Part IV: East-West Trade Mafia

The Soviet technology-stealing machine and the loopholes in Western security

by Laurent Murawiec

Early last month, CIA director William Casey caused something of a sensation with a speech held in Silicon Valley to an audience of several hundred local business people. His topic was the danger of Soviet military use of stolen technologies. Thirty thousand samples of machinery and equipment and 400,000 mainly classified technical documents had fallen prey to Soviet thievery in the late 1970s alone, Casey said, to the point that "the gyros and bearings in the latest Soviet ICBMs have been designed by us," and the Soviet would-be replica of Silicon Valley, Selenograd, was "equipped literally from scratch," with Western technology. And 300 Western companies, the CIA director added, have been identified as being involved in illegally exporting high-technology materials to the U.S.S.R.

News items gleaned on a daily basis from the international press confirm Casey's contention. A glance at Soviet organized thievery will reveal the extraordinary extent of the immense spying and stealing machinery that explains why "70% of Soviet military and weapon technology is stolen," as he indicated. The shocking loopholes in Western security and the political-strategic considerations involved will show why such dangerous, potentially fatal thievery has been tolerated, nay, encouraged in the West, and by whom.

'Steal American'

On April 2, a Czech-born Canadian citizen was arrested in Miami, Florida, and charged along with six other defendants with having shipped computers and other Hewlett-Packard and Digital Electronic equipment through Canada, then through Switzerland, into the Soviet Union and East Germany. A Swiss company, Elmont AG, run by one German and one Swiss businessman, operated the transshipments.

Days after, the Swedish company Datassab, part-owned by the telecommunications giant L. M. Ericsson, agreed in an out-of-court settlement to pay $1 million in fines for having deliberately violated a 1977 export license extended by the U.S. Department of Commerce: The company had ex-

ported "very strategically significant" materials to the U.S.S.R., which contributed in allowing the Soviet military to establish an air traffic control system able to track the most advanced foreign military aircraft. ·

In December, a Swiss-based American citizen was arrested in San Francisco with relatives and associates, who had conspired together to ship tens of thousands of dollars worth of microprocessor technology to Russia, through a complicated route spanning South Africa, the port of Hamburg, and Sweden.· Dummy and front-companies were located in Switzerland.

Dozens of known cases could be brought up, representative of hundreds of completed investigations, and thousands of individual transactions and continuing Soviet "pumping" and funneling of advanced Western technologies to feed Moscow's military machine.

The Soviets stealing machinery

The Soviet regime has developed over the last 65 years an extraordinary institutional machinery designed to optimize and accelerate the acquisition of foreign technology. Not surprisingly, the KGB provides the hard core of the machinery.

The *Penkovsky Papers* (New York, 1965) were authored by a senior Soviet military intelligence (GRU) official, Oleg Penkovsky, who spied for the West before being tried and reportedly executed, and worked at the State Committee for Science and Technology, a ministerial-level institution in charge of coordinating scientific research work in the U.S.S.R. Much of the staff was either KGB or GRU personnel, or sworn in to act as one. Wrote Penkovsky: "The Soviet government goes in for espionage on a gigantic scale. . . . We are collecting intelligence always and everywhere . . . the Ministry of Foreign Affairs and the Ministry of Foreign Trade each has its own intelligence department. Everybody is involved in spying—all Soviet ministries, committees, the Academy of Sciences, etc. Anyone who has anything to do at all with the work of foreign countries . . . is perforce.

engaged in intelligence work."

The State Committee for Science and Technology, or GKNT, is chaired, additionally, by the co-founder of the Club of Rome, Dzherman Gvishiani, one of the KGB's chief talent-scouts in the West. The son-in-law of the late Premier Alexei Kosygin, and the son of a KGB general who was Stalin's distant relative, Gvishiani played a commanding role in the establishment of one of the most successful technology-stealing institutions, the International Institute for Applied Systems Analysis (IIASA), the East-West interface co-created by McGeorge Bundy and Lord Solly Zuckerman, which was exposed last year as a gigantic spying machine for the Russians; among other feats, KGB scientific operatives were using the IIASA computer interface with one of the world's most advanced and powerful computers, CRAY II in England, to effect calculations which their own computers in Russia are incapable of. Much of the material thus processed was of direct military value to the Soviets.

The GKNT "works like a surreptitiously operated clearing house for new developments in virtually every area of modern industry and technology. . . . Few individual countries escape its notice. . . . Soviet trade missions, members of the Academy of Sciences, and almost every delegation sent abroad on technical business works under the Committee's aegis. . . . The Committee's activities are worldwide. . . . At [its] top sits a 15-man presidium . . . under its direction, a large staff of highly trained experts . . . [which] continually maps out targets, assigns information-collecting duties to its men in the field, then processes the results—to be distributed to Soviet science and industry."

There exists a much broader machinery for intelligence collection: The Russian military industry is managed by the Council of Ministers' Presidium's Commission for Military Industry (VPK). Every year, the 12 ministries chiefly involved in military industry, the state committees, and the research institutes, submit "shopping lists" which VPK will coordinate with the GKNT, the Academy of Sciences and the Foreign Trade Ministry. Shopping lists are espionage and theft targets. The head of VPK is the veteran "survivor" L. V. Smirnov, a government figure for decades, and a vice-president of the Council of Ministers whose power and importance are not indicated simply by his apparent rank in the pecking order.

After the "shopping lists" have been drawn up, five "collecting" units handle the gathering of the items specified: the KGB itself, especially its "Directorate T," the Scientific and Technical Directorate, second largest in the all-powerful KGB First Chief Directorate; the GRU's Division for Scientific and Technical Intelligence; the GKNT; the Academy of Sciences; the Foreign Trade Ministry which organizes "legal" acquisition; the All-Union Chamber of Commerce, run by KGB General Ye. P. Pitrovanov; and the State Committee for Foreign Economic Relations (GKES). Together, these

agencies employ several hundred thousands, a huge portion of which is simply devoted to spying, processing and using the proceeds of espionage and illegal technology transfers.

Once intelligence and samples have been acquired abroad by legal, illegal, or clandestine means, a solid structure is in place for exploitation. The "deliveries" are sent to the groupment of nine military-industrial ministries; the central organization of special technical services (TsOSTS) of each industrial branch will then supervise the exploitation. Each ministry will entrust its own scientific research institutes and other subordinate units with the study of the product. The VIMI, National Institute for Inter-Branch Information, is the conveyor belt and dispatching center for the proceeds.

Why copy and how?

"Western equipment and technology have played a very important, if not crucial, role in the advancement of Soviet microelectronic production capabilities," stated a CIA anal-

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ysis submitted to the Senate Permanent Subcommittee on Investigations in May 1982. "This advancement comes as a result of over ten years of successful acquisitions—through illegal, including clandestine, means—of hundreds of pieces of Western microelectronic equipment worth hundreds of millions of dollars to equip their military-related manufacturing facilities. These acquisitions have permitted the Soviets systematically to build a modern microelectronics industry which will be the critical basis for enhancing the sophistication of future Soviet military systems for decades. The acquired equipment and know-how, if combined, could meet 100% of the Soviets' high-quality microelectronic needs for military purposes, or 50% of all their microelectronics needs."

The U.S.S.R has countless "copying offices," units solely in charge of assimilating-reproducing stolen or otherwise-procured Western technologies; in the 1950s, there were 35 such units for the machine-tool industry alone! As a result, the U.S.S.R. saves on the "expropriated" patent costs, on the skipping of the R&D outlays and time involved in the hit-

and-miss research process, as well as on the experimentation and risk inherent in the process of innovation. The gain in time, resources and investment is prodigious. As historian A. C. Sutton put it, "The technological dragnet is unbelievably thorough and complete. It is doubtful whether any technical or economic development of consequence has escaped examination by the Soviets."

"Prototypes of promising processes [are] acquired, examined, dissected, catalogued, and analyzed in the most minute detail. The process most suitable for Soviet conditions [becomes] the standard. When the standard [has been] identified, it [is] prepared for duplication and standard drawings are prepared. . . . The Soviet system has institutional procedures enabling the rapid, usually successful transfer of Western technology at low cost and in a relatively efficient manner. . . . The Soviets have demanded and have been supplied with the frontier work of capitalist systems often before it is utilized in the country of origin. . . ."

In short, the Soviet system has axiomatically organized itself in such a way as to *ban* organically generated innovation—"The Soviet manager hates innovation as the devil hates holy water," Leonid Brezhnev is reported to have said once. It remedies this self-imposed plight by looting the rest of the world economy, skimming off the top through the agency of the KGB and associated organizations.

What is the West doing?

In 1949, the U.S. Export Control Act was passed which prohibited export of strategic materials without an export license. In 1951, the Battle Act extended this to the NATO members and other nations, who would be denied U.S. aid and assistance unless they complied with such restrictions. The Trade Agreement Extension Act, the Mutual Security Act of 1954 which limited or banned the export of weapons, ammunition or related technologies, complemented this legislative arsenal, as well as the Agricultural Trade Development and Assistance Act. A special NATO agency was established, the Coordinating Committee for Multilateral Export Control (CoCom), which informally allowed all NATO members (except Iceland), plus Japan, to set up lists of goods (nuclear, military and civilian) where exports are restricted, if not banned altogether. CoCom, however, has no juridical status, nor are its recommendations binding. And it is a case where the loopholes have been far larger than the protective wall.

Legislation enacted in the United States in 1969 (the Export Administration Act) and in 1977 (the Export Administration Amendments Act) have considerably softened the impact of the restrictive measures taken before the détente era. Worse, the extraordinarily lax attitude taken by senior U.S. administration officials over the decades, has massively weakened the efficacy of these measures, both in the United States and abroad. Robert McNamara, when secretary of defense, brutally overruled Pentagon and CIA objections to the granting of export licenses on hypersensitive equipment—such as the famous Centalign B machines which ground miniature ball-bearings. Henry Kissinger, as NSC chief in 1972 made sure that every item on this particular Soviet shopping list was delivered. The State Department and the Department of Commerce have similarly manifested unbelievable laxity on the subject.

Recent timid, if commendable, measures taken by the Reagan administration have predictably provoked howls of horror from the East-West trade mafias, and their political-journalistic accomplices. The establishment of the "IT2 Committee" and the International Technology Transfer Committee to coordinate the "anti-theft" programs, the drawing of a 700-page Military Critical Technologies List and a "militarily significant emerging technologies awareness list" dubbed by its acronym METAL, as well as the Commerce Department's Compliance Division's Denial List, which blacklists violator companies and individuals, have gone some way toward improving the world's most leaky situation.

In March, the Department of Defense scored a significant victory in being granted by the President the right to review (if not veto) the export licenses for all "dual-use" technologies. This of course extends not only to U.S. companies, but also their foreign subsidiaries and affiliates, as well as foreign companies using components of U.S.-developed technologies.

The aggrieved yelping of innocent Western businessmen and the solidarity displayed in Moscow are most revealing. "British scientists describe the situation as 'potentially explosive,'" the London *Sunday Times* wrote, reporting that Mrs. Thatcher and Chancellor Helmut Kohl had protested with Washington against the new restrictions. "NATO faces one of the severest tests yet of its cohesion as the row over computers between the U.S. and the members of the Alliance worsens," wrote the *Times* of London.

In countries that have been the most prominent interfaces in the huge smuggling/transshipment business—Switzerland, Austria, Sweden, Norway, etc.—the howling has been deafening. Moscow would not let such injury to harmless capitalists go unanswered. During the month of March, the Novosti news agency spouted a series of self-righteously angry articles scorning the proposed tightening of CoCom rules.

Will NATO get serious? Desirable and urgent as it is to deny Moscow the benefit of using the West's best and the most advanced technologies to equip its military blackmail and war-fighting machine, the appointment of former British Foreign Minister Peter Lord Carrington as secretary-general of the Atlantic Alliance bodes ill for such a resolve: Was not the chairman of Britain's General Electric Company (GEC) touring Bulgaria as recently as last October in an effort to promote the sale of the GEC-Plessey advanced "System X" electronic digital telephone exchange, which includes highly sophisticated, dual-use equipment?