Director of Central Intelligence

~~Secret~~

[redacted] 25X1

#59

H.F.

Austria: Technology Transfers to the Soviet Bloc [redacted] 25X1

Technology Transfer Intelligence Committee

~~Secret~~

TTIC 83-10003
June 1983

Copy 343

25X1

Austria: Technology Transfers to the Soviet Bloc

25X1

This paper was prepared by
Technology Transfer Intelligence Committee.

Comments and queries are welcome and may be directed to
Technology Transfer Intelligence Committee,

25X1
25X1
25X1
25X1
25X1

Secret
TTIC 83-10003
June 1983

25X1

Notes

The DCI's Technology Transfer Intelligence Committee (TTIC) serves as the focal point within the Intelligence Community on all technology transfer issues. The Committee coordinates Community activities and is the principal source of intelligence support for those US Government entities responsible for policy and action on technology transfer issues. It works with other Intelligence Community committees and appropriate agencies to ensure that intelligence information collected on technology transfer is consistent with the DCI's priorities and guidance and meets the needs of Community production organizations.

TTIC Members

25X1

Mr. Bohdan Denysyk	Commerce
Mr. L. Britt Snider	Defense
Dr. Robert L. Bingham	Energy
Mr. A. R. Cinquegrana	Justice
Mr. Steve A. Saboe	State
LTC Alan D. Blackburn	Air Force
Mr. Merrill T. Kelly	Army
Mr. Bobby Ellison	Navy
Mr. E. R. Atkinson	Treasury
Mr. Lyle J. Theisen	FBI

25X1

Maj. Jack K. Lyons OSAF

25X1

(Executive Secretary)

25X1

[redacted] 25X1

This study was prepared for the Economic Defense Advisory Committee and for the Senior Interagency Group on the Transfer of Strategic Technology by an interagency working group of the DCI's TTIC. It was approved by the TTIC on 2 May 1983.

Working Group Members

[redacted]	25X1
Mr. Roger Lewis	DoE
Mr. Dennis Varnau	Air Force/FTD
Mr. John Harris	FBI
Mr. John Otto	Army
[redacted]	25X1
Mr. Steve Saboe	State
Mr. Bowman Miller	State
[redacted]	25X1
Mr. Phil Stevens	Treasury
[redacted]	25X1
Dr. Don Quinn	TTIC Staff

The TTIC Export Control Subcommittee (EXCON) played a special role in the development of this study. [redacted] is Chairman of EXCON. 25X1

[redacted] 25X1

25X1

Austria: Technology Transfers to the Soviet Bloc

25X1

Summary

We believe the Austrian Government is willing to assist the United States in restricting the flow of US and possibly other Western technology to the USSR and Eastern Europe. This is in large part because Vienna wants to avoid losing access to US technology. Because Austria's neutrality and free trade posture encourages trade with Communist countries, Vienna will not agree to curtail the transfer of indigenously produced strategic technology. The Soviet Bloc in 1981 accounted for about 11 percent of Austria's exports, and, by the end of 1982, credits to the Soviet Bloc amounted to $6.9 billion—about 10 percent of the total Western loans to the Soviet Bloc.

25X1

Most illegal sales appear to involve trading firms that acquire equipment in other countries and transfer it to the Bloc. Austrian products, for the most part, do not appear to be the target of Bloc acquisition efforts. Soviet interest in Austrian industry may change, however, as Austrian industry increasingly diversifies into the high-technology areas.

25X1

The transfer of high technology to the USSR and Eastern Europe occurs through a number of transfer channels. For COCOM-controlled equipment, it occurs through:

- Legal sales of Western technology with important military applications for Warsaw Pact countries.
- Commercial diversions or illegal sales of Western equipment by Austrian firms or individuals.
- Austrian designed and produced high technology.

25X1

More than 100 Austrian firms or entities have been identified by the Department of Commerce as suspected diverters of equipment to the Soviet Bloc. These firms are largely low capitalized small businesses and trading firms and, more often than not, act in concert with firms from other countries besides the country where the equipment was originally produced. These firms are often involved in computer or microelectronic importing and/or manufacturing. Austria also is a major servicing center for Eastern Europe; spare parts are stored there and technicians can be sent to the East to repair equipment.

25X1

25X1

Other militarily-relevant transfers have occurred through legal trade channels. For example, the Austrian firm GFM has sold since the late 1960s at least 26 automated rotary forges to the USSR that have been used to produce gun barrels for the T-72 tanks and T-64 tanks, towed and self-propelled artillery, assault rifles, and machineguns. Austria's domestic weapons industry, however, is directed toward its own defense, and no significant arms sales are made to Soviet Bloc countries. Austria does export a wide variety of military equipment and armored vehicles to other Third World countries.

25X1

Other channels for technology acquisitions in Austria are the large number of international organizations headquartered in Vienna.

25X1

25X1

To stem the loss of Western technology through Austria would require a greater commitment of political, financial, and personnel resources to develop new and more efficient mechanisms to enforce strategic trade controls. We have no evidence that the Austrian Government has the will or intention to make the necessary effort.

25X1

Contents

25X1

Austria: Technology Transfers to the Soviet Bloc

25X1

Austria Views its Neutrality

Austria's status was legislated by the Neutrality Act of 1955, which created an international position unknown in Austria's 1,100-year history. The neutrality question is almost always cited by Austrian officials whenever the subject of technology transfers to the Soviet Bloc is raised. Although the US Embassy has commented that the legal impact of neutrality on Austria's technology transfer decisions is often overstated, it cannot be ignored.

Austria's neutrality has been largely defined by the philosophy of its political leaders, particularly Bruno Kreisky, the Austrian Chancellor between 1970 and 1983. Not only does he play an important role in fashioning Austria's neutrality today, but he also was the leading Austrian foreign affairs expert in 1955 when the State Treaty and Neutrality Act were signed. Austria specified that its policy of "armed" neutrality would be patterned on the Swiss model. Because the State Treaty prohibited Austria from maintaining guided or mass-destruction weapons, however, Austria's ability to defend itself and live up to its "armed" neutrality was limited. An additional factor in Austria's neutrality is the position taken by the Soviets, who have occasionally reminded Austria of its neutrality whenever they believed Vienna might be straying from Moscow's interpretation. We believe that this pressure is not lost on the Austrians, who not only are grateful to the United States but also fearful of the Soviets. Both the Soviets and the United States are signatories of Austria's State Treaty.

What has developed, however, is an Austrian policy of "active neutrality" that includes a role as peacemaker. Kreisky's position was that Austria has a special duty to promote detente between NATO and the Warsaw Pact even though Austria is politically pro-West. The combination of Austria's "active neutrality" policy and Kreisky's political position have had a number of implications for Austrian technology transfers to the Soviet Bloc:

- Austria believes that it must treat East and West equally and therefore cannot discriminate in trade.
- Vienna believes that it should not be pressured to control indigenously developed technology.

The Legal Framework for Controlling Technology Transfers

25X1

The Ministry of Commerce, Trade and Industry (MCTI) has primary responsibility to authorize exports and reexports of Austrian-origin commodities. If agricultural products are involved, the Ministry of Agriculture is the authority, although MCTI permission also may be required on occasion. The export of weapons also requires MCTI authority as well as concurrence from the Austrian Council of Ministers. In some cases, these ministries may delegate authorization to grant export licenses to the governors of the provinces.

25X1

25X1

The statutory basis for Austrian export regulations is the Foreign Trade Act of 1968 and its amendments. Import restrictions and export restrictions on Austrian-made products pertain to only a few items such as petroleum, natural gas, penicillin and other antibiotics, chemicals, certain agricultural items, and selected steel products. However, Vienna may suspend the principles of unrestricted exports of other products and introduce controls on any products in case of: international obligations (for instance, UN sanctions against Rhodesia); a trade imbalance with another country; or a threat to the national economy. Such controls, however, are temporary and must be removed whenever these conditions are corrected. In these areas, Austrian export regulations mirror the short supply and foreign policy stipulations in US trade regulations.

25X1

25X1

Although the Foreign Trade Act treats the exports of Austrian products liberally and does not have provisions to control an Austrian commodity once exported, the Foreign Trade Act does not permit the reexport of foreign goods or technology that have

entered the commerce of Austria (customs duties paid) unless permission is granted by the authorities of the originating countries. Such authorizations are kept on file in the Ministry of Commerce. Austrian law, however, does not deal with the disposition of foreign goods that transit the country. Violators of the Foreign Trade Act may incur fines of more than $10,000 and up to four years' imprisonment if export approval has been obtained illegally

Besides the Foreign Trade Act, Austrian firms are usually bound by contract or conditions of the US export license to abide by US export regulations. For example, if a US firm legally sells a computer to an Austrian company with the condition that the computer would not be transferred to a Bloc country but such a transfer occurs and is detected, the Austrian firm would face penalties under US export laws, such as denial of import privileges from US firms. Moreover, Austria is one of the few non-COCOM countries that issues an International Import Certificate for controlled products shipped legally to Austria. In the United States, this certificate is sent to the Department of Commerce and represents an undertaking by Austria to exercise legal control over the disposition of the commodities covered.

In addition, Austria agreed in an exchange of letters on 1 February 1983 with the United States to new procedures to protect US technology and equipment transferred legally to an Austrian company. Under these procedures, the US firm wishing to export high-technology items to Austria must agree with the Austrian importer on safeguards against the unauthorized use of this technology. The Austrian firm then takes this agreement to the MCTI, which determines whether or not the firm can be trusted to meet the terms of the agreement. If so, MCTI then issues an import authorization, thereby forming the basis for Austrian participation in guarding the US technology and also providing an official basis for approaching the Austrians at a later date, should something go awry. After being informed of the import authorization, the US Department of Commerce issues an export license to the US firm. Because the agreement is not based on Austrian law and does not specify US technology and products, it could be used with other countries.

Austria's customs officers are responsible for monitoring the flow of exports and imports, but their resources are limited and targeted primarily at arms and drug smuggling. A customs agreement between the United States and Austria allows inspections by US Customs agents when US export control violations occur in Austria. US Customs officers have averaged between 10 to 12 cases annually and have indicated that, until the technology transfer problem with the United States became an issue, cooperation with Austrian customs officials had been good. Austrian customs procedures, like those of their West European counterparts, are not thorough and facilitate easy cross-border transfers of commodities. If this were not the case, normal trade in Europe would be hindered. Physical inspections by the Austrians are infrequent, and spot checks of reexports occur only following tipoffs.

25X1

25X1

Economic Relations With the Soviet Bloc

By far the leading area of Austrian contacts with the Soviet Bloc is foreign trade, a sector that plays an important role in the Austrian economy and accounted for 56 percent of the Gross Domestic Product in 1981. Austria has been a unique gateway to markets in the East because of historical, political, and geographical considerations. The trade has been helped, in part, by the establishment of a number of firms in Austria that specialize in East-West trade. For example, the Information Office for the Promotion of Foreign Trade in Vienna—a nonprofit organization with branch offices in Warsaw, Bucharest, and Sofia—was established to counsel commercial member firms concerning marketing conditions and practices in Eastern Europe, transfer of counterpurchase commitments, switch transactions, and joint ventures. In addition, a number of experienced "barter houses," mainly affiliates of Austrian and foreign international banks, offer their services in resolving countertrade obligations.

25X1

25X1

In 1981 Austria's trade with the Soviet Bloc accounted for 11 percent of Austria's total exports and 12 percent of its imports. Of the seven Soviet Bloc importing countries, no single country accounted for

25X1

Table 1
Austria's Trade With Soviet Bloc Countries, 1977-80

	Million Dollars					*Share of Overall Trade*				
	1977	1978	1979	1980	1981	1977	1978	1979	1980	1981
Imports from:										
Bulgaria	36.0	36.5	40.1	45.6	44.8	0.3	0.2	0.2	0.2	0.2
Czechoslovakia	198.5	242.3	320.4	449.0	395.2	1.4	1.5	1.6	1.9	1.9
East Germany	85.7	97.3	118.1	163.8	162.0	0.6	0.6	0.6	0.7	0.8
Hungary	198.2	182.5	239.5	334.7	316.2	1.4	1.1	1.2	1.4	1.5
Poland	147.7	149.6	201.7	238.4	163.4	1.0	0.9	1.0	1.0	0.8
Romania	72.1	81.0	85.0	105.4	105.1	0.5	0.5	0.4	0.4	0.5
USSR	509.6	610.8	768.2	1,018.6	1,309.4	3.6	3.8	3.8	4.2	6.2
Total Soviet Bloc	**1,247.8**	**1,400.0**	**1,773.0**	**2,355.5**	**2,496.1**	**8.8**	**8.8**	**8.8**	**9.7**	**11.9**
Total imports worldwide	**14,209.6**	**15,968.4**	**20,188.0**	**24,256.7**	**21,003.0**					
Exports to:										
Bulgaria	49.3	62.0	92.8	117.0	118.8	0.5	0.5	0.6	0.7	0.8
Czechoslovakia	212.9	220.7	216.0	235.1	205.4	2.2	1.8	1.4	1.4	1.2
East Germany	103.7	121.6	168.7	227.6	210.2	1.1	1.0	1.1	1.3	1.3
Hungary	301.3	373.8	352.8	378.6	420.0	3.1	3.1	2.3	2.2	2.7
Poland	356.2	370.3	434.4	465.0	220.7	3.6	3.1	2.8	2.7	1.4
Romania	113.8	146.0	214.6	195.7	144.4	1.2	1.2	1.4	1.1	0.9
USSR	278.8	370.2	510.4	474.4	484.7	2.9	3.1	3.3	2.7	3.1
Total Soviet Bloc	**1,416.0**	**1,664.6**	**1,989.7**	**2,093.4**	**1,804.2**	**14.5**	**13.7**	**12.9**	**12.1**	**11.4**
Total exports worldwide	**9,789.0**	**12,127.6**	**15,429.4**	**17,369.5**	**15,807.8**					

25X1

more than 3.1 percent of the overall 11 percent share. Austrian imports from the Soviet Bloc, however, were somewhat less broadbased. The Soviet Union accounted for about half of the 11.9 percent total (table 1).

25X1

Despite Austrian efforts to court the Soviet Bloc market, the trade balance with the Bloc has been deteriorating. While Austrian imports from the Soviet Bloc increased from 9 percent in 1977 to 12 percent in 1981, the share of Austrian exports to the Soviet Bloc declined from 14 percent in 1977 to 11 percent in 1981—the lowest since 1955. As a result, Austrian trade with the Soviet Bloc deteriorated from a surplus of about $170 million in 1977 to a deficit of $690 million by 1981 primarily because of Austria's growing energy imports. Yet preliminary indications from 1982 show a decline in this deficit, as Austria was able to increase its exports and reduce its imports.

The Soviet Union remains an important trade partner, primarily as a supplier of energy products. It provides about 25 percent of Austria's oil products and all of its natural gas. From 1975 thru 1981 Soviet energy exports to Austria accounted for about 83 percent of the total exports to Austria (table 2). Table 3 shows Austria's major exports to the Soviet Union for 1975 through 1981, which include a wide variety of machinery, ferrous metals, and pipes. Austria's highly regarded machine-tool sector accounted for about 5 percent of their exports to the Soviet Union for this period. The Soviets regard Austrian trade highly as reflected in a December *Pravda* article by Soviet Minister of Foreign Trade, N. Patolichev, who reiterated the steady growth in Soviet-Austrian trade and indicated that "spheres of cooperation" were being extended.

25X1

25X1

Table 2
Soviet Exports to Austria
1975-81

Percentages

Total	**100.0**
Energy	83.2
Hard fuels	5.7
Oil and oil products	39.9
Gas	37.6
Machinery and equipment	1.3
Iron ore	1.2
Chemical products	1.2
Lumber and related products	3.0
Cotton fiber	1.5
Other products	8.6

Table 3
Soviet Imports From Austria
1975-81

Percentages

Total	**100.0**
Machinery and equipment	32.3
Machine tools/forging-pressing equipment	4.9
Wire and cable	2.7
Chemical machines and equipment	2.5
Industrial fitting/mountings	3.5
Ships and shipbuilding equipment	4.4
Other	14.3
Rolled ferrous metals/pipe	29.1
Chemical products	5.8
Clothing (such as outwear, knit goods, leather shoes)	12.5
Other imports	14.5
Not specified/identified	5.8

25X1

25X1

In recent years, on a per capita basis, Austria has been by far the most generous creditor to the Soviet Bloc. Although Austria's share of the entire Soviet Bloc trade with Western countries is only 5 percent, nearly 10 percent of loans by Western banks to the Soviet Bloc were contributed by Austrian institutions. In the past few years, the level of total credits has increased dramatically, rising from $4 billion in 1979 to more than $6.9 billion today, although the rapid increase slowed in 1982. One explanation for the dramatic increase in credit is that the Bloc countries are just now drawing down longer term credit agreements that were granted by Austria, but not reflected in the statistics at that time.

25X1

Austria's credit situation is caused in part because the government encourages trade to reduce the deficit and unemployment. Another factor is the Austrian practice of financing major industrial projects that include orders for non-Austrian goods. For example, Voest-Alpine is sharing part of its order for the construction of a steel plant in the Soviet Union with Italy's Nuovo Pignone, although Austria is providing all the financing.

Besides trade and credit activities, other areas of Austrian–Soviet Bloc cooperation are under way. Tourism is important to the Soviet Bloc countries as a source of hard currency. It has been aided by visa-free tourist travel—up to 30 days—between Austria and Hungary, Romania, Bulgaria, and Yugoslavia. In addition, Czechoslovakia and Austria signed an agreement in 1975 allowing visa-free business travel.

25X1

Austria's Arms Industry and Sales Abroad

Since 1955 Austrian leaders have maintained that their country's neutrality requires a domestic industry to provide equipment for Austria's defense forces. They believed that reliance on imported arms could compromise Austria's ability to pursue a neutral foreign policy, but at the same time, Austria's defense industry is limited by financial constraints and industrial capacity. In addition, a clause in the 1955 State Treaty prohibits Austria from either producing or procuring offensive weapons, including missiles. Austria attempts, nonetheless, to meet most armed forces requirements with domestic weapons technology and production.

25X1

25X1

Any weapons technology Austria imported came from the West and not the Soviet Bloc. About 40 percent of Army materiel still must be purchased from foreign

suppliers, including all of the country's military aircraft and most of its tanks and artillery. Since 1954 about $400 million worth of arms have been imported, including fighter aircraft from Sweden and helicopters from the United States. Austria is only prohibited by the State Treaty from buying arms from West Germany.

Although not large by Western standards, the Austrian defense industry plays an important role in the Austrian economy. Approximately 7,500 engineers and technical specialists in about two dozen firms work exclusively on military products. Most of the firms are privately owned. But the country's largest arms manufacturer, Steyr-Daimler-Puch (SDP), which employs 17,500 workers and depends on military hardware sales for more than one-fourth of its business, is largely owned by Creditanstalt in which the government holds extensive shares. In addition to the domestic producers, Austrian arms manufacturers have invested abroad to increase production of Austrian arms outside of the country to avoid undue domestic political constraints on export decisions. For example, SDP has established factories in Greece and Nigeria, and there are other Austrian-owned munitions facilities in Iraq and Syria.

Products. Austria builds a wide variety of military equipment to include armored vehicles, all-purpose trucks, artillery pieces, and infantry weapons. Perhaps the most important weapons produced by Austria are armored vehicles—light tanks, armored recovery vehicles, and armored personnel carriers. The most sought after, the SK-105 Kuerassier light tank (PJK), was developed in 1965 by SDP, which produces all of Austria's armored weapons. The tank, which is based on a modified armored personnel carrier of domestic design, appeared in prototype in 1967 and entered serial production in 1971. Since then, more than 400 vehicles have been produced, and at least half have been exported. More than 143 subcontractors have contributed to its production, and all the parts are indigenously manufactured.

Other armored vehicles produced include its Greif armored recovery vehicle, and its Sauer armored personnel carrier. More than 450 Sauers were built, primarily for the Austrian armed forces. Austria also is considering producing a 20-mm AA vehicle, which would be manufactured for export. Unlike all other armored vehicles produced in Austria, SDP is not slated to build the AA vehicle; rather, Voest-Alpine AG, primarily a steel products and machine-tool manufacturer, will be building the vehicle. 25X1

Additional military vehicles include: the SDP-produced Pinzgauer, a four-wheel drive vehicle used as a personnel carrier; the quarter-ton, 4 by 4 jeeplike Haflinger truck; the Steyr 680 M, a 2.5-ton 4 by 4 truck; and the Haflinger II, a three-quarter to one-ton all-terrain vehicle. Annual output of the Pinzgauer is about 2,500, although annual plant capacity is estimated at 30,000 vehicles. Plans call for exporting about 11,000 Haflinger IIs. 25X1 25X1

For years, Austria had a limited capability to produce artillery, but recently it has been producing the 155-mm GHN-45 Howitzer, which is based on a Canadian design. Austria's artillery production is limited by the State Treaty, which precludes the production of weapons with a range above 40 kilometers. Austria circumvented that restriction by building the artillery pieces for export that use Belgium long-range rounds which carry over 40 km. 25X1 25X1

Infantry weapons represent the industry's strongest sector. These, for the most part, are produced by SDP. The industry produces small arms in calibers through 9 mm, of which the 5.56-mm Sturmgewehr 77 (AUG) is considered one of the world's best assault rifles. Production capacity is now about 90,000 annually. Other small arms produced for export include the MPI 9-mm submachinegun and the AM-180 22 caliber rapid-fire submachinegun. The AM-180 is produced under a US contract. 25X1

Arms Exports and Policy. Because the cost of equipping Austrian forces from the domestic industry is as much as 25 percent higher than the cost of comparable systems in other countries, there has been a strong incentive to achieve greater economies of scale and reduce unit production costs by producing arms for export. Such exports also have provided a valuable source of foreign exchange with earnings of about $600 million since 1954, which more than balances 25X1

the arms import bill. Business as well as labor benefit from the arms trade. An SDP official has calculated that a worker on one of the company's defense projects brings in approximately $81,640 in sales, whereas a worker involved in one of its nonmilitary projects accounts for only $45,200 in sales. Consequently, industry and labor groups can be expected to continue to pressure the government to approve arms exports despite some domestic opposition from other groups.

In Austria, the Minister of Interior authorizes weapons sales abroad in coordination with the Ministers of Defense and Foreign Affairs. For the most part, Austria's arms export policy could be considered rather liberal, although its official policy does exclude exporting arms to countries that are at or near war, and where there is a danger of weapons being used to violate human rights. The human rights provision, however, does not include small arms. In the interest of domestic economic considerations, Vienna will probably continue the balancing act between maintaining strict neutrality and sanctioning arms exports to areas of tension. In the past, they have approved sales to democracies as well as to both leftwing and rightwing totalitarian regimes. Austrian arms sales to the Soviet Bloc countries, however, have been limited to ammunition and rifles. These were sold to Bulgaria in 1969 and 1976.

The arms trade also has proved useful in furthering Austria's foreign policy objectives with the Arab states—the major suppliers of their oil—many of whom would rather purchase arms from neutral Austria than either the West or the Soviet Bloc. For example, in 1980, an Austrian consortium signed an agreement with Iraq to construct the Saad Munitions Plant. The plant will produce small- to very-large-caliber ammunition. Although the negotiations began before the outbreak of hostilities with Iran, Austria ignored their own rules on arms sales to countries at war. Saudi Arabia also has purchased about $100 million worth of rifles, machineguns, and diesel trucks in recent years.

Despite Vienna's liberal policies, all sales have not been approved. A prime example was the refusal in 1980 of the proposed sale of PJKs to Chile. The Austrian Socialist Party's (SPO) left wing, supported by Socialist youth groups and leftwing Catholic organizations opposed sales to Latin America because they were convinced that rightwing regimes would use the Austrian arms to suppress domestic dissent, which was often led by Socialist and Catholic activists. Other domestic political factors—including a financial scandal in the SPO—contributed to the negative decision. Another denial concerned the proposed sale of about 100,000 assault rifles to Communist China with additional sales pending. In this instance, the Soviet Union protested strongly, and Vienna decided not to go ahead with the transaction. 25X1 25X1

Austria's High-Technology Industries

Until recently, Austria's domestic high-technology industries—particularly those whose products are defined by COCOM as controlled—were limited and did not offer a major target for Soviet Bloc acquisitions. Domestic production of computers and peripheral equipment is negligible, and Austria has to import hundreds of millions of dollars worth of these products each year to meet its own requirements. The production of business equipment is also rather small. It includes only cash registers, dictaphones, simple copying devices, punches, and staplers. Medical instruments and equipment, including a variety of computerized diagnostic equipment, are produced only in limited quantities—only $35 million in 1980—whereas the country imported $99 million of medical instruments that same year. A similar situation exists for other scientific and analytic instruments where local production worth $75 million in 1980 mostly consisted of standard equipment such as electrical recording instruments and temperature and humidity measuring devices. In addition, the manufacture of advanced production and test equipment is practically nonexistent; imports are relied on almost exclusively ($50 million in 1980). 25X1 25X1

Vienna has realized the need to upgrade its industrial base and diversify into more high-technology areas, which, when coupled with Austria's already high-quality machine-tool and optics production, may make it a more fertile ground for Bloc acquisitions of advanced technologies. 25X1 25X1

The Austrian electronics industry is moving away from relatively simple products—such as radios, and black and white television sets—toward more sophisticated items, such as video recorders, wordprocessing systems, and small business computers. Other projects leading to domestic production of semiconductors—the Voest-Alpine case, CNCs for machine tools, and microprocessor-based industrial and appliance controls—are in the negotiation and planning stages. Finally, there is the planned introduction in 1988 of a new digital computerized telephone system. Installation will take 10 years at an estimated cost of $200 million annually. Four Austrian firms and the government are working on this project.

East-West Transfers

Firms and individuals in Austria have transferred high-technology equipment to the Soviet Bloc for many years. The situation in Austria is complicated, however, by a number of factors. Because Austria is neutral and free from COCOM restrictions, the distinction between a legal or illegal sale is often vague. Moreover, unlike other European neutrals, Austria does not have informal arrangements to monitor the sale or production of equipment defined by COCOM as controlled within its territory. However, Vienna claims that it voluntarily abides by US rules.

The number of reported Austrian cases involving illegal sales of COCOM equipment has been comparatively low—some 27 cases since 1966, compared with 129 for West Germany, 43 for Switzerland, 29 for France, and 33 for Japan. We also have no evidence that Vienna supports illegal sales of COCOM equipment. Vienna has been aware of the overall problem for many years, particularly since demarches by the US Government were made several years ago. It also is well aware of the legal sales that have displeased the United States.

The transfer of high technology to the Soviet Bloc through Austria occurs in a number of ways. For the equipment and technology defined by COCOM as controlled, the transfers include Austrian-designed and -produced equipment, commercial diversions or illegal sales of Western equipment by Austrian firms or individuals, and legal sales of Western equipment. Other areas for technology acquisition in Austria occur through the large number of international organizations headquartered in Vienna. In addition, Soviet and East European intelligence services have collection operations aimed at sensitive high technologies. Also, transfers of equipment or technology that are not controlled by COCOM, but which occur through normal trade channels, aid the Soviet Bloc economies and might indirectly benefit their military establishments. 25X1

Austrian-Designed and -Produced Equipment That COCOM Defines as Controlled. The most publicized and perhaps most significant irritant in US-Austrian relations concerning transfers has been the sale since the late 1960s of at least 26 automated rotary forges 25X1 to the Soviet Union by the Austrian firm, Gesellschaft fuer Fertigungstechnik und Maschinenbau A. G. (GFM). These exceptionally efficient forges are used to produce gun barrels. The GFM process can simultaneously shape and rifle the hollow gun-barrel blanks. The process improves the precision and quality of the forgings, reduces subsequent machining time and requires less metal, energy, and manpower. The Soviets use the forges to produce barrels for the T-72 and T-64 tanks, towed and self-propelled artillery, assault rifles, and machineguns. 25X1

Because of the success the Soviets had with GFM 25X1 equipment, in 1972 they tried to negotiate a GFM license to produce their own small-caliber rotary forges, but GFM refused. The USSR then tried to induce GFM to build a plant in the USSR or Eastern Europe. GFM also declined this offer. Although the Soviets failed to acquire the technology directly, they continued to import substantial quantities of forging equipment. Indeed, between 1975 and 1980, the USSR became one of GFM's largest customers, buying more than $70 million worth of gun-barrel forging machines alone. Most recently, the Soviets have ordered an SXP 85, the largest rotary forge ever 25X1 developed by GFM, with delivery slated for this year.

25X1

Vienna's position on the sales is that it is free to market Austrian technology to all customers. The GFM forges contain no US or other Western technology. Austria also claims that, although the forges

have a dual function, they were designed primarily for civilians. Between 1975 and 1980, the Soviets bought $50 million worth of equipment from GFM that was clearly sold to the civilian sector. Finally, Austria argues that as a neutral power it cannot restrict the sale of items to Warsaw Pact states if those same products are available to the West. The US arsenal at Watervliet uses GFM equipment to produce barrels for the M-60 and M-1 tanks. Undoubtedly, however, it is the substantial export earnings generated by these sales that appeals to Austria.

The United States is concerned about robotics in the machine-tool sector and is working on controlling it under COCOM.

Diversions of Controlled COCOM Equipment. We do not have a clear profile of the type of Austrian entities that play a role in the diversion effort. It does not appear that the management of major Austrian firms or subsidiaries of Western firms are engaged in the trade, although their employees may be. But we do see the involvement of small businesses with low capitalization and heavy participation by various trading firms. Austrian firms, more often than not, also act with firms from other countries besides the country where the equipment was originally produced. This obscures the original diverter in the process. There is, however, ample evidence that some Austrian firms know about, if not sponsor, diversions of COCOM-controlled equipment to the Soviet Bloc.

25X1

More than 100 Austrian firms or entities (including possible misidentifications and duplications) have been tentatively identified by the Department of Commerce, but almost none of these have been approached by the US or Austrian authorities about their activities. Austrian firms do not appear to be a primary target of acquisition attempts—perhaps because they produce little indigenous high technology of interest to the Soviet Bloc. Rather, Austrian firms act mainly as procurers and freight forwarders for equipment bought in other Western countries. Our information also indicates that US equipment is diverted more than any other. At least several computers, a number of integrated circuits—including microprocessors—several oscilloscopes, and several pieces of US semiconductor manufacturing equipment have reached the Soviet Bloc illegally through Austria.

25X1

25X1

25X1

25X1

Legal Sales of COCOM Equipment. Because of its borders with Eastern Europe, Austria also is a major conduit for legally licensed sales of COCOM-controlled computer technology to the Soviet Bloc. Most of these transfers involve sales of equipment through subsidiaries of Western firms in Austria such as Control Data, Burroughs Computer Systems, Digital Equipment Corporation, Hewlett-Packard, IBM, and Siemens. The largest markets are minicomputers and software; we believe that much of this equipment has been sold to the Soviets through Austrian marketing representatives. Austria also serves as a major servicing center for Eastern Europe; spare parts are stored there, and technicians can be sent to the East to repair equipment.

25X1

25X1

Transfers Through International Organizations. Because of Austria's neutrality and the promotion of Vienna as an international center, Vienna has become the headquarters of a number of international organizations, including the Organization for Petroleum Exporting Countries (OPEC), the United Nations

International Development Organization (UNIDO), the International Institute for Applied Systems Analysis (IIASA), the International Atomic Energy Agency (IAEA), and the International Patent Documentation Center (INPADOC). Many of these organizations include among their members a wide variety of international specialists who can be openly approached by their Soviet Bloc counterparts—some of whom have intelligence credentials. Any exchanges that might occur through oral or written communications—most of which are not controlled—offer an additional method of technology transfer that may supplement the flow of equipment to the Soviet Bloc. The lack of resources or desire by the Austrians to monitor these activities contributes to potential flows.

The best example of Soviet Bloc use of these organizations is their involvement with IIASA.[1] IIASA is funded by private US organizations, the USSR, and 15 other nations, including most East European countries. While participating in genuine scientific research and systems analysis studies, the Soviets also have used IIASA to acquire scientific and technical data. Although it appears that the information obtained by the Soviets is not controlled by COCOM, some Soviet staff members have acquired proprietary Western technical data without paying for it. The Soviets also have had access to leading Western scientists through IIASA and to Western firms that also participate in the Institute's work, such as Siemens, IBM, Shell, and Bechtel.

We believe that, in their work at IIASA with computers, the Soviets have derived considerable benefits. IIASA provides access to Western scientific data bases through the Euronet, Tymnet, Telenet, and European Space Agency Computer networks. More importantly, however, they probably have gained hands-on experience with the large Western computers, that are not available in the Soviet Bloc, through various timesharing arrangements. In addition, the Soviets have access to a CRAY-1 computer in the UK through the Euronet system. Such access permits high-speed running of large-scale modeling efforts. Although the Soviets claim that the CRAY-1 is being used for climate modeling, we cannot rule out possible military applications. The experience working with large-scale computers and the attendant software has almost certainly helped Soviet Bloc scientists at IIASA.

25X1

Although the Soviet Bloc has excellent access to data banks through IIASA, some of the same data-bank functions of IIASA are also available to them elsewhere. For example, the Soviets have access to the Lockheed "Dialog" data base through IIASA, but because Lockheed has more than 19,000 subscribers in 60 countries for the "Dialog" system, the Soviets probably could gain access to the system some other way. Additionally, through numerous other outlets in Europe, including their own firms in Belgium and Finland, the Soviets are able to access other data bases available through IIASA.

25X1

25X1

The concerns with IIASA have not centered on hardware transfers, but there have been two possible equipment transfers. A computer model may have been transferred through IIASA several years ago.

25X1

25X1

25X1

Transfers of Equipment and Technology That Is Not Controlled. By far the greatest number of transfers of equipment and technology to the Soviet Bloc has been through normal trade channels. Austria has sold licenses to Soviet Bloc nations to build rail welding machines, a steelworks, a metallurgical combine, and a turnkey plant for hydrocracking, and it plays a role in supplying pipe and other equipment for pipeline construction in the Soviet Union. The Austrians also have helped in rolling stock and in engine technology.

Austrian Cooperation: Problems and Prospects

Austrian officials claim the State Treaty and the Neutrality Act prevents them from stemming the flow of technology eastward. However, the State Treaty merely "prohibits (Austria) from promoting a political or economic union with Germany," and the Neutrality Act states that "Austria will never in the future accede to any military alliances nor permit the establishment of military bases of foreign states on her territory." While both of these provisions prohibit Austria from joining organizations such as NATO, the provisions do not prohibit Austria from entering into bilateral arrangements with any country except West Germany. For example, Austria and the United States agreed to a comprehensive General Security of Military Information Agreement in December 1982, which will be signed shortly. The agreement permits on-site security surveys of representative military and industrial facilities. Domestic legislation also does not preclude Austria from protecting foreign technology, provided it is simply not transiting the country.

25X1

Economic and Political Considerations. As a small country with limited export potential, Austria can be expected to guard its markets closely. As a result, Austrian officials believe that they cannot prevent the sale of equipment, including arms or technology made in Austria, especially if it will affect jobs at home. Many of their firms are small and heavily dependent upon Eastern markets. Austrian officials fear that restrictions may jeopardize access to these markets; these same firms are among the financially most troubled in the country. For example, in 1981 Voest-Alpine lost nearly $175 million. Economic considerations also weigh heavily in the continued sales of the rotary forges.

25X1 25X1

Media scrutiny of technology transfers and Austria's ambitious credit policy with the East has grown considerably over the last few months. The Austrian press has been generally critical of the US position, at times ascribing domestic political motives. This could force the Austrian Government to defend Austrian interests and sovereignty. On the other hand, the Austrian public remains overwhelmingly pro-West, and the Austrian Government appears eager to resolve the matter quickly. This may be why the Austrians have not raised the issue recently, claiming instead that there are no outstanding issues with the United States. The visit by State Secretary Lacina to arrange the technology transfer agreement with the United States underscores this point.

25X1 25X1

Prospects. Given neutrality, economic, and other considerations, we doubt that the Austrians will agree to limit the sales of their own technology to the Soviet Bloc. They have cited this frequently, most recently during State Secretary Lacina's visits. This aspect of the problem will increase as Austrian firms increasingly expand their manufacturing capabilities into the COCOM-controlled areas of equipment. They also are unlikely to restrict the activities of international

organizations in Vienna, a position that enjoys popular support. There also is little Austria can do to curb intelligence activities of the Bloc, unless they curb activities of Western services as well. Action against either is rather unlikely because most intelligence activities in Austria appear to be directed at countries other than Austria. 25X1

The recent agreement between Austria and the United States should lead to a better monitoring of legal sales of US technology and equipment to Austrian firms, but it will not curb the illegal sales of US and other foreign equipment diverted through Austria. A limiting factor for Austria is their ability to finance and to staff any enforcement effort. Most of the diversions of COCOM-controlled equipment involve equipment that was shipped illegally to Austria. Consequently, the receiving Austrian firm in the diversion route most likely has no document indicating that the firm is legally bound to protect the equipment from transfer to the Soviet Bloc. If the equipment were of US origin, Austrian officials might even offer the argument that diversions actually are caused by US firms trying to circumvent the US embargo. 25X1