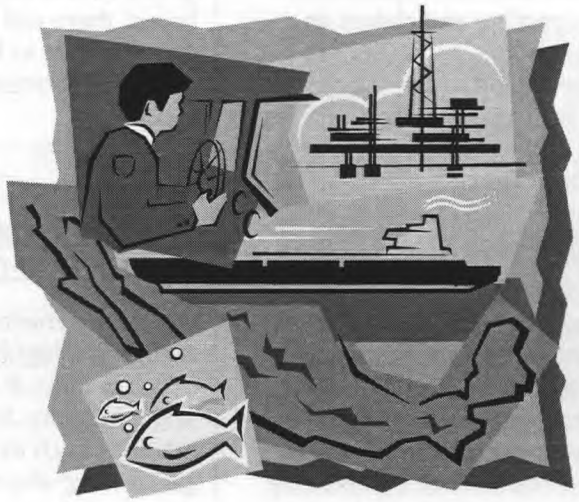
Ocean and Marine Shipboard Technology



THE OPPORTUNITY

Mexico enjoys the benefits of immense ocean resources. But for the most part, technological inadequacies have prevented the full development of these assets:

- *Petróleos Mexicanos (Pemex)*, the national oil company, is inefficient and only recently has begun to modernize with foreign help.
- Ocean science research is limited to the universities and public research centres that lack an industrial focus.
- Fishing boats are small and under-equipped, especially in terms of electronics. The tuna and shrimp fisheries are under attack by environmentalists.
- Mexico's merchant ships carry only about 3 percent of the nation's ocean cargo, and its ports handle only one-third of overseas traffic.
- The ocean environment has been severely damaged by municipal and industrial pollution, especially oil spills from *Pemex* facilities.

Canadian expertise in all of these areas will create continuing opportunities as Mexico's economic development proceeds.

MEXICO'S OCEANS

Navigating the world's oceans and harvesting their vast resources has always been one of humanity's greatest challenges. There are enormous practical problems. The oceans are a vast environment, characterized by a rough surface, strong currents and highly variable weather. Undersea operations are hampered by high water pressure, extremely cold temperatures and poor visibility. Therefore, ocean and marine technology is a highly diverse discipline, devoted to solving the myriad of problems found in, on and beneath the oceans. Certain shore-based maritime activities, such as ports and aquaculture, are becoming more closely associated with ocean and marine technologies.

The search for more sophisticated solutions to this broad set of problems has become more pressing in recent decades. The globalization of commerce, growing sensitivity to environmental issues, and competition between nations for access to marine wildlife and undersea resources have all contributed to this trend.

SUMMARY REPORT

In addition to this market summary, the Department of Foreign Affairs and International Trade (DFAIT) has prepared a market profile entitled ***Opportunities in Mexico: Ocean and Marine Shipboard Technology.*** This market information on Mexican ***Ocean and Marine Shipboard Technology*** has been produced and published by Prospectus Inc. under contract with DFAIT, along with other market profiles and summaries on business opportunities in Mexico. It is available from:

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Export MEXICO

Mexico has more than 11,000 kilometres of coastline and claims an exclusive economic zone (EEZ) of almost three million square kilometres. Its territory includes 1.5 million hectares of lagoons and estuaries, some of which harbour delicate ecosystems. There are officially 371 islands, reefs and keys, as well as 336,000 square kilometres of continental shelf.

Considering the expanse of its maritime resources, it is not surprising that Mexico has needs in virtually every aspect of ocean and marine technology. Canadian companies are expert in several areas of this industry. They are especially strong in low-volume, high-value and custom-engineered solutions, which can be adapted to Mexico's unique needs.

The ambitious economic reforms that have swept Mexico over the past decade have increased the demand for ocean and marine technologies. An enormous increase in foreign trade has put pressure on the nation's marine transportation systems to modernize. The growth of intermodal transportation has placed emphasis on sophisticated systems for ship loading and unloading. Public alarm about the rapid deterioration of Mexico's environment has drawn attention to technologies for ocean environmental assessment, protection and remediation. And, as Mexico's land-based petroleum reserves have been depleted, offshore reserves are playing a more and more important role.

Mexico lacks the technologies needed to tackle many of these problems. Canada has a proven track record in many of Mexico's areas of greatest need. These include hydrographic services, oceanographic instrumentation, subsea robotics, remote sensing systems, navigation and communications systems, and "smart ship" technology. Geomatics and coastal-zone management are other areas of strong expertise. Where appropriate matches of needs and capabilities can be found, there will be continuing opportunities in Mexico for Canadian suppliers of ocean and marine technology.

THE MEXICAN OCEAN AND MARINE SECTOR

Ocean and marine shipboard technology is a highly diverse field, which is difficult to describe as a single industry. It includes traditional activities such as offshore oil and gas, fishing, shipbuilding and marine science. Growing environmental awareness has expanded the scope of this sector to include the control of ocean pollution and the management of coastal marine resources. Technological change has also created new opportunities in such areas as "smart ship" technology and multimodal port systems.

Mexico's scientific capability in all of these areas is very limited. Marine science is primarily the responsibility of university research centres or government agencies. The most important is the *Instituto de Ciencias del Mar y Limnología (ICML),* Institute of Marine Science and Limnology, at the *Universidad Nacional Autónoma de México (UNAM),* National Autonomous University of Mexico. This institute does considerable contract work for the *Secretaría de Marina Armada de México (SMAM),* Mexican Navy, which is responsible for protecting marine resources and monitoring environmental impacts.

In spite of relatively modest technical capability, Mexico derives substantial income and a large part of its export earnings from its ocean resources. Petroleum is the nation's largest industry and the most important source of foreign exchange for the government. Three-quarters of oil production comes from marine sources. Tourism is also a leading industry, heavily based on seafront resorts. The fisheries, including aquaculture, are another source of export earnings.

About 95 percent of new fishing permits issued to member companies of the *Cámara Nacional de la Industria Pesquera (Canainpes),* National Chamber for the Fishing Industry in 1995 were for shrimp. The rest were for tuna, sardines and anchovies. Total production is approximately 1.3 million tonnes per year. About 80 percent of the catch comes from the continental shelf, which falls entirely within Mexico's exclusive economic zone (EEZ). Mexico has a significant aquaculture industry, which is based mainly on traditional methods, such as small-pond cultivation of freshwater species. Total aquaculture production is in the order of 200,000 tonnes per year.

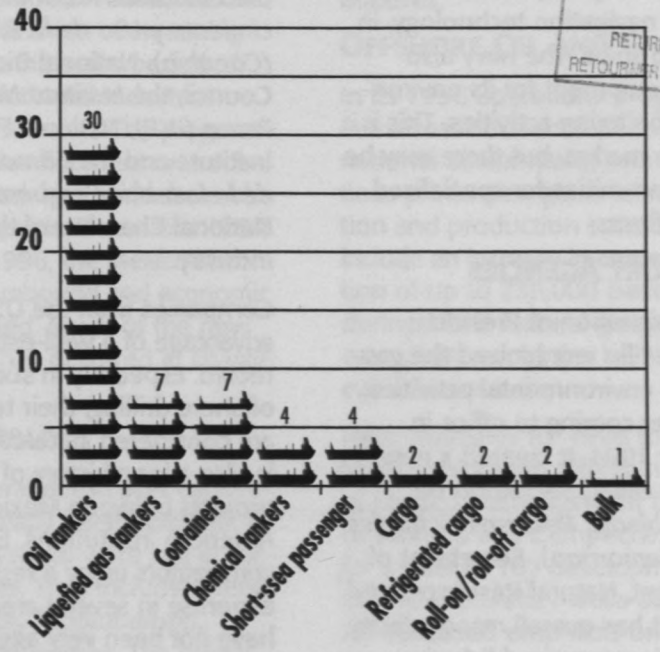
Mexican shipyards are almost entirely devoted to maintenance, repair and construction of small boats. In mid-1995, there were just under 2,000 commercial vessels registered in Mexico. But only about 200 of them exceeded 1,000 registered tonnes.

In 1993, Mexican commercial ports handled 29 million tonnes of cargo, which was less than one-third of the nation's total commercial ocean traffic. The port of Houston, Texas handles more Mexican cargo than all of the ports in Mexico combined. Privatization is seen as the principal remedy for this challenge, and the government is in the process of awarding concessions for the nation's 22 major ports.

CUSTOMERS

Customers for ocean and marine shipboard technologies are found in both the private and public sectors. Government users include universities, *Petróleos Mexicanos (Pemex),*

Mexico's Merchant Fleet, 1995



Source: United States Central Intelligence Agency (CIA) World Factbook, 1995.

THE NATIONAL OIL COMPANY

Petróleos Mexicanos (Pemex), the national oil company, is the only producer of oil and gas in Mexico. About three-quarters of its production comes from marine sources. *Pemex* has been severely criticized in the past for inefficiency, corruption and environmental degradation. In 1992, the government decided to restructure *Pemex* by creating four semi-autonomous subsidiaries. One of them, *Pemex Exploración y Producción*, is responsible for exploration and production. This subsidiary has launched a massive modernization program, much of it based on imported technology. The 1995 *Pemex* budget provides for a 15 percent increase in exploration and production expenses.

OCEAN PORT OPERATORS

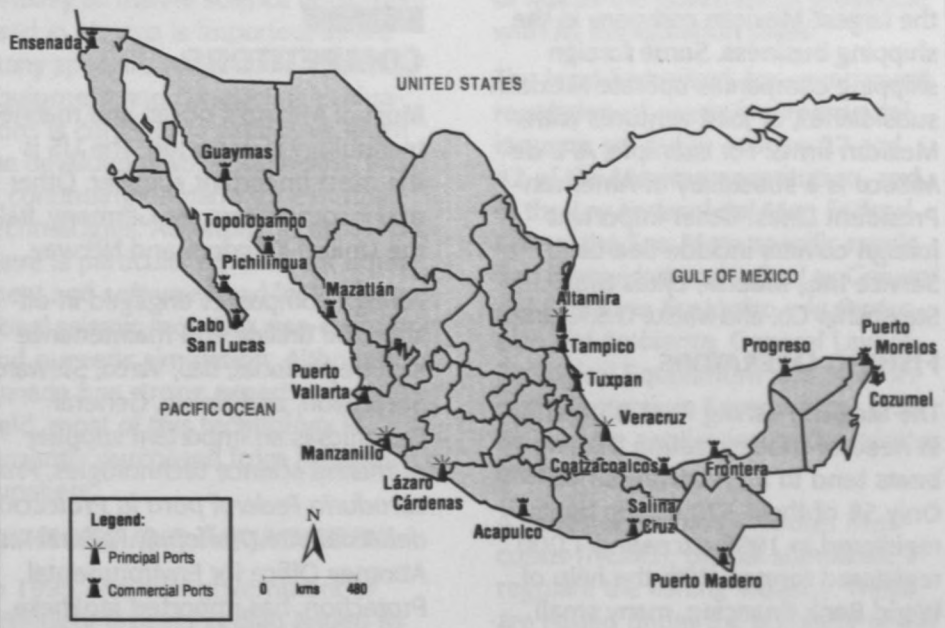
In 1995, the government agency that had previously managed the nation's 22 major ports, was dissolved

the national oil company, the military and environmental authorities; private companies engaged in fishing, marine transportation, shipbuilding and port operations are also part of this market.

MARINE SCIENCE AND LIMNOLOGY INSTITUTE

University research institutes are the most important customers for equipment and services related to marine science. The principal organization involved is the *Instituto de Ciencias del Mar y Limnología (ICML)*, Institute of Marine Science and Limnology, at the *Universidad Nacional Autónoma de México (UNAM)*, National Autonomous University of Mexico. In addition to its facilities on the main campus in Mexico City, *UNAM* has regional research stations specializing in each of Mexico's three marine areas. *UNAM* also operates Mexico's two oceanographic vessels.

Major Ocean Ports



Source: *Puertos Mexicanos, Secretaría de Comunicaciones y Transportes (SCT)*, Secretariat of Communications and Transportation.

and replaced by the *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy. This agency set up local port authorities known as *Administraciones de Puertos Integrales (APIs)*, integrated port authorities, for each port. The *APIs* are in the process of awarding concessions for the operation of individual terminals. The winning bidders have included the Mexican conglomerates *Triturados Basálticos y Derivados (Grupo Tribasa), Ingenieros Civiles y Asociados (ICA)* and *Transportación Marítima Mexicana (TMM)*, as well as a number of foreign companies. Several more terminals are expected to be concessioned during 1996.

SHIP OPERATORS

According to the *Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)*, the National Chamber of the Maritime Transportation Industry, the Mexican merchant fleet carries only about 3 million tonnes annually. This is only about 3 percent of total volume. *Transportación Marítima Mexicana (TMM)* is the largest Mexican company in the shipping business. Some foreign shipping companies operate Mexican subsidiaries, or joint ventures with Mexican firms. For example, *APL de México* is a subsidiary of American President Lines. Other important foreign carriers include Sea-Land Service Inc., Maersk, Lykes Bros. Steamship Co. and Mitsui O.S.K. Line.

FISHING OPERATORS

The Mexican fishing fleet is urgently in need of modernization. Fishing boats tend to be relatively small. Only 58 of the 1,370 fishing boats registered in 1995 exceeded 1,000 registered tonnes. With the help of World Bank financing, many small operators are expected to enter the aquaculture industry within the next few years.

MEXICAN NAVY

The *Secretaría de Marina Armada de México (SMAM)*, Mexican Navy, purchases weapons, rescue equipment and navigation technology, in addition to ships. The navy also requires equipment for its environmental monitoring activities. This is not a large market, but there may be niche opportunities for specialized Canadian firms.

REGULATORY AGENCIES

The administration of President Ernesto Zedillo reorganized the government's environmental activities shortly after coming to office in December 1994. It created a new secretariat called *Secretaría de Medio Ambiente, Recursos Naturoles y Pesca (Semarnap)*, Secretariat of Environment, Natural Resources and Fisheries. It has overall responsibility for the environment and fisheries, including regulation and enforcement. Fisheries regulation is overseen by the *Subsecretaria de Pesca*, Subsecretary of Fisheries.

COMPETITORS

Most of Mexico's ocean and marine technology is imported. The US is the most important supplier. Other major competitors are Germany, Italy, the United Kingdom and Norway.

Foreign companies engaged in offshore oil drilling and maintenance include National, B&J, Varco, Steward-Stevenson, and Noble. General Oceanics is an important supplier of marine science technologies. *Procuraduría Federal para la Protección del Ambiente (Profepa)*, Federal Attorney Office for Environmental Protection, has imported Japanese, American, German and Spanish technologies for dealing with environmental accidents such as spills.

Domestic technologies have been developed through cooperative efforts between *Petróleos Mexicanos (Pemex)*, the national oil company, the *Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (Conabio)*, National Biodiversity Council, the *Instituto Nacional de la Pesca (INP)*, National Fisheries Institute and the *Cámara Nacional de la Industria Pesquera (Canainpes)*, National Chamber of the Fishing Industry.

Companies from the US have the advantage of a well-established track-record. Especially in such areas as offshore drilling, their technologies are considered state-of-the-art. There is also a long history of joint research projects between Mexican and American institutions. European competitors enjoy a reputation for expertise in several areas. But they have not been very aggressive in setting up joint projects. Nonetheless, several Scandinavian suppliers have made inroads in niche markets, along with a few competitors from other countries.

Canada has the advantage of a good general reputation for technical excellence and willingness to adapt to Mexican ways of doing things. But, individual companies are not well-known and, in the view of many Mexican observers, they have not pursued consistent promotion campaigns.

Canadian companies also tend to lack experience in Mexican govemment procurement. Joint ventures with Mexican companies are usually considered the best vehicles to overcome this obstacle. Observers believe that there are opportunities for partnerships with local firms to adapt Canadian technologies to Mexican needs. Examples cited by experts interviewed for this study included artificial reef building and fish capture technologies.

TRENDS AND OPPORTUNITIES

Beginning in the mid-1980s, Mexico embarked on a series of sweeping economic reforms and a period of economic growth and industrial restructuring followed. The progress of economic development was substantially set back by a sudden devaluation of the peso in December 1994. Beginning in 1996, the Mexican economy began to rebound and economic growth resumed. Much of the new development has occurred in coastal zones.

PORT TECHNOLOGY

Although several ocean port concessions have already been awarded, as of mid-1996 several were still in the planning stages. They include Puerto Vallarta, Tuxpan, Topolobampo, Mazatlán and Guaymas. The privatization program will create a continuing demand for all types of port equipment as well as specialized consulting services. Tug boats will also be privatized during 1996.

SHIPBOARD TECHNOLOGY

Mexico's ships are generally old and in poor condition even by traditional standards, and they lack the modern shipboard systems needed to compete in today's market. As a result, domestic ships carry less than 5 percent of export cargo and only a little more than half of coastal traffic. This implies huge potential for expansion and modernization. But to a large extent, the future of this sector depends upon the outcome of the government's port privatization plan.

ENVIRONMENTAL TECHNOLOGY

Mexico's efforts to clean up its ocean environment are still in an early stage of development. Therefore, demand is concentrated mainly in assessment technologies. As environmental regulations become more actively enforced, the regulatory authorities will require more monitoring and testing equipment. The market for pollution control and remediation technologies will expand as this sector matures.

OFFSHORE OIL AND GAS

In its 1996 operations program, *Petróleos Mexicanos (Pemex),* the national oil company, sets out ambitious production goals for its exploration and production subsidiary. They include an increase in crude oil extraction of up to 230,000 barrels per day during 1995. Natural gas production extraction would rise by 539 million cubic feet per day.

New strategies for 1996 to 2000 will focus exploration efforts in the Gulf of Mexico, particularly off the coasts of Tabasco and Campeche. Plans call for a total of 101 development wells and 19 exploratory wells during 1996. An increased emphasis on exploration and extraction in the marine region will drive growing markets for related technologies.

MARINE SCIENCE TECHNOLOGIES

Virtually all marine science equipment used in Mexico is imported, as are many specialized services. Updating equipment and conducting evaluations is considered expensive given the devalued peso. Nonetheless, there is continuing demand for essential technologies. According to observers, there is particular demand for equipment and software used for tri-dimensional seismic recording, geo-chemistry and numeric simulation. Although Canada has strong expertise in this field, most of this technology is currently purchased from American suppliers.

FISHERIES AND AQUACULTURE

In 1995, the new government of President Ernesto Zedillo issued its six-year program for the development of the fisheries. It calls for the expansion of fishing infrastructure and production capacity, to be balanced by the development of more modern models of fisheries management to prevent over-exploitation. The government's other priorities include modernizing the fishing fleet, rehabilitating coastal ecosystems and developing aquaculture.

MARINAS

A recent trend is leading to the development of marinas along both of Mexico's coasts. Boating in Mexico has always been limited to a small segment of the population. At the end of 1995, the nation still had only about 25 marinas in operation. But several new facilities are under construction and many more are planned.

THE REGULATORY ENVIRONMENT

Mexico's ocean resources are governed by a large number of laws, regulations, decrees and intergovernmental agreements. Many of them have not been rigorously enforced, and others are in a state of flux as the government proceeds with its deregulation plans.

The legal framework for government regulation of ocean environmental issues is set out in Articles 27 and 42 of the Mexican constitution, and in the *Ley Federal del Mar,* Federal Law of the Sea. More specific regulation is provided under the *Ley General del Equilibrio Ecológico y la Protección del Ambiente,* General Law of Ecological Equilibrium and Environment Protection. Several other laws have some application to the marine environment.

A series of *Normas Oficiales Mexicanas (NOMs),* official standards, regulate the fishing industry. These are issued under the authority of the *Ley de Pesca y su Reglamento,* Fishery Law. Additional regulations govern the operation of ports and navigable waters.

UNITED NATIONS REGULATIONS

Since 1978, limits to territorial claims over the ocean have been recognized by all United Nations member countries under the United Nations Convention on the Law of the Sea (UNCLOS III). Part V of this agreement defines an exclusive economic zone (EEZ) as extending up to 200 nautical miles from the base lines of a coastal state's territorial sea. In Mexico's case, this increased its ocean resources to about 3 million square kilometres, which includes all of the continental shelf.

The rights to an EEZ are balanced by a number of duties set out in the agreement. The coastal state must take steps to preserve living species and manage harvesting for "maximum sustainable yield" based on scientific evidence. The agreement assigns "jurisdiction" over the protection and preservation of the marine environment, to the coastal state. The state must also maintain charts and geographic data adequate to identify the limits of its EEZ.

MARKET ENTRY STRATEGIES

Although Canada enjoys a general reputation for technical excellence, individual companies are not well-known. This can make new products and services difficult to sell. Canadian companies that have succeeded in Mexico frequently say that partnering is usually the most effective way of achieving market exposure. Partnerships with Mexican companies or research institutions are also a powerful way of overcoming cultural and language barriers.

Many companies locate prospective partners by attending industry trade shows. The Canadian Embassy in Mexico City and the Consulates in Monterrey and Guadalajara can also assist with referrals and introductions.

Pemex Procurements

Exploración y Producción, the exploration and production subsidiary of *Petróleos Mexicanos (Pemex)*, the national oil company, maintains its Marine Region headquarters at Ciudad del Carmen which is located on Campeche Sound. Marine region officials have expressed interest in learning more about the international marine technology market. This interest is being fueled by the planned decentralization of *Pemex* purchasing procedures. Unofficially, it is estimated that regional buyers will be allowed to buy directly from suppliers beginning in 1997. Currently, a large proportion of purchases are made by the *Pemex* purchasing office in Houston following a complex hierarchy of acquisition recommendations.

UNAM Procurements

Universidad Nacional Autónoma de México (UNAM), National Autonomous University of Mexico, prefers to deal directly with foreign companies rather than local agents and distributors. Most of its suppliers are located in the United States, and US sales are facilitated by a university purchasing office in Houston, Texas. *UNAM* purchases mainly through public tender. Specifications are published in the *Diario Oficial*.

Ocean Port Tenders

The *Coordinación General de Puertos y Marina Mercante (CGPyMM)*, General Coordinator for the Ports and the Merchant Navy, is the government agency responsible for ocean port privatizations. Separate public companies called *Administraciones de Puertos Integrales (APIs)*, integrated port authorities, have already been created for each port. Each *API* will concession the operation of individual terminals, subject to federal government approval. These are comprehensive concessions for the expansion, modernization and operation of all terminal facilities. In most cases, foreign participation is limited to 49 percent.

KEY CONTACTS

CANADA

Canadian Government

Department of Foreign Affairs and International Trade (DFAIT)

DFAIT is the Canadian federal government department most directly responsible for trade development. The **InfoCentre** should be the first contact point for advice on how to start exporting. It provides information on export-related programs and services, acts as an entry point to DFAIT's trade information network, and can provide copies of specialized export publications and market information to interested companies.

InfoCentre
Tel.: 1-800-267-8376 or (613) 944-4000
Fax: (613) 996-9709
FaxLink:* (613) 944-4500
InfoCentre Bulletin Board (IBB):
Tel.: 1-800-628-1581 or (613) 944-1581
Internet: http://www.dfait-maeci.gc.ca

*FaxLink is a faxback system which provides summaries on a range of Mexican markets. It must be contacted through your fax machine. Dial from your fax phone and follow the voice prompt instructions.

The Trade and Economic Division of the Embassy of Canada in Mexico can provide vital assistance to Canadians venturing into the Mexican market. The trade commissioners are well-informed about the market and will respond in whatever measures possible to support a Canadian firm's presence in Mexico.

Trade and Economic Division
The Embassy of Canada in Mexico
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Fax: (52-5) 724-7982

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Tel.: (52-8) 344-3200
Fax: (52-8) 344-3048

Canadian Consulate
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Col. Vallarta Poniente
44110 Guadalajara, Jalisco
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Tel.: (52-3) 616-6215
Fax: (52-3) 615-8665

International Trade Centres have been established across the country as a convenient point of contact to support the exporting efforts of Canadian firms. The centres operate under the guidance of DFAIT and all have resident trade commissioners. They help companies determine whether or not they are ready to export, assist firms with market research and planning, provide access to government programs designed to promote exports, and arrange for assistance from the trade commissioners in Ottawa and trade officers abroad. Contact the International Trade Centre nearest you.

World Information Network for Exports (WIN Exports) is a computer-based information system designed by DFAIT to help Canada's trade development officers abroad match foreign needs to Canadian capabilities. It provides users with information on the capabilities, experience and interests of more than 24,000 Canadian exporters. For general information, call (613) 944-4WIN (4946); to register on WIN Exports, call (613) 996-2057, or fax 1-800-667-3802 or (613) 944-1078.

Program for Export Market Development (PEMD)

PEMD is DFAIT's primary export promotion program. It supports a variety of activities to help Canadian companies expand into export markets. PEMD shares up to 50 percent of eligible expenses. Program financial assistance is a repayable contribution, not a grant, and must be approved in advance. For general information, call the InfoCentre at 1-800-267-8376. For applications for assistance through this program, call the International Trade Centre nearest you. In Quebec, PEMD is administered by the 13 regional offices of the Federal Office of Regional Development (FORD Q).

Industry Canada

Transportation Industries Branch
Industry Canada
International Trade Centre
1801 Hollis Street
Halifax, NS B3J 2V9
Tel.: (902) 426-9905
Fax: (902) 426-2624

Canadian International Development Agency (CIDA)

CIDA is an important possible source of financing for Canadian ventures in Mexico. A special fund is available through CIDA under the Industrial Cooperation Program (INC). This program provides financial contributions to stimulate Canadian private-sector involvement in developing countries by supporting long-term business relationships such as joint ventures and licensing arrangements. For more information, call (819) 997-7905, or fax (819) 953-5024.

Export Development Corporation (EDC)

EDC helps Canadian exporters compete in world markets by providing a wide range of financial and risk management services, including export credit insurance, financing to foreign buyers of Canadian goods and services, and guarantees.

EDC has established relationships with leading commercial and public sector institutions in Mexico and Latin America. For information on the full range of EDC services, call (613) 598-2500, or fax (613) 598-6858.

Revenue Canada

Revenue Canada, Trade Administration Branch provides service in English, French and Spanish. Revenue Canada publications and customs notices are also available by calling or faxing the NAFTA Information Desk: 1-800-661-6121 or (613) 941-0965; fax:(613) 952-0022.

Business and Professional Associations

Shipbuilders Association of Canada
222 Queen Street
Suite 1502
Ottawa, ON K1P 5V9
Tel.: (613) 232-7127
Fax: (613) 238-5519

Canadian Advanced Technology Association (CATA)
388 Albert Street
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Ottawa, ON K1R 5B2
Tel.: (613) 236-6550
Fax: (613) 236-8189

Canadian Council for the Americas
Executive Offices
360 Bay Street
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Toronto, ON M5H 2V6
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Alliance of Manufacturers and Exporters Canada
99 Bank Street
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Ottawa, ON K1P 6B9
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Fax: (613) 563-9218

Alliance of Manufacturers and Exporters Canada
75 International Boulevard
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Etobicoke, ON M9W 6L9
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Fax: (416) 798-8050

The Canadian Chamber of Commerce
55 Metcalfe Street
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Ottawa, ON K1P 6N4
Tel.: (613) 238-4000
Fax: (613) 238-7643

Forum for International Trade and Training Inc.
155 Queen Street
Suite 608
Ottawa, ON K1P 6L1
Tel.: (613) 230-3553
Fax: (613) 230-6808

Language Information Centre
240 Sparks Street RPO
Box 55011
Ottawa, ON K1P 1A1
Tel.: (613) 523-3510

Open Bidding Service
P.O. Box 22011
Ottawa, ON K1V 0W2
Tel.: 1-800-361-4637 or
(613) 737-3374

Canadian Standards Association
178 Rexdale Blvd.
Etobicoke, ON M9W 1R3
Tel.: (416) 747-4000
Fax: (416) 747-4149

Standards Council of Canada
45 O'Connor Street
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Mexican Embassy in Canada

Embassy of Mexico
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MEXICO

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México
Tel.: (52-93) 82-3479

Pemex Exploration and Production — Marine Region Northeast
Pemex Exploración y Producción — Región Marina Noreste
Calle 31 Edificio Administrativo No. 2
Col. Pemex II
24160 Ciudad del Carmen, Campeche
México
Tel.: (52-93) 82-2431/4210

Pemex Well Service Management Office
Pemex Exploración y Producción, Subgerencia de Servicio a Pozos
Calle 33, #90, Edificio PEMEX I
Colonia Burócratas
Ciudad del Carmen, Campeche
México
Tel.: (52-93) 85-1200 ext 23380
Fax: (52-93) 82-3389

Mexican Port Authority
Puertos Mexicanos
Municipio Libre No. 377
Piso 6 Ala A
Col. Santa Cruz Atoyac
03310 México, D.F.
México
Tel.: (52-5) 688-3895/7970/2266

Secretariat of Commerce and Industrial Development Bureau of Standards
Secretaría de Comercio y Fomento Industrial (Secofi)
Dirección General de Normas
Av. Puente de Tecamachalco No. 6
Col. Lomas de Tecamachalco
53950 Tecamachalco, Estado de México
México
Tel.: (52-5) 729-9300
Fax: (52-5) 729-9484

Federal Attorney Office for Environmental Protection
Procuraduría Federal para la Protección del Ambiente (Profepa)
Periférico Sur No. 5000, P.B.
Col. Insurgentes Cuicuilco
04530 México D.F.
México
Tel.: (52-5) 528-5540/5546
Fax: (52-5) 666-9462

National Institute of Statastics, Geography and Informatics
Instituto Nacional de Estadística, Geográfica e Informática (INEGI)
Coordinación de Comunicación Social
Avenida Héroe de Nacozari
No. 2301 sur
Edificio Sede, Puerta 7, 1er Piso
Col. Fraccionamiento Jardines del Parque
20270 Aguascalientes,
Aguascalientes
México
Tel.: (52-49) 18-6947
Fax: (52-49) 18-6945

Research Institutes

National Autonomous University of Mexico
Institute of Marine Science and Limnology
Universidad Nacional Autónoma de México (UNAM)
Instituto de Ciencias del Mar y Limnología (ICML)
Ciudad Universitaria,
Circuito exterior e/ Facultad de Veterinaria y el Instituto de Biología
Delegación Coyoacán
México, D.F.
México
Tel.: (52-5) 622-5770/71, 622-5805
Fax: (52-5) 616-2745

National Ecology Institute Environmental Information and Assesment Office
Instituto Nacional de Ecología (INE)
Dirección General de Gestión e Información Ambiental
Av. Revolución No. 1425
Col. Tlacópac San Angel
01040 México, D.F.
México
Tel.: (52-5) 624-3464
Fax: (52-5) 624-3584

Mexican Institute for Water Technology
Instituto Mexicano de Tecnología del Agua (IMTA)
Paseo de Cuauhnáhuac No. 8532
Col. Progreso
62550 Jiutepec, Morelos
México
Tel.: (52-72) 19-3881
Fax: (52-72) 19-4337

National Fishery Institute
Instituto Nacional de la Pesca (INP)
Pitágoras No. 1320
Col. Narvarte
México D.F.
México
Tel.: (52-5) 688-9001 ext. 112 and 113
Fax: (52-5) 601-2330

Mexican Business and Professional Organizations

National Fishing Industry Chamber
Cámara Nacional de la Industria Pesquera (Canainpes)
Delegación Tamaulipas
Calle Doctor Alarcón No. 202 Norte
Col. Centro
89000 Tampico, Tamaulipas
México
Tel.: (52-12) 121-731

National Chamber of the Maritime Transportation Industry
Cámara Nacional de la Industria del Transporte Marítimo (Canaitram)
Insurgentes Sur No. 1673, 1er Piso
Col. Guadalupe Inn
01020 México, D.F.
México
Tel.: (52-5) 661-0527/5903/4776
Fax: (52-5) 661-7049

National Biodiversity Council
Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad (Conabio)
Fernandez Leal No. 43
Barrio de la Concepción, Coyoacán
04020 México, D.F.
México
Tel.: / Fax:
(52-5) 554-4332/7472/1915

National Association of Importers and Exporters of the Mexican Republic
Asociación Nacional de Importadores y Exportadores de la República Mexicana (ANIERM)
Monterrey No. 130
Col. Roma
06700 México, D.F.
México
Tel.: (52-5) 564-8618/9218
Fax: (52-5) 584-5317

The Canadian Chamber of Commerce in Mexico
Cámara de Comercio de Canadá en México
c/o Bombardier
Paseo de la Reforma No. 369,
Mezzanine
Col. Juárez
06500 México, D.F.
México
Tel.: (52-5) 729-9903, 207-2400
Fax: (52-5) 208-1592

National Chamber of Commerce of Mexico City
Cámara Nacional de Comercio de la Ciudad de México (Canaco)
Paseo de la Reforma No. 42
Col. Juárez
06030 México, D.F.
México
Tel.: (52-5) 592-2677/2665
Fax: (52-5) 705-7412, 592-3571

Major Mexican Companies

Triturados Basálticos y Derivados (Grupo Tribasa)
Bosques de Cidros No. 173
Col. Bosques de las Lomas
05120 México, D.F.
México
Tel.: (52-5) 299-7485/7486
Fax: (52-5) 229-7430

Ingenieros Civiles Asociados, S.A. de C.V. (ICA)
Minería No. 145
Col. Escandón
11800 México, D.F.
México
Tel.: (52-5) 272-9991
Fax: (52-5) 272-9991 ext.3868

Transportación Marítima Mexicana (TMM)
Avenida de la Cuspide No. 4755
Col. Parque de Pedregal, Delegación Tlalpan
14010 México, D.F.
México
Tel.: (52-5) 629-8866
Fax: (52-5) 629-8899