiber technology and magnetic tape memory equipment, both embargoed by COCOM.

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- A Japanese industrial firm refused to sell a large hydraulic crane to the Soviets through a Japanese trading company because there was no guarantee the crane would not be used for military construction. [redacted]

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Some business leaders have consistently supported the new restrictions, in part to avoid provoking even stronger measures and closer MITI supervision. Others have not been fully cooperative. Ishikawajima Harima initially decided to terminate or at least downgrade its technical cooperation agreement with the GKNT after the expulsions in June. [redacted]

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[redacted]

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Japanese businessmen are still trying hard to promote sales of nonstrategic technology and equipment to the USSR. Businessmen are also keeping a close watch on US and Allied performance under both established COCOM regulations and new unilateral controls and are careful to maintain parity with them:

- Some firms continue to complain of bias in treatment of Japanese COCOM cases. In one instance, Japanese companies protested after the United States approved a British computer sale to the USSR that they believed would not have been allowed had it been Japanese.

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- A Japanese delegation to the *Science 83* exhibit in Moscow recently complained that a US firm had displayed a microcomputer similar to one Tokyo had forbidden them to show. [redacted]

Attitudes Toward COCOM

Tokyo's new attitude toward technology leakage has worked to US advantage in the current round of COCOM discussions. The Japanese delegation has made serious efforts to reach agreement on the 13 high-priority items identified for special concern during last year's COCOM high-level meeting. The Japanese have come to Paris with latitude in their negotiating position—unusual for a Japanese delegation—and have even proposed alternate wording on some issues, a substantial departure from their performance during the last list review. [redacted]

Japan's flexibility was particularly evident during negotiations to embargo sales of electronics-grade silicon. The Japanese initially found the US proposal for a total embargo unacceptable because they feared losing millions of dollars in sales. They agreed to a compromise, however, in which Japan accepted the US position on silicon sales to the USSR as long as it could recoup some of the lost sales in the Chinese market. [redacted]

Reaction From Moscow

According to Japanese officials, Moscow has reacted moderately to the new measures. Soviet protests against the expulsions of the two officials were mild—suggesting no reprisals of any significance unless Tokyo continued to publicize the case. Although Moscow is clearly irritated by the Foreign Ministry's visa controls, it has not allowed the matter to escalate into a visa war. To date, the Soviets have refused only one low-level Japanese official's entry into the USSR. Moscow has continued to stress the need for improved relations but has also continued to criticize sharply Japan's stand on foreign policy and defense issues. [redacted]

If Moscow steps up the pressure, we do not expect Tokyo to cave in. Tougher Soviet positions in business negotiations have had limited influence on most major Japanese firms, for which Soviet trade is welcome but relatively unimportant. Although the steel and machinery industries do have important stakes in Soviet trade, we expect that, with few exceptions such as large-diameter pipe, the importance of the USSR as an export market will drop as worldwide recession eases and markets improve elsewhere. Increased belligerence from Moscow could, in fact, make it easier for Tokyo to enforce current controls and implement new ones. In a recent example, Sumitomo expelled a Soviet participant in a long-term technical exchange program after the KAL shutdown, in which a company employee and his entire family were killed. [redacted]

We do not expect Moscow to cut back its overall efforts to acquire high technology, and it probably will continue trying to persuade Japanese firms—especially those specializing in trade with the USSR—to circumvent the COCOM restrictions. There is some evidence, however, that the USSR has recently assumed a less aggressive stance in its attempts to recruit agents for S&T collection. For example, some Soviets reportedly have temporarily suspended meetings with their Japanese contacts because of the possibility of discovery by Japanese authorities. They have cited the publicity given to the Levchenko testimony and the expulsions as reasons for the temporary break off. [redacted]

Future Action

Over the next few months Tokyo plans to take additional steps to tighten controls on high-technology exports. [redacted] the Foreign Ministry will intensify its review of visa applications and requests for factory tours by Cuban purchasing missions. [redacted]

[redacted] The Ministry also plans to limit the Cubans' stay in Japan, minimize the number of free days, and require a detailed

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list of all business and leisure activities. The Ministry will probably apply similar restrictions on purchasing missions from East European countries. [redacted]

MITI is planning a training program for its export control officers and a new trade administration office to process COCOM cases. It also will require firms to appoint an official to take charge of the security aspects of high technology, limit the number of employees handling sensitive information, and prepare a detailed plan for coordinating control procedures with government agencies. [redacted]

During the current round of COCOM negotiations, we believe Tokyo will be receptive to establishing a monitoring system for emerging technology of potential military significance. Several Japanese officials have indicated, however, that Tokyo probably will not agree to a US proposal for adding equipment and technology related to the oil and gas industry to the COCOM lists. Japan views the proposal as covering too many nonstrategic items and potentially hindering legitimate trade. [redacted]

Outlook

The intensity with which the new measures will be pursued over the long term is uncertain. Tokyo does not view the security threat posed by technology transfer to the USSR with the same urgency the United States does. It has been spurred to action largely by the apparent importance of the issue to US-Japanese relations and by international pressure. Events in the last year—the Levchenko case, the expulsion of two Soviet industrial spies, the KAL shootdown, and Nakasone's election—have created ideal circumstances for Tokyo's new program. The beneficial effects of most of these may be short lived. [redacted]

To the degree that the Japanese perception of the Soviet threat increases, however—in particular, public awareness of SS-20 deployment in Asia and conventional military buildup on the Northern Territories—Tokyo's resolve to limit technology leakage to the USSR will strengthen. Prime Minister Nakasone's role as an advocate for the new measures will continue, but his influence may be diminished as he devotes more attention to domestic issues in the wake of the ruling party's setbacks in the late December 1983 lower house elections. [redacted]

For now, the Foreign Ministry remains the most committed to the new program, but even MITI believes it politically expedient to support tighter controls. These and other relevant ministries have overcome bureaucratic differences to establish an institutional framework capable of enhancing Tokyo's ability to enforce stricter export controls. Continued emphasis on the importance of technology transfer issues during US-Japanese consultations will help keep the new program on course, as will both an international climate that supports stricter export controls and the perception that Allied enforcement is being applied equitably. [redacted]

MITI is the ministry most likely to challenge and even break with the tighter controls. The Ministry took action only after it had seen the Foreign Ministry threatening to diminish its authority over export control policy. Despite the measures it has taken, MITI disagrees with the Foreign Ministry on the extent of export controls. [redacted]

[redacted]

[redacted]

[redacted] MITI's resolve to restrict items that are sensitive but not currently on the COCOM list could weaken. MITI may insist that, in return for continued cooperation on export controls, the Foreign Ministry respond to future US demarches on the technology loss issue by raising concerns over unfair treatment. [redacted]

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Uncertainties will persist in evaluating the effectiveness of the new measures because of the inherent difficulties in identifying and tabulating illegal technology transfers. There will be indicators, however, of Tokyo's commitment to continued enforcement of established controls and of an expanded effort, including:

- A greater willingness to restrict exports of sensitive technologies not currently embargoed by COCOM, particularly in the areas of microelectronics production and testing, advanced telecommunications, precision manufacturing, and oil and gas.
- Stricter controls on reexports of sensitive and controlled items through third countries.
- Increased willingness of Japanese firms to deny ad hoc Soviet requests to view restricted facilities and obtain technical data and specifications during plant tours and contract negotiations.
- Maintenance of a high public profile by publicizing Soviet collection efforts, strategic implications of certain technology exports, and seizures of illegal shipments.
- Improved means of identifying and preventing exports to end users engaged in military production.
- Continued or growing reluctance of firms with records of illegal sales to entertain new requests for illegal shipments.

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Appendix

The following is a list of commodity categories generally regarded by the United States as constituting "high technology." The export of individual items contained in these categories is regulated by the US Export Control Procedures. High-technology exports from Japan are regulated by the Export Control Ordinance, which closely parallels the list of items selected for control by COCOM. The COCOM regulations restrict exports of technologies having strategic value and in general cover a more selective range of items in each of these categories than do the US controls.

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| SITC | Description |
|----------|--|
| 71142 | Jet and gas turbines for aircraft |
| 7117 | Nuclear reactors |
| 7142 | Calculating machines (including electronic computers) |
| 7143 | Statistical machines (punchcard or tape) |
| 71492 | Parts of office machinery (including computer parts) |
| 7151 | Machine tools for metal |
| 71852 | Glass-working machinery |
| 7192 | Pumps and centrifuges |
| 71954 | Parts and accessories for machine tools |
| 7197 | Ball, roller, or needle-roller bearings |
| 71992 | Cocks, valves, and so forth |
| 7249 | Telecommunications equipment (excluding TV and radio receivers) |
| 726.2 | X-ray apparatus |
| 72911 | Primary batteries and cells |
| 7293 | Tubes, transistors, photocells, and so forth |
| 72952 | Electrical measuring and control instruments |
| 7297 | Electron and proton accelerators |
| 7299 | Electrical machinery, not elsewhere specified (including electromagnets, traffic control equipment, signaling apparatus) |
| 7341 | Aircraft, heavier than air |
| 73492 | Aircraft parts |
| 7351 | Warships |
| 73592 | Special purpose craft (including submersible ships) |
| 8611 | Optical elements |
| 8613 | Optical instruments |
| 86161 | Image projectors (might include holograph projectors) |
| 8619 | Measuring and control instruments, n.e.s. |
| 862.4 | Photographic film |
| 891.1(1) | Gramophones, tape recorders (videorecorders) |

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