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# WORLD MARKET OPPORTUNITIES

**DEFENCE**

## FOREWORD

This publication is one of a series of World Market Opportunities booklets produced by the Department of Industry, Trade and Commerce to assist Canadian companies in determining potential export markets. The information presented has been derived from input provided by the department's various industry sector branches, international bureaux and Canadian Trade Commissioners abroad.

Countries represented have been arranged in special groups that encompass particular market areas of geographical regions. An alphabetical listing of all countries can be found at the back of the publication.

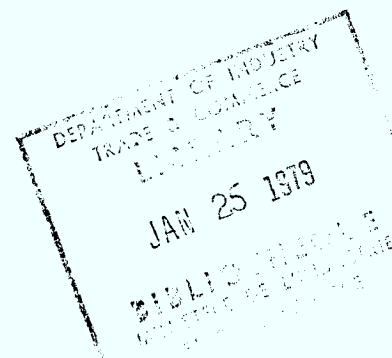
The World Market Opportunities series includes: Agriculture and Food Products, Capital Projects, Chemicals, Defence, Electrical and Electronic Products, Fisheries, Machinery,

Resource Industries and Construction, Textiles and Consumer Products, and Transportation Industries.

Further information on the series or on exporting is available from the department's Business Centre in Ottawa. The centre receives calls 24 hours a day and may be contacted free from anywhere in Canada by dialing "0" and asking the operator for Zenith 03200.

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# EASTERN EUROPE

## CZECHOSLOVAKIA

**The Market**  
No market.

## POLAND

**The Market**  
No market.

## ROMANIA

**The Market**  
No market.

## UNION OF SOVIET SOCIALIST REPUBLICS

**The Market**  
No market.

## YUGOSLAVIA

### **The Market**

The Yugoslavian defence budget has increased from ND 8.9 billion in 1971 to ND 41.8 billion (U.S.\$2.3 billion) in 1978. The defence budget remains fairly constant in terms of percentage of the total federal budget (approximately 50 per cent) and as a percentage of GNP (approximately 6 per cent). However, the Ministry of National Defence has requested additional funds to cover modernization, reflecting official policy of constantly improving military capabilities.

About 40 per cent of the defence budget is for procurement. Yugoslavia fills approximately 80 per cent of its procurement needs from domestic industry; the balance purchased abroad is mainly for high technology items or items which cannot be economically produced at home. An estimated \$100 million annually is spent in the west on procurement.

### **Import Policies**

In general, government and defence purchases are made through independent foreign trade enterprises specializing in the items in which the government is interested, or through the Federal Directorate of Supply and Procurement, a state trading agency allied with the Yugoslav Ministry of National Defence. Public tenders for defence equipment are seldom published in the official Yugoslav Gazette.

An acute shortage of foreign exchange which is likely to persist for a number of years has led the Yugoslavs to place some

degree of emphasis on various means of reducing hard currency expenditures and increasing domestic content in the way of offset considerations. The prospects are that Canadian exporters are likely to meet with more success if they are prepared to consider local manufacture under licence, technical and industrial co-operation, barter, counter purchase or compensation trading.

### **Export Opportunities**

In excess of Cdn. \$100 million has been allocated in the Yugoslav federal budget to finance a major program of integration of civil and military air traffic control services. This sum is to include the equivalent of Cdn. \$40 million in local currency resources and approximately Cdn. \$70 million in foreign currency resources budgeted to cover a wide range of avionics equipment.

Perhaps the largest project on the drawing board at the present time is the "ORAO" ground attack fighter developed jointly with Romania. Serious production is expected to begin shortly and a total of 400 aircraft are said to be planned for entry into service by the early 1980's.

Communications equipment, avionics, mobile airport equipment, aircraft components, research technology, simulators for air traffic control and pilot training and specialized aircraft would appear to evidence best potential at this time.

# WESTERN EUROPE (EEC)

## BELGIUM/LUXEMBOURG

### The Market

Annual defence expenditures in Belgium amount to about 3.3 per cent of GNP, with planned expenditures of \$2.4 billion of which \$400 million will be spent on equipment purchases. Belgium has a substantial domestic defence industry with significant capabilities, for example in munitions and small arms. However, the country's relatively small size means that it must specialize, for example in equipment sub-systems, while most of the major items of equipment (with the notable exception of ships) must be imported. Recent acquisitions include Leopard Tanks, F-16 aircraft, Alpha training jets and navy frigates. An order for armoured personnel vehicles in 1978 will close the cycle of major capital equipment acquisitions.

### Import Policies

The cornerstone in Belgian government procurement policy for defence equipment is its insistence on economic compensations or offsets. The effect of this policy is that, where a foreign manufacturer hopes to make a significant sale of defence equipment to Belgium, he must be prepared to place a maximum volume of work at a similar technological level in Belgium. There are few hard and fast rules on the application of this policy — it is simply the government's intention and

endeavour to obtain the best possible deal for the Belgium economy.

The government's long-term goal is to obtain 100 per cent compensation on defence procurement. This does not necessarily mean that on each individual purchase, full compensations are required — sometimes less may be acceptable. However, as a reflection of the degree to which the Belgian government pursues this policy, offsets obtained over the last 20 years have exceeded foreign defence spending.

Any Canadian company contemplating defence sales to Belgium cannot afford to ignore this requirement.

### Export Opportunities

Most opportunities for the sale of Canadian defence equipment to Belgium occur in conjunction with Belgian procurement of major systems such as those mentioned above. In some cases, Canadian firms with specialized capabilities are able to provide sub-systems which fit into these programs. Significant sales opportunities are sporadic and require a continual watching brief on Belgian procurement plans.

## BRITAIN

### The Market

The level of British government defence expenditures continues to decline. Although Canada has never been a major supplier — total sales since 1970 amount to about \$90 million — Canadian defence equipment sales to Britain in 1977 reached an all-time high of \$33.9 million. Major sales for the period 1962-1977 relate to the following contracts:

Major Defence Contracts from Britain	Total 1962-1977 Cdn. \$ million
Navigation equipment for aircraft	3.1
A/S projectiles	17.4
AN/USD-501 drone system — development and production	69.0
Sonobuoy processor (Nimrod)	12.0
Sightunits, filters, printed circuit boards	11.0
AQS-901 LRUs	5.7
Nimrod LRUs/refit/aircraft spares	21.0
Military motorcycles	2.0

### Import Policies

Strategic considerations greatly influence the armed forces purchasing policy. This policy dictates that the bulk of the national requirement is sourced locally. Given the highly sophisticated nature of the British defence industry, British manufacturers can capture the bulk of the defence contracts. Bilateral agreements with several NATO members allow joint research, development and production of a number of military items. Such a joint arrangement is in force between Canada and Britain and it is under the auspices of this plan that the bulk of the Canadian defence products exports to Britain are conducted. Procurement definitely favours British industry, although a policy statement to that effect is impossible to obtain.

### Export Opportunities

**Drone system** — Components and post design services

**Investment castings** — Good opportunities exist for Canadian exports in this high technology sector. Exports to Britain have risen from \$85,000 in 1974 to \$568,000 in 1977.

## DENMARK

### The Market

Denmark's defence budget is one of the smallest among NATO countries and a substantial part of it will in the coming years be spent on the purchase of the F-16 aircraft. Canada is at present bidding on fish inspection and ice patrol aircraft.

### Import Policies

As a member of NATO, Canada is invited to participate in NATO infrastructure tenders.

### Export Opportunities

There are limited opportunities for special equipment. Canada exports spare parts for F-104 aircraft and also some electronics.

## FRANCE

### The Market

The French defence budget is likely to amount to over \$20 billion in 1978 — that is, an increase of 17 per cent over 1977. One-sixth of this budget is earmarked for the purchasing and production of armaments. Most of the orders for arms required by the French armed forces are placed locally with French firms which develop the products required with the help of very substantial government loans. France ranks third among arms exporters, on the heels of the United States and the Soviet Union, with foreign sales worth \$900 million in 1976.

### Import Policies

There is no special legislation governing imports in this sector.

It is the policy of the French authorities to take into consideration not only the technical characteristics of the product but also

the industrial compensations offered by the different competing companies before making their final choice.

### Export Opportunities

Opportunities for sales are still quite limited. However, some success is still being recorded for highly sophisticated products, and products of which Canada has already started mass production, ahead of European industry, and for which we can offer price advantages. Firms should not hesitate to introduce their products in France and meet the purchasing officers in person.

The activities carried on under the France/Canada agreement on research, development and production of military equipment can serve as a medium for co-operation between firms in the two countries.

## GERMANY, FEDERAL REPUBLIC OF

### The Market

Since 1964 Canada and Germany have had an agreement on co-operation in the research, development and production of defence equipment. Through a close consultative mechanism the two countries exchange information which will allow for maximum co-operation in purchases and new developments. This agreement has fostered several joint programs with significant Canadian industrial participation and, as well, has encouraged the purchase of much Canadian equipment for use by the German armed forces.

The goodwill towards Canada created by the presence of troops on German soil together with the above-mentioned agreement creates a favourable climate for the sale of Canadian goods. Despite this goodwill the Germans do not sacrifice their standards to purchase the cheapest or the easiest to obtain. The Defence Purchasing Agency (BWB) purchases according to previously established requirements and frequently subjects the equipment to exhaustive tests. Purchasing decisions are complex and not merely price motivated. Recent trends indicate that Germany is willing to pay a premium for local manufacturing

(licensing) in high technology areas and places great emphasis on the logistical advantages of compatibility with existing products. Prior sales to other NATO (especially Canada) countries is often an important consideration.

The introduction of equipment to the Ministry of Defence for consideration should always be done through the Canadian Embassy in Bonn and similar sales to BWB should be made through the Canadian Commercial Corporation in order to take advantage of the various government agreements. Defence officials frequently develop their own requirements through international co-operation in NATO but some "shopping" is also done at the Paris Air Show held bi-annually and more recently at the Weisbaden Military Electronics Defence Expo.

As a result of the Offset Agreement signed with the German producers of the Leopard tanks purchased by Canada some good opportunities exist for access to the military market via the German contractors. Under this agreement the prime contractor, Krauss-Matfei has agreed to purchase up to \$119 million of Canadian products in ten years.

## IRELAND

### The Market

Ireland's defence needs are very modest by international standards. There has been a small expansion in manpower and some modernization of equipment in recent years, and Ireland is contributing to United Nations peace-keeping forces. The application of Irish fishing control measures, the full extent of which has yet to be determined, has resulted in the announcement in July 1978 that the fish protection force is being augmented by five surveillance aircraft and a fleet of ten ships including two with helicopters by the end of 1981. A start is to be made on the purchase of the five patrol aircraft in 1978. They will be similar to the Beechcraft model currently being leased by the air corps for fishery protection.

The first of the naval services' new fleet (the L.E. Emer, 1,040 tons) was delivered in January 1978. Another of the same class is to be delivered June 1979. The Department of Defence has just contracted for another for delivery in December 1979. All three are being built at Verolme dockyard in Cork.

Financing for the new equipment is being made available by the EEC, amounting to £30 million for the period January 1, 1977, to December 31, 1982. Ships and aircraft taken on lease are also eligible for aid up to January 1, 1980, as is the cost of equipping them for patrol duties.

## ITALY

### **The Market**

In the postwar period Italy has been a net importer of defence products but the import-export gap has been rapidly narrowing as the country's manufacturing capability in defence products has grown. All trends point to Italy being a substantial exporter in this field in the near future.

Italian imports have included aircraft and missiles, ordnance equipment, tanks, ships and sonars. Many imported products eventually become national production items under licence such as the F-104 and the Leopard tank. With an annual defence budget of some \$4.5 billion, Italy's defence industry is developing an independence and sophistication which is making it increasingly capable of meeting more and more of the country's own needs. The defence products procurement program is generally concerned with the commercial and technological competitive standards of the products offered. Through state-owned holding companies the government con-

trols most of the industry in the defence sector and thus is able to exercise a high degree of control in decisions to produce or to procure.

A market will continue to exist for "state-of-the-art" equipment not nationally available, or for products which are unusually competitive in price or performance. Major or costly systems will find it increasingly difficult to enter Italy unless accompanied by prospects of shared production, licensing or other co-operative arrangements which will contribute to the Italian economy.

The Canada/Italy Research and Defence Production Agreement could serve as a vehicle for co-operative ventures and it does serve as a means for our respective defence departments to exchange details as to current and future procurement programs.

## THE NETHERLANDS

### **The Market**

The Netherlands is a full partner with the North Atlantic Treaty Organization and participates actively in several aspects of European defence. Being a relatively small country with limited resources available for defence purposes, The Netherlands is anxious to maximize these through task rationalization or redistribution with other NATO nations and greater standardization of equipment. Indeed The Netherlands is one of the leading proponents of the need for equipment standardization within NATO.

Canadian defence trade with The Netherlands has continually offered good prospects to manufacturers in both nations. For example, Canadian fighter aircraft, anti-submarine equipment and NBCW equipment are in service with the Dutch forces while Netherlands electronics and ordnance have been procured by the Canadian armed forces. In recent years the defence budget has remained relatively static in terms of the capital acquisition portion with most increments being directed towards overhead costs. This year however the government has announced its intention to meet the NATO suggestion of a three per cent increase in the capital budget. Major acquisitions in

hand at present include the construction of 12 frigates using Canadian sonar and 84 F-16 aircraft. The Netherlands is also to decide upon an LRPA (Neptune) replacement during 1978. Principal contenders are the Orion and the new generation Bréguet Atlantique and it is expected that 13 aircraft will be purchased.

The Netherlands has a strong industrial capability which extends to electronics, shipbuilding, aircraft and vehicles construction. Thus acquisition of non-Dutch equipment usually involves an element of local content or, at least, offset and bidders should be prepared to take this requirement into account when preparing submissions.

The close co-operation existing between the armed forces of The Netherlands and Canada plus the substantial trade in military equipment led to the establishment several years ago of a Co-operative Research Development and Production Committee of officials from both nations. This vehicle serves to keep both nations informed about each other's procurement needs and provides a facility through which joint interests can be pursued.

## NORTH ATLANTIC TREATY ORGANIZATION (NATO) (BRUSSELS, BELGIUM)

### **The Market**

NATO defence product marketing opportunities are dominated by the electronics equipment sector. Opportunities continually arise for a range of these products which include HF radio systems, multiplex equipment, line conditioning equipment, satellite ground terminal equipment, test equipment, generators

and cable. These are all primarily associated with the continuing implementation of the NATO Integrated Communications System Program. There are, in addition, opportunities for radar and communications equipment related to the operation of the NATO Air Defence Ground Environment system which arise on a regular basis.

# WESTERN EUROPE (NON-EEC)

## AUSTRIA

### The Market

By the provisions of the State Treaty of 1955, Austria is committed to perpetual neutrality and can thus join neither the Warsaw Pact nor NATO. For this reason the production sharing agreements Canada arranges with other NATO countries do not exist for Austria. Austria imports freely from other countries, and produces its own tanks, trucks and vehicles, ammunition of most types, rifles, pistols, optical instruments and uniforms.

### Import Policies

As with most ministries, there is a "Buy Austrian" policy prevailing within the Army administration. Where there is no

domestic production, procurement often takes place in other neutral states such as Switzerland and Sweden, due to Austria's own neutral status. However, the primary concern of the Army is to obtain top quality equipment for its troops, whatever the source. The import of certain types of weapons, for instance missiles, is forbidden under the terms of the State Treaty, which also limits the size of Austria's forces.

### Export Opportunities

The best opportunities include NBC equipment, microwave systems and aerial surveillance systems.

## FINLAND

### The Market

The Finnish defence budget is very modest. While the purchase policy is neutral, sometimes preference is given to products of

Soviet origin for trade and political reasons. Some Canadian communications equipment has been introduced to the Finnish military authorities.

## GREECE

### The Market

The U.S. has been Greece's major supplier to date. Equipment supplied included various vessels, aircraft, personnel carriers, tanks, missiles, guns and torpedoes. Other major suppliers included France and Germany.

### Import Policies

The Greek defence budget for 1978 will be in the order of \$1.8 million dollars. Apart from locked bilateral Military Assistance Programs, primarily with the United States and France, all requirements are met on the basis of international tenders often restricted to NATO country sourcing and often confidential in nature.

Unsolicited proposals have met with success and often there has been no competitive bidding. Sales to the Hellenic armed forces may be either direct or through an agent or through the Canadian Commercial Corporation. The agent's fee is 5 per cent depending on the product and value of the tender.

### Export Opportunities

The most likely avenues for a successful approach will be through responding to selected tenders or through offering unsolicited proposals directly to the Hellenic armed forces. Copies of all proposals should be left with the Commercial Division of the Canadian Embassy in Athens for follow-up where necessary. Product areas of greatest interest include reconnaissance and surveillance aircraft and drones; communication equipment, including telecommunications; ATC and aircraft simulators, avionics; heavy-duty recovery vehicles including graders; repair and overhaul survival equipment and parachutes; mapping; photogrammetry equipment; airborne search radar; crash position indicators; refuellers; fire fighting equipment. Over the medium and longer term: shelters; replenishment at sea systems; helicopter hand-down equipment; sonar; repair and overhaul equipment and possibly services for the new Hellenic Aerospace Industries at Tanagra.

## ICELAND

### The Market

No particular prospects to report at present.

## NORWAY

### The Market

A member of the NATO alliance, Norway imported approximately \$350 million worth of defence equipment between 1965 and 1975. During the same period Norway exported a total of \$60 million worth of military hardware. In 1978, the defence budget showed a real increase of 9 per cent. Five per cent of the

increase was allotted to the new coast guard service. Canada is Norway's fourth largest supplier of defence equipment (after the U.S., F.R.G. and Britain). Canadian equipment supplied to Norway between 1965 and 1975 is valued at \$19 million and included aircraft and electronic equipment.



## Norway — The Market (cont'd.)

Prospects exist for the sale of a number of high technology items. Details of these can be obtained through the Defence

Programs Branch of the Department of Industry, Trade and Commerce in Ottawa.

## PORTUGAL

### The Market

As a member of NATO, Portugal is receiving aid from other NATO countries for a re-equipment and retraining program. The retraining is needed to prepare Portugal to play a bigger role in NATO's southern flank. In this connection, an air-portable brigade which would be on instant readiness is being set up and equipped with the help of other members. Portugal has so far received armour and training planes from the U.S. and a squadron of jet fighters from West Germany. Other NATO countries such as Canada, have made smaller contributions, such as training for Portuguese officers and non-commissioned officers. The reorganization of the armed forces has produced an increase in defence spending. Canada has no defence agreement with Portugal but can expect to have military authorities show increasing interest in Canadian materials and equipment.

### Import Policies

As a NATO country, the Portuguese government policy is to endeavour to standardize and modernize the armed forces with the help of the Alliance. In view of the serious economic conditions, balance of payments problems, and rapidly growing government expenditures outpacing revenues, the Portuguese authorities will continue to look to other NATO members for assistance in this sector.

### Export Opportunities

Canadian export controls vis-à-vis Portugal were removed in 1976. As a result some enquiries have been received for marine communication equipment, mapping system, etc. The Portuguese military is not yet familiar with very sophisticated equipment or NBC protective equipment. The latter is to be supplied by NATO.

## SPAIN

### The Market

A new Ministry of Defence is being established under a single minister with the reorganization to be completed by early 1979. Currently the Spanish armed forces use a mix of equipment, ships and aircraft the majority of which are supplied by the United States, Europe and Spanish arsenals. The military is modernizing its forces under a selective process imposed by very tight budgetary constraints; therefore, Canadian firms should preferably restrain their promotional efforts except for specific tenders or requirements for military hardware that are brought to their attention.

### Import Policies

Spain is not yet a member of NATO although in the near future may join. Spain has a bilateral defence agreement with the United States, to whom bases in Spain are leased, and in return

receives military supplies under particularly favourable terms. In this situation, Canada's sales of defence equipment tend to be limited to what Spain cannot obtain from the U.S., except where a Canadian product has a clearly apparent advantage or superiority.

### Export Opportunities

The Spanish armed forces will require new and additional equipment as they prepare for their eventual participation in NATO. Canadian manufacturers of defence equipment who are currently selling to the United States (because of the close relationship already mentioned between the Spanish and American defence forces) or to countries of the approximate size of Spain with armed forces of somewhat the same magnitude as this country (300,000 total) should investigate the Spanish market.

## SWEDEN

### The Market

Sweden as a neutral country pursues a policy of non-participation in alliances in peacetime aiming at neutrality in the event of war. As a result, Sweden makes every effort possible to develop its own defence industry as it feels that it cannot necessarily depend upon long-term supply from NATO member countries. Sweden develops a five-year plan for its defence budget expenditures which for the period 1977-82 totals \$13 billion. Of this, 28 per cent is allocated for the purchase of materials. Ninety per cent of material purchases are made from Swedish industry. Imports total about \$380 million over five years, or approximately \$75 million per year. Canada and Sweden maintain discussions on co-operative research, development and production in defence fields, which offer an opportunity for Canadian products to be brought to the attention of the Swedish military officials.

### Import Policies

Sweden's policy at the present time is to restrict imports as much as possible so as to develop an industrial military capability within Sweden. However, with the very rapid development in new and high cost technology in the military field combined with a rapid downturn in the Swedish economy, there is a shift in thinking towards greater reliance on imports of certain high technology military requirements.

All imports are handled for the military by the Swedish defence materiel administration (FMV) which will entertain unsolicited proposals and does not necessarily resort to competitive bidding.

### Export Opportunities

Most export opportunities for Canadian companies will be in

## **Sweden — Export Opportunities (cont'd.)**

the field of high technology products together with some specialty products. Sweden's upcoming purchase program which will offer opportunities for some Canadian components includes: air force, \$400 million for the B3LA fighter training aircraft including allocation for procurement of long lead time items; \$80 million for research and development on the A20 medium attack aircraft; \$770 million for procurement of the JA37 fighter version of the SAAB Viggen; \$190 million for the procurement of fighter weapons and countermeasures systems; \$90 million for development of new fighter weaponry; \$24 million for procurement of attack aircraft weapons; \$100 million for development work on new attack aircraft weapons.

The Swedish navy will purchase 18 heavy Spica class torpedo boats equipped with marine missiles, plus a series of 16 patrol

boats with Penguin missiles and a third mine layer. A new type A14 MacKen submarine will be delivered and the next generation of submarines, the A17, will be developed. Also fixed batteries of heavy coastal artillery will be added and the mobile heavy coastal artillery will be modernized.

The army, composed of 700,000 men including 100,000 volunteer homeguard, will concentrate on mobility. The four brigades in the north will be equipped with new cross-country vehicles, new artillery and new air defence missiles.

Agents and representation in Sweden are not necessary to sell to the FMV, but for certain products, may be beneficial, particularly in view of the long lead time often required.

## **SWITZERLAND**

### **The Market**

The market for defence products is limited in Switzerland mainly because there is a preference for purchasing locally or having the products manufactured under licence in Switzerland.

The Swiss defence authorities welcome offers for foreign products and like to keep well informed on developments. The Canadian Trade Office in Switzerland keeps them aware of Canadian expertise in this field. Budget constraints have curbed

major purchases and replacement has been postponed in some cases. Also a recent purchase of 72 F5E airplanes worth \$500 million has limited their future ability to purchase other airplanes for military use.

Canadian defence products which are innovative and competitive in other high technology markets may find opportunities in Switzerland.

# PACIFIC

## AUSTRALIA

### **The Market**

Owing to the possibility that the Australian government may follow Canada and other countries in establishing a 200-mile fishing zone, a need for special aircraft and electronic gear may develop. Because the Australian industry does not produce a wide variety of sophisticated electronic equipment some opportunities for sales to the defence industry may result.

A few Canadian firms through representation to the Defence Department or through responding to Canadian commercial corporation tenders have had their products accepted which is encouraging.

Direct purchases from abroad by the Defence Department are not subject to tariffs.

## NEW ZEALAND AND THE PACIFIC ISLANDS

### **The Market**

There is currently a very limited market for Canadian defence equipment in New Zealand. The elimination of national service obligations has left the Ministry of Defence with large inventories of military hardware. Continued austerity measures have reduced the Defence Department budget for capital equipment to a minimum.

### **Import Policies**

There are no import restrictions on defence equipment.

### **Export Opportunities**

Some opportunity exists for expendable products such as parachutes, projectiles and sonar buoys.

The purchase by the Defence Department of 10 Andover Aircraft from Britain and the development of a limited naval capability for patrolling the expected 200-mile maritime economic zone may open some possibilities for provision of Canadian electronic maritime monitoring equipment.

# ASIA

## BURMA

### The Market

Burma is a socialist country. Imports are the exclusive domain of the various state enterprises which control all activity in their respective economic sectors. Procurement is effected on the basis of international tendering, and price is the overriding consideration in determining sources of supply. Burma's ability

to import is limited because of a chronic shortage of foreign exchange.

There are very limited opportunities for commercial sales in the defence products sector.

## CHINA, PEOPLE'S REPUBLIC OF

### The Market

There is no market for defence products.

## HONG KONG

### The Market

Procurement of military hardware is handled through Britain.

## INDIA

### The Market

The Indian armed forces, composed of army, navy, air force, and various para-military forces, are one of the largest military establishments in the world and consequently have major requirements for equipment. The defence budget for 1977/78 calls for expenditures of over \$3 billion, of which approximately \$330 million are scheduled for capital purchases.

In order to minimize the foreign exchange drain of defence purchases, India has developed its own industry to the extent that it is now the Third World's largest manufacturer of armaments after China. National production has advanced to the stage where India's Leander class frigates are being built in local shipyards, the battlefield tanks are 95 per cent Indian content, and aircraft (including several jet fighters and helicopters) are produced under licensing arrangements.

### Import Policies

In recent years, Russia has been the primary military supplier to India although large orders have also been placed with Britain, France and Sweden. However the Indian government is anxious to expand its potential sources and is therefore quite willing to consider Canadian producers.

In addition, Canada's chances are improving because of the development of India's design capability. Design has lagged well behind manufacturing in the development of industry and consequently much of India's military production is under licensing agreements with European countries. With these

arrangements many, if not all, of the components or systems not made in India are sourced from the collaborating country. However, as the design function in India improves, the country becomes free to source the import components from any country. Canadian firms have already met with success in selling to the army, navy, and air force.

### Export Opportunities

In addition to the defence sector's ongoing requirements, the following new programs may be of interest to Canadian suppliers:

- Coast Guard — An Indian Coast Guard is currently being established. Although equipment requirements and specifications have not yet been identified in detail, opportunities are expected to arise for patrol aircraft, electronic gear including sonar and radar systems or components, as well as possible design assistance in production of patrol craft.
- Military Helicopter — Plans are well advanced for the production in the early 1980's of a military helicopter in navy and air force versions. The manufacturer is actively searching for foreign suppliers of a wide variety of airborne items and ground test equipment for this program.
- Military Transport — The Indian Air Force has an immediate requirement for transport aircraft and is likely to finalize a purchase within the next year.

## INDONESIA

### **The Market**

The Indonesian government has now launched a policy of military equipment modernization. Expenditures required for this modernization are increasing considerably. Indonesia's geography (thousands of islands) and large population (140 million) suggest that its defence requirements will cover a broad spectrum. It would also appear that highly sophisticated equipment will represent a small proportion of procurement.

Indonesia's new policy of major re-equipment programs opens up excellent opportunities for Canadian defence equipment sales.

### **Import Policies**

Sales of defence equipment require the services of knowledge-

able local agents approved by the defence industry. Direct sales to the military by a manufacturer are virtually impossible.

A key objective of the Indonesian government is to encourage more local production of military equipment. Consequently, Canadian firms should consider joint ventures in this regard.

### **Export Opportunities**

It is suggested that interested firms consult the Canadian Embassy in Jakarta for details.

Examples of current requirements are parachutes and protective body armour.

## JAPAN

### **The Market**

When World War II ended in 1945, Japan was completely disarmed. In August, 1950, two months after the outbreak of the Korean war, rearmament of Japan started. Until 1964 all weapon systems were provided to Japan under the Grant Aid U.S. Military Assistance Program or under U.S. - Japan Cost-Share Programs. Japan also benefits from a "free ride" under the Japan - U.S. Security Treaty. Most of the defence equipment used by the Air and Maritime Self Defence Forces today are standard U.S. military equipment procured under the U.S. Foreign Military Sales Program or locally produced under licence. A large percentage of the Ground Self Defence Force equipment is designed and produced in Japan.

Based on the government's defence guidelines, efforts are being made to replace or modernize aging equipment as early as possible, and to achieve a good balance between frontline and support units. A total of ¥ 1,900,000 million (about Cdn.\$22.4 billion) is budgeted for defence-related expenses in financial year '78, an increase of 12.4 per cent over last year's budget. Major items include the start of a new ASW patrol plane program (P-3C) and a new interceptor (F-15) program, as well as the procurement of other new aircraft, ships and tanks in order to better the nation's defences and to improve patrol capabilities. The '78 budget also provides for the construction

of a microwave command communications system, improved rear support capabilities such as enlarged ammunition reserves and new training devices such as various kinds of simulators.

### **Import Policies**

The Defence Agency's import policies are governed by two main considerations — the need to standardize with the U.S. because of its bilateral security treaty and the need to be independent of external lines of supply. In addition, domestic production under licence is adopted whenever practical.

### **Export Opportunities**

Canadian sales successes have been mainly in the aircraft field, such as radar, navigation equipment, and helicopter recovery systems. Only 11.4 per cent (or Cdn. \$320 million) of the total defence procurement is imported as most equipment is built under licence. Of the remaining equipment, over 90 per cent is purchased from the United States; the rest is divided among Britain, Sweden and Canada. Canadian defence product exports to Japan have fallen mainly in two fields, one being unique high technology products and the other Canadian components incorporated in U.S. products exported to Japan. There is a third field to which more attention should be paid and that is certified Canadian spare parts for U.S. defence equipment in use by the Japanese Self Defence Forces.

## MALAYSIA

### **The Market**

All three services of the Malaysian armed forces will expand in numbers of personnel and equipment during the period 1977-81. Additionally, there is a planned expansion for the federal police and militia. The military budget for the period 1977-81 is approximately M\$2.4 billion which includes funding for the federal police and militia.

### **Import Policies**

Importers will require a licence. There is an absolute prohibi-

tion on broadcast receivers in the 68-87 MHz and 108-174 MHz range.

### **Export Opportunities**

The armed forces or federal police have requirements for small and large calibre ammunition, steel helmets, radio equipment, sonar, armoured cars, fast patrol craft, night vision equipment, maritime aircraft.

## PAKISTAN

### **The Market**

Pakistan is a large importer of defence products, most of which are purchased with cash supplied from Middle East countries or from domestic sources. Given the present predominant role of the military and the low level of procurement in the past few years major equipment purchases are expected. The only areas where sales are not likely would be in weapons and ammunition.

### **Import Policies**

The government is expected to remain under military law for

some time. It is difficult to say whether any major system purchases will occur in this period. There are no restrictions on defence purchasing.

### **Export Opportunities**

Currently firm requirements exist in a number of sector areas such as telecommunications, portable radios, helicopter and radar simulators, sonobuoys, aircraft navigation systems and direction finding equipment.

## PHILIPPINES

### **The Market**

The Philippine armed forces are about to embark upon a major program of re-equipment and upgrading of present equipment. This program is being delayed until a satisfactory settlement is reached with the U.S. concerning the status of the American military bases in the Philippines. In the event that a cash settlement is reached, with no strings attached, it is likely that the Philippines will shop worldwide for military equipment requirements and will not limit purchases to any one particular source. However, it is also possible that an agreement with the Americans may result in some purchases being tied to U.S. supply. Canadian defence suppliers have been active in promoting their equipment in the Philippines and their presentations have been well received. Due to the above-mentioned restraints, however, there has been only limited purchasing effected by the military during the last two or three years.

### **Import Policies**

Military procurement has been restricted by the government principally because of the shortage of foreign exchange. Although presentations can be made directly to appropriate sections of the Philippine military concerning different types of military equipment, a commission agent or representative is usually involved before a final sale is made. The most effective way of achieving success in dealing with the Philippine military

is to make a direct approach to the appropriate weapons board and once the requirement has been defined and articulated, to carefully select an agent or representative who enjoys good contacts with the purchasing entity concerned. At the present time, all final decision-making for military purchases is done at the very highest level of the government.

### **Export Opportunities**

In the aircraft sector, there is a well defined requirement for a medium-sized transport aircraft capable of ferrying troops and material over 500 to 600 mile stages. Although there is keen international competition for this requirement, Canadian suppliers have been active in putting forth their proposals. The army is looking for a wide range of telecommunications equipment including mobile radios, base radios, hi-frequency radios and microwave equipment. In general, the telecommunications sector is very active and substantial acquisitions of equipment are expected to be made in the near future. There is also an air force requirement for a light jet training or counter insurgency aircraft. Proposals involving construction and assembly of the aircraft in the Philippines are being looked at. Some form of export financing could be a very important factor in any proposal involving supply of equipment to the Philippine military.

## SINGAPORE

### **The Market**

Singapore has a small but sophisticated armed force of officially 50,000 men. This is supplemented by the present scheme of national service which provides a substantial back-up at minimal cost and secures the commitment of individuals as reservists whose liability does not end until the age of 40.

**Land Forces** — There are eight active infantry battalions in three brigades, supported by artillery, engineers, signals and armour. The armoured unit is equipped with light tanks and armoured personnel carriers. Reserve infantry battalions are formed from discharged full-time national servicemen, with the People's Defence Force reorganized to absorb and train them.

**Air Force** — The operational elements of the air force comprise two squadrons of Hunters, two squadrons of Skyhawks, a squadron of Skyvans and a squadron of Alouette helicopters, supported by a radar unit and a squadron of Bloodhound surface-to-air missiles.

**Navy** — The navy has a squadron of patrol craft and a squadron of six sophisticated missile gunboats for coastal patrols, air-sea rescue operations and fisheries protection.

The Singapore commitment reflects a basic strategy of ensuring that whatever happens in Malaysia, Singapore's water supplies in the State of Johore are secured. To this end, Singapore has recently purchased from the United States 21 F-5E jet fighters, 20 helicopters and 85 armoured vehicles. The armed forces were originally advised by the Israelis, however today American advisers are more evident. Singapore's annual expenditure on defence and para-military forces (police, coast guard) is approximately \$200 million.

In Singapore there are several government-owned defence related industries producing munitions and electronics (PRC77 handsets). Aircraft parts production is planned. Singapore builds all patrol craft in local shipyards and also exports to regional countries.

## **Singapore — The Market (cont'd.)**

Selling to the Ministry of Defence is very difficult because of entrenched United States and European suppliers, although Canadian companies have had some success in the electronics sector. Actual requirements are closely held and only continuous direct contact offers any degree of success.

### **Import Policies**

Prefer government to government contract (i.e., U.S. FMS is very evident). All strategic imports require strict approval and licensing.

### **Export Opportunities**

- Radio equipment
- Sonar
- Nav aids (usually purchased through aircraft contractors)
- Telescopic helicopter hangars
- Munitions
- Naval architecture (joint venture)
- UHF low-band walkie-talkie
- Nickel cadmium batteries

## **THAILAND**

### **The Market**

The necessity of the Thai armed forces having an adequate strategic capability, combined with the key role of the military in the Government of Thailand, ensures that the defence budget is generous. In addition to normal annual budget allotments over the next three to four years, the Thai military has been voted an extra \$1 billion to upgrade supplies and equipment as a result of the total withdrawal of U.S. forces from Thailand in mid-1976. Total armed forces personnel number 217,000.

Most of the main equipment inventory for the three branches (and for the border patrol police) is made up of U.S. equipment supplied under U.S. military assistance. Although this assistance has now been cut off, it is expected that replacement equipment will be drawn from traditional sources whenever possible in order to benefit from standardization.

### **Import Policies**

The use of local representation is a prerequisite to concluding business with the Thai military.

### **Export Opportunities**

While military procurement intentions are confidential until tenders are called, a partial list of requirements, which could be sourced in Canada, has been made known:

Army — battle tank re-engining, small calibre ammunition plant, tactical communications network.

Navy — 50 metre strike craft design, ships' electronics (radar, sonar), amphibious aircraft, patrol boats, radio telephones.

Air Force — parachutes, transport aircraft, aerial photography equipment, mobile ground radars, airborne surveillance radars.

# AFRICA AND MIDDLE EAST

## ALGERIA

### **The Market**

With a budget of \$526.6 million in 1978, defence accounts for 10 per cent of Algerian government expenditure. Even though there are limitations on the sale of arms to Algeria, an impor-

tant market exists for communications equipment, military barracks and the servicing of military equipment. Interested companies should be introduced by the Canadian Embassy in order to reach the appropriate military contacts.

## CYPRUS

### **The Market**

Very limited opportunities.

## EGYPT, LIBYA, SUDAN

### **The Market**

Defence budgets are not published in these three countries but requirements, particularly in Egypt and Libya, are substantial. Funds available for equipment in the Sudan and Egypt, however, are limited. Libya obtains much of its needs from the U.S.S.R. and appears to be stockpiling supplies. Areas of interest to Canadian firms are transportation, communications and surveillance equipment. It is important to discuss this subject with the Defence Programs Branch of the Department of Industry, Trade and Commerce before undertaking marketing efforts.

### **Import Policies**

The military receives priority in Libya and Egypt so that once a decision to purchase is made foreign currency is readily available. Financing is helpful in Egypt and the Sudan. Once companies become known and reliable suppliers they are, particularly in Libya, often called back for future requirements.

Much of the Egyptian and Sudanese purchases are financed by other Arab states.

Import procedures are not clearly defined and frequently vary with each contract, type of product and country. Procurement may be made directly with the supplier, through well connected local agents, or even through military attachés at diplomatic missions abroad.

### **Export Opportunities**

Both Egypt and Libya are currently interested in surveillance equipment (radar, border watch, etc.). Egypt has requirements for mobile generators, training equipment, and prefab housing factories. Libya is interested in communications equipment and mobile air traffic control systems. The Sudan has a need for communications equipment, technical training and border surveillance. Other non-offensive items such as specialty vehicles, uniforms, foodstuffs, etc., may also be of interest.

## ETHIOPIA, MADAGASCAR, SEYCHELLES, SOMALIA, TANZANIA, UGANDA

### **The Market**

Most of Tanzania's defence equipment is of British, Russian or Chinese origin, but Canada has recently sold aircraft and related equipment. Repair and overhaul of aircraft engines and accessories for the Tanzania People's Defence Force is an established and ongoing activity and some helicopter pilot training has taken place in Canada.

Uganda, while probably a military market, has difficulty in finding sources of supply owing to its internal political conditions and near bankrupt state of its economy.

The United States had been the major supplier of defence equipment to Ethiopia, mostly on military aid terms. Ethiopia has now turned to the Soviet Union for the supply of most of its military equipment.

France has been the traditional supplier of defence equipment to Madagascar but the present regime is attempting to dilute Madagascar's dependence on France.

There is no military market in the Seychelles.

### **Import Policies**

In Tanzania, rigid exchange control and import licensing regulations exist, but are not an obstacle to the importation of defence equipment.

With regard to the other countries of this group, present economic and political conditions mitigate against Canadian exports of defence equipment. Unless these conditions change, no significant change in the market is foreseen.

### **Export Opportunities**

In Tanzania, there are Canadian export opportunities for transport aircraft, repair and overhaul of aircraft engines and accessories, including the supply of spare parts, communications equipment, specialized military clothing, ammunition, and training of personnel. Joint ventures or licensing opportunities do not exist in the defence field. In the other countries, for political and ideological reasons, export opportunities for Canadian defence equipment are few, with the possible exception of Madagascar where there may be a limited potential for communication equipment and transport aircraft.



## IRAN

### **The Market**

Sophisticated defence systems for the Iranian military are procured turnkey from foreign contractors. Daily requirements are normally produced in-house by any of numerous manufacturing facilities forming the Ministry of War's Military Industrial Organization. Relations with the military forces of the United States and Britain are very close.

### **Import Policies**

Canadian access to timely information continues to be the

biggest hurdle to increased exports of defence products. The other hurdle, of course, is the turnkey nature of most defence contracts, with any supplier being responsible for the entire package, including sub-systems.

### **Export Opportunities**

In discussions with major American and, to a lesser extent, European defence contractors Canadian suppliers should seek to extract information about their activities in Iran with a view to participating in Iranian projects.

## IRAQ

### **The Market**

All defence-type material is purchased by the Ministry of Defence or the Ministry of Interior. Very large sums are spent on the security forces, for instance the 1977 operating budget allocates over \$2 billion to the security forces the bulk of whose equipment, other than food and fuel, must be imported.

To date the great majority of Iraq's military equipment has come from the Soviet Union and while there may be increasing sales of French equipment, this basic pattern is expected to

continue. However, the two ministries also import large amounts of non-military supplies ranging from medical items to specialty papers and it is these items which would be of interest to Canadian suppliers. Import of these items is usually effected through publicly announced calls for tenders which are forwarded by the Canadian Embassy in Baghdad directly to interested Canadian suppliers or to Ottawa for their distribution. Calls for tenders for equipment for the air force are, however, released through the Iraqi Embassy in Ottawa to specialized suppliers registered with it.

## ISRAEL

### **The Market**

Israel is a major purchaser of defence equipment, primarily from the U.S. Canadian government policy restricts the sale of

defence products in the Middle East area and all enquiries should be referred to the Department of Industry, Trade and Commerce in Ottawa for consideration.

## IVORY COAST, SENEGAL

### **The Market**

Markets in Mali, Guinea Conakry and Guinea Bissau are non-existent for Canada for obvious reasons. Upper Volta, Niger, Liberia, Cape Verde Islands do not offer great possibilities. Mauritania's present political position precludes business with them. That leaves Senegal and Ivory Coast. EDC and CIDA have already financed respectively three coast guard

boats and two Twin Otters for coast guard operations. Ivory Coast defence programs are limited and geared to France.

Only potential market in all these countries would be Buffalos, if long-term financing is acceptable. Some communication systems could be of interest but so far are too high priced.

## JORDAN, LEBANON, SYRIA

### **The Market**

The demand in all countries for both offensive and non-offensive products is substantial but Canadian export policies preclude active participation. The potential for Canadian exporters is therefore extremely limited.

### **Import Policies**

Import procedures are not clearly defined and frequently vary with each contract, type of product and country. Procurement may be made directly with the supplier, through well connected

local agents or even through military attachés at diplomatic missions abroad.

### **Export Opportunities**

Sales of selected non-offensive items such as cargo aircraft, off-highway vehicles, mobile workshops, uniforms, radio equipment, prefab buildings, foodstuffs etc., may be possible to certain countries. Interested exporters should contact the Department of Industry, Trade and Commerce, Ottawa, for guidance.

## KENYA

### The Market

Kenya has embarked on a major military expansion and re-equipment program, thus providing a market for a variety of defence equipment which will be supplied by Western countries. Canada achieved a major breakthrough in this market in 1976 with the sale of transport aircraft, radio equipment and small arms ammunition to the Kenya Ministry of Defence. A large defence package was recently concluded with Britain for the supply of military vehicles and weapons, and fighter aircraft are being procured from the United States.

### Import Policies

Britain has been the traditional supplier of defence equipment to Kenya, this being a carry-over from colonial times. Kenya is now pursuing a more independent policy and is prepared to

purchase from other than British sources. Since defence equipment is not manufactured in Kenya, import licences and exchange control regulations are not obstacles. Financial terms offered by exporting countries will play a crucial role in any defence equipment purchases.

### Export Opportunities

Opportunities exist for the Canadian sale of more transport aircraft, communication equipment, ammunition, and for the repair and overhaul of aircraft engines and accessories, as well as the supply of spare parts for the transport aircraft recently acquired.

Joint ventures or licensing opportunities do not exist for defence equipment.

## MALAWI

### The Market

Malawi is a small, land-locked Central African country whose population of 4.8 million relies mainly on subsistence agriculture for its livelihood. Only approximately 250,000 people participate in the cash economy and consequently purchasing power per capita is extremely low — \$150 per annum.

The Malawi defence forces are small and composed almost entirely of light infantry units armed with light, basic weapons. For most purposes, the market for Canadian defence products must be considered very limited.

## MOZAMBIQUE

### The Market

The best that can be hoped for in the short-to-medium term economic situation in Mozambique is for stagnation at the current low level of activity. The country faces severe balance of payments problems. There is almost no commercial or economic infrastructure left. Imports are controlled by a licensing system which is restricted to essential requirements. Under these circumstances, exports of Canadian defence prod-

ucts must be regarded as closed or very limited. In addition, the fact that a state of hostilities exists between Mozambique and Rhodesia means that it is doubtful whether export permits for many categories of defence products would be issued. In any event, the Eastern Bloc countries supply Mozambique military requirements on terms which Canada probably would not want to accept.

## NIGERIA

### The Market

Nigeria maintains a standing army of approximately 200,000 men. The country has the income necessary to ensure that suitable supplies and equipment are procured and during the current five-year plan (1975-80) the defence and security sections have been allocated considerable resources. Sales opportunities to the Nigerian military exist in nearly all fields, ranging from transport aircraft and support vessels for the Nigerian navy to communications equipment for all three services. The army, in spite of (and perhaps because of) its size, is under-equipped and opportunities are sizable.

It is often necessary in dealing with the Nigerian military forces to ensure that appropriate back-up training and repair and overhaul facilities are provided for in the original contract. Very often the sale of equipment will depend upon these back-up features being made available through the overseas supplier.

### Import Policies

Currently ruled by a military government, Nigeria is scheduled to revert to civilian rule by October 1979. It can therefore be assumed that during the intervening period the present government will do as much as possible to ensure that the armed forces are as fully equipped as possible. Nigeria has procured military hardware from both the West and socialist nations.

### Export Opportunities

Due to proposed Canadian forces involvement in the Nigerian Army School of Military Engineering, there may be opportunities for Canadian suppliers of engineering and training equipment. Canadian firms willing to establish repair and overhaul facilities in Nigeria for military electronics, communications, aircraft, or vehicles would no doubt receive a warm reception.

## SAUDI ARABIA

### **The Market**

The Saudi defence equipment market is dominated by the United States, Britain and France. This relationship in some cases is based on bilateral agreements and supplying countries seem to be well entrenched. Five-year plan envisages expenditure of \$22 billion for defence purposes.

### **Import Policies**

None apparent. Eastern Bloc countries excluded.

### **Export Opportunities**

The domination of Saudi's defence equipment market by the

U.S., Britain and France and Canada's official position on sales of military equipment makes sales prospects of marginal value only.

There may be opportunities for off-highway vehicles, mobile workshops, uniforms, prefab buildings and radio equipment. Canadian contractors may obtain sub-contracts with major American defence contractors. They should also contact the U.S. Corps of Engineers in Virginia and Riyadh.

## SOUTH AFRICA

### **The Market**

Canada adheres to UN regulations embargoing the sale of military equipment to South Africa.

## TURKEY

### **The Market**

Since the cut-off in U.S. military aid in the aftermath of Turkey's intervention in Cyprus, there have been continuing efforts to diversify sources of military supplies and to achieve some progress toward establishing a local defence industry. These efforts are expected to continue despite the recent Congressional arms embargo against Turkey.

Definite opportunities exist for the supply of spare parts needed to keep U.S.-supplied equipment operational. Perhaps some

opportunities to manufacture certain types of equipment under licence (eg., light transport aircraft).

Over the medium term, there could be definite potential for the supply of an automated mapping system to be procured by the General Directorate of Mapping of the Ministry of Defence.

Interested exporters should contact the Department of Industry, Trade and Commerce prior to engaging in the development of this market.

## ZAIRE

### **The Market**

Canadian exporters will find it advantageous to investigate the

opportunities for aeronautical equipment, parachutes, and logistical and electronic back-up materiel.

## ZAMBIA

### **The Market**

Economic conditions in Zambia remain depressed. Copper prices, while recovering from their historic lows of 1974, have not rebounded to levels sufficient to provide both the revenue for Zambia's development programs and the foreign exchange to pay for the import necessary to keep the economy functioning. The outlook for a sustained increase in copper prices in the near to medium term future is not good. Copper sales provide 95 per cent of total national foreign exchange earnings. Consequently, prospects for export sales to Zambia remain limited.

To cope with the shortfall in foreign exchange earnings, the government has instituted a stringent system of import licensing and control. Licences are issued on a priority basis with emphasis on providing essentials for the populace and a few key industries. Another factor which inhibits access to this already restricted market is the payment situation. At present, the delay between payment for imports in local currency to a

commercial bank and remittance of the equivalent foreign exchange by the Bank of Zambia ranges from seven to ten months depending on the currency involved and the priority of the imported goods in the pipeline. There are not many Canadian exporters able to do business on those terms.

In the field of defence products and services, however, Zambia has become an important customer of Canadian industry in recent years. The Zambian military has purchased aircraft and telecommunication equipment in significant quantities. In addition, there is ongoing, repeat business involved in the repair and overhaul of the aircraft engines.

The military benefits from a special position for foreign exchange allocations. Although there have been payment problems recently, these seem on their way to being resolved. Zambia should continue to be among the more significant African markets for the Canadian defence industry.

**Zambia — (cont'd.)**

**Import Policies**

There are no Zambian government defence policies which inhibit Canada's access to this market.

**Export Opportunities**

The Zambians hope to increase the size of their aircraft fleet. In addition, there will be opportunities for additional repair and overhaul work on the engines of the aircraft which were

delivered last year. A Canadian firm has bid on part of Zambia's requirement for small arms ammunition. There may be additional requirements for telecommunications equipment.

Zambia's precise defence needs are being kept confidential but given the current concern for military readiness there will be a requirement for some types of Canadian goods and services.

# UNITED STATES

## Introduction

The largest defence market for Canadian manufacturers is United States defence requirements. In order to maximize opportunities for Canadian defence industries, the U.S. Market Development Division of the Defence Programs Branch, Office of International Marketing, Department of Industry, Trade and Commerce, was established. This Division administers the Canada/U.S. Defence Production Sharing Arrangement and maintains close liaison with U.S. defence organizations and Canadian Trade Commissions located in the United States. The Trade Commissioners can provide on-the-spot assistance to Canadian companies. Further information on Canada/U.S. Defence Production Sharing may be obtained by contacting the U.S. Division of DPB.

The Canada/U.S. Defence Production Sharing Arrangement provides Canadian manufacturers with the opportunity to supply to the United States Armed Forces a wide range of defence supplies and services in competition with U.S. industry. A Canadian firm offering competitive price, delivery, and quality can obtain substantial United States defence business and will not generally encounter discriminatory legislative or regulatory restrictions, except for certain product classes.

The most important feature of the DPSA to help Canadian companies to be competitive is that the United States government waives United States Customs duties on a wide range of Canadian supplies entering the United States for defence programs. This waiver extends both to prime contracts placed by

the United States government with Canadian suppliers and to sub-contracts placed by defence contractors in the United States with Canadian suppliers for defence work. The Buy American Act has been waived for all defence supplies made in Canada except some (such as food and textiles) where U.S. legislation prohibits imports by U.S. government agencies.

The Canadian government does not require a Canadian firm to obtain an export permit for the export of defence goods to the United States under the program. This applies to both prime contracts and sub-contracts.

Note that the United States Defence Acquisition Regulation (which is replacing the current Armed Services Procurement Regulation) contains specific requirements for contractual clauses and other information which may be required by companies to enable them to submit a responsive bid in accordance with bid document requirements. In any case, bids of a value of \$10,000 or greater made in response to a U.S. Defence Procurement Agency RFP, RFP or IFB must be submitted via the Canadian Commercial Corporation, Ottawa, Canada, K1A 0S6, as required by the ASPR and DAR. Additional information concerning general provisions and procedures for Canadian industrial participation in U.S. defence acquisitions is contained in the "Production Sharing Guidebook", which is available upon request from any ITC Regional Office in Canada, or from ITC Defence Programs Branch.

## UNITED STATES — GENERAL

### The Market

The current U.S. defence market for hardware is in excess of \$31 billion, with more than \$12 billion additional available for research and development. Canadian industry currently supplies substantially less than one per cent of this market.

Various procurement restrictions imposed by U.S. law and by Congressional riders to annual appropriation acts do restrict the market, but the non-restricted market (i.e., that open to Canadian suppliers) is estimated to be at least \$10 billion.

Specific opportunities for export are covered by individual Canadian Trade Offices in the areas in which procurement agencies are located.

The increased procurement by Canada of defence material from the U.S., combined with the agreed U.S./Canada goals of a rough balance in defence trade, has increased the awareness in the U.S. Department of Defence of Canada as a source of defence material.

### Export Opportunities

Canadian companies should make contact with the Department of Industry, Trade and Commerce, U.S. Division, Defence Programs Branch, on questions related to specific opportunities and the procedures to be followed in marketing under the umbrella of the United States/Canada Defence Production Sharing Arrangement, and the United States /Canada agreement for co-operative development projects in the defence areas.

## ATLANTA

### The Market

For the fiscal year 1977, United States Department of Defence expenditures in the seven southeastern states plus Kentucky, Virginia and West Virginia, were as follows:

	\$ million
Aircraft	551
Missiles and space systems	562
Ships	1,718

Tanks — automotive	47
Weapons	80
Ammunition	291
Electronics communication	2,320

Relocation of divisions of two major electronics corporations to Florida is increasing sub-contract opportunities, additional opportunities include development of missile and weapons sys-

## Atlanta — The Market (cont'd.)

tems to production stages and the 'stretching' of 271 C-141 Starlifters. With emphasis on energy and savings, simulated systems for both army and navy at Orlando training facilities present opportunities.

### Export Opportunities

Sub-contract opportunities for the supply of forgings and castings are still good and prospects are improving for electronic components. Contact the Canadian Trade Commissioner in Atlanta for guidance on local industries which may have an interest in procuring specific products from Canada.

## BOSTON

### The Market

The New England area, with its concentration of high technology industry, presents an excellent marketplace for Canadian prime and sub-contractors of defence equipment.

The U.S. DOD budget is continuing to grow and is forecast to continue to reflect the five-year plan to develop real growth. In a period influenced by a Congress which generally favours low defence spending, the passage of the recent budget is considered to be significant and is reflected in the more local picture. Hanscom AFB in Bedford, Massachusetts, is planning an increase in the combined budget of \$268 million (FY76) to \$585 million (FY79). These planned expenditures for military equipment to modernize the forces will be reflected in sharp increases in opportunities for Canadian sub-contractors in both

the mechanical and electronic high technology area. There should also be opportunities for research and development contracts from USAF Electronics Systems Division, Hanscomb AFB.

### Export Opportunities

The Canadian Defence Industrial Liaison Office in Boston is in constant contact with the procurement staff of some 200 New England defence and high technology companies and military procurement agencies. The substance of these interviews and accumulation of marketing intelligence is collated into the Canadian Trade Office News Bulletin of opportunities and distributed to Canadian industry. This publication is available on request. In addition, regular contact is maintained with U.S. defence agencies.

## BUFFALO

### The Market

In a recently completed survey, the Buffalo Consulate identified 87 firms within its territory that are actively engaged in defence contracting. Of the 87, 40 may be classified as major firms (over 500 employees) such as GE Heavy Military Electronic Systems, GE Aerospace Instrument and Controls Division and IBM. Hence, while the area does not perhaps offer the same potential as other areas of the U.S. where large military procurement agencies and/or a large number of firms totally orientated to military work can be found, it has in the past and will in the future continue to represent good opportunities to

those Canadian firms that are willing to compete for the business.

### Export Opportunities

In connection with a future project, GE Heavy Military Electronic Systems is anxiously seeking to expand its lists of Canadian sources of supply. The list, once compiled, will be made available to the whole of the GE corporate structure. Contact with this firm may be arranged through the Buffalo Consulate.

## CHICAGO

### The Market

There are two military logistic commands, U.S. Army Armament Readiness Command (AARCOM) and U.S. Army Troop Support and Aviation Readiness Command in this territory with whom the Chicago Consulate is accredited. Direct liaison with these commands is a continuing process, to insure that Canadian suppliers are given an opportunity on all direct procurement requirements they can bid on under the Canada-U.S. Defence Sharing Agreement.

In addition to the direct military market, there are a number of major prime contractors in the aerospace and military electronics fields located in the territory. These firms have many requirements for such products as precision machined parts,

precision castings, electronic components and sub-assemblies, etc., that Canadian firms are eligible to bid on following appropriate qualifying exercises. Prime and sub-contractors for ammunition are also located here with requirements for various forged and machined parts.

### Export Opportunities

Aerospace: Machined parts, metal fabrication, sub-assemblies, sub-systems.

Electronics: PCB, capacitors, micro-circuits, optical lenses and assemblies.

Armament: Castings, forgings, stampings, machined parts.

## CLEVELAND

### The Market

New sales contracts in this sector have been strongly upward. Main co-ordination on behalf of Canadian firms is undertaken by a Trade Commissioner stationed in Dayton who maintains continuous contact with the key elements of the U.S. defence establishment. New business has been obtained by several Canadian firms through the U.S. Defense Construction Supply Centre (Columbus, Ohio), the U.S. Defense Electronics Supply Centre (Dayton, Ohio), and the Aeronautical Systems Division. Bid opportunities for contracts under the NATO communications and surveyance program are also developing and have led to contracts for three Canadian firms. The Defence Contract

Administration Service Region of Cleveland administers all defence contracts between U.S. prime contractors and Canadian vendors and provides assistance to the Consulate in developing sub-contract opportunities. Procedures for inclusion on bidders lists are well established.

### Export Opportunities

Electronic parts, investment castings, precision machinery, forgings, castings, construction equipment, assemblies, automotive rebuilt parts, research and development, testing services.

## DALLAS

### The Market

The territory (Texas, Oklahoma, Arkansas, Louisiana and New Mexico) continues to be lucrative for the Canadian supplier. Major defence contractors tend to have ample business from current contracts. In 1976, there was about \$10 million of Canadian business in this territory.

### Export Opportunities

Most opportunities in this area are for sub-contracts to major aerospace contractors. Due to an influx of new prime contracts, local sub-contractors have heavy backlogs and opportunities

exist for Canadian firms, particularly in the casting, forging (non-ferrous) and precision machining sectors. Boeing Aerospace (Wichita) is looking for sub-contractors for B52 retrofit work, plus non-defence contracts for 737 and 767 parts, principally machining. General Dynamics is actively seeking Canadian sources for F16 and other contracts. Some Canadian firms are obtaining steady business from Beechcraft and Bell Aerospace. The Dallas Trade Commission Office should be contacted for guidance to potential customers for specific types of subcontract work.

## DETROIT

### The Market

The defence market in the Michigan-Indiana area remains strong; the total defence spending in the territory during the past fiscal year was approximately \$3.26 billion. Total defence exports to the territory by Canadian companies in 1977 were \$15,672,748, an increase of 54 per cent over 1976. Direct U.S. military procurement was up 174 per cent and sub-contracts 46 per cent over the previous year.

The largest U.S. government procurement agency in the territory is the U.S. Army Tank Automotive Materiel Readiness Command which, in conjunction with the U.S. Army Tank Automotive Research and Development Command, Warren, Michigan, purchased \$1.885 billion in equipment and repair parts including \$1.24 billion for trucks, tanks, trailers, etc., and \$485 million in repair parts and \$160 million in research and development for prototype vehicles, test systems, material research, etc.

### Export Opportunities

In the private military sector, the following companies are active and eager to find additional sources of supply:  
AM General Corporation — a wide range of automotive truck parts and sub-assemblies for the quarter ton Jeep, 2½ and 5 ton tactical trucks.  
Bendix Corporation — machining, forgings, castings and electronic and mechanical components for fuel control systems,

innerframe engines and space vehicle sub-assembly manufacturing.

Chrysler Corporation — contract machining, castings, forgings, fabricated metal assemblies, rubber and plastic components, electrical and electronic assemblies and mechanical assemblies for production of the M60 and XM-1 combat main battle tanks.

Cummings Engine — a wide variety of engine components and sub-assemblies for diesel engines.

The Detroit Diesel-Allison Family of Companies — a wide variety of castings, forgings, light stamping assemblies, contract machining, bearings, gaskets, mechanical components for manufacture of vehicle transmission and transfer assemblies, gas turbine engines for aircraft and industrial use and diesel engines for commercial and military vehicles.

International Harvester — a wide variety of automotive parts and assemblies for production of light and heavy trucks and buses for military and commercial markets.

Williams Research Corporation — the company has been awarded a \$22.3 million contract for the production of a small gas turbine engine for air-launched cruise missiles.

Teledyne Continental Motors — currently seeking Canadian sources for a wide range of components for the manufacture of a combat-support vehicle somewhat resembling a souped-up version of a dune buggy.

Taradcom — interested in joint R and D programs in a wide variety of tank and automotive related products.

# LOS ANGELES

## The Market

The Defence Programs Office of the Los Angeles Trade Commissioner Post is currently located in Pasadena. It is responsible for providing marketing intelligence relating to potential high technology business for Canadian industries and research facilities, as it becomes available in an area which is made up of six southwestern states and Hawaii. The area involved is in excess of 677,000 square miles, or 20 per cent of the total land mass of Canada. The population at last census is close to 35 million people.

In the immediate Los Angeles area — Newport Beach to Valencia (115 miles) — the Post is currently soliciting business from approximately 85 companies whose production covers everything from major systems to small components, aircraft, helicopters, radars, satellites, large weapons systems, missiles, small personal weapons, mines, landing gears, fuel systems, computers, and other items ad infinitum.

U.S. military agencies or installations include DCASMA — Pasadena and Los Angeles, USAF — SAMCO — El Segundo and Norton Air Force Base, U.S. Navy — Long Beach, NASA — JPL — Pasadena.

Of the \$50.4 billion in U.S. DOD contracts issued in 1977, approximately 68.0 per cent, or \$34.1 billion, was split up among the top 100 prime contractors. This percentage has remained virtually unchanged over the past three years.

In the elite top ten, three are California-based, each receiving in excess of \$1 billion in contracts, i.e., Lockheed, Northrop, and Hughes.

Currently in the metropolitan Los Angeles area, there is an increasing demand for skilled engineers, technicians, and tradesmen. Skilled, experienced machinists are in very short supply.

## Export Opportunities

The principal export opportunities in the area served by this Post are for defence related, high technology hardware. There are opportunities for prime contracts but mainly sub-contracts to the following U.S. prime contractors for their current major contracts or product lines:

- AiResearch Manufacturing Company, Los Angeles and Torrance — environmental control systems, energy systems, rapid transit and electrical power systems, air data computers, and electronic systems. Industrial division: turbochargers for aircraft and automotive.
- Aerojet General Corporation: (1) ElectroSystems, Azusa, California — aerospace, aircraft, and naval underwater electronic systems: (2) Ordnance & Manufacturing Company,

Downey, California — design and development production of parts for ordnance munitions and ammunition systems.

- Ford Aerospace & Communications, Aeronutronic Division, Newport Beach, California — missiles and weapon systems, compact high performance 30 mm gun for new fighter aircraft, bushmaster — 25 mm gun system, DIVADS, gun system Divisional Air Defence, Chaparral missile system, AIM-9L sidewinder.
- ITT-Gilfillan, Inc., Van Nuys, California — radar systems.
- General Dynamics Corporation, Pomona, California — missile systems — Redeye, Standard, Stinger, Tartar, Terrier, Sparrow, Viper. Gun systems — DIVADS, Divisional Air Defence, Phalanx.
- Hughes Aircraft Company, Los Angeles, California — There are six major divisions and several smaller divisions in the Hughes complex in California and Arizona. The products include: radar for aircraft, ships, and ground installations; missiles; satellites; communications systems; electro-optical systems; ordnance devices and systems; gun systems; and others ad infinitum. The 1977 U.S. DOD contracts received are valued at \$1.1 billion; total sales \$1.7 billion. The forecasted 1978 sales are \$1.8 billion; forecasted backlog 1978 is \$3.4 billion, an increase of 35 per cent over 1977. Current employment of 40,000 is expected to rise to 44,000 in 1978 and 50,000 by 1982.
- Litton Industries, Inc. — There are two major divisions in the Los Angeles area and several others of lesser size: (1) Litton Guidance & Control Systems and (2) Litton Data Systems. Products range from inertial navigation systems through tactical data systems and computers.
- Lockheed-California Company, Burbank, California — S-3 and P-3 patrol aircraft and Canadian CP-140 Aurora LRPA.
- Northrop Aircraft Division, Hawthorne, California — F-5 series aircraft, F-18, F-18A, and F-18L is a contender in Canadian NFA Program.
- Honeywell, Inc., West Covina, California — naval systems, navy weapons, fire control systems.
- Rockwell International Corporation, El Segundo, California — There are ten major divisions within the Rockwell family in the Los Angeles area. Product lines range from rocket motors, space flight vehicles, nuclear products, business and military aircraft, electronic weapons systems, navigational and guidance systems for aircraft, missiles, spacecraft, submarines, micro-electronic devices and systems for the military, complete airborne communications systems for military and general aviation.

# MINNEAPOLIS

## The Market

Prime defence contractors in the area, except for the ammunition suppliers, continue to receive significant defence contracts. There is thus a good market for sub-contractors, especially in the electronic component field, but to date most bids submitted by Canadian firms have been too high and some bidders have experienced problems in qualifying under the U.S. military specification requirements.

Most defence manufacturers, including a fuse manufacturer, are electronically oriented and buy their components from outside sources.

## Export Opportunities

Top priority of Sperry-Univac is to try and find sources of supply in Canada for offset contracts required by the LRPA Program. Control Data, Honeywell, and other major electronic



## Minneapolis — Export Opportunities (cont'd.)

firms in the twin cities are seeking competitive sources of supply for components such as multilayer PCB's, investment

castings, fuses, etc. Companies can be approached directly or by the use of manufacturers representatives.

## NEW YORK

### The Market

The defence market territory covered by the Canadian Trade Office in New York includes New York state, northern New Jersey and most of Connecticut. Sales by Canadian suppliers in this territory are in the range of \$30 million a year.

### Export Opportunities

The U.S. Army Electronics Command (ECOM) located at Fort Monmouth, N.J., was reorganized last year into separate commands (CORADCOM, CERCOM and ERADCOM). These new commands now have new programs getting underway which will provide opportunities for Canadian companies, principally as sub-contractors to U.S. prime contractors. However,

the Fort Monmouth ERADCOM and CORADCOM commands also administer a larger number of research and development projects. The New York Trade Office monitors these for possible participation of qualified Canadian companies for direct R&D contracts to these commands or for shared development projects under the U.S./Canada agreement for co-operative development work in the defence area.

The principal opportunities for sub-contracts are in the aerospace sectors (to Grumman and Fairchild) and in the electronics sector to prime contractors having contracts from Fort Monmouth. The outlook is brightest for castings, forgings and high precision machining.

## PHILADELPHIA

### The Market

More than \$40 million worth of Canadian defence materials and equipment were sold in the mid-Atlantic states last year. Procurement by the Department of Defence agencies in this part of the U.S. totalled several billion dollars. In addition, sub-contracts let by U.S. prime defence contractors in the area enlarges the opportunities for Canadian manufacturers to do business.

Selling in this large market requires significant effort by Canadian manufacturers of defence products. To remain aware of opportunities at the DOD agencies, regular screening of the Commerce Business Daily and the agencies bid boards is needed to sell to the prime contractors. Regular calls must be made on purchasing and engineering personnel. Canadian penetration of the mid-Atlantic defence market can be expanded rapidly by company executives willing to invest the time and effort.

Canadian manufacturers should be aware that there are 28 U.S. Department of Defense Procurement Agencies in this territory. They procure billions of dollars of goods and services for the three U.S. Armed Services and the Marine Corps. Items include wire rope, cable assemblies, bearings, chain, castings and forgings, springs, couplings and coils; communications equipment; drugs and medical equipment. Among electronic components procured are crystals, switches, resistors, capacitors, filters, amplifiers, solenoids and connectors. Such procurements are permitted under the U.S. — Canada Defence Production Sharing Arrangement.

### Export Opportunities

Potential in this area is split between the DOD agencies and local prime contractors. Among the major DOD agencies are: the Naval Ships Parts Control Center in Mechanicsburg, Pa, the Naval Regional Procurement Centers in Philadelphia, Pa, and Washington, DC, the Naval Aviation Supply Office in

Philadelphia, and three of the Defence Logistic Agencies large multiservice procurement centers, the Defence Industrial Supply Center and the Defence Personnel Support Center in Philadelphia and the Defence General Supply Center in Richmond, Va.

Prime contractors seeking reliable sub-contract firms concentrate on electronic equipment, communication systems, weapons and artillery and systems engineering services. Some specific contractors of prime importance include: Newport News Shipbuilding with a \$2 billion backlog of naval ship contracts; Bowen-McLaughlin-York with an 85 vehicle per month production of tanks and personnel carriers; General Electric, which in July, 1978, won the Landsat D Earth Resources Satellite contract; and Boeing Vertol which has a 33 helicopter order from Britain.

Examples of typical products and components being bought are:

Adapters	Connectors
Switches	Couplings
Solenoids	Cable assemblies
Printed circuit boards	Hooks
Amplifiers	Small gears
Crystals	Castings/forgings
Wire harnesses	Engine parts
Power supplies	Wire rope
Resistors	Bearings
Capacitors	Hydraulic cylinders
Coils	Investment castings
Sensors	Die castings
Filters	Medical equipment
Edge-lit panels	Drugs
Microwave components	Cabinets
Micro-circuits	Transformers

# SEATTLE

## The Market

There are five important prime contractors for defence equipment in the the Pacific Northwest. There are four shipyards doing work for the U.S. Navy and Coast Guard, and the Boeing Aerospace portion of the Boeing Corporation. The estimated value of present U.S. Navy new ship contracts in the Pacific Northwest is \$500 million. In addition, three of the four yards have additional contracts with overseas navies and also with the U.S. Coast Guard.

Boeing Aerospace sales include military equipment contracts with all three forces for missiles and military aircraft and also contracts with NASA for space projects.

All military programs are subject to DOD defence spending developments and the individual project tends to be somewhat precarious. This was particularly true during the early days of a new U.S. administration. Lately, two programs affecting Boeing have been in the news: cancellation of the B-1 in which Boeing was a major sub-contractor and the consequent probable change in status of the ALCM (Air Launched Cruise Missile) in which Boeing is the prime contractor.

## Export Opportunities

- Lockheed Shipbuilding and Construction Company has a recent contract from the U.S. Navy for a submarine tender vessel designated the AS41. This contract provides good opportunities for Canadian marine component exporters, particularly as a result of the Lockheed Corporation's offset commitments in Canada as a result of its LRPA contract with the Canadian government. The company is anxious to buy whatever can be sourced competitively in Canada.

- The Todd Corporation is building eight FFG Patrol Frigates which again represents an important market opportunity for Canadian marine component and equipment manufacturers.
- Tacoma Boatbuilding has contracts for four ice breaking tugs for the U.S. Coast Guard and 18 steel towed barges for the U.S. Navy and two torpedo retriever ships for the U.S. Navy. The company is also attempting to sell its 165-foot fast patrol boat to foreign navies.
- The AALC (Amphibious Assault Landing Craft) Division of the Aerojet General Corporation launched the prototype for U.S. Navy testing and analysis. If U.S. government funding is made available a production contract could be forthcoming in the next two to three years.
- The Boeing Aerospace Company has several contracts with the U.S. Air Force and with the army for a number of different programs including the Roland Missile, the ALCM (Air Launched Cruise Missile), the SRAM Missile, the Minuteman Missile, and several others that are in development stage. In addition to these perhaps the most interesting one for Canadian suppliers is Boeings's potential contract with NATO for the AWACS (Airborne Warning and Control System) which is designated the E3A and is a basic 707 jet aircraft equipped with a special radar dome and packed with electronic equipment. If NATO decides to buy this aircraft from Boeing, Canada might receive some of the development and construction work as a result.

# CENTRAL AMERICA AND CARIBBEAN

## COSTA RICA

### **The Market**

Limited market.

## CUBA

### **The Market**

No market.

## EL SALVADOR

### **The Market**

There is a small market for defence products in El Salvador. The Ministry of Defence is in possession of the Canadian Defence Products book but has shown little interest in purchasing defence goods from Canada.

### **Export Opportunities**

There may be very good prospects for sales of tactical assault, transport aircraft and ammunition late in 1978.

### **Import Policies**

The Ministry of Defence for El Salvador is responsible for the purchase of defence and defence related products.

## GUATEMALA

### **The Market**

The Ministry of Defence for Guatemala has traditionally purchased defence material from the United States but more recently a major supplier has been Israel. Attempts to sell Canadian defence products have not been successful.

### **Export Opportunities**

There appears to be no significant opportunities for sales of Canadian defence products to Guatemala.

### **Import Policies**

The Ministry of Defence for Guatemala is responsible for the purchase of defence and defence related products.

## HONDURAS

### **The Market**

The government of Honduras makes limited purchases of defence goods. In 1977 Canada recorded sales of \$2,700 in .50 calibre ammunition.

### **Export Opportunities**

First time sales of ammunition may indicate a small but ongoing market.

### **Import Policies**

The government of Honduras controls the purchase of defence products through direct negotiation with foreign governments. The U.S. has been the most substantial supplier in past years.

## JAMAICA

### **The Market**

Since the Jamaica Defence Force is limited in size and since government expenditure is currently restrained in this area, the market for Canadian defence products is limited.

Jamaica, it would be difficult to obtain import licences for defence products when other imports are competing for scarce foreign exchange.

### **Export Opportunities**

Very little prospect exists for any substantive sales of Canadian defence products in the immediate future.

### **Import Policies**

Given the general restraint on imports currently existing in

## NICARAGUA

### **The Market**

Limited market.

## PANAMA

### **The Market**

Limited market.

## PUERTO RICO

### **The Market**

Extremely limited market opportunities in Puerto Rico and the

Dominican Republic, Haiti, the British and U.S. Virgin Islands.

## TRINIDAD AND TOBAGO

### **The Market**

Defence equipment continues to have low priority in all the countries in this territory with the possible exceptions of Guyana and Surinam. Guyana has expressed interest in Canadian aircraft and there may be opportunities for the sale of surplus transports. Guyana is expected to continue to procure other types of equipment from East Bloc countries. Surinam's purchases of defence equipment will be dependent on aid funds

from The Netherlands and will, therefore, normally be sourced there.

The Barbadian government recently announced that it would introduce legislation in mid-September for the establishment of a defence force. This could result in opportunities for Canadian companies in the foreseeable future.

# LATIN AMERICA

## ARGENTINA

### **The Market**

Although the Argentine armed forces are not large by world standards they constitute one of the most important markets in Latin America for advanced defence equipment. The range of requirements is wide. Canadians have been successful in the past in promoting the sale of communications and other electronic equipment. In addition to a continuing requirement for these items, there is a growing interest in Canada's ability to supply items which are adapted to very cold climates.

### **Import Policies**

Although many items face stiff tariffs or even absolute restrictions, military equipment is in most cases considered to be of national interest and can, therefore, be imported without restriction. The government, when possible, prefers to encourage the manufacture of military equipment in Argentina and potential exporters should consider the possibility of joint ventures or licensing.

### **Export Opportunities**

#### **Equipment for the Navy**

Radar for navigation and for air and surface detection (fixed and shipborne).

Navigation aids, especially Omega receivers.

Sonobuoys.

Echosounders.

Floating docks.

Sonar and general shipboard equipment for new ship construction.

#### **Equipment for the Army**

Tracked vehicles for transport of equipment.

All types of mobile communications equipment.

Fire control systems.

#### **Equipment for the Air Force**

Parachutes.

Communications equipment, both airborne and fixed, for air traffic control.

Navigation aids.

Radar.

Downed aircraft locators.

All types of mobile airport equipment for cold climates.

#### **Products of interest to the three services**

Portable communications equipment for military use.

Security devices for military installations.

Fixed or portable explosive detectors.

Small aircraft for transport.

Suppliers of equipment of United States origin or with U.S. components should check with the Defence Programs Branch of the Department of Industry, Trade and Commerce.

## BRAZIL

### **The Market**

Brazil has been a large importer of specialized equipment and systems for the defence sector, although often with a commitment from the supplier to transfer to Brazil advanced technology and/or an agreement to have a major portion of the products produced in Brazil. The trend towards more self-sufficiency in this sector has increased and the Brazilian government has recently established a company to oversee and develop Brazil's capability in defence products. Recently, as part of the government's policy aimed at decreasing imports and fighting inflation, the defence sector has had its overall budget reduced and its freedom to import restricted. However, the sector may receive import incentives in the second half of 1978, such as import tariff reductions of 50 to 80 per cent and exoneration from the Excise Tax (IPI). These import incentives are given by the Industrial Development Council (CDI) as part of Brazil's import substitution program.

### **Import Policies**

While defence purchase decisions in general are made by the military in Brasilia and Rio de Janeiro, navy purchases are handled through Rio de Janeiro. With the lapse of the U.S. - Brazil Military Agreement and the Brazilian refusal of further American military assistance, some new areas may open up for Canada.

Only those products/systems having a high priority can be imported, and in virtually all of these sectors the government

will seek to have the foreign supplier establish a plant/joint venture/licensing agreement in Brazil to produce equipment. Where such imports are approved, they are free of regular import restrictions.

### **Export Opportunities**

These are limited at the present time due to the hesitancy of all branches of the armed forces to embark on new programs under the present situation. Past experience has shown that a good agent with close contacts in any of the forces, and patience, is an important factor in approaching this market.

Based on the military's need-to-acquire program, there would appear to be opportunities for sales of the Buffalo and CL 125 aircraft, land communications equipment, crash position indicators and perhaps other specialized high technology equipment. Such opportunities, however, will need to be pursued with a view to enter into licensing, joint manufacturing, barter or other such arrangements.

The Brazilian army still imports much of its telecommunications equipment although it will normally expect some Brazilian content in foreign equipment imported in large volume. The federal government itself has a plan to foster the implantation of some of these high technology equipment manufacturers in the Federal District. Some Brazilian financial and producing partners could be indicated to those firms looking at licensing, joint manufacturing or other arrangements.

## CHILE

### **The Market**

Traditionally the Chilean navy has been equipped by the British, the army by the Germans and the air force by the Americans. However, with trade embargoes against Chile by many countries still lingering, purchases have diminished considerably. Imports of military equipment from Brazil are likely to increase in the future.

### **Import Policies**

There are no known local policies either encouraging or discouraging imports.

### **Export Opportunities**

Few at present and for the foreseeable future.

## COLOMBIA

### **The Market**

The total import market for defence products in Colombia for 1977 was estimated at Canadian \$6 million as outlined in the national budget allocation for the armed forces. However, purchases above this amount could be made with external financing in specific cases with the government's special authorization. With the new government only installed in August, it is difficult to ascertain defence spending for the coming year. Estimates are that spending will remain at the same levels as 1977.

### **Import Policies**

Imports of firearms, ammunition, explosives and powder can be

made only through the Ministry of Defence. Foreign suppliers of defence products are required to have a local agent appointed to deal with the Ministry of Defence, and it is advisable that this agent be selected among retired armed forces officers.

### **Export Opportunities**

Immediate opportunities exist for Canadian equipment including aircraft and radio communications equipment. While many other items are needed, budgetary allocations must be made before sales possibilities can be considered real. Interested suppliers are encouraged to contact the Department of Industry, Trade and Commerce at the Bogota Trade Office or in Ottawa (Defence Programs Branch).

## ECUADOR

### **The Market**

Ecuador has a large military budget the details of which are not published. Much of the procurement results from specific presentations by equipment manufacturers.

### **Import Policies**

As a result of extensive oil revenues the Ecuadorian government is in a position to be able to afford sophisticated military equipment. Updating the military inventory is a priority of the governing military junta and defence equipment is given preferential treatment vis-à-vis customs procedures. By law, an agent is required. Priorities may change with the change of government from a military junta to a civilian government. A new government will probably be installed in early 1979.

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### **Export Opportunities**

A wide range of equipment is in demand and interested manufacturers are encouraged to contact the Department of Industry, Trade and Commerce at the Trade Office in Bogota and in Ottawa (Defence Programs Branch).

## MEXICO

### **The Market**

Mexico continues to spend relatively modest amounts on defence and defence related equipment. The national budget expenditures allocated to defence for 1978 have been set at \$470 million, representing only 2.2 per cent of the budget. Heavy equipment, tanks, carriers, etc., follow U.S. army standards.

### **Import Policies**

Aside from the government's policy of restricting imports when local manufacturing capability exists, there have been no changes in policy or legislation which would affect Canadian sales.

### **Export Opportunities**

No specific opportunities are evident at present.

## PARAGUAY

### **The Market**

Armed forces of 15,000, plus 6,000 police troops are well equipped with small arms. Current overall budget is U.S.\$20 million.

### **Import Policies**

Defence products are imported freely by the government. In all cases a local agent is necessary.

### **Export Opportunities**

Small arms.  
Training weapons and ammunition.  
Troop support equipment (uniforms, helmets, boots).  
Communications equipment.

## PERU

### **The Market**

The potential market for Canadian defence equipment in Peru is significant and should continue to grow. Interest has been expressed in not only communications equipment but also a broad range of defence products in general.

### **Import Policies**

The import of a wide range of products is prohibited, primarily luxury goods and anything now being manufactured in Peru

which can meet domestic requirements both in quantity and quality. In addition, a prior licensing requirement for all imports in the private sector has been established, but imports are subject to the availability of foreign exchange.

### **Export Opportunities**

As a result of budget cuts and lack of availability of export financing, new opportunities are somewhat limited at present.

## URUGUAY

### **The Market**

The defence budget being limited, there is virtually no manufacture of defence products in the country.

### **Import Policies**

A local agent is required.

### **Export Opportunities**

Communications equipment, light weapons, coastal patrol vessels.

## VENEZUELA

### **The Market**

Venezuela's armed forces are quite small and do not absorb a major share of the country's budget or imports. Equipment purchases are negotiated directly with supplier countries and are usually not publicized. As is the case with all sales to the Venezuelan government a locally domiciled agent is required.

### **Import Policies**

The Venezuelan military buys locally produced items such as food, uniforms, etc., from local producers. Other items are

purchased from Western countries—the United States, Britain and France are among the normal suppliers. Prospective Canadian suppliers should ensure that they are known to Venezuela's military purchasing authorities. The decision time for military purchases is quite long.

### **Export Opportunities**

Military communications equipment and spare parts for items purchased abroad offer continuing opportunities. Major items are purchased sporadically as budgets permit.

## REGIONAL OFFICES

IF YOU HAVE NOT PREVIOUSLY MARKETED ABROAD, CONTACT THE NEAREST REGIONAL OFFICE OF THE DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE IN YOUR AREA.

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INDUSTRY CANADA / INDUSTRIE CANADA



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of Canada

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