



Pacific Rim Diversification and Defense Market Assessment

2nd Edition

A
Comprehensive Guide
For Entry into
Overseas Markets

DISSEMINATION STATEMENT A

Approved for public release
Distribution Unlimited

19980424 058



Published By:
U.S. Department of Commerce
Bureau of Export Administration
Office of Strategic Industries and
Economic Security

March 1997



UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary for Export Administration
Washington, D.C. 20230

March 1997

The end of the Cold War and the resulting reductions in defense spending have presented many challenges for U.S. industry. The Department of Commerce, through the Bureau of Export Administration, has developed a comprehensive national defense diversification program to provide assistance to U.S. industry in this period of transition.

Providing current market information on commercial and defense business opportunities abroad is an important component of our defense diversification program. This information should assist U.S. firms in their market and product diversification efforts.

Therefore, I am pleased to announce the publication of the revised Pacific Rim Diversification and Defense Market Assessment Guide. This guide, an updated version of our first edition within our regional series, provides a wide variety of current information concerning trade opportunities, government procurement processes, country-specific business practices and important points of contact in the selected Pacific Rim countries.

The Department of Commerce is deeply committed to assisting U.S. firms in their efforts to meet the challenges of the post-Cold War era. We hope that this series of guides will help U.S. firms investigate the many business opportunities that exist in the global marketplace. For additional information concerning these publications and other defense diversification programs, please contact the Office of Strategic Industries and Economic Security at (202) 482-4695.

William A. Reinsch

100% QUALITY INSPECTED 2



ACKNOWLEDGMENTS

The editor wishes to thank the many agencies and people that contributed to the completion of this guide. In particular, to the Department of Commerce's Commercial Service Officers, the Defense Department's Security Assistance Offices, Offices of Defense Cooperation, as well as the State Department's Foreign Service Officers located in the U.S. embassies within the countries profiled for the high quality information submitted.

In addition, the editor would like to thank William Denk, Richard Meyers, Etta Munford, Yvette Johnson, and Holly Alvarez of the Bureau of Export Administration as well as the Office of International Operations within the U.S. Commercial Service for their important contributions to the development of this project.

Lastly, the editor wishes to thank the Department of Commerce's Economic Development Administration for making this project possible.

John S. Isbell
Editor

TABLE OF CONTENTS

INTRODUCTION	1
THE DEPARTMENT OF COMMERCE'S NATIONAL DEFENSE CONVERSION PROGRAM	3
SECTION I: GETTING STARTED	6
THE ROLE OF THE COMMERCIAL OFFICER AND THE COMMERCIAL SERVICE	7
THE ROLE OF THE OFFICE OF DEFENSE COOPERATION AND THE SECURITY ASSISTANCE OFFICE	9
THE RECIPROCAL PROCUREMENT MEMORANDA OF UNDERSTANDING	13
U.S. EXPORT CONTROL REGULATIONS	17
SECTION II: COUNTRY PROFILES	19
AUSTRALIA	23
CHINA	43
INDONESIA	59
JAPAN	77
MALAYSIA	91
NEW ZEALAND	103
THE PHILIPPINES	117
SINGAPORE	133
SOUTH KOREA	143
TAIWAN	157
THAILAND	175
ORDER FORM	187

INTRODUCTION

The Pacific Rim is the fastest growing region in world with economic growth rates often surpassing those of the Western industrialized countries. The region possesses a number of well diversified economies that exhibit growing demand for high technology products in commercial and defense sectors and thus providing a wide variety of trade opportunities for U.S. firms.

The end of the Cold War has left many of the nations of the Pacific Rim with increasing concerns about their own national and regional security. The perceived withdrawal of United States' "security umbrella" coupled with the increasing military strength of the People's Republic of China and North Korea, has inspired countries in this region to embark on an enhancement of their armed forces either through upgrade programs or new purchases of sophisticated defense equipment which may translate into business opportunities for U.S. manufacturers.

Concurrent with the upgrading of military forces, is the overall economic expansion and growing trade relations between the Pacific Rim nations. The strong economic growth exhibited by these nations and the increasing economic integration within the region provide a myriad of opportunities in the commercial sector and facilitates entry into several Pacific Rim markets.

The Pacific Rim Diversification and Defense Market Guide is intended to provide current information to U.S. firms interested in dual-use and/or defense trade opportunities in this dynamic region. Each chapter contains a profile of a specific country and the following sections.

The *Overview* section provides a brief description of each nation's economy, including growth rates and the government's economic development plans, where available. This section provides a concise picture of the macro-economic situation in each country.

The *Defense Industry Environment* section consists of a brief discussion of each nation's defense budget, the armed forces' defense plan and the structure of the domestic defense industry. This section also provides information, where available, on the non-U.S. foreign suppliers in order to assess the competitive environment within the defense market.

Within the *Defense Opportunities* section, general requirements for defense equipment as well as specific trade leads are discussed. In addition to new systems, information regarding upgrades and repair opportunities are made available. This section encompasses a wide variety of defense trade opportunities for U.S. defense firms of all sizes.

In the *Defense Procurement Process* section, the defense contracting process of each country profiled is explained and includes points of contact for the agencies and organizations involved in this area.

The *Diversification/Commercial Opportunities* section highlights some dual-use and/or commercial opportunities that exist in the countries profiled. Each of the industry sectors

discussed are product areas that face growing demand in the subject nations and are titled "promising sectors" by the Commerce Department's Foreign Commercial Service.

Doing Business in... outlines the country-specific business practices necessary for successful business transactions in these selected Pacific Rim nations. Included in this section are specialized government regulations that U.S. firms may face when conducting business in these countries.

Lastly, the ***U.S. Government Points of Contact*** section provides useful Department of Commerce, State and Defense points of contact within the U.S. embassies located in the countries profiled that are able to assist U.S. firms interested in doing business in the Pacific Rim.

The Pacific Rim Diversification and Defense Market Assessment Guide has been developed to provide assistance to U.S. defense firms of all sizes in their diversification efforts. Follow-on editions will focus on updated versions of the European, the Middle East and the Western Hemisphere guides.

THE DEPARTMENT OF COMMERCE'S NATIONAL DEFENSE CONVERSION PROGRAM

The Department of Commerce, through the Bureau of Export Administration (BXA) has developed a comprehensive assistance program for U.S. industry in response to the dramatic reduction of defense spending. This program, an important part of the Department's overall efforts in defense conversion, consists of four main areas: defense diversification seminars, a needs assessment program, international diversification market assessment guides and defense trade advocacy. The components of this strategy linked together provide a wide variety of short and long term assistance to address the immediate and emerging needs of the defense industrial base. Each program is briefly described in the sequence of addressing the short, medium and long-term needs of U.S. defense firms.

International Diversification and Defense Market Assessment Program: This program is structured to provide information that will address an immediate need to determine new markets for dual-use and defense products. In this way, the market assessment program offers current information to U.S. firms through the development of international diversification and defense market assessment guides. These guides provide a variety of information to U.S. manufacturers regarding non-traditional dual-use and defense markets in the Pacific Rim, Europe, the Middle East, and the Western Hemisphere. Each chapter within these guides offer comprehensive information on how to do business in targeted countries, as well as specific commercial and defense trade opportunities open to U.S. firms in these markets. These guides are designed for small U.S. businesses that are new to exporting. The market assessment program has been developed to help U.S. firms maintain revenue from alternative domestic or international markets which, in turn, will allow time to implement diversification or conversion programs.

Defense Trade Advocacy: The Bureau of Export Administration, with its strong historical relationships to both the Department of Defense and Department of State, is placed in an advantageous position to serve as an advocate for the U.S. defense industry in its efforts to successfully compete for overseas procurements. Within this role, BXA generates high level government-to-government advocacy on behalf of U.S. industry. The agency also serves as industry ombudsman in the interagency community, interjecting economic and competitiveness considerations as well as overall industry concerns into U.S. arms transfer determinations.

Defense Diversification Seminar Program: An integral part of the Commerce Department's national program, the diversification seminar series, while available to all firms, specifically targets small and medium size defense manufacturers. These seminars are designed to provide firms with the informational tools needed to take advantage of domestic as well as global business opportunities. Seminar topics areas include: technology transfer; accessing and commercializing federal R&D; federal, state and private sector financial assistance; international marketing assistance; marketing to the U.S. and state governments; and regulatory requirements

for defense exports. The first seminar program, called the 1994 Resource Matching Program was held in California and due to its success, BXA has expanded this program to reach defense firms in all areas of the U.S. that have been adversely impacted by defense cuts. In FY95, the California program was expanded to include seminars held in Arizona, New Mexico, Utah, Washington and Oregon. Concurrently, the Bureau of Export Administration launch its Eastern regional seminar program in the Northeast where seminar programs were held in Connecticut, Rhode Island, and Pennsylvania. Other expansion sites in FY97 include Texas, Massachusetts, and Alabama. This program is crafted and specialized to meet the unique requirements of each state. The seminar program provides the information necessary for U.S. firms to begin the development of an appropriate diversification or conversion strategy.

Needs Assessment Program: The Bureau of Export Administration's Needs Assessment Program entails a longer term focus by providing specialized, firm-specific diversification assistance. Within this program, firms are requested to complete a short questionnaire which assesses their current diversification efforts as well as determining what kinds of assistance would be most useful. An interagency response team has been assembled which will then work with individual firms, providing a coordinated response to individual firms' needs. The team includes representatives from various agencies within the Department of Commerce, the Department of Energy's National Laboratories, the Export Import Bank, the Small Business Administration, the Department of Labor and various state agencies.

These four areas that make up the core of the Commerce Department's national defense conversion program can be effectively utilized by U.S. firms that are at virtually any phase of defense diversification or conversion. For additional information about these programs, please contact the following BXA office:

Office of Strategic Industries and Economic Security
Room 3876
U.S. Department of Commerce
Washington, D.C. 20230

Tel: (202) 482-4695
Fax: (202) 482-5650
e-mail: jisbell@bxa.doc.gov or
orji@bmpcoe.org

SECTION I: GETTING STARTED

THE ROLE OF THE COMMERCIAL OFFICER AND THE COMMERCIAL SERVICE

The primary role of the Commercial Officer and the U.S. Commercial Service (CS) of the Department of Commerce is to assist U.S. companies in entering foreign markets. The CS offers a variety of market information and sales related services aimed at assessing a company's export potential, identifying markets, and selecting potential buyers and representatives abroad.

The Commercial Service is a worldwide network of export specialists located in 47 domestic offices and at U.S. Embassies in 77 countries. Under a strong Congressional and Executive Branch mandate to assist small and medium size firms to export and expand into foreign markets, the CS promotes U.S. commercial interests abroad.

International trade specialists located in the CS district offices throughout the United States are often the first stop for companies looking at foreign markets. Domestic offices can supply information and data about specific foreign markets, explain and provide a variety of specialized CS services, and assist in the export process. Some of the services available are briefly described below:

Agent Distributor Service

The Agent Distributor Service (ADS) identifies potential agents, distributors, and representatives in a foreign country. The U.S. company provides promotional and technical materials concerning its product to an export specialist in a CS district office in the United States. Within 90 days, the client receives a list of up to six prospective contacts. The CS offices abroad will assist in making appointments and introductions upon request. The fee for this service is \$125 per request.

Market Research

CS district offices in the United States have market information on all foreign markets. The Country Marketing Plan, prepared annually by each CS office abroad, provides an overview of the commercial environment, market opportunities for U.S. products, and other useful information. Furthermore, these offices have current information on commercial trends abroad and new trade opportunities. Fees for this service vary.

Single Company Promotions

CS offices at U.S. Embassies can plan and host promotions for specific U.S. companies entering a new market. The charge for this service is cost reimbursement.

Trade Missions, Trade Shows, and Matchmakers

CS offices worldwide and other units of Commerce's International Trade Administration (ITA) in Washington organize, promote, and manage trade missions, U.S. exhibitions at international trade fairs, and Matchmaker programs. The Matchmaker program is a service that combines the advantages of a trade mission and private export counseling. The charge for this service is cost reimbursement.

Comparison Shopping Service

The Comparison Shopping Service provides concise answers to a list of 12 questions directed at evaluating the suitability of a product to a foreign market. This service also identifies the competitors, price, promotion and distribution systems, as well as trade barriers. The charge for this service ranges from \$500 to \$1,500, depending on the market requested.

Additional services and counseling are available from Commercial Officers and the CS. For more information regarding specialized services contact your local CS district office (listed in the local telephone book under Department of Commerce), the U.S. Embassy, or write to the Director General of the Commercial Service at the following address:

Director General
U.S. Commercial Service
Room 3802
International Trade Administration
U.S. Department of Commerce
Washington, D.C. 20230

THE ROLE OF THE OFFICE OF DEFENSE COOPERATION AND THE SECURITY ASSISTANCE OFFICE

The term "Security Assistance Office" (SAO) is a generic term encompassing DoD elements located in a foreign country that are responsible for Foreign Military Sales (FMS) and associated services, including training, sales management, program monitoring, evaluation of the host government's military capabilities and requirements, administrative support, and liaison functions. The SAO also promotes standardization and interoperability of host country and U.S. equipment, and promotes armaments cooperation between the United States and its friends and allies. Many SAOs have independent status within the U.S. embassies and are referred to as Offices of Defense Cooperation (ODC); some have armament cooperation contingents.

Administration policy on the SAO/ODC role in support of defense sales overseas has changed dramatically over the last few years. Starting in 1981, the Reagan Administration progressively replaced the previous restrictive guidelines with a policy that fully supports U.S. defense sales overseas. In August 1988, the DoD issued supplementary guidelines addressing the roles that SAOs and ODCs should play in assisting U.S. defense industry sales. Consequently, part of the SAO and ODC mission is to support the marketing efforts of U.S. companies while maintaining strict neutrality between U.S. competitors.

Providing Country Information

Upon request, and subject to such factors as availability of resources and country sensitivity, the SAOs or ODCs can provide industry representatives with the following kinds of unclassified information:

- Data on the defense budget cycle in the host country, including the share of that budget devoted to procurement. Data on the country's current FMS and Military Assistance Program budgets.
- Information on the national decision-making process, both formal and informal, and on decision makers in the Ministry of Defense and military services.
- Information on the national procurement process, to include bidding procedures, legal or policy impediments to procurement from U.S. sources, and other information necessary for the U.S. commercial competitor to deal effectively with the country.
- Estimates as to the kind of equipment the country currently needs to fill defense requirements and that it is likely to need in the future, as well as procurement plans for this equipment as known and appropriate for disclosure.
- Information regarding the marketing efforts of foreign competitors.

- Information on major in-country defense firms and their products. This can assist U.S. firms in identifying possible subcontract support services or exploring teaming, licensing, or other cooperative arrangements.

Appointments

The SAOs/ODCs can also facilitate appointments in the host country Ministry of Defense (MoD) and military services. In order to avoid the impression of SAO/ODC endorsement of a given item or service, making calls for appointments with country officials will normally be done by the industry representatives involved in a marketing effort, unless the host country prefers to work directly with SAOs/ODCs.

Thirty days prior to the proposed visit, industry representatives should provide to the SAO/ODC the following information:

- A synopsis of equipment and services proposed for sale.
- Current export license information, including restrictions and provisos.
- Dates of planned in-country travel/country clearance request.
- Non-proprietary information already provided to the host country, or other contacts concerning the equipment in question.
- Specific support (e.g., briefings, appointments) requested.

U.S. Competitors

Unlike most other countries that sell defense equipment, the United States is likely to have more than one producer of a given weapons system. SAOs/ODCs will maintain neutrality between such competitors. When more than one U.S. competitor is involved, the SAO/ODC should still be able to explain to host country personnel why the purchase of a U.S. system would be to the country's advantage. If asked by a representative of one U.S. company, the SAO can acknowledge whether and when other U.S. vendors have come through the country, but he cannot divulge any marketing strategy or other proprietary information of any U.S. competitor.

Commercial Versus FMS Sales

DoD policy generally has no preference whether a foreign country fills its valid defense needs through FMS or commercial channels. DoD tries to accommodate preference for direct sales, if such a preference is indicated by the contractor, unless the host country requests to make the purchase through FMS or the specific item is restricted to FMS. DoD policy also provides that price quotes will not normally be provided for comparison of FMS and direct sales.

U.S. firms should also have a working knowledge of the major differences between FMS and direct commercial sales. A DoD publication entitled A Comparison of Direct Commercial

Sales and Foreign Military Sales for the Acquisition of U.S. Articles and Services is available through the following office:

Commandant
Defense Institute for Security Assistance Management
DISAM/DIR, Bldg. 125, Area B
Wright Patterson Air Force Base, OH 45433-5000
Tel: (513) 255-2994/3669

Follow-Up

Prior to departing, visiting U.S. contractors should debrief the SAO/ODC and other relevant members of the country team on their experiences in-country. The SAO/ODC will provide any known reactions from host country officials or subsequent marketing efforts by foreign competitors. Embassy staff will also be alerted about obtaining reactions from host country officials and sharing these with industry representatives.

For detailed information on the role of the SAO in support of U.S. defense sales overseas, refer to DoD 5100.38-M within the Security Assistance Management Manual. This can also be obtained from the Defense Institute for Security Assistance Management.

THE RECIPROCAL PROCUREMENT MEMORANDA OF UNDERSTANDING

Background

To promote rationalization, standardization, and interoperability of defense equipment within the North Atlantic Treaty Organization (NATO), Congress enacted the Culver-Nunn Amendment to the fiscal year (FY) 1977 Defense Authorization Act, which authorized the Secretary of Defense to waive the Buy American Act of 1933. Under this authority, the Department of Defense (DoD) negotiated and signed reciprocal procurement Memoranda of Understanding (MOUs) with most NATO countries. A second piece of legislation, the Roth-Glenn-Nunn Amendment to the FY83 Defense Authorization Act, Public Law 97-252, reaffirmed the U.S. commitment to NATO cooperation.

As a result of the Camp David Accords of 1979, DoD also negotiated similar but more limited agreements with Israel and Egypt. These agreements were revised in 1987 and 1988, respectively, and were elevated to the status of reciprocal procurement MOUs. For national security considerations, MOUs were also negotiated with Switzerland, Australia, and more recently, Sweden.

MOU Provisions

An MOU is a bilateral agreement between the DoD of the United States of America and the Ministry of Defense of an allied or friendly country. It calls for the waiver of "buy national" restrictions, customs, and duties in order to allow the contractors of the signatories to participate, on a competitive basis, in the defense procurements of the other country. The goal is to promote standardization and interoperability of defense equipment so we may better support each other in wartime.

To comply with the MOUs, the United States waives the Buy American Act, the Balance of Payments Program, and customs and duties on DoD procurements for products originating in the countries with which we have signed such an agreement. Similarly, the allies must waive their "buy national" restrictions.

Not all restrictions are waived by the MOUs. DoD, for instance, restricts to U.S. and Canadian sources procurements of any items determined to be vital in case of national mobilization or emergency. In addition, DoD restricts to U.S. sources certain procurements that include classified information or sensitive technology, procurements set aside for small businesses, and any other items restricted by law or regulation. The allies restrict similar items although, in some cases, their restrictions are not as well defined.

The MOU Countries

The United States has negotiated and signed 19 reciprocal and 2 non-reciprocal MOUs and the partner countries are listed below.

MOU PARTNER COUNTRIES			
<u>NATO</u>	<u>NON-NATO EUROPE</u>	<u>OTHER</u>	<u>NON- RECIPROCAL</u>
Belgium	Austria	Egypt	Australia
Denmark	Finland	Israel	Canada
France	Sweden		
Germany	Switzerland		
Greece			
Italy			
Luxembourg			
Netherlands			
Norway			
Portugal			
Spain			
Turkey			
United Kingdom			

Present Realities

The MOUs have generally served the best interests of the United States and have been a good foundation for armaments cooperation. However, relationships with our defense trading partners have changed and we must adjust to an economically integrated European market. Moreover, pressures for increased allied burden sharing come at a time of European perceptions of a reduced military threat. We must ensure that the MOUs continue to foster armaments cooperation while preserving business opportunities for U.S. industry in foreign markets.

DoD continues to review these MOUs to reflect the current security and foreign policy environment. Where necessary, we will amend them to assure reciprocity for U.S. industry seeking business in the defense markets of our allies, just as they guarantee opportunity for the industries of our allies in the U.S. defense market.

Additional information or copies of the MOUs can be obtained from the following office within the Department of Defense:

Foreign Contracting
OASD(P&L)FC
Office of the Secretary of Defense
Room 2A326, The Pentagon
Washington, DC 20301
Tel: (202) 697-9351

U.S. EXPORT CONTROL REGULATIONS

The U.S. Government controls the export of many of the defense items, dual-use items, and technology mentioned in this guide. U.S. exporters are responsible for compliance with these regulations. The U.S. Department of State controls the export of defense items under the International Traffic in Arms Regulations (ITAR). The U.S. Department of Commerce controls the export of dual-use items under the Export Administration Regulations (EAR).

For information on the export of defense articles, including technical data and technical assistance, U.S. firms should consult with the following offices within the Department of State:

Office of Defense Trade Controls
PM/DTC, SA-6, Room 200
Bureau of Political-Military Affairs
U.S. Department of State
Washington, D.C. 20522-0602
Tel: (703) 875-7050
Fax: (703) 875-6647

Office of Export Control Policy
PM/EXP, Room 2421
Bureau of Political-Military affairs
U.S. Department of State
Washington, D.C. 20522-7815
Tel: (202) 647-4231
Fax: (202) 647-4232

For information on dual-use export controls, U.S. firms should consult with the following offices within the Department of Commerce:

Strategic Trade and Foreign Policy Controls:

Foreign Policy Controls Division
Bureau of Export Administration
U.S. Department of Commerce
P.O. Box 273, Room 2620
Washington, D.C. 20044
Tel: (202) 482-4252
Fax: (202) 482-6088

Commerce Classifications:

Office of Exporter Services
Bureau of Export Administration
U.S. Department of Commerce
P.O. Box 273, Room 1099D
Washington, D.C. 20230
Tel: (202) 482-4811
Fax: (202) 482-3617

SECTION II: COUNTRY PROFILES

AUSTRALIA

AUSTRALIA

Overview

The Australian economy is enjoying a period of sustained, moderate growth. In the 1995 calendar year, real economic growth slowed to 3.1 percent, due mainly to a downturn in the housing sector and a build-up in the level of stocks held by the business sector. In the 1996 calendar year, real GDP growth is expected to pick up slightly, to around 3.5 percent. Growth should continue at the 3-4 percent level in the medium term. Australia currently is well-positioned for continued solid economic growth, with very little in the way of unfavorable indicators. With increasing links to the dynamic economies in the region, and a continuation of economic reform, Australia's trade and investment climate will be attractive for the foreseeable future.

Defense Industry Environment

Principal elements in Australia's defense policy include: recognizing that Australia must develop and maintain an ability to defend itself from low-to medium-level conflict; fostering regional security and stability through partnerships and cooperation with the region and, maintaining strong alliances, particularly with the U.S., through shared defense facilities, technology, training and exercises, and intelligence. Australia's military strategy focuses on defending the northern latitudes, its most vulnerable area, without manifesting regional power projection. Its goal of self-reliance is being achieved through forging a closer relationship between Defence, industry and the community. Regional security is being cultivated by consultation and collaboration with countries in Southeast Asia and the Southwest Pacific.

A major investment program has been designed to achieve the forward strategic objectives. Consequently, capital expenditure through to 2000 and beyond reflects a sustained level of spending. The involvement of Australian Industry is being progressively sought, but without apparent ongoing subsidies. The use of commercial products and standards for capability needs will be pursued wherever suitable. Tender specifications will increasingly prefer commercial to military standards. Like the trend in the United States, support for the armed forces of the 21st century will be information-based, and there will be a growing industry involvement at strategic level. The significance of industry support to military action close to the front lines in Desert Storm was not lost on the Australian coalition partner.

To enable this determined program to proceed, Australia has annual defense budget of \$8 billion (untouched by recent government-wide austerity programs), around \$4 billion of which is purchasing outlay. Of this purchasing outlay \$2.3 billion is spent on capital equipment, \$1.3 on logistic support, repairs and maintenance and stores, and \$0.4 billion on capital facilities as reflected by the following chart.

Defence Capital Equipment Budget
(\$ Millions)

Expenditure	Year			
	1995/6	1996/7	1997/8	1998/9
Capital Equipment	2,300	2,390	2,500	2,650
Imports	820	840	865	905
Local Production	1,540	1,625	1,725	1,865
Exports	60	75	90	120

Owing to the presence of many U.S. and European subsidiaries operating as local Australian companies, import figures should be taken as indicative of market shares only. There are numerous American companies with subsidiary operations in Australia, often in partnership with Australian companies for specific projects, and sometimes teamed with local subsidiaries of foreign companies. Identifying countries of origin of the resulting capital solutions has not been undertaken in this study.

During the period 1985-1995, defense procurement expenditure fell 67% in the United States; 25% in the United Kingdom, and 50% in Germany. Australia's procurement expenditure has averaged \$4 billion annually (in 1996 dollars) during this period, and is forecast to remain at this level until at least the year 2000. Capital equipment procurement comprises half this procurement budget, allocated for the most part to a number of major projects which include over-the-horizon radar, submarine and frigate construction, and aircraft upgrades.

Australia, relatively unaffected by the end of the cold war, has in the past decade, defined its own defensive capability in relation to its position and role in the Asia Pacific region. Seeing itself as a dominant economic, political, and military force in the region, it has embarked on an ambitious program of air, sea, and land asset acquisition. It is determined to rely upon its own industrial base for logistic and materiel support; to push the limits of technological advances, and to focus on the defense of the exposed northern reaches of the continent - the vulnerable "sea-air gap". Its firm goal of a self-reliant defense is underpinned by an aspiration to an independent foreign policy while maintaining its alliance with the United States.

Possessing relatively limited active forces, Australian defense strategy focuses on

infantry mobility and round the clock combat capability; well equipped ships and submarines; surveillance and early warning; effective command and control; offensive and defensive electronic warfare suites; precision weapons, and advanced communication links.

Australia's alliance with the United States remains a cornerstone of its defense policy. However, its industry policy is leaning progressively in favor of indigenous capability, and U.S. companies have to compete more intensely and more intelligently to remain dominant among local and international competition. American companies most successful in selling their products and services to the Australian defense forces are those which have established subsidiary, autonomous business units within Australia. Teaming partnerships, an alternative to subsidiary investment, are also successful, and often include international companies that have Australian-based operations. The high degree of commonality between the U.S. and Australian armed forces and cooperative history provides continuing opportunities for American suppliers. However, the strong competitive position is under relentless challenge from companies often backed by, or synonymous with, foreign governments.

Domestic Production

The former government-owned aircraft factory, Aerospace Technologies of Australia, has been sold to Boeing (formerly Rockwell), and Amalgamated Wireless Australia (AWA) Defense Industries has been purchased by British Aerospace. The defense division of the Australian company Stanilite has been acquired by Australian Defence Industries (ADI). ADI itself is expected to be offered for sale by its owner, the Australian Federal Government, sometime in the near future. With a re-shaping of the high-end of the defense industry, competitors are becoming fewer and larger, with partners becoming competitors overnight.

Some items, including ordnance, are supplied to Defence by ADI. In the absence of economies of scale in a small domestic market and (currently) limited export possibilities, Defence will pay a premium on locally produced ordnance, which it considers strategically justifiable.

Third Country Imports

Imports have fallen as a percentage of total defense requirements in real terms over the ten-year period to 1996, reflecting the growth of local industry capability. The proportion of equipment obtained through U.S. Foreign Military Sales (FMS) has declined in favor of commercial transactions, where the more open market environment is favored. There have been instances of third country benefits resulting from U.S. export restrictions, but this is not significant in the current supply situation. As mentioned above, there are aggressive third country efforts to make gains in the Australian defense market, as recent campaigns for naval helicopters and lead-in-fighters demonstrate.

U.S. Market Position

Despite the intensity of the competition, the outlook is optimistic for U.S. suppliers, be it through partnerships, subsidiaries or distribution arrangements. American equipment and technology is highly regarded, proven and effective. As noted above, there is a high level of commonality between U.S. and Australian equipment; however, U.S. companies should be aware that Australia inclines toward more multi-role assets than the U.S., therefore there is a variation in operational capability which should be addressed. For the most part, the U.S. offers value for money and timely delivery. Commercial supplies of spare parts are preferred to FMS largely because of long-lead times for delivery ex U.S. inventory and pricing levels. The U.S. Government can, according to established guidelines, offer support in the form of advocacy to U.S. companies bidding on projects where no other U.S. competitor is involved, in an effort enhance its image as a capable and reliable supplier which will provide the "best" solution.

Defense Opportunities

Demand for defense equipment will remain buoyant for the coming three years, although the value of major acquisitions will decline to more moderate levels following completion of contracts for over the horizon radar; submarines; frigates; aircraft; army vehicles, and major upgrade work. Opportunities for smaller companies exist in the provision of electronic components, specialized equipment and technologically advanced items not manufactured locally, and which parallel equipment in service in the U.S. armed forces. Companies with the greatest potential are most likely those which can contribute, in partnership with Australian firms, to the demand that is being created by the Revolution in Military Affairs, turning future battle campaigns into electronic wars, where victory will be determined by the speed and accuracy of electronic signals instead of pieces of metal. The Revolution in Military Affairs has arrived in Australia, a country which already possesses a high-technology force which is being progressively updated.

Areas of opportunity in the foreseeable future include advanced information technology; equipment enabling precision engagement; adaptive sensors spanning the electromagnetic spectrum; critical target identification products, and precision guidance systems for weapon delivery. These requirements add up to an increasing demand on systems in favor of hardware. Crucial needs for the Australian defense forces in the near-term will include equipment and systems for data acquisition, processing and distribution (airborne, ground and ship-based); high quality surveillance and reconnaissance (early warning); secure communications; effective command and control; capable electronic warfare suites; long range precision weapons (airborne, ground-based, surface and subsurface) and defensive systems; low observables; and unmanned aerial vehicles. The soldier in the early 2000s will be an integrated fighting system, a cell within a neural net, all-weather, all-seeing and highly mobile. To prepare personnel to cost-effectively and efficiently use the technology-based equipment, there will be a requirement for accurate simulation and modeling to provide virtual, real-time scenarios.

Defence is a customer in a range of industry sectors due to its need for equipment, services, consumables, facilities, spare parts, software and systems. Likewise, capital equipment constitutes a wide range of products purchased by the Australian Department of Defence; this study, therefore, is correspondingly broad in scope. There is a great deal of information now available to industry seeking to sell defense items, and a number of these sources are listed in Section D (publications). Also, Defence increasingly is using the Internet, and known home page addresses are listed in this chapter.

Defense Procurement Process

The use of Invitations to Register Interest (ITR) is common practice in Australian capital equipment purchasing plans. The use of short listing companies for major bids will increase, and decision making will continue at a devolved level on many acquisitions. Currently, prime contractors manage about 95% of the acquisition budget.

The number of very large projects is decreasing, and the future investment program will comprise relatively smaller projects. The challenge for suppliers will be to continually seek out improvements to manage risks and to minimize costs. Tendering for both acquisition and through-life support is also a feature which will be used more frequently.

Winners will be those companies which consistently meet all of the tendering requirements across the board, show a willingness to include a high level of Australian involvement, and whose regional business development plans focus on a partnership either with or within Australia.

Today, information is easily obtained on approved and unapproved defense projects. Each of the respective Divisions publishes regular updates on the status of projects, both major and minor (minor are up to \$16 million). A consolidated list of major projects cataloged for approval is also available from the Defence Directorate of Publishing. Information on unapproved projects can be sought from Force Development Offices and from the Materiel Divisions. The status of many projects is now updated regularly on the Internet. Recently, Defence Project Offices have requested inclusion in the Commercial Service Industry Market Insights (IMI) to alert U.S. companies to Invitations to Register Interest on major projects such as Wedgetail (AEW&C capability), and Echidna (EWSP for RAAF aircraft).

Defence looks for value for money, taking into account:

- price
- compliance
- risk
- track record
- teaming (what will be added to Australian industrial infrastructure)

- commercial issues
- logistics support.

The trend will be to select commercial-off-the-shelf-products (COTS) wherever possible, although this may, in part, be limited by the need to adapt equipment to meet the climatic and geographical idiosyncracies of the Australian environment. Australia still looks to U.S. industry for critical support, enabling U.S. companies to enjoy a strong competitive position. However, there is intense pressure from, among others, the United Kingdom, Sweden, Germany, Israel, France and South Africa. Successful companies from most of these countries manage Australian operations, promoting their involvement in local industry. These subsidiaries, to be considered "local" must have financial and management autonomy, and must be able to compete with their parents in export markets.

There has been a strong growth in software and systems integration in Australia, stimulated by the tasks resulting from local submarine and frigate building and creating an intensely competitive climate.

The Australian Defence Organization is responsible to the Minister for Defence (currently the Hon. Ian McLachlan), assisted by the Minister for Industry, Science and Personnel (the Hon. Bronwyn Bishop).

The Organization (Defence) comprises the Australian Defense Force (ADF) (Army; Navy; Air Force; Defense Headquarters (HQADF), and the Department of Defense (Department). Within Defence there are eight subdivisions, or programs:

- Forces Executive: (HQADF, Force Development, policy and management);
- Royal Australian Navy: (Maritime Operations, Corporate Management, Logistics Support, Training);
- Australian Army: (Land Operations, Corporate Management, Base Logistics, Training);
- Royal Australian Air Force: (Combat Forces, Executive, Logistics, Training);
- Strategy and Intelligence: (International Strategic Policy, Force Development and Planning, Intelligence, Program Management);
- Defence Acquisition (until July 1996, Acquisition and Logistics: (capital equipment procurement, industry involvement and development, contracting policy, quality assurance, exports);
- Budget and Management: (financial and personnel management, program delivery assessment, facilities);

- Science and Technology: (aeronautical and maritime research, electronics and surveillance research, executive).

Defence Acquisition, the most important point of contact for domestic and foreign firms seeking to sell major items to Defence, is responsible for supporting the materiel acquisition process. Defence Acquisition, which includes a network of regional offices, is active in:

- industry and Defence awareness, advising industry on how to do business with Defence, and Defence on industry capabilities;
- the Australian Industry Involvement program, and monitoring "obligations";
- export facilitation and control (Australia takes an active part in international export control efforts to bring in the Wassenaar arrangement - the successor to the old COCOM regime);
- industry capability, providing information for defense industry policy development;
- defense industry development, assisting in the formulation of projects to enhance local industry;
- contracting support, advising on complex requirements and procurement policies and practices,
- quality assurance, watching suppliers' processes to ensure that quality is built, not inspected, in.

Prospective suppliers are encouraged to establish and maintain contact with appropriate areas of Defense, and these can be identified for inquirers by Defence Acquisition offices. These are located in each State within Australia, and at the Australian Embassy in Washington DC. Logistic and Support Commands are points of contact for spares, maintenance, and minor capital items. Most Logistic and Support Command purchases are below \$4 million. However they comprise the vast majority of Defence purchases. (Refer Section D, Key Contacts, for address details of Acquisition and Service Commands).

The U.S. and Australia are members of the ANZUS Treaty, a formalized relationship reflecting the shared strategic interest in maintaining the security of the Asia Pacific region and joint contribution to world stability. The two countries participate in military exercises, intelligence exchanges, and cooperation in defense science and technology, communications and logistics. For the U.S., Australia is a reliable, strategically-placed partner; for Australia, the U.S. is a source of leading technology, systems, and equipment. Many of the American companies selling to the Australian defense forces have established subsidiary operations in Australia, enjoying sufficient autonomy for them to be categorized as "Australian" companies. Defence has a requirement that for a company to be considered "local" (as a subsidiary of a foreign company) it must be Australian or New Zealand registered in accordance with the corporations law. Teaming arrangements are preferred by Defence, as partnerships increase industry consolidation,

whereas the presence of additional subsidiaries can contribute to industry fragmentation.

American companies have developed many successful collaborative working relationships with Australian counterparts to bid on major project procurements. Recognizing the increasing need for the Australian defense industry to develop export markets to insure survivability through the peaks and troughs of defense purchasing patterns, a Defence spokesperson said recently that the subsidiaries of international companies in Australia will need to make more of their presence in the region as a base for the growing Asian market.

Diversification and Commercial Opportunities

In addition to business opportunities in the defense sector, Australia's sophisticated and diversified economy provides many commercial opportunities for U.S. firms. Several of the larger industry sectors are briefly described.

Computers & Peripherals

Australia ranks second after the U.S. as a per capita user of personal computers with a ratio of one pc/single-user computer for every 6.3 Australians. It is expected that during 1996 between 1.3 and 1.5 million computers will be shipped to Australia. PCS account for over 70 percent of computer hardware sales in Australia, growing at an annual rate of around 13 percent in terms of volume. However, while sales increase strongly, hardware prices are continuing to fall at dramatic rates, especially for hard drives, CD drives, and memory, reducing the market's relative value. The extremely high penetration of PCS in business, government, and homes is a result of the users' desire to connect PCS in networks, and to link existing networks to other networks. The Internet and multimedia applications are driving sales of PC's and modems capable of providing fast and efficient access.

Single-user systems (PCS, single-user workstations, associated peripherals), accounting for over 70 percent of the hardware market, have high growth rates because of the growing demand for computer power at an individual user level, the increase in networking, and the high acceptance of single-user platforms. Data communications hardware (network interface cards, hubs, bridges, routers, modems, multiplexers, packet switching equipment), are growing at a high rate due to the growing demand for networking of PCS and mid-range server systems.

American products are well regarded and received in Australia. They dominate the local market, with competition from Asian suppliers. Major U.S. hardware suppliers either are represented in Australia or involved in local manufacturing through subsidiary operations. Australia has become an attractive location for computer hardware firms owing to its strategic regional location in the Asian time zones, an advanced skills base, and the availability of a skilled workforce. The domestic industry consists mainly of small companies assembling PC's from a variety of imported sources.

Multinational companies from Europe and Asia are represented alongside U. S. counterparts in this crowded market. The Australian market tends to be a microcosm of the U.S. market, and is therefore often used as a testing ground for some products from European and Japanese vendors. This provides Australia with early access to the latest technology, producing an aware, discerning customer base. Imports classified as computer hardware are duty free. Telecommunications components are not. Therefore, as computer and telecommunications technologies increasingly converge, tariff anomalies are emerging.

Strong growth is occurring in single-user, multimedia systems, notebook computers, scanners, modems, graphics cards and accelerators, virtual reality gear, Ethernet cards for LANS, WANS, and intranet systems. Some sources are predicting 1996-97 as the year of the add-on, where dominant sales will occur in items which enable people to hook up to the Internet.

Telecommunications Services

Telecommunications services in Australia are booming, and U.S. products play an ever increasing part in them. U.S. exports of telecommunications services should continue growing by 15-20 percent annually. After June 30, 1997, easing of restrictive Federal government conditions imposed on the telecommunications services industry will encourage further growth in a freer market environment.

U.S. exports are extremely competitive, presently holding approximately 45% of total sales. Major players include AT&T, U.S. Sprint, MCI, WorldXChange Communications Inc, and a host of international Callback suppliers. The rest of the market share is held by prominent local companies such as AAP Telecommunications, Axicorp, and by international firms including Singcomm, BT Australia, Telecom New Zealand, PacStar, and Telecom Italia. This developing market is constantly changing and is expected to remain fluid for some years.

The Service Providers Action Network (SPAN) identifies the main types of service providers as Switched-based; Switchless, also known as resellers or aggregators; and Value Added. Pay TV and Broadband Interactive Services are about to be added as categories. Services available include voice and data services including E-mail, Frame Relay, Voice Mail, Callback, enhanced fax services, Paging Services, Videotext Services, and 0055/190 information services. Good market entry opportunities are found in providing Internet access, facilities management (billing services, call centers, etc.), electronic funds transfer at point-of-sale (EFTPOS), electronic data interchange, simple resale, facsimile services, callback services and the simple resale of capacity.

Computer Software

Computer software remains one of the fastest growing sectors of information technology. Recent annual growth rates have averaged between 17 and 13 percent. Hardware performance improvements have been dramatic during 1995/96, paving the way for more

powerful software applications, systems and games. Windows-based distribution has been dominated by Tech Pacific since its takeover of rival Merisel early in 1996. As in the United States, distributors represent most of the software majors with local subsidiary offices. The Macintosh market is more diverse, with a large number of quite specialized value-add and niche distributors. Mail order houses are thriving, offering especially CD-ROM based entertainment, educational and utility software. U.S. imports dominate the overall packaged software market, as well as the major growth areas, including: client/server application solutions; client/server database management systems and application development tools; client/server-oriented systems management software; middleware software for connectivity and inter-operability in client/server environments; UNIX-based tools, solutions and, to lesser extent, systems management software. The software market is regarded as the most diverse and fragmented of any IT market segment, with overseas and domestic suppliers vying for market share. Local companies have gained a strong position in the development of applications software. The concentration of domestic developers and multinational suppliers of packaged software has meant that the market has been consistently strong. As business moves to computerize more complex applications, this growth is expected to be sustained.

Opportunities for new players are almost totally within the domain of application solutions, as tools and systems software is already dominated by foreign developers. In the solutions marketplace, existing (legacy) application solutions are being migrated (converted, replaced) and integrated with new types of "information access" applications on the desktop. Current activity is focused on Internet applications: access packages, web browsers, HTML, large drive partition managers; intranets; image capture and presentation packages; systems integration; small business applications and CD-based games.

Telecommunications Parts & Equipment

In this exciting and rapidly advancing industry sector, U.S. exports of telecommunications equipment to Australia represent about 23 percent of the total import market and have the potential to grow at about 20 percent annually. Telecommunications products are segmented as: customer premises equipment (CPE) such as telephone handsets, and network equipment and infrastructure.

Australia's telecommunications industry is well developed and mature, is presently upgrading to leading edge technology heading toward a broadband system, and is on the verge of further expansion as it heads toward further deregulation in mid-1997. Synonymous with deregulation is the expected end of Telstra's monopoly for carrying local calls, as rival carrier Optus plans to introduce a local call service along its Cable-TV system, presently being laid. Private network operator AAP Telecommunications is also mooted as a future public supplier of telephony. Meanwhile Telstra, Optus and mobile operator Vodaphone continue developing and upgrading existing networks. These carriers usually carry out network infrastructure purchases on an 'invitation only' basis to selective international telecommunications suppliers, who must also be prepared to include some aspect of local industry development. Nonetheless, U.S.

exporters of network infrastructure products should consider presenting their products to the carriers.

The Australian telecommunications market was valued at \$12 billion sales volume in 1994, with Telstra accounting for \$9.5 billion sales revenue. Almost every Australian household has a telephone, and there are an estimated 1.6 million mobile phone users in a population of 18 million.

CPE is defined as a product attaching to the network at the customer end and includes not only telephones, small business systems and PABXs, but any other piece of equipment required to attach externally to the network. U.S.-made CPE is generally less saleable in Australia without modification to comply with regulations set down by telecommunications regulator AUSTEL.

U.S.-made analog mobile phones have sold well in the past, being compatible with the analog AMPs network. However the gradual withdrawal of spectrum space in that network and increased spread of the digital GSM network see a shift of emphasis on supply of CPE from the U.S. to Germany which is the primary manufacturing location for Motorola's GSM Mobile Phones. This could change in time if the U.S. operates digital GSM networks and begins manufacturing GSM equipment.

U.S. products, including advanced network equipment such as ATM switches, call processing and managing equipment, modems and routers, are competitive in Australia. A number of U.S. companies including Scientific Atlanta, ADC Communications, Digital Equipment and North American company Nortel, have contracts to supply network equipment to telecommunications and Pay (Cable) TV operators. Major network equipment competitors include Ericsson of Sweden, and Alcatel of France. There are also many quality local suppliers, most of which are subsidiaries of international companies, including Ericsson and Alcatel. Motorola is a major player, with products coming from the U.S. and Europe.

Restrictive Industry Development Arrangements requiring some local content of the CPE are expected to end on June 30, 1996. However future industry development programs are presently unclear, with federal telecommunications policy makers indicating they are still awaiting policy guidelines from the recently elected Liberal/National Party coalition government. CPE suppliers are encouraged to join federal government programs such as Fixed Term Arrangements (FTA's) or Partnerships For Development (PFD's), which require the participant to negotiate with government on local content or industry development schemes.

Security & Safety Equipment

Prospects for U.S. companies in the Australian security and safety industry remain encouraging, with steady demand for state of the art products in surveillance equipment, perimeter control and monitoring, identification devices, access control equipment,

electromagnetic locks, digital signal processing CCTVs, and computer security systems. Market growth is around 5 percent per annum. Australia is a mature market for safety and security equipment and systems. There is indigenous production and research, combined with imports from the U.S., Europe and Japan. The U.S. is in a strong position, supplying needed equipment such as access control systems, closed circuit television systems, general alarm systems, security doors, etc. The Australian Security Industry Association Limited (ASIAL) maintains close contact with its U.S. counterpart. With the advances in processor technology, the market is likely to become increasingly competitive. As U.S. military technology becomes decontrolled further and/or becomes commercially available, the market for these technologies - as in the U.S. - will grow for civilian safety and security applications.

Local manufacturers pose a significant challenge in the marketplace for most types of safety and security equipment. Countries with a reputation for quality of manufacture enjoy stronger positions because of the need for reliability in this type of equipment.

Laboratory Scientific Instruments

In common with most industrialized economies, the Australian scientific sector is focusing increasingly on applied research aimed at improving economic output. The introduction by the GOA of Cooperative Research Centres (CRCs), with the purpose of merging the research and managerial talents of universities, government research organizations, and industry to produce industry-specific, results has reinforced this trend. In the FY1995 Australian Budget, \$100 million was allocated to 61 CRCs, with particular attention being paid to energy and mineral research, medical and health, food and agriculture, and manufacturing industries. In this climate, the market for U.S.- manufactured sophisticated scientific equipment will continue to grow significantly.

Most sophisticated laboratory equipment is imported, with U.S. products attaining 46 percent of the market, largely because of technical and quality factors. There is no significant price advantage or disadvantage attached to U.S. products when compared with third country suppliers.

The market for laboratory equipment is growing at approximately 6 percent annually. The National Association of Testing Authorities (NATA) estimates there are more than 10,000 laboratories in Australia. Of these more than 25 percent are NATA certified, comprising laboratories from the medical, wool, construction materials, minerals and energy research areas. U.S. suppliers should be particularly aware of the requirement that equipment conform to Australian electrical standards. The Australian laboratory equipment market is scientifically sophisticated, with a demand for the latest technology in analytical and monitoring instruments and systems. The most promising areas include energy and mineral research, medical and health, food and agriculture, and materials testing equipment.

Medical Equipment

U.S. products enjoy a major share of the Australian market for medical equipment (56 percent). Growth, however, is likely to remain relatively static in the short term due to budgetary constraints imposed by government on public hospitals. There has been a marked drop in the purchase of capital equipment by public hospitals, which will eventually have to lead to increased sales in this area. The major end-users of medical equipment are public hospitals (50 percent), followed by private hospitals (28 percent), other professional outlets (10 percent), retail (6 percent), and other (6 percent). In 1993, there were 696 public hospitals, 314 private hospitals and 89 day hospitals in Australia. This represented a total of 77,669 beds, or 4.4 beds per 1000 population. In 1994 the number of public hospitals had dropped from 1099 to 669. The number of private hospitals had increased to 329, and day hospitals to 111.

American medical equipment is traditionally well-received in Australia due to its perceived high quality and usually competitive pricing. U.S. equipment dominates imports, followed by Europe with 33 percent (mainly from Germany), and Japan (8 percent). Most of the major U.S. medical manufacturing firms including 3M, Baxter Healthcare, Bard, Becton, Eli Lilly are represented in Australia. The major Australian producer of medical equipment is Cochlear. Most other Australian manufacturers are smaller firms producing medical furniture, wheelchairs, orthopedic and rehabilitation equipment, pacemakers and consumables. 28 percent of medical equipment requirements is met by local manufacturers.

Medical equipment, such as electromedical products, sterile devices, implantables, etc. from all sources may require approval from the Australian Therapeutic Goods Administration (TGA) before they can enter the Australian market. As this approval can only be obtained by an Australian sponsor, U.S. exporters need to appoint an Australian sponsor (representative) before their products can gain approval from the TGA. The most promising sub-sectors for U.S. firms are capital equipment, diagnostic products, and sophisticated consumable items such as cardiac catheters.

Aircraft & Parts

Prospects in Australian aviation market remain favorable due to an active general aviation market, growth in commercial air traffic, and Australia's growing prominence as an international hub for the Asia-Pacific region. Australians travel by commercial aircraft routinely and often, and Australia has one of the highest per capita uses of light aircraft in the world.

Owing to the relatively small population, the market is fairly modest by world standards. Aviation industry turnover is estimated to be about one percent of that of the U.S. There are over 9,500 aircraft registered in Australia, representing 150 different manufacturers and a wide range of models. Almost all aircraft, and many of the associated parts and accessories, are imported. The U.S. holds market share of up to 90 per cent in some subsectors. The market is relatively constant. Annual growth in the number of aircraft over the past five years has

varied between one and two per cent, and is expected to grow by between 2 and 3 per cent per annum until 2000. As there is no indigenous aircraft production, market demand is driven by the need for maintenance, replacements, retrofitting, spare parts and service.

American corporations can maximize business through sole distributorship. Multiple distributors tend to compete strongly with each other in the market and thereby reduce profitability. Factors that give a competitive edge are product performance and functional ability, after-sales service and spares. Good distribution is a prerequisite for new entrants, along with competitive price, quality and reliability. Australian firms are not offered incentives to manufacture locally. Therefore, competition from local manufacturers for much of this equipment is negligible. However, there are some niche areas, such as ground-based guidance systems, where local expertise poses strong competition. Major competitors include the U.K. (British Aerospace); France (Thomson, Airbus); Sweden (CelsiusTech), and Japan (Sony, Matsushita).

Australia is a signatory to the international Civil Aviation Organization (ICAO), and has adopted the U.S. Airworthiness Codes and the Operational and Airworthiness Regulations, which are published in the Air Navigation Order (ANO). The U.S. Technical Standards Order (TSO) is accepted in Australia. Due to the lack of local production, there is no import duty or sales tax on most imported aviation and avionics products.

A number of defense projects present opportunities in the areas of avionics, aviation, and ground support equipment. For example, GPS/Navstar for forces general aviation; aerial surveillance and fire support equipment; an AEW&C system; tactical air defense radars; upgrades of communications, radar and navigation equipment in military aircraft. GPS has experienced recent growth rates approaching 15 percent annually. Fuel management systems linked to GPS, which enable close management of fuel loads and fuel consumption projections and usage, are emerging as a promising subsector because of the usefulness in general aviation cost control. Navigation aids, communications equipment.

Doing Business in Australia

The U.S. is deeply involved in Australian defense structure, in terms of hardware, systems and strategic position. The U.S. and Australia share military training, exercises, intelligence exchanges, and cooperation in defense science and technology, communications, and logistics. Australia remains a stable, strategically-placed partner in a rapidly changing region. The presence of U.S. companies is generally readily accepted, and further investment is invited, particularly in partnership with a local company.

The Australian Department of Defense's fundamental requirement is that companies be Australian (or New Zealand) registered in accordance with the Corporations Law, even though it may be a subsidiary of a foreign company. Defense does not at this time have a formal view on

the question of the citizenship of the subsidiary's directors. Access to sensitive technologies and information is protected under the Australian Ownership and Control of Information and is assessed on a case-by-case basis.

The U.S. has the most advanced technology in most areas. Strong competition comes from the British, Swedes, French, Israelis, Italians, and Germans. It is important to work early and cooperatively with the military, which increasingly is looking to industry for solutions, and to be aware of the political situation in order to learn how to include and integrate local "flavor" into the bid. Commitment to the market is very important.

Trade Regulations

Apart from the necessity to team or partner for major bids, and the requirement to include local content components in major bids, there are no barriers to selling general items through a local distributor on a regular commercial basis.

Offsets, once routinely required, are being replaced for the most part by Australian Industry Involvement (AII) requirements, the inclusion of a local work component in Defense bids. As part of recently implemented revised guidelines for AII, Two-Tier Tendering has been introduced to manage AII aspects of major capital equipment projects. Its stated purpose is to enable the Department of Defense to identify premiums that may be incurred as a result of increased levels of Australian industry involvement. Responses to both Tiers are required as part of the tender response. Tier One requires tenderers to propose a cost-effective AII program to meet minimum specified AII levels which are included in tender documents, and which are detailed enough to allow industry to develop proposals that can be assessed on an equal footing. Tenders which fall below this minimum will be deemed non-compliant.

Tier Two requires tenderers to offer their maximum cost-effective AII. The activities specified will improve the ability of local industry to support defense objectives, but are not critical to the success of the project. Tenderers will be required to provide costing and appropriate performance measures.

Offsets may or may not apply. The draft copy of the revised guidelines states with regard to offsets that "the level and type of Defence Offsets required will be determined by the industry objectives on a case by case basis." In recent discussions with Defense officials, it was not made clear what the future of offsets will be.

It has been claimed that these new requirements are adding to the cost of tendering. At least three bidders on the P3C upgrade, for example, have asked for the costs of the tender preparation to be included in a credit deed that can be used to cover obligations incurred against future business.

Whatever the outcome of these specific requests, Australian Industry Involvement will feature as a requirement in most tenders. All management may pass from the Industry Involvement and Offsets Division to individual project managers.

The Australian Department of Defense has recently announced the establishment of a Defence Preferred Systems Integration Panel (DPSI), consisting of companies in the information technology segment which will be able to increase their chances of defense business through membership on the Panel. By establishing the DPSI Panel, Defense aims to encourage potential Prime Contractors to develop relationships with Australian companies that can offer specialized information technology skills and capabilities to Defense Programs. DPSI Panel members will work closely with Defense to provide consulting and systems integration services for a three-year period.

USCS and Embassy Canberra will monitor progress of the DPSI Panel to address any ensuing restrictions to market entry or participation.

U.S. Government Points of Contact

The following is a list of useful contacts for U.S. firms seeking additional information concerning the Australian market.

U.S. Commercial Service

Defense Advisory Service, US&FCS
American Consulate General, Sydney
PSC 280, Unit 11024
APO AP 96554-0002
Tel: 011-61-2-373-9200
Fax: 011-61-2-221-0573

Chief, Office of Defense Cooperation
American Embassy (Canberra)
Unit 11006, PSC 277
APO 96549-9998
Tel: 011-61-2-373-9200

USCS Sydney produces a quarterly newsletter, "Defense Focus", containing defense market opportunities and items of interest on Australian defense procurement matters. Copies of the newsletter may be obtained by contacting US&FCS Sydney office. "Defense Focus" also offers Gold Key Club Membership to companies at an annual fee of \$100 dollars and provides additional services in defense market facilitation.

U.S. Department of Defense

Mr. Wayne Laskofski
Defense Security Assistance Agency
DSAA OPS-ERP
Washington, D.C. 20301-2800

Tel: (703) 604-6609
Fax: (703) 604-6041

Additional points of contact:

American Chamber of Commerce in Australia
GPO Box 2215
Canberra ACT 2600

CHINA

CHINA

Overview

China's economic growth was stable in the first half of 1996 while retail prices continued to trend downward, according to official data. Official preliminary estimates of first-half 1996 GDP was RMB 2976 billion, an increase of 9.8 percent over the first half of 1995. The outlook for the second half of 1996 is continued real growth of about 10 percent. Although official figures may overstate the actual growth rate of understate inflation, official data are generally acknowledged to reflect major economic trends.

The People's Republic of China (China) has in recent years boasted one of the fastest growing economies in the world. Certain regions in China, especially those along the coast, are booming, and many people are becoming more prosperous. Rapid economic growth, bold reform measures and massive infrastructure plans point to enormous market potential in China. Chinese leaders project spending of at least US \$100 billion per year on imports from now until the year 2000. As China gives priority to infrastructure development, business opportunities seem especially promising in the energy, telecommunications, and transport sectors. The central government is also taking steps to direct more foreign activity to the inland areas and into high technology sectors.

Foreign direct investment continues to pour into China, albeit at a slower pace than in 1995. By the end of 1995, over 220,000 foreign-invested enterprises had registered in China, an increase from 1994 of over 30,000, with a total contracted foreign investment of over US \$300 billion and actual funds invested of US \$95 billion. Finance for international business, while never sufficient to cover all of the nation's needs, is available as never before.

The central government encourages foreign investment in the following seven priority sectors: (1) comprehensive and technological agricultural projects; (2) infrastructure and basic industries, such as highways, railways, harbors, airports, steel, and non-ferrous metals; (3) so-called "pillar industries" including machinery, electronics, petrochemicals, automobiles, and construction materials; (4) projects involving advanced technology, technical renovation, and energy conservation; (5) projects supplying products meeting international market demands, upgrading the quality of Chinese products and increasing China's exports; (6) new technology and equipment. to utilize natural resources; and (7) projects that utilize human and natural resources in the western and inland areas.

China's political leadership, characterized by group consensus rather than strong leadership by a single individual, generally supports foreign trade and business investment in China, and agrees on the need for continued economic reforms and for political stability.

Apart from macro factors affecting doing business in China, China's current "socialist market" economic structure continues to erect roadblocks to doing business in China. These include limitations on the right of foreign companies to directly access China's retail market; foreign exchange controls; an inefficient banking system; insufficient enforcement of intellectual property laws; very restricted access for foreign services; and an inadequate system for dispute resolution. Other commonly heard complaints include relatively high tariffs, sometimes inconsistent application of a 17 percent value-added tax on most imports, some remaining import quotas and licenses, standards and quality control requirements, and continued lack of transparency in the trading system.

Government Role in the Economy and the Political Environment

After a decade and a half of reform and opening, the government role in the economy remains strong -- and will be for the foreseeable future. The central government, however, continues to lack sufficient resources to carry out its programs. Adjustments in purchase prices for grain and other commodities, increased wages for state workers, and difficulties in collecting taxes have all contributed to the government's growing budgetary shortfall.

The government still appears at times to be more willing to use traditional tools of a planned economy rather than pushing forward with deeper reforms. Its current reliance on price controls is a matter for concern. Widespread interference with the market mechanism in key sectors of the economy threatens to eliminate many of the preliminary gains in macroeconomic efficiency that were achieved during 1992-93 round of price reforms. Worries over social and political stability have also slowed the pace of key enterprise and financial reforms that are needed to sustain rapid economic growth into the next century. This more cautious attitude toward market-oriented economic reform is apparent in the stronger emphasis on state planning in industrial policy and is likely to persist for some time.

Nevertheless, China's top political leaders continue their strong commitment to foreign business investment in China. In June 1996, the U.S. and China settled a major dispute on protection of intellectual property which improved the atmosphere for bilateral economic relations. However, disagreement over human rights, proliferation of weapons of mass destruction, and trade issues could continue to affect bilateral relations.

Rapid price inflation, corruption, lay-offs from state-run enterprises, the growing gap between coastal regions and the interior, and economic disparities between rural and urban areas have contributed to dissatisfaction among the populace. Northwestern China has been troubled by occasional unrest among minority ethnic and religious groups. Dissatisfaction has not often been translated into widespread political activity since 1989, in part because the government is working to minimize tensions over its economic policies, but also because it has acted swiftly to repress any potential political protests.

In practice, major decisions are made by a few key leaders of the Chinese Communist Party. Ministries and/or the Standing Committee of the National People's Congress (China's legislature) formulate policy on day-to-day issues. Some provincial governments, especially those in fast-growing coastal regions, actively adopt local policy variations. Senior political figures generally agree on the need for further economic reforms and the need for political stability, but there are differences over the content, pace, and ending point of reforms. Most observers believe that the death of 91-year old Party elder Deng Xiaoping will reshape leadership politics, but this readjustment is expected to be gradual. China is more likely to be governed by a collective leadership for the foreseeable future rather than one predominant figure.

Diversification/Commercial Opportunities

The sophisticated and expanding Chinese economy offers many dual-use or commercial trade opportunities for U.S. firms. Some of the larger industry sectors are described below.

Aircraft and Parts

Historically, U.S. aircraft have been purchased as the airplane of choice by Chinese airlines, but the U.S. industry now faces increasing competition from the Airbus consortium. In April 1996, Airbus was awarded a 30 plane deal by the Chinese government - its largest deal in China to date. The Chinese Government is starting to allow foreigners to invest in joint venture airlines, airport construction, and general aviation. The prospect of joint venture airlines, previously prohibited, indicates that China is making a sincere attempt to turn its aviation industry into an international-level player.

Electric Power Systems

China is expected to approve a number of large-scale power projects this year which will require imported foreign equipment. U.S. suppliers are advantaged by the decline in the U.S. dollar and a growing reputation for a quality product and a willingness to transfer technology. A key factor in U.S. firm's competition for these contracts will be the financing packages which they can provide. The Chinese are looking for soft loans and other types of favorable financing.

U.S. exports are highly competitive. The major local competitors are Harbin Power Plant Equipment Corporation, the Dongfang Power Plant Equipment Corporation, and Shanghai United Electric Corporation.

China is planning to increase its power production capacity by 15,000 MW per year through the early 21st century. Imports of technology and equipment are actively being sought.

Most promising subsectors include:

Steam/Gas Turbine Generators
Boilers
Control and Communication Equipment.

Computers and Peripherals

China's computer industry has been growing at an annual rate of nearly 60 per cent during the past five years. The so-called "Golden Projects", and the growing family market for PCS will maintain the growth rate at 50 percent until 2000.

U.S. exports are highly competitive in both price and quality and are preferred by Chinese end users. Major competitors in PCS are Taiwanese, while both Japanese and Taiwanese firms are important in peripherals. Local firms are quickly losing market share and being forced to tie in with foreign firms to survive.

Most promising subsectors include:

Desk Top and Notebook Personal Computers
Servers
CD-ROM Drives
Modems

Telecommunications Equipment

This sector is high priority and is heavily invested by the government. It is infected by politics because of the high value of equipment sales and because of the ministerial level competition with the Ministry of Posts and Telecommunications for industry control. There is significant use of loans from sources such as Japan's OECF, the IMF, the ADB, and the World Bank. Technology transfer is increasingly being required for the completion of sales contracts. Joint ventures are becoming more common in this sector.

Many Chinese firms are exploring CATV markets, especially emphasizing future integration of CATV on ISDN networks.

Best subsector prospects include:

Central Office Switches
Private Branch Exchange (PBX)
Paging Networks (10 million subscribers)
Cellular Networks (1.2 million subscribers)
Network Computer equipment
CATV equipment

Automotive Parts/Service Equipment

Chinese state plans call to replace 1.8 million outdated vehicles during the Ninth Five-Year Plan period (1996-2001). The best investment opportunities in the automotive sector are in the components area of highly integrated state-owned automobile manufacturers. The Chinese government is especially emphasizing the development of its parts and components industry. The four categories are engine parts, chassis and related parts, auto electrical appliances, and other components.

Plastic Material and Resins

This market is increasing very rapidly. The American segment of the market is characterized by high technology inputs and additives and this segment is growing probably faster than any other. We expect continued strength in this market as both national and foreign investment continues to increase. China's ability to supply its own up-stream feedstocks remains uncertain, especially in light of increased investment in the down-stream part of the market.

Pollution Control Equipment

Annually there are more than US \$1.300 million worth of multilateral agency funded environment-related projects in China, which are enhanced by Renminbi matching portions allocated by the Chinese government. Many of these projects call for pollution control equipment, which is normally procured with hard currency through an international bidding process. American companies, when they have participated, have been unusually successful.

There appears to be a growing market for environmental equipment outside of that procured in the above process. Best prospects include environmental monitoring equipment, solid waste management equipment (incinerators and landfill liners), clean coal technology, and inexpensive but effective waste treatment plants. Used technology is expected to be in demand.

Machine Tools/Metalworking Equipment

U.S. products are considered to be of consistently high quality, but most analysts agree that German, Swiss, and Japanese high end products are also reliable and highly competitive. At the lower end, Taiwan products are also regarded favorably.

In general, U.S. products have suffered from a lack of exposure in the market, although this situation is changing with more U.S. companies establishing a market presence. In contrast Taiwanese, German, Japanese, and Italian firms have actively marketed their products, and in so doing have grabbed a significant share of the market. German and Italian training facilities have long been established in Tianjin and Beijing respectively. Taiwanese firms reportedly won the largest foreign market share because of extensive personal connections in the mainland.

Major competitors in this market are the Taiwanese, Japanese, and Germans. Mainland and Taiwanese products are mostly cheap, low-end products and do not compete with high-technology tools produced by U.S. and other foreign exporters.

Many Chinese machine tool factories were originally designed through Soviet, Czechoslovakian, or Bulgarian partnerships. These now wholly Chinese owned factories are looking to improve their very low levels of technology through foreign cooperation.

Best subsector prospects within this sector include automotive, aircraft and aerospace, natural resource extraction and exploitation, communications, and electronics production.

Oil Field Machinery Service

China is increasing the priority given to better exploitation of its existing wells and exploration for new ones. This has opened substantial new opportunities for major U.S. oil companies, especially those with unique technologies. The Chinese have opened new tracks in the far Western part of the country for another round of bidding. China also wants to do more to exploit its gas reserves and is interested in foreign cooperation for this purpose.

Most promising subsectors within the sector:

- Major pipeline projects
- Geophysical instruments
- Secondary recovery equipment and technologies

Medical Equipment

Due to the increasing living standard and the aging population, there is a growing interest in importation of medical equipment in China. Demand for scanners, CTs, MRI systems, X-ray machines, and ultrasound equipment has shown steady growth. Although the larger manufacturers are already producing in China, an unexplored area of growth is the second-hand equipment sector.

The need for small equipment such as "electronic" sphygmomanometers, which can be utilized by consumers without the aid of medical professionals, is exploding. This does not include the traditional manual sphygmomanometers, but small electronic devices such as blood pressure monitors, electrocardiographs, and glucose testing devices. However, exports from the U.S. have been declining since 1993. This market has a tremendous growth potential for U.S. companies despite the domination by Japanese products. The appreciation of the yen may pose as an obstacle for the Japanese competitors creating an opening for U.S. products.

Mining Industry Equipment

The Chinese central government has placed emphasis on mining, particularly coal, in the Ninth Five Year Plan. While China's transportation system continues to limit equipment sales, as infrastructure improves, the demand for equipment will increase. Energy demand continues to increase, thereby increasing mining equipment demand.

The appreciation of the Yen will make Japanese imports less attractive, while the depreciation of the U.S. dollar will make U.S. imports more attractive. Revised Eximbank lending policies currently allow for the matching or over-matching of offers made by competing export credit agencies, which should also bolster U.S. mining equipment sales.

The most promising sales prospects are for the following equipment:

- trucks
- scrapers
- extractors
- continuous miners
- longwall shearers
- shuttle cars
- roof bolters
- feeder crushers
- integrated automation & control systems
- coal washing & cleaning equipment
- centrifugal dryers
- rotary breakers
- draglines

Chinese Government Points of Contact:

STATE ECONOMIC AND TRADE COMMISSION

Wang Zhongyu, Minister
Wang Shanchuan, Director of Foreign Affairs
26 Xuanwumen Xidajie, Beijing 100053
Tel: (86-10) 304-5330
Fax: (86-10) 304-5326

STATE PLANNING COMMISSION

Chen Jinhua, Minister
Yuan Shuxun, Director of Foreign Affairs
38 Yuetan Nanjie, Xicheng District
Beijing 100824
Tel: (86-10) 850-2105

Fax: (86-10) 850-2728

MINISTRY OF CHEMICAL INDUSTRY

Gu Xiulian, Minister

He Fan, International Cooperation

Building 16, Hepingli Qiqu, Dongcheng District

Beijing 100013

Tel: (86-10) 421-5693

Fax: (86-10) 421-5982

MINISTRY OF COAL INDUSTRY

Wang Senhao, Minister

Bai Ran, Director of Foreign Affairs

211 Hepingli Beijie, Beijing 100713

Tel: (86-10) 421-3949

Fax: (86-10) 601-6077

MINISTRY OF COMMUNICATIONS

Huang Zhendong, Minister

Hujinglu, Foreign Affairs Office

11 Jianguomennei Street, Beijing 100736

Tel: (86-10) (86-10) 529-2204

Fax: (86-10) (86-10) 529-2345

MINISTRY OF ELECTRIC POWER INDUSTRY

Shi Dazhen, Minister

Tai Aixing, International Cooperation

137 Fuyoujie, Xicheng District

Beijing 100031

Tel: (86-10) 602-3816, 602-3879

Fax: (86-10) 601-6077

MINISTRY OF ELECTRONICS

Hu Qili, Minister

Zhang Xuan, International Cooperation

Wanshou Road, Beijing 100846

Tel: (86-10) 822-1838

Fax: (86-10) 822-1835

MINISTRY OF FOREIGN TRADE AND ECONOMIC COOPERATION

Wu Yi, Minister

Ma Xiaoye, American & Oceanian Affairs

2 Dong Chang'anjie, Dongcheng District

Beijing 100731
Tel: (86-10) 519-8328
Fax: (86-10) 512-9568

MINISTRY OF MACHINE BUILDING INDUSTRY

He Guangyuan, Minister
Zhi Xiaozhou, International Cooperation
46 Sanlihe, Xicheng District
Beijing 100823
Tel: (86-10) 859-4970, 859-4962
Fax: (86-10) 851-3867

MINISTRY OF METALLURGICAL INDUSTRY

Liu Qi, Minister
Geng Yan, Director of Foreign Affairs
46 Dongsixi Dajie, Beijing 100711
Tel: (86-10) 513-3322, X2107, 4107
Fax: (86-10) 513-0074

MINISTRY OF POSTS AND TELECOMMUNICATIONS

Wu Jichuan, Minister
Wang Zhanning, Foreign Affairs Office
13 Xichanganjie, Beijing 100804
Tel: (86-10) 602-0540
Fax: (86-10) 601-1370

MINISTRY OF RAILWAYS

Han Zhubin, Minister
Tang Wenshen, Director of Foreign Affairs
10 Fuxingjie, Haidian District, Beijing 100844
Tel: (86-10) 326-0990, 324-1855
Fax: (86-10) 327-1295

CIVIL AVIATION ADMINISTRATION OF CHINA

Chen Guangyi, Director
Lu Ruiling, Director of Foreign Affairs
155 Dongsixidajie, Beijing 100710
Tel: (86-10) 401-2233
Fax: (86-10) 401-6918

CHINA NATIONAL AUTOMOTIVE INDUSTRY CORPORATION

Cai Shiqing, President
Li Zichun, Director of Foreign Affairs

27B Liuyin Jie, Xicheng District, Beijing 100009
Tel: (86-10) 601-1319
Fax: (86-10) 601-1393

CHINA NATIONAL OFFSHORE OIL CORPORATION

Wang Yan, President
Li Rongguo, Manager of Foreign Affairs
Jingwin Building 2A, Donsanhuan Beilu
Beijing 100027
Tel: (86-10) 466-2195
Fax: (86-10) 466-2994

Doing Business in China

Foreign companies are not permitted to directly engage in trade in China, other than marketing goods they have manufactured in China. Accordingly, U.S. exporters need to use a domestic Chinese agent for both importation into China and marketing within China, or handle their own sales through a representative office. Searching for an agent in China is complicated by the separation of the two elements that basically characterize international trading firms: import/export authority and aggressive marketing expertise.

Only those companies that have been authorized by the central government to handle export and import business are permitted to sign import and export contracts. At the end of 1994, over 8,000 Chinese firms have that authority. Fifteen years ago, only 10 or so state trading companies acted as purchasing agents for particular industries nationwide. While this system is rapidly becoming obsolete, many trading firms still retain the buyer's agent mindset. Nonetheless, with careful selection, training and constant contact, U.S. exporters can obtain good market representation from a Chinese trading company, many of which are authorized to deal in a wide range of commodities. Some of the larger companies have offices in the United States and other countries around the world, as well as branches throughout China.

In addition to trading companies, China is witnessing an explosion in local sales agents to handle internal distribution and marketing. These firms do not necessarily have import/export authority. They may be representative offices of Hong Kong or other foreign trading companies, or domestic Chinese firms with regional or national networks, under supervision of the Ministry of Internal Trade.

Given China's size and diversity, U.S. exporters may find it makes sense to hire several agents to cover different areas. China can be roughly divided into at least five major regions: the South (Guangzhou), the East (Shanghai), the Beijing-Tianjin region, Central China, and the Northeast.

Licensing

Technology transfer is another initial market entry approach used by many companies. It offers short-term profits but runs the risk of creating long-term competitors. Due to this concern, intellectual property considerations, and the lower technical level prevailing in the China market, some firms attempt to license older technology, promising higher-level access at some future date or in the context of a future joint venture arrangement.

License contracts must be approved by and registered with the Ministry of Foreign Trade and Economic Cooperation (MOFTEC). A tax of 10-20 percent (depending on the technology involved and the existence of an applicable bilateral tax treaty) is withheld on royalty payments.

Selling Factors/Techniques

Personal relationships in business are critical. The Chinese like to deal with "old friends," and it is important for exporters, importers and investors to establish and maintain close relationships with their Chinese counterparts and relevant government agencies. It is equally important that American exporters encourage strong personal relationships between their Chinese agents or distributors and the buyers and end users. A web of strong personal relationships will help ensure smooth development of business in China.

Selling to the Government

In its 1995 annual report, the U.S. Trade Representative found that, with few exceptions, China's government procurement practices are not consistent with open and competitive bidding. For the most part, these practices remain non-transparent and inaccessible to foreign suppliers. Purchases for virtually all projects in China are subject to at least one, and usually several, approvals from governments at various levels.

While tenders for projects funded by international organizations are usually openly announced, most government procurement is by invitation only. Competition is by direct negotiation rather than by competitive bid. Goods and vendors for large projects that are covered in the annual state plan are frequently designated during the planning process. All information, from solicitation to award, remains secret and is known only to those companies involved or to officials in the planning and industrial ministries.

China has committed to improve this situation. Pursuant to the 1992 U.S.-China Memorandum of Understanding (MOU) on Market Access, China published government procurement guidelines regarding machinery and electronics. These guidelines, however, contain registration requirements and unacceptably vague tendering regulations. The U.S. government is discussing with the Chinese government improvements in the tendering regulations that would bring them up to the standards of the WTO government procurement code.

Tariffs and Import Taxes

The most comprehensive guide to Chinese Customs regulation is The Official Customs Guide, compiled by the General Customs Administration. This guide contains the tariff schedule and national Customs rules and regulations. It may be obtained from the Sino Hong Kong International Co., Sing Pao Building 15/F, 101 King's Road, North Point, Hong Kong; Fax: (852) 807-0024.

In addition to assessment and collection of tariffs, the Customs General Administration (CGA) collects a value-added tax (VAT), generally equal to 17 percent, on imported items. Certain imports are also subject to a consumption (excise) tax.

Import tariff rates are divided into two categories: the general tariff and the minimum (most-favored-nation) tariff. Imports from the United States are assessed the minimum tariff rate, since the U.S. has concluded an agreement with China containing reciprocal preferential tariff clauses.

The five Special Economic Zones, open cities, and foreign trade zones may offer preferential duty reduction or exemption. Companies doing business in these areas should consult the relevant regulations.

Customs Valuation

According to Chinese Customs regulations, the dutiable value of an imported good is its c.i.f. price, which includes the normal transaction price of the good, plus the cost of packing, freight, insurance, and seller's commission. Customs may reject the transaction value submitted to it by the declarant and may assess a c.i.f. price based upon the normal transaction value of identical or similar goods imported from the same country or region.

In practice, Chinese customs valuation remains nontransparent and is applied inconsistently. For example, importers face arbitrary determinations of value by customs officials, who have discretionary authority to ignore the invoice or transaction price as the principal basis for valuation. These practices appear inconsistent with obligations China will need to undertake if it becomes a member of the World Trade Organization (WTO).

Import Licenses/Quotas/Administrative Controls

China administers a complex system of non-tariff trade barriers, including individual quotas on imports of machinery, electronic equipment, and general goods like grain, fertilizer, textiles, and chemicals; automatic and non-automatic import license requirements on a smaller number of goods; and a tendering system applied to both quota and non-quota commodities, including machinery and electronic equipment. China also reserves 350 line items for designated

foreign trade corporations, and has other non-transparent administrative controls or restrictions on importation of goods and agricultural products. The U.S.-China market access memorandum of understanding (MOU) signed in 1992 commits China to curtail most of these barriers by 1997.

The MOU also confirms that only barriers that are imposed by the central authorities will be enforceable. Unauthorized import bans, quotas, licensing requirements, restrictions, and controls (imposed by provincial or local authorities) will not be given effect. This provision is significant because it precludes replacement of central control by local controls.

The MOU further commits China to use sound scientific principles to justify any sanitary and phytosanitary technical standards required of imported agricultural and food products. However, existing standards continue to unnecessarily prohibit the entry of most U.S. fresh fruits as well as high quality animal genetics.

While China is in the process of eliminating a great number of import licensing requirements, licenses will continue to be required after the MOU is implemented for certain items including rubber products, wool, passenger vehicles, and trucks.

After implementation of the MOU, some 42 categories of commodities will remain affected by quotas, including watches, automobiles, and motorcycles. Import quotas for machinery and electronic items, as well as carbonated beverages, are set by the State Economic and Trade Commission under the State Council, while the State Planning Commission administers quotas for a variety of general commodities.

Certain designated commodities must go through an automatic registration process and secure a certificate of registration for the import of special commodities prior to importation. The certificate is valid for six months. For 1994, the list of such commodities consisted of rolled steel, steel billets, scrap steel, out-of-service ships, non-ferrous metals, plastic materials, paper, fruit, and cosmetics.

Thirty-one categories of goods which were previously controlled through the administrative import approval process but not subject to import license requirements, including certain machinery production lines, electronic equipment, and construction materials and equipment, will have controls removed under the MOU.

U.S. Government Points of Contact

The following is a list of useful points of contact for U.S. firms that are interested in the Chinese market.

Joel Fischl, Commercial Officer
Foreign Commercial Service
U.S. Embassy Beijing

No.3 Xiushui Beijie, 100600 Beijing
Tel: (86-10) 6532-6924
Fax: (86-10) 6532-3297

Fred Lee, Senior Representative, Beijing
Federal Aviation Administration, Beijing Office
Rm. 128-130 Jianguo Hotel, 5 Jianguomenwai St.
Beijing 100040
Tel: (86-10) 6595-8093
Fax: (86-10) 6595-8094

Colonel Rocky Roland, Defense Attache's Office
U.S. Embassy Beijing
No.3 Xiushui Beijie, 100600 Beijing
Tel: (86-10) 6532-3831 ext.610
Fax: (86-10) 6532-2160

INDONESIA

INDONESIA

Overview

GDP growth has averaged over 7% per year over the last five years, while inflation has been confined to the 5-10% range. Indonesia has also made considerable progress in trade and investment deregulation. In mid-1994, Indonesia lowered investment barriers, and in May 1995, the government unveiled a comprehensive tariff reduction package which covered roughly two-thirds of all traded goods.

Indonesia is undergoing a rapid transition from an agrarian society into an economy based on the development of its rich natural resources, manufacturing capability and attractive tourist locations. Its recent economic growth rate of between seven and eight percent shows no signs of slowing in the near future, and defense expenditures may be expected to demonstrate similar growth.

Significant progress has been made in infrastructure development such as communication and transportation. Indonesia has had its own communications satellite since 1976, and telephone, television, and broadcasting facilities have rapidly expanded in the ensuing years. Air and sea ports are being expanded to accommodate growing international traffic in both passengers and freight. The aviation industry is expanding and the state-owned Indonesian Aircraft Industry (IPTN) produces two types of fixed-wing aircraft and helicopters, and now has the Universal Maintenance Center for aircraft engine overhaul. New production lines for domestic and export sales are coming on stream.

Although not bound by formal treaty, the U.S. and Indonesia enjoy a mutually supportive relationship. Indonesia recognizes U.S. support in its struggle for independence in the late 1940s and the continuing presence of U.S. forces in the region. The U.S., in turn, acknowledges Indonesia's anti-communist stance during the Cold War and its role in maintaining regional stability through membership in ASEAN. Instances of human rights abuses have given rise to concern in the U.S. from time-to-time, the most significant being the decision of Congress to suspend military training assistance in 1992, but the overall relationship provides opportunities for U.S. defense companies to benefit from the pace of economic growth and concomitant defense needs of the Armed Forces of the Republic of Indonesia (ABRI).

Defense Industry Environment

Many of the major companies in Indonesia are state-owned. As well as covering infrastructure projects, research and development programs, this extends to industrial needs categorized under "Strategic Industries" and defense materials. "Strategic Industries" include

steel manufacture, shipbuilding, aircraft assembly, and some electronics and communications manufacture. The country's most prominent companies in this category form the Badan Pengelola Industri Strategi (BPIS) or the Agency for Strategic Industries. The combination of these firms comprises a powerful consortium with products ranging from aircraft to heavy equipment, telecommunications to naval vessels, and rolling stock to satellite earth stations.

BPIS was founded in 1980 through the establishment of the Defense Department Industrial team under Presidential Decision No. 40/1980. The organization is supervised by the Council for Strategic Industries (DPIS), whose advisers include the Minister for Industrial Affairs, Minister for Transportation, Minister for Tourism, Post and Telecommunications, the State Secretary, Minister for Finance, Minister for National Development Planning, and the Chief of the Army. The council provides technical support for the Strategic Industries, organizes policy implementation, and supervises management. The industry members of this consortium are listed at the end of the chapter.

BPIS - Agency for Strategic Industries of the Republic of Indonesia
Arthaloka Bldg, 3rd Floor
Jalan Jend. Sudirman 2
Jakarta 10220
Tel: 011-62-21-570-5335
Fax: 011-62-21-329-2516

Listed below are points of contact within the ABRI service branches. It is recommended by the U.S. Embassy that a local agent be utilized to make contact with these agencies regarding procurement opportunities.

Mr. H. Abdu Madjid
Secretary General
Asperdia Hankam
Jl. Kayu Putih Utara A/II
Jakarta 13210
Tel: 011-62-21-489-0063

Col (IR) (Ret) Sjahrudin, Vice Chairman
Asperdia Hankam, Unit TNI-AU
(Air Force)
Jl. Raya Pasar Minggu #32
Jakarta 12160
Tel: 011-62-21-798-1301

FADM (Ret) Wasisnindito, Chairman
FADM (Ret) Soegito, Vice Chairman
Asperdia Hankam, Unit TNI-AI
(Navy)
Jl. Bungur Besar Raya No. 72
Jakarta 10620
Tel: 011-62-21-424-1155

Dr. H. R. Soetarjo Nitisoedirdjo
Chairman
Asperdia Hankam, Unit POLRI
(National Police)
Gedung Inkopol
Jl. Tambak No. 1
Jakarta 10320
Tel: 011-62-21-331-330

AVM (Ret) Soeyitno, Chairman
AFM (Ret) Aulia Suratno, Vice Chairman

Mr. Soepangat

Chairman
Asperdia Hankam, Unit TNI-AD
(Army)
JI Haji Ten
Komplek Bulog, Blok B, No. 25
Jakarta Timur
Tel: 011-62-21-471-5785

Hary Munsabip
Chairman
Asperdia Hankam - Unit Staff Hankam
Department of Defense & Security Staff
JI. Danau Poso No. 19
Jakarta 10210
Tel: 011-62-21-573-6154

Defense Opportunities

Indonesia, with over 13,000 scattered islands straddling Southeast Asian shipping lanes, and a population of around 180 million, is looking for effective command and control of its territory. The MOD's future requirements include the following systems:

- Communications and intelligence networks (including Early Warning Radar)
- Air and maritime defense and surveillance systems
- Coastal defense and mine hunting capability
- Support systems and logistics
- Medium lift helicopters
- Flight training simulators
- Air defense missile systems
- Advanced fighter aircraft (up to two additional squadrons over the next five years)
- Replacement and upgrades for aging air transport fleet
- Over-the-shore capability (LST's)

Defense Procurement Process

The defense planning system in Indonesia is called the State Security and Defense Strategic Planning System. It deals with the identification of perceived threats during the short (2 years), medium (3-5 years) and longer range (6-10 years) time frames and identification of appropriate response contingencies. U.S. companies are in an advantageous position when offering products to ABRI that meet these defense planning requirements, particularly in the medium to longer-terms. A long-term view is essential for the best chance of success in this market. U.S. firms should be prepared to address financing and to deal with the possibility of offsets and other industrial benefits.

It is important to note that BAPPENAS is tasked to review major military procurement to ensure that it is in line with national goals. Further, the head of BPPT advises on major military purchases and is actively interested in technology transfers and offset possibilities. The Government of Indonesia (GOI) has stated that all financing must be in the form of soft loans. It is possible to get by this obstacle but only through a combination of attractive financing and

pricing or offsets. Military procurement in Indonesia has two main components. First, the product should fill an operational requirement. If it does, then you need to convince the appropriate service which will then request procurement of the product through ABRI and HANKAM. Second, and at least as important, you need to have a sponsor within either ABRI, HANKAM, or one of the ministries such as BAPPENAS or BPPT. Obtaining sponsorship in both the military and another ministry is, of course, preferable.

The Office of the Military Attaché for Defense Programs (OMADP) at the U.S. Embassy in Jakarta has compiled the following guidelines for successfully doing business with the ABRI:

- Focus on Indonesia's requirements.
- Be extremely knowledgeable about your product and business.
- Perform extensive background work regarding Indonesia's social and cultural structure.
- Expect lengthy meetings and many questions regarding your product.
- Work to build strong relationships; success requires networking and sponsorship.
- You must use a local agent who is registered with ABRI.
- Develop patience, humor, and flexibility.
- Expect negotiations to continue after the contract is signed.
- Don't expect success by dropping in once every six months.
- Keep OMADP informed - it can be a tremendous asset.

Diversification/Commercial Opportunities

As a result of Indonesia's strong, continued economic growth and the Government's efforts to diversify the economy, many commercial trade opportunities exist for U.S. firms. The industry sectors discussed below have been determined by the Commerce Department's Foreign Commercial Service as 'best prospects' for U.S. exports.

Oil and Gas Field Machinery and Services

Market activity in the supply of oil and gas field machinery and services has grown continuously during the last few years in Indonesia. Exploration and production of crude oil and natural gas has steadily increased since the 1984-1986 world oil price decline. Machinery and other equipment and services are also needed for oil refining and the processing of natural gas. Presently, there are about 50 oil companies operating in Indonesia under production sharing contracts with P.N. PERTAMINA, the state-owned oil company, of which about 40 are U.S. firms. Therefore, American suppliers play a dominant role in the exploration and production of oil and gas in Indonesia but they face growing competition. The following equipment categories will be in increasing demand as Indonesia expands its oil and gas industry:

Seismic activities equipment and services

- Other geophysical and geological instruments
- Rotary drilling surface and sub-surface equipment
- Well completion and production equipment
- Pipeline equipment
- Workover rigs and related equipment

Electric Power Systems

Until three years ago, electric power was produced and distributed by the state monopoly power company, Perusahaan Listrik Negara (PLN). At that time, the private sector was invited by the GOI to produce electric power for commercial distribution purposes. Since the national economy rebounded from recession in 1987, thousands of new industrial plants and millions of

households have applied for new and/or additional supplies of electric power from PLN. This caused demand to surge for power generating and distribution equipment, much of which was sourced from abroad.

Peak electric power demand on the island of Java alone is expected to reach 22,500 Megawatt Hours (MWH) by the year 2000. In 1995, total Indonesian capacity was only slightly over 16,000 MWH. Among the power generating plants planned for the near future are coal-fired, gas-fired, and combined cycle power plants; hydro power plants; diesel power plants; and geothermal power plants. The most recent statements by Indonesian authorities in the energy sector all stress that Indonesia must exploit its abundant hydro, geothermal and coal resources for the generation of electric power even though the country's coal deposits alone could satisfy the country's energy needs for the next 300 years. At the moment, the energy authorities have ruled out the use of nuclear power, although that may change by the year 2005 or 2010.

In recent years, the GOI has been exploring ways to engage the private sector more in commercial power generation and supply. An Embassy report on major Indonesian projects lists 50 electric power projects from 1993 to the end of the century with total costs estimated at US \$15 billion. Most of these power projects will be financed by international lending institutions such as the World Bank and Asian Development Bank and donor countries. The rest will be financed by PLN through self-generated funds, and through the private sector - both local and foreign investors. Based on this plan, a large amount of electric power generating and distribution equipment, such as the following, is expected to be imported over the next three to five years:

- Water tube boilers
- Vapor generating boilers

- Super heated water boilers
- Parts of steam boilers
- Turbines for marine propulsion and parts
- Generating sets with compression ignition
- Gas turbines
- Liquid dielectric transformers
- Static converters
- Printed circuits
- Switches apparatus
- Board panels
- Electric conductors and insulators

Automotive Parts and Service Equipment

With the overall development of Indonesia during the last two decades, household budget allocations for automobiles has increased. The needs of government and private organizations for automobiles has also increased. Public land transportation also needs improvement in total units and quality of products. The total number of private and public automobiles has increased from less than half a million in the mid-1970's to about five million units in 1992 and 11.3 million in 1994. Passenger vehicle sales have been increasing on average about 15% over the last few years. As the Indonesian automotive industry expands and automobile ownership increases, the purchase of automobile spare parts, accessories and service equipment units is also increasing. Although 90% of automobiles assembled in Indonesia are of Japanese origin, private car owners are also interested in purchasing parts, especially service equipment, from other countries like the U.S. and European countries.

In June 1993, the Government deregulated the automotive industry. These measures are very dramatic because, for the first time since 1974, locally assembled cars are now being forced to compete with imported vehicles, as long as importers and customers are prepared to pay the 200 to 300 percent import duties. Other terms of the deregulation set local content percentages, and as the percentage of local content rises, duties on imported parts for the same car will fall. Also encouraging is the freedom given to general importers to bring in assembled cars similar to those now assembled in-country.

The big news this year, via a Presidential Instruction, was the establishment of a "National Car" program whereby 30 to 40 thousand KIA sedans will be imported duty free through 1997. As a result, other sedan sales will be hurt.

U.S. manufacturers of automobile spare parts and service equipment can take advantage of the improved Indonesian market of this product category, specifically pertaining to the equipment listed below:

- Transmission belts or belting of vulcanized rubber

Automobile Engines

- Spark-ignition reciprocating or rotary internal combustion piston engines
- Parts of electrical ignition or starting equipment for spark or compression
- Gear boxes, drive axles, and clutches for assembly purposes
- Steering wheels
- Brake and servo brakes for assembly purposes

Telecommunications

Indonesia is expected to convert from an analog telecommunications system to a digital system by the year 2004. In 1982, the Government telecommunications body, PT TELKOM (formerly PERUMTEL) instituted a policy requiring that digital technology be used in all new telecommunications expansion projects. In addition, the Indonesian government deregulated the operation of telecommunications services in 1986, allowing private consortia (composed of both local and foreign firms) to manage former Telekom regional offices as well as install new fibre optic lines. The government's efforts to liberalize, deregulate and privatize the telecommunications sector is most readily apparent in the areas of value added services, cellular telephone operations, radio trunking systems, and paging systems. It also allows parts of new telephone systems to be constructed by the private sector, often as equity participants in revenue sharing investment schemes. This should boost the pace of development.

The World Bank has approved loans amounting to \$350 million for major telecommunications projects throughout Indonesia. In addition, the Asian Development Bank (ADB) has also agreed to finance telecommunications projects in Sumatera and East Java, valued at \$185 million. Tenders for these large projects were open for both domestic and foreign participation. Indonesia will import significant telecommunications equipment during the next five to 10 years. This will include entire cellular phone systems, major central digital switch manufacturing and assembly systems, satellite weather and rainfall monitoring systems, as well as the following equipment:

- Telephone switching apparatus
- Transmission apparatus/incorporating reception apparatus
- Radar apparatus
- Parts of telephonic switchboards and exchanges
- Radio navigational aid apparatus
- Electric apparatus parts for line telephony

Construction Equipment

Since 1987, during the revitalization of the Indonesian economy, the manufacturing and exploitation industries have been very active in the country. A huge amount of capital goods needed to equip the projects have been imported from various countries. As a result, the construction industry has also been booming. Many multi-story buildings, manufacturing plants,

industrial and commercial complexes, recreational areas, residential houses, seaports and airports are being built.

Other construction activities include construction of dams, hydropower and coal-fire power plants, irrigation, roads, bridges, and some other infrastructure projects such as the Mass Rapid Transit project. Construction plans for pulp and paper mill plants are estimated to be worth as much as US \$8 billion by the end of the century. Similar development plans are also underway in various other sectors; for example, the GOI has estimated that the total cost of expanding Indonesia's electric power generating, transmission and distribution capacity will reach US \$26 billion over the five years to 1998/1999.

These construction activities will result in increases in total market demand and total imports for general construction equipment and machinery. An indication of the level of increased activity in the construction sector is that Indonesia currently must import cement supplies for the first time in order to cope with spiraling cement prices and increased demand in the construction sector.

- Self propelled boring and sinking machinery
- Boring and sinking machinery parts
- Buckets, shovels, grabs, and grips
- Bulldozers
- Hydraulic excavators
- Off-road construction trucks

Machine Tools and Metal Working Equipment

Since the recovery of the national economy in 1987, there have been huge increases in total imports in this product category as Indonesian businesses add basic equipment to the Indonesian base. These increases resulted from a serious effort by the Government and private sectors to upgrade manufacturing plants and initiate new projects in order to achieve rapid and continuous growth of the national economy. Many industrial plants need modern machine tools, high precision machines, and the like. Among the Government plants in need of this equipment are IPTN (aircraft industry), PAL (shipyard building), and P.T. PINDAD (munitions industry). There are many private sector plants being developed and upgraded, especially in the automotive components industry and its upstream manufacturing plants. The Government is very anxious to achieve self-sufficiency in the supply of parts and components for automotive assembly in Indonesia. As a result, the following product categories are facing increasing demand:

- Hot and cold rolling mills, and parts
- Rolls for rolling machines
- Lathes, numerically controlled
- Drilling or boring machines
- Bending, folding and straightening machines

- Hydraulic presses for treating metal
- Knee-type milling machines
- Casting machines

Commercial Vessels and Equipment

As the world's largest archipelago, Indonesia is an important maritime country. Its territory extends over 3,300 miles from east to west, and 1,300 miles from north to south. It has 13,667 islands with a land area of only about 27 percent of the claimed national territory, excluding the 200 mile exclusive economic zone (EEZ). This means that commercial maritime is very important to the country's transportation needs. There has been a steady increase of demand for imports of commercial vessels and equipment during the last four years. Specifically, demand should increase due to the recent Presidential Instruction removing the ban on imported fishing vessels. Local shipyards produce smaller-size vessels (up to 3,000 DWT), but many imports, such as the products listed below, will still have to be made during the next three to five years, in order to respond to the steady economic growth of the country.

- Floating or submersible drilling or production platforms
- Vessels for the transport of goods
- Dredgers
- Ferry boats
- Barges
- Tankers
- Cruise ships
- Light vessels, fire fighting boats, etc.

Laboratory and Scientific Equipment

To enter the global market, Indonesia is working hard to increase its product competitiveness. The Government has established strict standardization for various products called "Standar Industri Indonesia" (Indonesian Standard of Industry) and in 1991, designated November as "the month of national quality and productivity". In recent years, many Indonesian companies have adapted ISO 9000 standards to further enhance their competitiveness. Therefore, more advanced laboratories, equipped with the products listed below, are needed by users to support their quality control their activities and facilities, including quality control and assurance laboratories, end-user industries (such as steel, telecommunications equipment, cement, refineries, and engines), and government agencies:

- Measuring/checking instruments
- Electrical test/measure instruments
- Physical instruments
- Chemical analysis instruments

Materials Handling Machinery

As the Indonesian economy has grown since the mid-1980's, various sectors have witnessed significant development. Many old and obsolete mining plants were reactivated, and some major expansions were made. Renovation and construction of many seaports and airports have also been undertaken. This growth has resulted in increasing demand for materials handling and mechanical equipment. Many newly established manufacturing plants require equipment in this category. Presently, most tools and equipment are imported. Considering the ongoing and potential development in the mining and manufacturing sectors, as well as in the construction and equipping of sea and airports, an import growth of between five and ten percent for this product category can be expected during the next three to five years. The following is a list of products that are good export prospects for U.S. firms:.

- Forklift self-propelled trucks
- Pulley tackle and hoists for raising vehicles
- Overhead traveling cranes on fixed support
- Lifts and skip hoists
- Mobile lifting frames on tires and straddle carries
- Mechanical handling equipment parts

Aircraft and Parts

Along with the vital role played by sea transportation in national economic development, civil aviation is critical to linking the country's widely separated islands. In recent years, the GOI has been very active in the modernization of older airports and in building new ones throughout the country. PT. Garuda, a state-owned company and the national flag carrier, operates about 80 jet aircraft in its fleet. The larger domestic private airlines such as Sempati, Mandala, and Bouraq Airlines, all use jet aircraft in their fleet. Garuda also operates international routes to Europe, the United States, Australia, and other Asian countries. Sempati has recently been given a permit for international operations.

Garuda could be expected to replace many of its older jets during the next five years, especially in order to realize the tourism potential generated by recent Government tourism promotion campaigns. Although Indonesia is already a producer of assembled aircraft such as the 50 passenger N-250, the 35-passenger CN-235, and 20-passenger Casa-212, many small aircraft of various sizes are still imported for training purposes or other special operations, as long as they do not compete directly with local products. The following product areas have been determined as good prospects for U.S. exports.

- Aircraft, including helicopters
- Aircraft engines and propellers
- Helicopter rotors
- Under-carriages for aircraft

Computer Software

As the principal supplier of computer software to the world market, the United States has the major share of the Indonesian market. However, software piracy in Indonesia is a serious problem due to ineffective enforcement of copyright laws for both software and instruction manuals.

The Indonesian Government recently stated its intent to strengthen enforcement of its Intellectual Property laws. To this end, the government's IPR action committee has begun cooperative relations with the Business Software Alliance, a non-profit organization which lobbies governments to combat software piracy. Indonesia is also modifying its legislation to meet commitments made in the Uruguay Round.

Major software companies have already opened representative offices here in Indonesia, the most recent being Microsoft in May 1996. The presence of such software companies may help to foster an indigenous Indonesian software industry, which in turn will reduce software piracy.

In the near term, application-specific software for manufacturing processes or financial market monitoring and transactions will do very well. These might be in the form of:

- Packaged system software
- Packaged application tools
- Packaged application solutions

With more effective IPR enforcement, opportunities for mass market software will eventually expand.

Computers and Peripherals

The computer hardware market is enjoying a steady growth rate of 15-20 percent a year, and this has prompted foreign computer companies to consider expanding into or establishing production plants in Indonesia. The Personal computer (PC) market is extremely competitive for locally-assembled and imported units. Market recognition of U.S. brand PCs has increased significantly, along with consumers' growing preference towards branded PCs. In 1995, a group of U.S. branded PC distributors initiated an annual joint promotion event. They collaborate to promote exclusively U.S. name brand PCs and peripherals.

U.S. companies are the major competitors in the market for mainframe and mid-range computers and peripherals. Fueling the demand for mainframe and mid-range computers are the establishment of new enterprises, the modernization of existing ones, especially in the manufacturing and financial fields, and government organizations seeking to increase their efficiency.

Significant purchases in the following product categories can be expected during the next three to five years:

- Main frame computers
- Digital processing units
- Input and output units
- Peripheral units, including control and adapting units
- Automatic data processing machines
- Personal and micro computers
- Magnetic tape and floppy disk drives

Pollution Control Equipment

The most pressing environmental problem currently facing Indonesia is that of water availability and quality. Rapid population growth, urban migration, and the dumping of untreated municipal and industrial waste has placed a severe strain on water resources and water quality. On the island of Java, where more than 60 percent of Indonesia's 186 million people live, over half of the rivers are considered highly polluted. The Indonesian Government's now requires environmental impact assessments for all new projects and for those existing facilities which produce toxic or hazardous wastes. Improvements to law enforcement and hazardous waste programs are next in priority, with the remaining priorities for Indonesian environmental officials (in order of importance) being air pollution control, reversal of environmental degradation, sewage regulation, and the environmental effects of small-scale activities. The following products have strong export potential:

- Water and pollution control equipment
- Sludge management and industrial and solid waste control equipment

Medical Equipment

Indonesia's market for medical equipment and supplies has been growing at an average annual rate of 10% over the past five years. For the 1996/97 fiscal year, the state budget allocated US \$215 million to health sector development which is an increase of 13.5% over last year. 26.4% of the budget is designated for medical care. The government will concentrate on establishing and upgrading public health centers (Puskesmas) for the lower-income groups, and mobile Puskesmas units to serve remote districts, sub districts and villages. New hospitals will be built outside Java and the coverage and quality of referral health services will be improved.

Realizing that government funding for further expansion and upgrading of facilities is limited, the government has encouraged a greater private sector role to meet the growing demand for better health care services. In addition, the government granted foreigners the right to own (up to 100% of the equity shares) and operate private hospitals in 1992. Since then, 78 new private hospitals have been opened as compared to only 5 government hospitals. The government

hopes that the increased presence of foreign hospitals in the country will motivate the government hospitals to improve the quality of their services.

Rising affluence has prompted Indonesians to demand quality health care, which means hospitals equipped with modern, sophisticated medical equipment. Given the prevailing trend of increased private sector involvement, it is expected that the private sector will play an even greater role in the future and make large investments in medical services, especially in the product categories listed below:

- Cardiovascular equipment
- Surgical instruments and appliances
- Radiology equipment
- Hypodermic syringes and parts

Doing Business in Indonesia

Sales to the Indonesian military require the use of a local agent or representative. This is particularly important for companies entering the market for the first time. Companies will need to identify an appropriate military products agent, often a retired military official, whose company is properly registered as a supplier to the Armed Forces. Assistance can be obtained from the purchasing office in the selection of a local representative, who will provide, in addition to access to the military procurement offices, knowledge of local business practices and advice on the best opportunities and strategies to compete for specific projects. The local representative or agent can set up appointments with project officers, and market, promote, and demonstrate defense products on behalf of the manufacturer. Selecting the right agent is a critically important step, and assistance with preliminary selection can be provided by the US&FCS. This screening should be followed up with face-to-face interviews to conclude the selection process prior to the necessary development of mutual understanding and trust.

It is important to adopt an open-minded attitude when approaching business dealings in Indonesia. As in many Asian countries, business is based on relationships, and therefore successful business is based on successful relationships. Reliance on traditional Western values and methods will soon lead to frustration and disappointment. Although price and quality are important, training and after sales service can be critical. It is unreasonable to expect business contacts to respond to faxed requests or single appointments. Time and resources are required to build up a working business relationship, which once achieved, will prove an indispensable part of the overall business strategy for U.S. firms operating in the country.

The decision-making process also requires understanding and patience. Decisions are based on consensus, and when those involved in reaching the decision feel that unanimity has been reached, the decision will be made. Once made, the top-down implementation process begins. All this makes for a long and seemingly tedious process, but once the resolution has

been made to buy from the supplier, it is assured of the loyal and sustained support of the Indonesia Military.

U.S. Government Points of Contact

Senior Commercial Officer
U.S. & Foreign Commercial Service
American Embassy
Jl. Medan Merdeka Selatan 5
Jakarta 10110
Tel: 011-62-21-344-2211
Fax: 011-62-21-385-1632

Office of the Military Attache for Defense Programs
U.S. Embassy
Jl. Medan Merdeka Selatan No. 5
Jakarta 10110
Tel: 011-62-21-344-2211
Fax: 011-62-21-384-3339

BPIS Member Firms:

BARATA INDONESIA
Jalan Ngagel No. 109
Surabaya
Tel: 011-62-31-573542
Fax: 011-62-31-573642

Heavy equipment, industrial machinery, industrial process equipment; casting; construction (e.g. wind tunnels) repair and overhaul.

BOMA BISMA INDRA
Jalan Ngagel No. 155-157
Surabaya
Tel: 011-62-31-570295
Fax: 62-31-571022

Diesel machinery; machine works; steel; project management. Materials testing; calibration.

INKA
Jalan Yos Sudaroso 71

Madium 63122
Tel: 011-62-351-52271
Fax: 011-62-351-52275

Rolling stock; railway materials, overhaul, and co-design.

P.T. DAHANA (PERSERO)
Jl. Letkol Basir Surya
P.O. Box 117
Tasikmalaya 46196
Tel: 011-62-265-331-853
Fax: 011-62-265-334-819

Explosives, explosives components and explosives transportation, consulting.

PAL INDONESIA
Gedung BPPT/Lantai 17
Jalan Thamrin No. 8
Jakarta
Tel: 011-62-21-315-6860
Fax: 011-62-21-315-6860/316-8729

Shipbuilding, hull construction. Naval vessels; commercial ships; general engineering; maintenance and overhaul.

INTI
Jalan Moh. Toha 77
Bandung 40253
Tel: 011-62-22-520-6506
Fax: 011-62-22-502-44

Telecommunications; digital exchanges; fiber optics; payphones; telecommunications training. INTI has cooperation agreements with Siemens, Phillips, and NEC.

IPTN
Directorate for Commerce
BBD Plaza, 14th Floor
Jalan Iman Bonjol 61
Jakarta 10310
Tel: 011-62-21-332-247
Fax: 011-62-21-310-0081

Fixed-wing aircraft; rotary wing aircraft; aircraft service and repair. Co-design and co-manufacture.

KRAKATAU STEEL

Wisma Baja
Jalan Gatot Subroto Kav 54
Jakarta Selatan

Tel: 011-62-21-522-1255
Fax: 011-62-21-520-0876

Steel and engineering consultancy

LEN INDUSTRIES

Jalan Soekarno-Hatta No.442
Bandung
Tel: 011-62-22-520-2682
Fax: 011-62-22-520-2695

Electronics; telecommunications, antennas; transmitters; earth stations; engineering consulting.

PINDAD

Jalan Gator Subroto
Kiara Condong
Bandung
Tel: 011-62-22-312-073
Fax: 011-62-22-301-22

Heavy engineering, power generators, armaments, related software. Rifles, grenades; explosives; munitions filling.

JAPAN

JAPAN

Overview

Japan is the world's second largest economy after the United States. After nearly twenty years of high growth, Japan suffered through several years of anemic growth in the early 1990s. Japan's long-awaited economic recovery is now showing signs of sustainable, yet modest, momentum. The yen, which reached record highs in 1995, has weakened somewhat recently, but has stimulated imports (up 23 percent in 1995) while also prompting many Japanese companies to move production overseas in order to service export markets and to deal with Japan's high labor and material costs. Japan remains the second largest market for U.S. exports after Canada, and Japanese companies and consumers are showing increasing willingness to purchase lower-cost, foreign goods, services, and equipment. In short, despite difficulties in recent years and the unevenness of the current recovery, Japan remains a large and growing economy that presents excellent opportunities for U.S. firms.

Defense Industry Environment

Japan's defense requirements in recent years were driven primarily by the potential threat of the Soviet Union's substantial force structure in Soviet Asia. This resulted in six percent increases annually in Japanese defense spending during the 1980s. However, the end of the Cold War has triggered a re-evaluation of Japan's security requirements. The continued existence of major Russian forces in Siberia which constitute a potential threat, the prospects of a unified Korea, and an increasingly assertive China will be part of Japan's security strategy. Additionally, the Japanese Self Defense Forces face new requirements for mobility and long range deployments to accomplish their new mission of participation in peace keeping operations.

The FY 1997 Japanese defense budget is expected to increase by only 1.98% (after several years of equally low growth) and this flat trend in defense spending is expected to continue for the near future. These figures further reflect a level of defense spending that amounts to 0.94% of Japan's GDP. This level is the lowest since 1993. An increasing amount of available funds will be spent on training programs and improving the quality of life for personnel and somewhat less will be left for procurement. Within the procurement budget, less will be spent on hardware (0.7% increase). However, the Technical Research and Development Institute budget will increase by 6.1%. Approximately 146 billion yen will allocate to 55 new projects.

Nevertheless, Japan's defense budget, at around \$48 billion, is still the world's fifth largest and it will annually import over \$2 billion dollars worth of equipment from the United States. Although Japan's procurement budget (about \$10 billion) is large, a significant portion of it is required for four expensive programs, the Multiple Launch Rocket System (MLRS), the

AWACS airborne early warning system, the F-2 fighter aircraft, and the AEGIS guided missile cruiser, all of which are being either licensed, imported, or jointly developed with the United States.

The Japanese defense industry is dominated by twelve leading companies which account for approximately 95% of JDA's acquisition budget. These companies include so-called "heavy" industries and several large electronics manufacturers. Since the mid-1980s, defense production has been approximately 90% local with about 10% overseas procurement. However, as noted above, there is a great deal of license production with the majority involving U.S. firms. The "heavy" industries average from 50-75% license production while the electronics companies' license production averages around 25-50%.

Compared to Japanese industrial production as a whole, the defense sector is comparatively small as a result of stringent laws prohibiting export of military and military-related equipment. Within the major defense companies, defense production accounts for a relatively small portion of their overall business. Consequently, Japanese corporations are hesitant to spend money and effort to develop military technology unless it contains dual-use applications. They would rather buy military technology from abroad, preferably from the U.S., through licensed production or as hardware components to be integrated into Japanese systems. Many major license production and co-production programs such as FS-X/F-2, F-15, SH-60, and others appear at first glance to be Japanese, however, upon closer inspection, actually have a high percentage of components imported from the U.S. This is one of the reasons for the high volume of imports from the U.S.

The twelve leading Japanese defense companies are listed below:

- Mitsubishi Heavy Industries, Ltd. (ships, military vehicles, aircraft, missiles)
- Kawasaki Heavy Industries, Ltd. (ships, aircraft)
- Ishikawajima-Harima Heavy Industries, Co., Ltd. (ships, engines)
- Mitsubishi Electric Corporation (electronics, missiles)
- Toshiba Corporation (electronics, missiles)
- NEC Corporation (electronics)
- Fuji Heavy Industries, Ltd. (aircraft)
- The Japan Steel Works, Ltd. (artillery)
- Komatsu, Ltd. (small arms/ordnance, military vehicles)
- Hitachi, Ltd. (electronics, military vehicles)
- Oki Electric Industry Co., Ltd. (electronics)
- Daikin Industries, Ltd. (small arms/ordnance)

Defense Opportunities

U.S. defense systems and equipment have a good reputation in Japan and the Japanese defense industry sees itself as five to ten years behind the United States in systems integration, with little hope of closing the gap over the next decade. However, in the area of components and basic technology, Japan's defense industry sees itself only slightly behind the U.S. with a good chance of surpassing U.S. industry in many dual-use technologies.

Defense trade opportunities exist for U.S. firms in the following industry and/or technology areas:

- Missile technology (AAM, ASM, SAM)
- Air Defense Systems
- Target Acquisition Systems
- Defense Electronics (particularly upgrades)
- Avionics
- C3I (OTH Radar, Have Quick/JTIDS, GPS, Maritime Surveillance)
- Semiconductor components
- Logistics Software (CALS)
- Information Systems
- Signals Processing

Defense Procurement Process

The JDA operates a Central Procurement Office which handles most military procurement. In theory, a foreign company can sell directly to the JDA. However, in practice, the JDA will buy commercially only from a Japanese prime contractor (such as Mitsubishi Heavy Industries) or a trading company such as Sumitomo, or C. Itoh. They will buy from the U.S. Government, when required, through the Foreign Military Sales system. Japan is also starting to adopt some of the DOD acquisition reforms, to include reliance on international military specifications (versus Japan-specific standards), and increased off-the-shelf procurement.

To successfully enter the Japanese defense market, it is highly advisable to establish a joint relationship with a Japanese manufacturer or trading company. These organizations are particularly adept at navigating the Japanese procurement and distribution networks, gathering information about sales opportunities, and marketing products. Often they have good connections with the JDA and employ former JDA employees. Moreover, in order to establish a successful business presence in the Japanese market, it is important to develop a long-term business relationship with a Japanese company based on mutual trust. The Japanese partner or trading company can play the role of trusted third-party intermediary to the JDA on behalf of a U.S. firm that is new to the market.

Diversification/Commercial Opportunities

Due to ongoing deregulation and the continued opening of markets to foreign products and services, substantial opportunities exist for U.S. defense firms in dual use or related technology fields. In fact, with Japanese defense spending likely to remain flat for the near future, commercial opportunities may be more promising than direct military sales. Significant export opportunities offering near-term growth potential and/or a large market receptive to U.S. suppliers are listed below.

Telecommunications Equipment

As a result of U.S.-Japan agreements to open Japan's telecommunications market, few overt barriers remain. Japan's market is very competitive in almost all subsectors. Japan's proposed National Information Infrastructure (NII) is expected to develop into a \$1.4 trillion market by the year 2010 when the nationwide fiber-to-the-home network is completed. The major player in both the NII and the Japanese telecommunications market is Nippon Telegraph and Telephone (NTT). NTT is the single largest purchaser of telecommunications equipment in the Japanese market, purchasing over \$1 billion worth of foreign products in fiscal year 1995. Besides NTT, new common carriers (NCC's) and the public utility sector's electric power companies are good potential customers for U.S. equipment suppliers. The most promising sectors within this \$30 billion market include: (1) internetworking equipment such as routers, frame relay switches, and ATM switches; (2) multi-media software and hardware, including CATV; (3) radio communications equipment; and (4) communications satellites.

Electronic Components

This is a nearly \$57 billion market and is expected to grow approximately 21 percent in 1996. Despite intense competition from Japanese companies, this market is one of the world's largest and most attractive for U.S. suppliers. Particularly promising areas include semiconductors, especially in the multimedia subsector (1996 predicted overall sales of \$34 billion), and Liquid Crystal Display Devices/Panels (1996 predicted sales of \$7.5 billion). The market for other passive components will remain small due to continuing weak consumer demand.

Medical/Diagnostic Equipment

As the "graying" of Japanese society continues, the Japanese Government is increasing expenditures for improvement of social infrastructure, including health and welfare facilities. This will increase demand for products for the elderly as well as innovative medical systems equipment. Japanese physicians and other medical professionals generally look to the U.S. for innovative and advanced products, but some criticize the lack of good after sales service by U.S. suppliers. The import market, which currently accounts for about 30 percent of the total \$17

billion market, should expand 5-8 percent annually in the foreseeable future. The U.S. has about two thirds of the import market. The most promising areas in the medical equipment market include: implants such as pacemakers, artificial heart valves, and artificial joints; anesthesia equipment and laparoscopic surgery devices; and, diagnostic imaging devices, including high quality ultrasound, CT and MRI equipment.

Aircraft and Parts

While the U.S. still maintains a commanding lead in aircraft and components, Japanese aircraft exports have been expanding in recent years, and European manufacturers have entered into the Japanese market. Cooperative ventures among U.S., European, and Japanese firms have increased markedly in recent years. Japan's general aviation market is small, as few companies or individuals own their own aircraft. The most promising subsectors within the \$9 billion dollar market are: civil aviation jet aircraft; aircraft engines and parts; and general aviation aircraft, including helicopters and executive jets.

Computers and Peripherals

This is a huge (\$55 billion) market and is expected to continue growing. Market access for U.S.-made PC's has improved dramatically in recent years. The Multimedia PC/Workstation subsector is particularly attractive and 20-25 percent annual growth until 1997 is forecast. U.S. suppliers have a leading market position in client/server and parallel processing systems, although Japanese competitors are increasingly focusing on this area. Although less vibrant than the PC/Workstation sector, the market for large mainframe computers and peripheral systems is expected to grow 13-14 percent in 1996.

Computer Software

U.S. suppliers are extremely competitive in this market, which should expand from its current \$9 billion to over \$11 billion by 1997. PC software accounts for about 45% of the entire software market, while custom software for large and mid-range computers and workstations will have annual growth of 5-7 percent over the next several years. Packaged software will show annual growth of approximately 30 percent during this period. Particular demand is forecast for software for CAD systems and accompanying workstations, as well as PC packaged software, CD-ROM software, and network software.

Security and Safety Equipment

The home security industry in Japan is still a fairly new market. It has demonstrated steady growth (approximately 10 percent) in recent years but from a small base. As the number of break-ins of commercial and residential facilities continues to rise and as the cost-consciousness of proprietors and the disposable income of residential consumers increase, medium-term prospects for this sector should remain promising. Most promising subsectors

include: observatory cameras and systems, residential security/safety equipment, information panels, access control equipment and systems, and burglar sensor systems.

Environmental and Pollution Control Equipment

The Japanese government and municipalities continue to strengthen their environmental protection and pollution control regulations. The market is expected to expand nearly 10 percent to over \$19 billion in 1997. In particular, Japan's imminent adoption of the ISO 1400 on environmental management and auditing may act as a major driving force, expanding further market opportunities. The Japanese market is quite competitive, but there is a substantial U.S. export potential for state-of-the-art U.S. equipment and services, particularly those utilizing biotechnology applications for waste treatment and contamination remediation. Also, cost effective U.S. technology dealing with soil and groundwater contamination has high sales potential in the Japanese market.

Government Procurement Process

In addition to sales opportunities in the private sector, there are good prospects in the government procurement arena. Some of the key ministries offering procurement opportunities are listed below:

- Ministry of Post and Telecommunications
- Ministry of Health and Welfare
- Environmental Agency
- Science and Technology Agency
- Ministry of Transport
- Ministry of Construction
- Nippon Telegraph and Telephone (60% government-owned)

Japanese Government entities are interested in purchasing a wide range of products from telecommunications equipment, computer equipment, and scientific and testing instruments to other, less sophisticated products and supplies. Recent changes in Japanese government procurement as a result of the Framework Negotiations and the GATT Uruguay Round have greatly expanded the scope of contracts that U.S. suppliers can bid on.

In most cases, Japanese government tender solicitation documents are in Japanese only with only brief English-language summaries. Tender documents must be submitted in Japanese only (Nippon Telegraph and Telephone (NTT) tenders may be submitted in English). To facilitate information gathering and applications for tender documents, it is strongly recommended, although not mandatory, that the U.S. supplier appoint an agent or representative in Japan.

To become a qualified supplier, firms and/or their agents must apply for qualification screening. Each Japanese government agency specifies in the Kampo (the Japanese Government's Official Gazette) an open application period prior to the beginning of the Japanese fiscal year which starts April 1.

Specific tender notices are published in the Kampo generally fifty days prior to the time of bid. Under the provisions of the GATT Procurement Code, foreign companies are permitted to bid on specific invitations prior to qualification provided there is sufficient time to complete the qualification procedures.

U.S. Suppliers can find summaries of translated tender announcements on the Economic Bulletin board (EBB), the Commerce Business Daily, the National Trade Data Bank, and a new JETRO Database which is available on the Internet at "<http://www.jetro.go.jp/>". U.S. Department of Commerce district offices can also assist potential U.S. bidders by identifying firms that provide translation services.

Doing Business in Japan

There is no short-cut to selling in Japan. In-country representation is crucial as well as a long-term commitment to the Japanese market. Sales service, customer support and the development of a proven track record are vital.

Commercial success in Japan tends to be directly correlated with the strength of a company's personal relationships with its Japanese business partners and customers. Although a U.S. firm may have a high quality, innovative, competitively priced product, the company will not succeed unless it builds and cultivates good personal relationships. It is strongly recommended that U.S. firms establish a presence in the market by establishing a representative or branch office in Japan. If this is not possible, a Japanese partner, in the form of an agent, representative, distributor, or joint venture partner will be the key to success in the Japanese market.

The basic keys for commercial success in Japan are briefly described below:

- Be committed to the market
- Build a positive company image
- Demonstrate patience
- Do adequate research prior to market entry
- Appoint a manager for Japan operations
- Develop personal relationships
- Find, attract, choose, and keep a quality Japanese business partner
- Follow-up is essential
- Listen to the Japanese partner and customer

- Adapt products to the Japanese market
- Competitive pricing
- Provide quality sales and customer service
- Learn how things are done in Japan

Trade Barriers

Over the past few years, the Japanese Government has removed most formal barriers to the import of goods and services. Most goods now qualify as "freely importable" and do not require an import license. Also, the average applied tariff in Japan is one of the world's lowest. Current obstacles to selling in the Japanese market do not fit into conventional trade barrier categories. Instead of tariffs (averaging 2.9%) and official discrimination against imports, American exporters face a number of factors that raise costs and inhibit access. These include the tangle of government red tape, lack of transparency in import certification and approval procedures, the high cost of land, and an outdated and fragmented distribution system, close ties among Japanese competitors, and skeptical attitudes towards foreign suppliers by some government and business executives.

Taxation

The three percent consumption tax (which may soon rise to 5 percent) is essentially a value-added sales tax and is levied at the time of each resale, starting with customs clearance into Japan (at which time it is levied on the c.i.f. value, plus import tariff). Retail sales are also subject to the three percent consumption tax. Royalties, including licensing royalty payments, are subject to a 20% withholding tax, which can be reduced to ten percent under the 1971 U.S.-Japan Double Taxation Treaty. Local branches of foreign firms are generally taxed only on income derived from within Japan. Calculation of taxable income and allowable deductions, and payments of the consumption tax for U.S. firms in Japan are similar to the tax regulations faced by Japanese companies.

Licensing of Technology

You should carefully consider the suitability of this approach. Licensing product technology can immediately contribute to a company's bottom line with little investment or direct cost. However, licensing is a very limited form of market participation. High potential returns from marketing and manufacturing efficiencies are lost, and very little market information is gained. Often licensing agreements prove to be short-lived as the Japanese licensee improves upon the American product or technology and then exports the improved product back to the United States -- thereby becoming a major competitor.

The wisdom of licensing technology depends on the status of a company's patents in Japan, together with the degree to which the company must disclose trade secrets to its licensee. The key to success in a licensing agreement is to have a partner whose goals coincide with those

of the American company. The American company should maintain close contact with the licensee and keep current on the Japanese market by visiting Japan regularly. Also, it may be important to reinforce license rights by maintaining tight control over their trademark, patent, or copyright.

In cases where a foreign company wishes to grant a license to an independent Japanese corporation, to its wholly-owned Japanese subsidiary, or to a joint venture corporation in Japan, the Ministry of Finance must be notified through the Bank of Japan. In some instances, it may be necessary to also notify the Fair Trade Commission. More stringent regulations apply to "designated technologies" that have been determined to have significant influence on the security of the nation and the national economy.

Foreign Investment Restrictions

One hundred percent foreign capital is allowed except in the following sectors: broadcasting, telecommunications, electric power generation, domestic rail and air transportation, arms, gun powder, atomic energy, aircraft, space development, narcotics manufacturing, vaccine manufacturing, security guard services, agriculture, forestry and fisheries, and petroleum refining and marketing.

Intellectual Property Rights

Although Japan has signed the Paris Convention for the Protection of Industrial Property and other treaties governing the protection of industrial property rights, there are deficiencies in its intellectual property laws and problems involving protection of patents, copyrights, and trademarks. Thus, U.S. firms should take the steps necessary to obtain and protect their intellectual property through patents, trademarks, copyrights, and other intellectual property rights in Japan.

U.S. Government Points of Contact

Entering the Japanese market, particularly its complicated distribution system, requires commitment and a systematic, well thought out approach. It is highly advisable for prospective exporters to take advantage of export assistance offered by the U.S. Department of Commerce.

Japan Export Information Center (JEIC)

The Japan Export Information Center within the U.S. Department of Commerce offers business counseling and provides current and accurate information on exporting to Japan. The JEIC provides information on doing business in Japan, market entry alternatives, market information and research, product standards and testing requirements, tariffs, and non-tariff barriers. The staff also maintains a commercial library and is available to participate in private

and government-sponsored seminars on doing business in Japan. The JEIC can be reached at the following address and phone number:

U.S. Department of Commerce
Japan Export Information Center
Room 2320
14th Street and Constitution Ave., N.W.
Washington, D. C. 20230
Tel: (202) 482-2425
Fax: (202) 482-0469

U.S. & Foreign Commercial Service (US&FCS)

The U.S. & Foreign Commercial Service staff located in Japan maintains offices in Tokyo, Osaka, Nagoya, Sapporo, and Fukuoka. These individuals report on commercial developments, identify trade barriers, prepare market research, counsel U.S. exporters on business practices and opportunities, coordinate U.S. participation in and organize trade events, and introduce exporters to Japanese buyers. The US&FCS point of contact is:

George Mu
Senior Commercial Officer
U.S. & Foreign Commercial Service
U.S. Embassy, Tokyo
Unit 45004, Box 204
APO AP 96337-0001
Tel: 011-81-3-3224-5060
Fax: 011-82-3-3589-4235
Commercial Service Japan Home Page: <http://www.spinnet.or.jp/usa>

Mutual Defense Assistance Office

Colonel Thomas L. Brown
Mutual Defense Assistance Office, Japan
U.S. Embassy, Tokyo
Unit 45004, Box 225
APO AP 96337-0005
Tel: 011-81-3-3224-5000
Fax: 011-81-3-3505-1862

U.S. Department of Defense

Mr. Wayne Laskofski
Defense Security Assistance Agency

Attn: DSAA OPS-ERP
Washington, D.C. 20301-2800
Tel: (703) 604-6609
Fax: (703) 604-6041

American Chamber of Commerce in Japan

American Chamber of Commerce in Japan
Bridgestone Toranomon Building
3-25-2, Toranomon, Minato-Ku
Tokyo, 105 Japan
Tel: 011-81-3-3433-5381
Fax: 011-81-3-3436-1446

MALAYSIA

MALAYSIA

Overview

Malaysia has become one of the most successful economies in the Asian region. Growth rates over the past five years have averaged in the eight-to-nine percent range, with all elements of the economy benefitting. Malaysia continues to be an excellent market for American products, larger than India, Russia or Indonesia.

In 1991, Malaysia developed the "Vision 2020" initiative, a thirty year plan for Malaysia to become a fully developed country by the year 2020. This ambitious plan will be the strategy for further development of the country in the foreseeable future. The government also implemented the Sixth Malaysia Plan which covers the period from 1991 to 1996. This five year plan calls for an average annual growth rate of 7.5 percent to raise the nation's nominal output from U.S. \$42 billion to U.S. \$75 billion by 1996. The plan continues the Malaysian government's trend of privatization of key public sector operations in energy, transportation, and communications. Given Malaysia's strong economic performance and growing concerns over regional security, there are ample defense as well as commercial trade opportunities for U.S. firms.

Defense Industry Environment

Defense spending as a percentage of GDP has increased over the past three years from three percent of GDP to five percent. It is expected to stay at this level for the next few years and then is expected to return to the three percent level. The 7th Malaysian Plan began 1 January 1996 and runs through 31 December 2000.

Other than providing projected federal government development allocations for defense from 1996 - 2000, the 7th Malaysian Plan does not discuss procurement goals/policies or provide specific funding lines. This is understandable when one considers that defense procurement and policy are protected by the "Official Secrets Act" and will not be discussed publicly. Having said this, it should be noted that much is known about projected purchases and policy goals of the Malaysian Armed Forces (MAF).

During the 6th Malaysian Plan the Government of Malaysia (GOM) embarked on a modernization program for their defense forces. The GOM committed to approximately U.S. \$3.6 billion in defense purchases. MAF began receiving modern and high tech equipment reshaping their armed forces from a primarily counter-insurgency internal defense force to one which was capable of meeting the challenges of the 21st century of defending the territorial borders of Malaysia and protecting their economic zones. This modernization program is not an arms build-up, but rather a modernization/replacement of defense systems which in many cases

have not been updated for the past 20 to 30 years. Additionally, it should be noted that the GOM will not purchase what it perceives to be second generation technology. The GOM will purchase and demand the latest technology for their armed forces.

During the 6th Malaysian Plan the primary modernization focus was directed towards the Royal Malaysian Navy and Royal Malaysian Air Force. Both services received the lion's share of modernization dollars. The 7th Malaysian Plan will direct these modernization dollars towards the Malaysian Army. The following constraints pertaining to the 7th Malaysian Plan should be noted:

- By the GOM admission, the 6th Malaysian Plan borrowed heavily into the 7th Malaysian Plan (U.S. \$2.4 billion of U.S. \$2.8 billion allocated) to finance modernization efforts. If the GOM requires the Ministry of Defense to live within development allocations of the 7th Malaysian Plan, only U.S. \$400 million will be available for modernization. As long as Malaysia continues its high economic growth (8 to 9 percent for the last 8 years), it can realistically be assumed the GOM will allow Ministry of Defense to "borrow" into its 8th Plan (2001-2005) to finance and continue the Malaysian Armed Forces modernization programs.
- While the primary focus will be the Malaysian Army, it can be anticipated the Royal Malaysian Air Force and Royal Malaysian Navy will continue their modernization efforts, although at a slower pace.

Malaysia's domestic defense industry capabilities are rudimentary, however improving. Malaysia is able to produce some forms of ammunition, principally small arms and 105mm artillery shells, but currently relies heavily on foreign sources for virtually everything else such as weapons, aircraft, ships, vehicles, communications, and logistic support and management.

The United Kingdom has been Malaysia's primary source of defense equipment since independence. In recent years, however, the U.S. has become an important supplier of military equipment, especially in the aviation and high technology sectors. In the past, the U.S. has supplied the Royal Malaysian Air Force with F/A-18s, C-130s, F-5s, A-4s and H-3 helicopters with associated logistical support. Other traditional defense suppliers are France, Italy, Republic of Korea, Australia, and Russia with its June 1994 sale of eighteen MIG-29 Fighter Aircraft.

Defense Opportunities

All Malaysian Armed Forces (Royal Malaysian Army, Navy, and Air Force) are seeking to upgrade existing capabilities. With a standing force of 90,000 in the Army, 12,000 in the Air Force, and 11,000 in the Navy, the requirements are varied. Currently, the focus of the Malaysian Armed Forces will be modernizing their helicopter fleet for all three services and providing the Navy 27 New Generation Patrol Vessels.

As part of the Malaysian Armed Forces modernization program, all three services will be procuring helicopters as follows:

- Air Force: Attack helicopters capable of anti-armor battlefield interdiction and combat search and rescue; and heavy lift logistics helicopters.
- Navy: Multi-purpose helicopter (shipborne) capable of anti-submarine warfare/anti-ship strike/sea-air rescue; and utility/lift helicopters for ship to shore replenishment.
- Army: Lightly armed scout helicopters; utility helicopters; and heavy lift and attack helicopters.

Initial purchases can be expected within the next 6 - 18 months and this will be a long term program. The cost and number of helicopters will necessitate U.S. companies to provide innovative sales packages if they expect to remain competitive in this market. Sale packages will need to include one or more of the following:

- Co-production
- Technology transfer
- Offset agreements
- Education/training packages
- Joint venture with host country

Total value of these purchases could approach U.S. \$4 billion.

The production of 27 New Generation Patrol Vessels for the Navy (the 6th thru 27th ships will be built in Malaysia) is valued up to U.S. \$2 billion and will be a long-term investment (10 to 15 years).

The Armed Services are interested in acquiring and modernizing their force capabilities. The major requirements of each service are described below.

Army Programs

The Army is interested in acquiring the following equipment in the medium term:

Armored Vehicles (tanks and armored personnel carriers)
Air Defense Radars
Surface-to-Air Missiles
Field Artillery Locating Radars
Logistics Vehicles
Air Defense Missile Systems

The Army is actively involved in United Nations peacekeeping operations in Bosnia. Short-fused, no-notice requests for military equipment to support these U.N. operations are frequent. U.S. firms' ability to meet the Army's requirements and react promptly to these no-notice requests will frequently result in sales.

Air Force Programs

The Air Force is currently in the midst of a major aircraft expansion program and has recently acquired the Hawk, F/A-18D, MIG-29, Beechcraft 200, and additional C-130 aircraft. In addition to providing logistical support to these aircraft and the H-3 helicopters currently in their inventory, the Air Force desires to acquire an Attack Helicopter and a Cargo Helicopter (Note: the Army will eventually assume the mission of operation and support of the Cargo Helicopter while the Air Force will perform the Attack Helicopter Mission).

Development of an integrated logistical support system to effectively maintain and logistically support these recently acquired aircraft is also a high priority for the Air Force.

Navy Programs

The Navy will, in the next year, receive two frigates currently being constructed in the United Kingdom and two corvettes from Italy. Additionally, up to 27 New Generation Patrol Vessels will be designed and constructed.

Opportunities exist in all areas to support these two high-dollar ship programs, which have an estimated value of U.S. 3-4 billion, in the design, construction, weapon integration, management, logistical support, and operation of the system. Additionally, the Navy is actively seeking helicopters to operate off the Patrol Vessels. The creation of an Integrated Logistic System (ILS) to effectively support these acquisitions remains a goal of the Navy.

Defense Procurement Process

Key decisions regarding procurement of defense equipment are made at the Senior Ministerial level and the Office of the Prime Minister. The individual services of the Armed Forces do not have the ultimate say in what defense system is purchased. Although the Armed Services Chiefs have some input, the final decision is always made at the ministerial or other senior political level. The Ministry of Defense has a limited budget for procurement. All major defense acquisitions, once approved by the Defense Ministry, must then be forwarded to the Finance Ministry for review and approval. The individual military service and the defense contractor then must frequently brief the Finance Ministry and obtain approval for the particular defense product and discuss, in detail, price/payment schedule, and other financial details. For

major acquisitions, special committees are formed in the Ministry of Defense to oversee the procurement process. Large procurements always require Cabinet approval.

Diversification/Commercial Opportunities

U.S. defense firms seeking to diversify will find opportunities in the following rapidly expanding infrastructure sectors:

- Airports and Ports
- Highways and Transportation Sectors
- Electric Power Generation and Distribution
- Telecommunications
- Environment
- Petroleum and Petrochemicals
- Semiconductor, Computer Manufacture and Associated Software Development

Transportation Sector

Construction of the new Kuala Lumpur International Airport began earlier this year. The majority of the tenders, though, are not scheduled to close until sometime in this fall. The opening of the Airport is scheduled for 1997. The total cost is expected to be U.S. \$ 3.2 billion.

Contracts or concessions to be let in the medium term for this project include the following requirements:

- Central Utilities
- Transformer Stations
- Water Supply, Waste Management
- Air Traffic Control, Radars, Navigational Aids
- Aircraft Fueling System
- Aircraft Fire Fighting Systems
- Medical Design/Construction
- Hotel Development
- Express Freight Terminal
- Equipment and Supplies for Terminal

Malaysia is also evaluating the idea of developing and/or constructing additional airports throughout the country. Most notable of these is a new Northern Airport project for Penang. This would come to fruition in five to ten years, but those who are interested should get involved early on. The approximate value of this project is U.S. \$500 million to \$1 billion and will provide U.S. firms with a variety of trade opportunities.

An airport project is also being discussed for Bintulu in East Malaysia on the island of Borneo. This is still very much in the planning states, but again, one in which interested parties would have to begin advance work to win future contracts. The cost of this project is estimated at U.S. \$80 million.

Telecommunications

Malaysia is rapidly developing its telecommunications infrastructure to meet the demands of its tremendous growth. The country is looking for and purchasing state-of-the-art equipment and technology. Unlike many countries in the region, the telecommunications sector in Malaysia has been privatized, making it a very competitive market.

Projects that are currently underway or are being considered include the country's first satellite launch; a rural telecommunications network to bring telecommunications capabilities to the entire country; improvements in the cellular sector; the development of the nation's second trunk carrier; GSM network development; and scores of additional projects.

Environment

Malaysia is very aware of the importance of environmental management and is witnessing emergence of this industry. Projects have already been tendered for a national sewage system and a national hazardous waste site. Many opportunities also exist in the development of solid waste sites and management, the air pollution control and monitoring sectors, and the Environmental Impact Assessment areas.

As the country is becoming more aware of these environmental needs, the government is implementing and enforcing stricter laws. This is creating significant opportunities for environmental sales in practically every field of the private sector, especially in the palm oil, textile, semiconductor, oil and gas, petrochemical, and timber and logging industries.

Medical Equipment

As the country's income and standard of living continue to rise, so will the demand for higher levels of medical care. There are both public and private facilities available in Malaysia, with the public health care sector being the largest part. It is government policy not to buy used equipment, hence new and innovative equipment is being purchased. Malaysia's goal to be a fully developed country by the year 2020 includes bringing its health care sector up to first world standards, creating opportunities in virtually all sectors of this market from MRI equipment to heart monitoring technology and other related products.

Key Malaysian Ministries

Key ministries that have a role in these diversification sectors are listed below. Points of contact and phone numbers are not listed because transactions with these agencies are handled primarily through a local agent.

Office of the Prime Minister
Economic Planning Unit (EPU)
Ministry of Science, Technology and Environment
Ministry of Energy, Post and Telecommunications
Ministry of International Trade and Industry
Malaysia Airports Berhad (MAB)
Center for Remote Sensing
Ministry of Health
Ministry of Agriculture

Privatization

Another area of potential trade opportunities can be found within the privatization of certain government-controlled industries. The privatization of defense industries is a major goal of the Malaysian Government. The two most recent examples of the divestment of government-owned enterprises are AIROD (aerospace) and the Lumut Naval Dockyard.

- Opportunities exist within AIROD's establishment of an aircraft and engine repair/rebuild maintenance center. This center will perform aircraft parts co-production and composite manufacturing. AIROD also is interested in upgrading its technical capabilities and receiving overall managerial expertise to improve its competitiveness. AIROD is located at the Kuala Lumpur International Airport (Subang).
- The Lumut Naval Dockyard may also provide trade opportunities for U.S. firms in the areas of ship construction, design, repair, engine propulsion, maintenance, integrated logistical support, dockyard management and operation, shipboard systems integration, and technology transfer. Additionally, Lumut Naval Dockyard will be the center of the New Generation Patrol Vessel (NGPV) project, a multi-billion dollar program to further develop Malaysia's shipbuilding capabilities, and the design and construction of the 27 Patrol Vessels for the Navy.

Doing Business in Malaysia

There are several key factors that will determine whether a U.S. company will successfully conclude a sale in Malaysia:

- Ability to offer a quality product at a competitive price and provide good reliable service.
- Marketing strategy creativity and developing a personal relationship with the Malaysian defense customer. This includes frequent visits to the relevant military services and procurement officials.
- Having a reputable local representative with access to the armed forces and knowledge of specific requirements. Local agents are an accepted legitimate part of the bidding process.
- Developing a close relationship with the local agent and his customers in both the defense and non-defense sectors is most important. Because most U.S. products are sophisticated in nature, manufacturers will need to develop a comprehensive and responsive service network with the assistance of the local agent.

Technology Transfer

The Malaysian Government normally requires some sort of offset or other technology sharing agreement as a precondition to the defense sale. Each defense sale usually entails a unique offset requirement. An effective marketing strategy by U.S. defense contractors is to incorporate technology transfer into their proposals.

Intellectual Property Protection (IPR)

Malaysia has one of best intellectual property regimes in Asia. The country is a member of the Paris Convention on Patents and since 1990 has been a member of the Berne Convention on Copyrights. The Malaysian Government takes these obligations seriously and is very cooperative in enforcement exercises. The only current problem is the prosecution of cases because of the backlog in the court system.

U.S. Government Points of Contact

The following is a list of useful points of contact for U.S. firms that require additional information regarding the Malaysian market.

U.S. Commercial Service

International Address:

American Embassy
P.O. Box 10035

50700 Kuala Lumpur, Malaysia

APO Address:

American Embassy
Kuala Lumpur
APO AP 96535-8152

Points of Contact:

Mr. Stephen Alley, Commercial Attache
Tel: 011-603-248-9011
Fax: 011-603-242-1866

LTC Mark Swaringen, USA, Chief, Security Assistance Office (SAO)
Major Paul Oman, USAF, Deputy Chief, SAO

U.S. Department of Defense:

Mr. Wayne Laskofski
Defense Security Assistance Agency
DSAA OPS-ERP
Washington, D.C. 20301-2800
Tel: (703) 604-6609
Fax: (703) 604-6041

NEW ZEALAND

NEW ZEALAND

Overview

The New Zealand economy is into its fifth straight year of positive economic growth. In 1995 the economy expanded at a rate of about 3.4 percent, slowing down after monetary conditions were tightened in late-1994 to cool inflationary pressures building after two years of rapid growth. In response to a re-tightening of monetary policy in December 1995, GDP growth has again slowed in 1996 and is likely to average around 2.8 percent this year. Weaker business confidence and slower export and investment growth underline this trend, although the housing sector and consumer goods sectors continue to show unexpected strength. While economic activity is expected to pick up in 1997, led by consumption growth, tighter-than-anticipated monetary policy could keep real GDP growth well below four percent next year.

The New Zealand economy has undergone fundamental changes since 1984 and has emerged from a recent economic downturn. In the mid-1980s, the Government instituted a variety of market reforms in order to enhance New Zealand's international economic competitiveness. The present government has continued to move forward with de-regulation and privatization which will provide U.S. firms with many opportunities. Given New Zealand's close defense and commercial ties with Australia, U.S. firms have the opportunity to access both markets. Due to common language and business practices, New Zealand, like Australia, may prove to be an excellent first stop upon entering the Pacific Rim market.

Defense Industry Environment

The annual Defense budget exceeds NZ\$1 billion or approximately \$700 million. Approximately NZ\$200 million is spent per annum on capital equipment; NZ\$30 million on contract repair and maintenance of equipment and NZ\$140 million on replacement equipment, spares and day-to-day operations. For the year ending June 1996, defense expenditure accounted for 1.1% of GDP. For the year ending June 1995, defense expenditure was 1.14% of GDP.

New Zealand does not have a "defense industry" as it exists in larger nations. However, there does exist a "budding" industry which has been spurred by the ANZAC ship project. The ANZAC ship project is the most significant acquisition currently being undertaken by New Zealand Defense. It involves at this stage, purchase of two frigates which are being built by Transfield Shipbuilding of Victoria, Australia. Transfield is building ten ANZAC class frigates (eight for the Royal Australian Navy and two for the Royal New Zealand Navy). Throughout the project, Transfield has been actively trying to widen the scope of supply from Australian and New Zealand companies. Many New Zealand companies have been awarded contracts for this major project.

Defense Opportunities

The following is a brief listing of potential upgrades, replacement or spare parts required by the New Zealand armed forces.

- Project Sirius: This project concerns the replacement of the tactical systems in the P3K Orion maritime surveillance aircraft. Contracts have been let to both Boeing and E-Systems to undertake project definition studies of systems available to meet Royal New Zealand Air Force requirements. The integration of a wide variety of sensors to produce a real time operating system is a complex task, requiring extensive software and maritime operations knowledge. The results of the research will be used to finalize the technical specification for the upgrade, which will be tendered for by selected integrators in 1997.
- Project Kestrel: Kestrel is the project to replace wings and horizontal stabilizers on the Royal New Zealand Air Force's P3K Orions. With phase 1 of this project (procurement of new wings and horizontal stabilizers) well underway, the project team is planning phase 2, the physical integration of wings to fuselage. A draft request for tender, outlining the contract conditions and anticipated program, has been sent to selected companies. The final request will be available in July 1996 when the technical specification is complete. It is intended that the integration contract will be let by the end of 1996, with the first Orion delivered to RNZAF in mid-1997.
- AFV Project: The Ministry of Defense is performing a risk analysis in developing an Armored Fighting Vehicle (AFV) project, to either upgrade or purchase replacement for their MK113 armored personnel carriers, as well as their Scorpion vehicle mounted artillery.
- Project Delphi: This project is to equip RNZAF C-130 aircraft with self protection equipment consisting of cockpit armor, a missile approach warning system and a countermeasures dispensing system. Tenders for this project closed on March 8, 1996.

New systems/major platforms

Major capital equipment acquisitions are projects over NZ\$5 million in value. The Acquisition Branch of the Ministry of Defense is responsible for major capital acquisitions:

Acquisition Branch
Ministry of Defense
Defense House
Stout Street
P.O. Box 5347
Lambton Quay

Wellington
Ph: 64 (4) 496-0660
Fax: 64 (4) 496-0858
Internet: <http://www.govt.nz/ps/min/defense>

The New Zealand Government must decide by November 1997 whether it will proceed with the purchase of two more ANZAC frigates. (This will make a total of four ANZAC frigates). That is the deadline to execute the option at the current price.

Additional Ministry of Defense major expenditures are: a very low air defense system (for which they will probably purchase the French Mistral missile); night vision binoculars; and the Javelin anti-tank missile. The Royal New Zealand Navy has a request in to purchase a decommissioned U.S. Navy TAGOS ship to replace its present research ship HMNZS Tui. Some major upgrades to aging equipment are anticipated to take place by the New Zealand Defense Force, but due to limited resources it is likely used equipment will be sourced. The Ministry of Defense has signed an option to purchase up to eight C130J aircraft, in conjunction with Australia. The non-binding option is good until 2002.

Each service (Navy, Army and Air Force) operates a minor Capital Equipment Acquisition Program for projects estimated at less than NZ\$5 million. Details of minor procurements can be sourced through the "Yellow Book", an annual document published jointly by the Australian Department of Defense and the New Zealand Defense Force. The directory is a compilation of "minor capital projects" which are planned, but not necessarily approved.

The following list is from the current edition of the Foreward Procurement Plans: New Zealand Defense Force Fixed Asset Acquisition Programme for 1995-2000, published in July, 1995.

New Zealand Navy: Minor Approved Projects

Project Number: 348016
Title: EW ANALYSIS EQUIPMENT
Proposed Contract Date: 96/97
Industry Category: Electronics
Estimated Project Cost: NZ\$1.5-NZ\$5 million
Remarks: to provide microwave receivers, associated aerals, pulse and spectrum analyzers for installation in deployed Royal New Zealand Navy ships.

Project Number: 348018
Title: EW SIMULATOR
Proposed Contract Date: 97/98
Industry Category: Electronics
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million
Remarks: provide high speed HF modems capable of operating up to speeds of 2400 BPS.

Inquiries pertaining to Navy purchasing should be addressed to:

Deputy Director Naval Equipment Plans and Contracts
Naval Staff
HQ New Zealand Defense Force
Private Bag
Wellington
New Zealand
Ph: 64 (4) 496-0701
Fax: 64 (4) 496-0311

New Zealand Army: Minor Approved Projects:

Project Number: 01
Title: 40MM GRENADE LAUNCHER
Proposed Contract Date: 95/96
Industry Category: Weapons
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million
Remarks: Fitment to Steyr Rifle

Project Number: 02
Title: FREQUENCY MANAGEMENT AND SIGNAL OPERATION
INSTRUCTION SYSTEM
Proposed Contract Date: 95/96
Industry Category: Communications
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million

Project Number: 03
Title: OPERATIONAL CRANE
Proposed Contract Date: 95/96
Industry Category: VEHICLE
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million
Remarks: QT 2 for Engineer Construction

Project number: 05
Title: WATER STORAGE AND TRANSPORTATION
Proposed Contract Date: 96/97
Industry Category: Engineering
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million
Remarks: Include Pillow, Flexi Dam and Solid Tanks

Project Number: 07
Title: ROUGH TERRAIN FORKLIFT

Proposed Contract Date: 95/96
Industry Category: Vehicle
Estimated Project Cost: NZ\$1.5 -NZ\$5 million
Remarks: 2.5 ton

Project Number: 08
Title: ARTILLERY SURVEY EQUIPMENT REPLACEMENT
Proposed Contract Date: 95/96
Industry Category: Electronics
Estimated Project Cost: NZ\$1.5-NZ\$5 million
Remarks: Replacement for Current Equipment

Project Number: 09
Title: WATER DESALINATION
Proposed Contract Date: 95/96
Industry Category: Electronics
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million

Project Number: 11
Title: ELECTRONIC WARFARE IMPROVEMENT
Proposed Contract Date: 96/97
Industry Category: Communications
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million

Project Number: 12
Title: OPERATIONAL FIELD WORKSHOP
Proposed Contract Date: 96/97
Industry Category: ENGINEERING
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million

Inquiries pertaining to New Zealand Army purchasing should be addressed to:

Director of Capability Procurement
Ministry of Defense
Defense House, Stout Street
PO Box 5347, Lambton Quay
Wellington
Ph: 64 (4) 496-0660
Fax: 64 (4) 496-0858

New Zealand Air Force: Minor Approved Projects:

Project Number: 10

Title: COMPUTER/IS EQUIPMENT
Proposed Contract Date: 95/96
Industry Category: Electronic
Estimated Project Cost: NZ\$500,000-NZ\$1.5 million
Remarks: Additional computers for Project Fusion

Inquiries pertaining to New Zealand Air Force purchasing should be addressed to:

Director of Logistic Plans
Royal New Zealand Air Force
Private Bag
Wellington
Ph: 64 (4) 496-0801
Fax: 64 (4) 496-0819

Defense Plan

The 1993-1994 Corporate Plan is the New Zealand Government's current defense strategy. The Plan is under revision and is likely to be replaced later this year with a strategy plan entitled "Defense Assessment '96" which outlines the Government's defense strategy to the year 2000.

The 1993-94 Corporate plan lists as its significant issues:

- completion of the first full cycle of the Defense Planning System to cover operational activities and infrastructure as well as capital equipment;
- an on-going programme of selected force structure reviews to feed into the Defense Planning System;
- continuing work on the practical possibilities of Closer Defense Relations with Australia;
- participation in the developing dialog on regional security, including support for a Centre for Strategic Studies to link with its regional counterparts;
- improve the focus and quality of the audit and assessment programme through a revised strategy, and develop procedures for the evaluation phase of the Defense Planning System;
- continued high quality management of major acquisition projects, such as the ANZAC frigate programme;

- contribute to the growth of New Zealand's industrial base through defense industry liaison activities;
- progress towards quality accreditation in the ISO 9000 series for both the Audit and Assessment and Capability Procurement Divisions of the Ministry;
- maintenance of an appropriate public information programme on the Ministry's work and wider defense issues.

Defense Procurement Process

The procurement process varies depending on the scope of the project and may be identified through advertising, internal mailing lists, the Industrial Supplies Office and New Zealand Defense Force overseas posts. The evaluation process is normally conducted by a team consisting of technical and commercial staff. Tender selection may be based on the initial offer received or may require detailed negotiations and further written presentations. Tenderers are advised to present their best offer with their initial submission. The authority to approve an offer is delegated to independent staff or to boards who are responsible for reviewing and approving project staff recommendations. Confirmation of acceptance is by written order or a formal contract depending on the complexity of the purchase.

Note: The Industrial Supplies Office was established to promote local industry capabilities (including Australia under CER), and maximize competitive local content focusing on public sector purchasing.

Diversification/Commercial Opportunities

In addition to opportunities in the defense sector, the market reforms implemented by the Government in the late 1980s as well as strong economic growth has resulted in a more dynamic economy with increasing demand in many sectors. Several promising industrial sectors are discussed below.

Aircraft and Aircraft Components

U.S. sourced aircraft and aircraft parts is consistently one of New Zealand's principal import categories. Sales include large planes and equipment for the country's two major operators, Air New Zealand and Ansett New Zealand; and an array of spare parts for all types of aircraft, particularly small aircraft. As most small aircraft are of American origin, the U.S. is an important supplier. Aircraft sales have picked up in the last 12 months due to purchases by farmers, aviation agriculture contractors, and tourist operators. Other opportunities for U.S. industry include further hushkit purchases due to requirements in the recently passed Resource

Management Act and the replacement of Mount Cook Airlines' (a subsidiary of Air New Zealand) aging fleet of Hawker-Siddeley 748 turboprops.

Computers and Peripherals

Of the total computer hardware market in New Zealand, it is estimated by International Data Corporation (IDC) that personal computers held 40.9 percent of the computer market in 1991, with the balance made up of large mainframe systems, multi-user systems and workstations. The Foreign Commercial Service states that, on a per capita basis, New Zealand has one of the highest penetration levels of computer technology anywhere in the world. At the same time, high import duties until the mid-80s "forced" end users to maximize their return on their computing investment. As a result, New Zealand is also a sophisticated market, especially in the business computing environment. New Zealand, due to its small size and high level of computer literacy, is an ideal test market for personal computers and peripherals, as products can be launched quickly and then closely monitored.

Plastic Materials and Resins

The U.S. Embassy reports that the New Zealand plastics industry is a relatively young and dynamic industry which is perceived as one of the country's more promising industry sectors. The industry imports approximately 130,000 metric tons of plastic materials and resins annually. A third of this material is from the United States. End users are local manufacturers who produce finished products for the local market and for export. Local production of plastic materials and resins is minimal. Environmental issues are affecting the market and resulting in a reduction in demand for flexible packaging. The Australian/New Zealand Environment Conservation Council has approved the concept of a minimum of 25 percent of plastics being recycled by 1995. However, a major problem for the industry is finding end uses for recycled plastics products.

Telecommunications

New Zealand is the world's only truly deregulated telecommunication industry. Following deregulation in 1989, consumers have an extensive choice of services and equipment. The country now supports two competing toll services which are offered by Telecom New Zealand and Clear Communications (major shareholder MCI), with more suppliers anticipated. Telecom Australia has also announced its plans to enter the cellular marketplace in New Zealand. Installation of telecommunications equipment is static, but competition in cellular telephone networks is very active. Other related sectors in this field that may provide trade opportunities for U.S. firms are cellular telephones, facsimile machines, and pagers.

Computer Software

The New Zealand market for computer software is extremely competitive. New Zealand is also a sophisticated market, especially in the business computing environment. The market is very receptive to U.S. products but U.S. suppliers need outstanding price/performance factors if they are to compete successfully. New Zealand also has a highly developed software manufacturing and development base.

Medical and Dental Equipment

For the New Zealand health services, the 1990s will be a decade of change, with New Zealand moving towards market-driven health services. The new health environment presents more market opportunities for the private medical sector. Opportunities exist for U.S. business, based on the establishment and equipping of new hospitals by private sector interests. Equipment replacement and new sales to maintain pace with new medical surgical and dental technology is a valuable arena for sales, as New Zealand purchasers select the best available and most effective health care equipment. Demand will increase as this country's health care establishments become more competition driven.

Pollution Control Equipment

The pollution control equipment market has potential for U.S. suppliers of appropriate pollution control products, as there is little manufacturing of this equipment locally, and the U.S. is viewed as the most technologically advanced in this industry sector.

Doing Business in New Zealand

Conducting business in New Zealand is very easy for U.S. firms due to the common language, transparent business transactions and similar business customs. New Zealand has no import licensing requirements. U.S. goods entering New Zealand may be required to pay tariff duties administered by New Zealand Customs. Most rates have been reduced since the mid-1980s. All goods imported in New Zealand are liable for Goods and Services Tax (GST). The tax is normally payable to the New Zealand Customs Department at the time of importation. The tax rate is currently set at 12.5%. Since 1990, all goods of Australian origin have entered New Zealand duty-free under the provisions of the Closer Economic Relations agreement (CER). Preferential tariffs are applied to goods imported from Canada, developing countries, and the South Pacific nations.

New Zealand and Australia have, under the CER Treaty and the Government Procurement Agreement (GPA), made a mutual commitment to give each other's domestic suppliers equal treatment in government purchasing. This alliance was reinforced with the launching in early 1996 by the Australian Government of ISONET Ltd. ISONET Ltd. is a Commonwealth-funded company, specializing in providing advice to clients on the capability of

Australian and New Zealand industry. The New Zealand Defense Force generally requires that New Zealand and Australian suppliers be certified to ISO 9001.

The NATO Codification System (NCS) is used by all NATO countries but New Zealand is accepted as part of the codification system through sponsorship by a NATO member. In New Zealand, the NCS is administered by the National Codification Bureau (NCB), based in Porirua. The NCB have produced a booklet detailing the operation of the NCS in New Zealand. This is called "NATO Codification System: Guide for Industry". Suppliers of military hardware to the New Zealand Defense Force can obtain the publication from:

The Director
National Codification Bureau
P.O. Box 50-247
Porirua
New Zealand

U.S. Government Points of Contact

The following is a list of contacts for U.S. firms interested in New Zealand as a market for defense or commercial products. There are three offices at the American Embassy in Wellington which U.S. businesses are able to contact for assistance in doing business with the New Zealand Defense Force as well as an office at the American Consulate in Auckland. These offices are:

American Embassy:

Defense Attache's Office (DAO)
American Embassy
P.O. Box 1190
Wellington
New Zealand
Ph: 64 (4) 472-2068 x 280
Fax: 64 (4) 472-3537
Captain Robert E. Houser, USN

U.S. & Foreign Commercial Service
American Embassy
P.O. Box 1190
Wellington
Ph: 64 (4) 472-2068 x 236
Fax: 64 (4) 473-0770
Mr. M. Philip Gates, Senior Commercial Officer

Economic Section
American Embassy
P.O. Box 1190
Wellington
Ph: 64 (4) 472-2068 x 240
Fax: 64 (4) 472-3537
Mrs. Elaine Garland, Economic Officer

American Consulate:

U.S. & Foreign Commercial Service
American Consulate General
Private Bag 92022
Auckland
Ph: 64 (9) 309-9810
Fax: 64 (9) 303-2156
Mr. M. Philip Gates, Senior Commercial Officer

American Chamber of Commerce:

American Chamber of Commerce
P.O. Box 106002
Auckland
Ph: 64 (9) 309-9140
Fax: 64 (9) 309-1090
Mr. John Lavelle, Executive Director

THE PHILIPPINES

THE PHILIPPINES

Overview

The Philippine economy continues to move on to a higher growth path. Combined with widespread evidence of restored political and macroeconomic stability, economic reforms since 1992 have stimulated growing interest from potential foreign investors and renewed confidence domestically. Beginning in 1992, the economy began to recover after two years of macroeconomic stabilization concerns, and growth has since accelerated. Gross National Product (GNP) expanded by 5.5 percent in 1995, and could have been even stronger if not for weak agricultural sector performance due to unfavorable weather. According to recent government estimates, real first quarter 1996 GNP grew 6.2 percent year-to-year. The Government is targeting full-year GNP growth of between 6.5 - 7.5 percent in 1996, which many economists and businessmen consider achievable.

While there is a growing consensus that the Philippines is presently in a much better position than previous growth periods to sustain expansion, important challenges nevertheless remain as the Philippines moves to solidify recent economic progress. Economists continue to express concern specifically over certain weaknesses of the fiscal and external accounts, which had derailed past recoveries. Although important milestones, the recent fiscal surpluses have relied heavily on nonrecurring privatization receipts. Economists also point to the reliance on "unpredictable" sources of balance of payments financing (such as portfolio capital and workers' remittances). These concerns call for aggressive efforts to, among others: attract foreign direct investment; enhance export competitiveness (continuing the break from the protectionist, import substitution policies of the past); reform the tax system (the Government has a comprehensive tax reform package pending congressional approval) and improve tax collection efforts; streamline the bureaucracy and rationalize spending; and pursue financial and macroeconomic policies supportive of higher rates of domestic savings. Overall, provided that fiscal concerns are decisively addressed and market-oriented reforms continue, the Philippines now appears closer than in previous growth periods to its goal of breaking away from the boom-and-bust growth pattern of the past.

Current Government policies have improved the trade and investment climate for foreign firms seeking to do business in the Philippines. Among the more important measures are tariff reductions and restructuring, liberalization of foreign exchange and foreign investment regulations, deregulation of the telecommunications sector, and measures to alleviate the acute electric power shortages of recent years. These accomplishments, combined with restored political stability, have stimulated growing interest from potential foreign investors.

U.S.-Philippine relations have improved substantially since the Philippine Senate's 1991 rejection of a treaty which would have permitted the continuation of U.S. bases at Clark and Subic Bay. During Philippine President Ramos' visit to the U.S. in November 1993, he and

President Clinton agreed on a new, post-bases partnership centering on expanded trade and investment ties, as well as continued security cooperation under a mutual defense treaty. Although U.S. economic and security assistance to the Philippines has declined in recent years, a modest aid program continues. The bilateral relationship is buttressed by longstanding historical and cultural links, as well as extensive people-to-people interaction. There are over 2 million Filipinos residing in the U.S.

The strengthening Philippine recovery and the increasing demand for capital goods and high technology products, coupled with improved political relations with the U.S., provides U.S. firms with a variety of defense and commercial opportunities.

Defense Industry Environment

The Armed Forces of the Philippines (AFP) embarked on a 15-year modernization program in 1989 to acquire major equipment and support systems for the Navy, Air Force, Army, and General Headquarters (GHQ), in order of priority. The program is the result of a comprehensive assessment of the country's defense requirements. The result has been a refocusing of the country's military mission from internal security to external defense. On February 23, 1995, President Ramos signed into law the AFP Modernization Act (AMP). In July 1995, the AFP submitted its AMP for approval.

The proposed budget for modernization is forecast at US \$11.76 billion over the next fifteen years, with US \$10.6 billion for equipment acquisition and US \$1.16 billion for base development. In February 1996, the Philippine House of Representatives passed the first five-year resolution for US \$1.96 billion, but the program submission and its associated appropriation bill have since languished in the Senate. The upper house is attempting to flex some political muscle and exert influence to decrease funds for the AMP. The Philippine Congress is expected to appropriate preliminary program funding by the fall of 1996. The AFP's budget submission for 1997 is 7.8 percent of the Philippine national budget.

Since the Philippine domestic defense industry is limited, the overwhelming share of defense equipment required is procured from foreign sources. Government entities manufacturing equipment and material are: Arsenal (small arms and ammunition); Philippine Aerospace Development Corp. (PADC - aircraft and spare parts); and Veterans Electronic Communications (Vetronix - communications and electronics). Local private defense industry suppliers are: Francisco Motors (Jeeps); Columbia Motors (Jeeps); G. Marfil (ordnance); Pentagon (ordnance); Santos-Schaeter (armored vehicle and ship parts); Squires Bingham (rifles and ammunition); and AG&P (patrol crafts in an affiliation with Trinity Marine of the U.S.). Under the United States' Foreign Military Sales (FMS) program, which ended in 1993, the U.S. was the dominant foreign supplier to the Philippines. U.S. firms interested in supplying the Philippines defense needs are: Boeing/McDonnell Douglas (fighter aircraft); Boeing/Rockwell (electronics, avionics); Lockheed Martin (surveillance radar, fighter aircraft); Raytheon (missiles,

radar); Electronic Systems Group (surveillance radar); Ingalls (offshore patrol vessels); Newport News (offshore patrol vessels); Tacoma Boat (offshore patrol vessels); and Kaman (helicopters).

Non-U.S. firms interested in the Philippines market are: MIG - Russia (fighter aircraft); Israel Aircraft Industries - Israel (fighter aircraft); Transfield Defence Systems - Australia (gunboats, support vessels); Fokker - Holland (aircraft); Martin Baker - UK (aircraft trainers, ejection seats); GTE Marconi - UK (radar systems); and Thomson CSF - France (radar, patrol boats). Over 20 shipyards have submitted prequalification documents for the offshore patrol craft procurement.

Defense Opportunities

The Philippine armed forces has the following requirements to fulfill their modernization program.

Army Programs

The Philippine Army, which provides the core of land-based forces, will undergo a major transformation as a result of the change in national strategy. While its mission remains essentially unchanged, its force structure will change significantly. The present eight infantry divisions will be reduced to three full divisions and 11 brigades which can operate independently as maneuver forces. As a result, total army manpower will be reduced by approximately 30 percent.

Specific anticipated acquisitions by the Army include the following: transport, support, and armored vehicles, including tanks; various types of aircraft; mobile combat engineering equipment; crew-served and anti-aircraft weapons; missiles; heavy artillery and heavy mortars; and satellite communication systems, radio relays, radios & transceivers, and SIGINT equipment.

Air Force Programs

The Air Force's mission and basic force structure is not expected to change significantly during the modernization of the AFP. Personnel strength will be reduced slightly from its present level. Equipment modernization focuses on aircraft acquisition and the development of an adequate air defense system. The objective is to modernize its air assets and radar systems, and gradually to replace obsolete equipment in order to perform such tasks as securing the Philippines' exclusive economic zone, in conjunction with the Philippine Navy.

Specific anticipated acquisitions by the Air Force include: multi-role fighter aircraft; air defense radar systems; air defense communications systems (troposcatter, microwave); lead-in fighters/ground attack aircraft (fixed & rotary wing), fixed-wing airlift aircraft (heavy &

medium), and rotary wing airlift aircraft (heavy & medium); primary turbine and basic jet trainers, long-range maritime patrol and recon-photo aircraft; air defense missile systems; training simulators; and ground support equipment (runway sweepers, fire/crash rescue equipment, refuelers).

Navy Programs

The Philippine Navy's role will remain essentially unchanged as the country's seaward first line of defense, as well as to enforce the Philippine exclusive economic zone. Toward that end, the Navy must replace its aging ships with modern vessels capable of supporting its defense mission, as well as performing other functions such as protection of marine resources, safeguarding internal sea lines of communication, and interdiction of seaborne intruders into Philippine waters.

Anticipated acquisitions by the Navy include: logistic support, offshore patrol, and service support vessels; frigates; multi-mission aircraft; V-300's (with and without turret), gun and missile fast attack craft; corvettes; coastal radars; training simulators; minesweepers; 145-ft. patrol gunboats; maritime patrol helicopters; light anti-armor vehicles; light armor weapons; squad automatic weapons; simulator systems; missile systems; point defense and point surveillance systems; and floating drydocks and a dockyard.

Defense Procurement Process

The acquisition of weapons systems is dictated by the AFP five-year development plan, which spells out the AFP strategy and corresponding force development. Specific proposals/studies are generated by the major services' weapons systems boards, approved by the Major Service Commander, and submitted to the Chief of Staff of the AFP (CSAFP) for consideration by the AFP Weapons Systems Board (AFPWSB).

The AFPWSB deliberates on proposals submitted by the major services, bringing in experts, requesting any studies or analyses, or creating committees as necessary to evaluate a proposal. If a proposal cannot be decided upon, it is referred to general headquarters' Weapons Study Committee (WSC) for further evaluation of operational, technical, and financial feasibility. After its evaluation, the WSC forwards its findings/recommendations to the AFPWSB for its final deliberation. After a consensus is reached by the board, the proposal is submitted to the CSAFP for approval or disapproval. Proposals made by foreign suppliers directly to the major services are forwarded to the Deputy Chief of Staff for consideration. The above process is then followed. The points of contact for further information are:

Cdr Artemio R. Arugay
Deputy Chief of Staff for Plans J5 (also Vice-Chair of the AFP Weapon Systems Board)
General Headquarters, Armed Forces of the Philippines

Camp General Emilio Aguinaldo
Quezon City, Metro Manila
Tel: (632) 911-8131

Bgen Rolando Y. Espejo
Deputy Chief of Staff for Logistics J4
General Headquarters, Camp Aguinaldo
Quezon City, Metro Manila
Tel: (632) 911-6365, 911-6365
Fax: (632) 911-7781

Offset/Countertrade

To the extent possible, the Government of the Philippines (GOP) will obtain the products and services of foreign suppliers through countertrade and technology transfer and industrial investments through offset agreements. The Philippine International Trading Corporation (PITC), an attached agency of the Department of Trade and Industry, is responsible for implementing the countertrade and offset program of the government. PITC sources needed products, develops supplier bases and facilitates all trade documentation, and negotiations and contracts for the GOP and its agencies. PITC also is very influential in assisting foreign suppliers to develop acceptable industrial offset and technology transfer programs. PITC has worked closely with DND in the Augusta I and II and GKN defense contracts for the AFP and it is active in formulating the offset requirements for the Defense Modernization Program.

For assistance and information on countertrade and offset requirements, U.S. firms should contact PITC and review the following documents:

- Executive Order 120: Implementing Rules and Regulations on Countertrade;
- Memorandum Circular No. CT-95.1/01: Guidelines for the Evaluation and Approval of Offsets Arrangements to be Undertaken Pursuant to E.O. 120 and Its Implementing Rules and Regulations.

PITC contacts are:

Cesar H. Bello Ceso III
Assistant Secretary for Installations and Logistics
Department of National Defense
Camp General Emilion Aguinaldo
Quezon City, Metro Manila
Tel: (632) 911-6227, 911-6224
Fax: (632) 911-6227

Miguel Z. Patolot
Manager, Countertrade
Philippine International Trading Corp.
Tel: 632-818-9801 to 18
Fax: 632-815-2302; 632-819-0562

The U.S. Commercial Service (USCS) Manila has completed an in-depth market study on the Philippine Defense sector. This information is available through the National Trade Data Bank (NTDB) and accessible by calling 800-STAT-USA or on internet through www.stat-usa.gov.

Diversification/Commercial Opportunities

Despite the GOP's Self-Reliant Defense Posture Program (SRDP) policy (budgeted at only US \$3.85 million in 1995), the domestic industry focussed on the military sector is small-scale and not showing any major signs of diversifying.

As with the Armed Forces, the civil sector has embarked on an expansion and modernization program to improve safety, efficiency and competitiveness of Philippine industry and government services. One specific example is aviation. The GOP has privatized Philippine Air Lines (PAL) and is fostering competition by allowing three additional carriers to enter the domestic market first and the more lucrative international market later. PAL and the three new airlines will source and/or lease most of their aircraft from the U.S. GOP is also modernizing its airports which will provide commercial or dual-use trade opportunities for U.S. firms, particularly for avionics, radar and other airport equipment and services.

GOP is implementing the 1993-1998 Medium Term Public Investment Program which covers: agro-industry, infrastructure and human development, and disaster mitigation. Infrastructure projects under this program include construction of airports, roads, ports, light rail transport and railroad systems, water supply, power, telecommunications, and information technology. The GOP and private sector, under the build-operate-transfer (BOT) scheme and its variants, plus foreign government assistance, finance the projects. The USCS Manila has extensive contacts and project information available on a wide range of infrastructure projects.

The USCS also has a full-time American officer who provides counseling and detailed information on projects funded by the Asian Development Bank (ADB) in the Philippines. Projects now in progress cover such areas as air quality improvement, hydropower development, rural irrigation and livestock development, natural resources management, and port improvement.

In addition to the projects mentioned above, opportunities exist for U.S. firms in the following industry sectors:

Telecommunications

The Ramos Administration has taken major strides to liberalize the telecom sector, allowing competition in the provision of a variety of services. The Philippines' medium-term development plan (1993-98) targets installation of over one million additional phone lines by 1998, requiring more than US \$2 billion dollars in government and private sector investment. Demand exists for foreign expertise in establishment of telephone systems, equipment for land lines, cellular and paging equipment, air traffic control, surveillance radar, and satellite communications technology.

Power Generation

The Philippines Draft National Power plan through 2005 relies on as much as US \$30 billion dollars in private-sector-sourced equipment and know-how. U.S. companies excel in this field and can take advantage of export opportunities for power generating machinery and distribution equipment. Investment opportunities exist to build facilities, especially natural gas-fired plants on a turnkey basis, as well as hydro and geothermal plants.

Computers and Peripherals

The Philippines is continually upgrading application of computers and information technology, from PCS in the home, to networking in business and government offices, to computerized automation in factories. The country depends almost entirely on imported computer technology, with the market growing at an average 25-30 percent annually. Major opportunities exist for U.S. exports of mini and micro computers, business and desktop microcomputers, and peripherals.

Construction/Building Products

The real estate market has been strong, even during periods of slower economic growth, and the construction industry ranks second among overall industrial sectors. As the Philippine economy continues to grow, demand for building supplies should strengthen, as industrial estates, new office buildings, hotels, condominiums, low-cost housing, and shopping malls go up in Manila, Cebu, Davao, and elsewhere in the provinces. Best opportunities for U.S. exports include cement, iron and steel products, and materials for low-cost housing.

Environmental Technologies

Although the current market for environmental equipment is small, the potential is growing as more funding becomes available. U.S. firms, already successful in numerous specialized areas, are looked to increasingly for advanced technology and equipment. Demand is greatest for wastewater treatment (filters and purifying equipment) and solid waste management, including toxic wastes. The U.S.-Asia Environmental Partnership, under the direction of the

USCS Manila, can provide special assistance to U.S. firms in the rapidly developing environmental protection area.

Privatization

The GOP, through the Committee on Privatization, is disposing over 500 Government assets, grouped into two broad categories: (1) about 419 so-called "transferred assets," which the GOP assumed when it bailed out financially distressed government financial institutions in the mid-1980s; and (2) 130 Government-owned or Controlled Corporations (GOCCS). As of June 1996, the GOP had partially or fully privatized 340 of the former and 93 of the latter including a number of relatively large state-run firms such as: Petron, the oil refining and marketing arm of the Philippine National Oil Company (PNOC); National Steel; the Philippine National Bank; Philippine Airlines (PAL); and the Philippine Shipyard and Engineering Corp which is engaged in ship repair activities in Subic. These sales have generated about US \$6.4 billion for the GOP. Major state-run firms yet to be sold include the Philippine Associated Smelting and Refining Corp, the country's only copper smelter and refinery firm; the Philippine Phosphate Fertilizer Corp (Philphos), the largest phosphatic fertilizer operation in Asia; and the Manila Hotel.

The GOP has now embarked on the second wave of its comprehensive privatization program which will include utilities (power and water) and the third wave, public-private partnerships in social services such as health, education and pension funds. For further information on the privatization program, interested companies can contact USCS Manila, the Department of Finance's Privatization Office, or the Assets Privatization Trust as follows:

Ms. Crisanta Legaspi
Director, Privatization Office
Department of Finance
Room 309A, Five-Storey Bldg.
Central Bank of the Philippines
A. Mabini Street, Manila, the Philippines
Tel: 011-63-2-524-1633
Fax: 011-63-2-523-5143

Atty Gonzalo T. Santos, Jr.
Chief Executive Trustee
Asset Privatization Trust
6/F North Davao Mining Building
104 Gamboa St. Legaspi Village
Makati, Metro Manila, the Philippines
Tel: 011-63-2-893-2383, 893-1209
Fax: 011-63-2-893-3543

Doing Business in the Philippines

For American firms, enduring Philippine-American ties result in familiar interest in American products, services and technology. Filipinos still frequently look to the U.S. first for technology; many if not most technical standards are based on U.S. equivalents. Until the United States' foreign military sales program ended in 1992, the U.S. was by far the largest foreign military supplier to the Philippines. AFP officials are therefore thoroughly familiar with U.S. military equipment and technology: many of them have trained in the United States.

U.S. firms interested in selling products and/or services to the AFP, civilian departments of the GOP, or to private industry should utilize the services of established local distributors/agents in the Philippines. Local representation provides the contacts and has the awareness of local business practices that will give U.S. firms an added marketing edge in dealing with the GOP, the AFP, and the private sector.

USCS Manila can help U.S. firms locate business partners in the Philippines. For U.S. business representatives planning to visit the Philippines, USCS will arrange a full schedule of briefings and business meetings for a modest fee under its "gold key" service. The Agent-Distributor Service (ADS) is a cost-effective way for U.S. firms to identify potential Filipino representatives in the market. USCS also features a quarterly video/catalog program called "Direct from the USA," that offers American companies a low-cost way to test the Philippine market for their goods and services. Information on these services is available from U.S. Department of Commerce District Offices in the United States or directly from US&FCS Manila.

Customs and Tariffs

On July 1, 1996, the GOP switched its "comprehensive import surveillance scheme" from one based on "Home Consumption Value" (HCV) to one based on export value (EV). The use of export value, valuing products on published export prices in the country of origin, regardless of the actual selling price between buyer and seller, has resulted in rather high valuations of U.S. exports to the Philippines.

The GOP has a contract with the Societe Generale de Surveillance (SGS) for its preshipment inspection services. U.S. firms unfamiliar with the preshipment inspection process should contact the U.S. Department of Commerce's desk officer for the Philippines for information or contact SGS' New York office at TEL: 221-482-8700; FAX: 212-482-0048.

Commercial Government Procurement

While not a signatory to the GATT procurement code, the Philippine Government procurement practices, in general, do not discriminate against U.S. or other foreign suppliers.

The situation with respect to incidents of bribery and other forms of corruption intervening in the working of the system is not as clear. Competition for contracts in areas of significant interest to U.S. suppliers include power generation equipment (more than 10 National Power Corporation projects); telecommunications equipment (satellites, radar); computer hardware (trunkline projects), and transportation infrastructure equipment (airport expansion, radar surveillance, maritime positioning system and vessel traffic system).

Export Licenses, End-User Certificates

The Philippines is not a listed country and as such does not require USDOC/BXA export licenses and related Pre-license Checks (PLC's) for most high-tech products. In almost all cases requiring a PLC check is recommended.

Intellectual Property Protection

In April 1993, a significant step forward was taken when the Philippines and the United States signed an agreement to strengthen protection of Intellectual Property Rights (IPR) in the Philippines. The GOP is a party to the Paris Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, for the protection of literary and artistic works, and is a member of the World Intellectual Property Organization. In February 1993, President Ramos created the Interagency Committee on Intellectual Property Rights and charged it with recommending and coordinating enforcement oversight and program implementation. This year, the GOP designated 48 courts to handle IPR cases with instructions for judges to terminate "as far as practicable" the trial of IPR cases in 60 days and to render judgement in another 30 days. Joint government-private sector efforts have improved administrative enforcement. However, when IPR owners must use the courts to protect their property, enforcement is slower and less certain. Fines and jail sentences currently imposed are not real deterrents.

Foreign Investment Regulations

The GOP has taken important steps in recent years to welcome foreign investment through foreign exchange liberalization, and more liberal foreign ownership regulations for enterprises not seeking investment incentives. In May 1994, President Ramos signed into law amendments to the Build-Operate-Transfer (BOT) law. Implementing rules and regulations currently are being formulated. Legislation passed in March 1996 abolished the "C" list (one of three negative lists under the 1991 Foreign Investment Act - FIA) which had protected "adequately protected" sectors. This same legislation also lowered the minimum capital requirement for foreign majority ownership from US \$500,000 to US \$200,000.

Certain industries and activities remain on two remaining "negative lists," however, which limits foreign equity. The "A" list consists of activities in which foreign ownership is limited by the constitution or specific laws. These include mass media, advertising, public utilities, most licensed professional services, and retail trade. The "B" list consists of activities in

which the degree of foreign ownership is limited for reasons of security, defense, health or moral concerns, and to protect small-and medium-scale enterprises. The "C" list consists of activities in which the national economic development authority has determined the Philippine market "adequately served by domestic firms."

Enterprises engaged in preferred activities listed in the Board of Investment's (BOI) annual investment priorities plan (e.g., export oriented industries; industries that will trigger production of higher value-added products; industries affected negatively by liberalized trade policies; and industries involved in infrastructure and services, environmental support facilities, and R&D) may register with the BOI if they wish to qualify for tax and non-tax incentives. An enterprise seeking incentives must be no more than 40 percent foreign-owned, unless the proposed activity is classified as "pioneer," at least 70 percent of production is for export, or the enterprise locates in areas classified by the government as less developed. The enterprise must agree to divest to a maximum 40 percent foreign ownership within 30 years from registration with the BOI, unless the enterprise exports 100 percent of production. It should be noted that this divestiture amount and time line are negotiable. Currently, the BOI strictly specifies industry-wide local content requirements under the government's progressive manufacturing program for automobiles. Current guidelines also specify that participants in this program generate, via exports, a certain ratio of the foreign exchange needed for import requirements.

Technology Transfer Regulations

Through its Technology Transfer Board, the Philippines reserves the right to require that licensing agreements involving the use of foreign patents or trademarks include technology or economic benefits for the Philippines. Technology transfer limitations on royalties and exports apply to unpatented technology protected as trade secrets as well as to patented technology. However, the GOP has never applied this right.

U.S. Government Points of Contact

The following is a list of useful contacts for firms interested in the Philippines market.

U.S. Commercial Service, Manila
Thomas Jefferson Cultural Center
395 Sen. Gil J. Puyat Ave
Makati, Metro Manila
Tel: 011-63-2-890-9717; 818-3878
Fax: 011-63-2-895-3028

U.S. Mailing address:
American Embassy Manila
Commercial Section

APO AP 96440

Carmine D'Aloisio, Commercial Counselor
David J. Murphy, Commercial Attache

Alma Madrazo, Director, Technology Cooperation
U.S.- Asia Environmental Partnership
Tel: 011-63-2-898-2877, 896-5728
Fax: 011-63-2-890-9361

Cantwell Walsh
USCS Liaison to the Asian Development Bank
Tel: 011-63-2-890-9364
Fax: 011-63-2-890-9713

Joint U.S. Military Assistance Group (JUSMAG)
Col. Danwell Lee or Lt. Col. Glenn Cleveland
AFP Liaison Officer
U.S. Embassy Manila
Tel: 011-63-2-521-7116, ext. 6337/8
Fax: 011-63-2-833-3530

American Chamber of Commerce of the Philippines
Mr. Rob Sears
Executive Director
Tel: 011-63-2-818-7911
Fax: 011-63-2-811-3081

Board of Investments
Mr. Eugene Williams
American Investments Officer
American Desk
385 Sen. Gil J. Puyat Ave.
Makati, Metro Manila
Tel: 011-63-2-895-8851
Fax: 011-63-2-896-2315

U.S. Department of Commerce
Ms. Jean Kelly
Philippines Desk Officer
Herbert C. Hoover Building, Room 2034
14th St. & Constitution Ave., N.W.
Washington, D.C. 20230

Tel: (202) 482-2522

Fax: (202) 482-4453

Export-Import Bank of the United States (EXIM)

Jennifer Windus

Senior Loan Officer - Asia/Middle East

Tel: 202-565-3700

Fax: 202-565-3717

U.S. Department of Defense

Mr. Wayne Laskofski

Defense Security Assistance Agency

Attn: DSAA OPS-ERP

Washington, D.C. 20301-2800

Tel: (703) 604-6609

Fax: (703) 604-6041

SINGAPORE

SINGAPORE

Overview

As one of the world's most vibrant economies, a so-called "Asian Tiger," Singapore acts as a role model for many third world nations. Singapore's per capita income of \$24,000 is now higher than Britain's. Singapore, also has one of the highest savings rates, about 56% of GDP (1995 estimate), largely the result of compulsory contributions to a government managed Central Provident Fund. Government of Singapore (GOS) predictions call for 6-8 per cent growth over the next 5 years, spurred by the continued expansion of the manufacturing sector.

Singapore is the busiest port in the world in terms of shipping tonnage. It is also the world's top bunkering port, a major transshipment hub, and a global warehousing and distribution center for the Asia Pacific region. Although Singapore has no indigenous energy resources, its five refineries have made it the third largest oil refining center in the world (by capacity) after Houston and Rotterdam. Singapore has also become a leading financial and business center in the region.

	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>	<i>2001</i>
GDP (US\$ Bil)	84.7	91.1	98.0	105.8	113.0	120.7	129.0
% Change In GDP	8.3	7.5	7.6	8.0	6.9	6.8	6.9
Consumer Price Index (%)	1.8	1.9	1.9	2.0	2.2	2.2	2.2

The U.S. is the largest foreign investor in Singapore. Cumulative U.S. direct investment in Singapore is \$ 12.6 billion as of 1995. American holdings in Singapore are concentrated in the petroleum, chemical, and electronics industries. For example, Seagate, one of the largest computer disk drive manufacturers in the world, just completed a \$1 billion investment in Singapore to include a 100,000 square foot manufacturing facility. These investments serve as the conduit for the inflow of American goods and services. As a result, Singapore was the United States' ninth largest export market and import source in 1995.

Singapore has one of the world's most open investment regimes, through which it seeks to overcome land, resource, and labor limitations. It attempts to attract firms that can build up the country's technological base and improve its labor force. Singapore's economy is based on a strong and stable government that fosters free trade. Investment policies are transparent, and the bureaucracy is not oppressive. There are no taxes on capital gains and few restrictions on foreign

ownership of businesses. In fact, the Swiss based World Economic Forum cited Singapore as the world's most competitive economy. Multinational corporations, especially in high technology sectors, value Singapore's superb infrastructure, manufacturing, and support facilities and view it as the gateway to the continually explosive expansion in the wider Asian markets.

Singapore maintains restrictions on investment in a limited number of sectors. For example, armaments manufacturing is strictly closed to foreign investment. Other sectors where foreign investments are limited include: news media, telecommunications, broadcasting, property ownership, and domestic banks.

Defense Industry Environment

Singapore's annual defense budget is capped at 6 percent of GDP. In FY 96, actual spending will be approximately 4.3 percent of GDP (\$4.1 Billion). Singapore prefers to buy American defense related products primarily because of the technological advantages and the superior logistical support provided. As of FY96, Singapore had ordered 2.3 billion dollars worth of arms from the U.S. under the Foreign Military Sales (FMS) program. Additionally, cumulative commercial purchases (1991-1996) of American defense related products are estimated to exceed \$ 1 billion. The chart below summarizes Singapore's defense spending for the next five years and the projected amount of FMS sales.

	1995	1996	1997	1998	1999	2000	2001
Def spending (US \$ Bil)	4.0	4.1	4.4	4.8	5.1	5.3	5.6
FMS Sales (US \$ Mil)	156	282	350	400	450	500	550

As a small nation state with a population of about 3.0 million, Singapore's defense strategy is similar to Israel's relying mostly on conscripts and reservists (250,000), high tech weaponry, and a small cadre of highly trained active duty military (53,900; Army - 45000, Navy - 2900, & Air Force - 6000). The Singapore Armed Forces'(SAF) mission is to enhance the country's peace and security through deterrence, and should deterrence fail, to secure a swift and decisive victory over an aggressor. The SAF meets these objectives by fostering extensive friendly defense relationship in the region and beyond, and by maintaining a highly trained, technologically superior defense force. While small in comparison to most, the SAF is, without a doubt, the best trained and equipped force in the SE Asian region. The following chart outlines the type of equipment that the Singapore Armed Forces (SAF) currently possesses and/or will take delivery of in the near future.

MAJOR DEFENSE EQUIPMENT

<u>ARMY</u>	<u>NAVY</u>	<u>AIR FORCE</u>
CENTURION MBT (63) (105 mm)	CORVETTES (6) VICTORY CLASS)	F-16 A/B (6) F-16 C/D (30)*
AMX-13SM1 (300) (75 mm)	MSL GUNBOATS (6) (HARPOON/GABRIEL)	A-4-SU (58) (SKYHAWK)
AMX-10P PAC 90 (22) (90mm)	PATROL VESSELS (12) (FEARLESS CLASS)	UH-1H (40) (HUEY)
M113A2 (720)	LST (5) (EX-US 511-1152 CL)	AS550 (30) (FENNEC)
FH-2000 (18) (198mm TOWED)	RAMP POWERED FIGHTERS (4)	AS 322m 18 (SUPERPUMA)
FH-88 (52) (155mm TOWED)	FAST CRAFT FOR EQUIPMENT (25)	CH-47 (6) (CHINHOOK)
AN/TPQ-36/-37 (2) (SURV ART/MOR)	SUBMARINES (1) (LEASED)	E-2C (4) (HAWKEYE)
V200 COMMANDO (247) (ARMORED CAR)		F-5E/F (49) (TIGER)
		KC-135R (4)*
		FOKKER 50 (9) (MPA)

* AWAITING DELIVERY (1998-2000)

Singapore has a special economic and military relationship with the U.S.. Although non-treaty and non-aligned, Singapore has always been a strong supporter of American presence in the region. It was the only country to offer facilities to the U.S. military when U.S. forces left Clark Air Base and Subic Air and Naval Bases in the Philippines due to both political and geophysical imperatives. Currently Commander, Logistics Western Pacific (COMLOG WESTPAC) uses Singapore's military facilities to coordinate logistical support for Seventh Fleet forces deployed in the Asia-Pacific region.

Singapore has a strong armaments industry which not only meets many of the military needs of the country, but is also an increasingly significant exporter to third world nations. In the early stages, the government developed and supported the industry as a means to continued industrial and technological growth and to support its "total defense capability." However, the companies that remain in existence have become profit making entities that now compete internationally. Singapore Technologies (ST) Pte LTD is the holding company for most of

Singapore's armaments industry and many other government linked corporations. The company is divided into five strategic business areas (SBA): Engineering, Technology, Infrastructure & Lifestyle, Property, and Financial Services.

The engineering SBA manages most of the armaments industry to include such companies as: Chartered Industries of Singapore, ST Aerospace, ST Shipbuilding & Engineering, Unicorn, Allied Ordnance and ST Automotive. They produce most of the country's small arms and ammunition (SR88A - 5.56 Assault rifle and CIS 50MM MG), ships (Mine Counter-Measures Vessel & Corvettes), and field artillery pieces (FH-88 155 MM Field Howitzer). ST Aerospace is acknowledged as one of the premier aerospace companies in the region. They have expanded internationally in the areas of aircraft maintenance, modification and refurbishment to include contracts with the U.S. military for C-130 work.

Defense Opportunities

Singapore has shown interest in purchasing attack helicopters, communications equipment, missiles, advanced jet fighters, radar systems (all kinds), ASW technology, air defense weapons systems, and anti-mine warfare technology.

The greatest potential sales lie in the areas of information technologies. Singapore is interested in command, control, communications & intelligence (C3I) systems, simulation and gaming, and other high end information technologies.

Key MINDEF agencies involved in the purchase of new equipment/systems include the following:

- Defence Materiel Organization is responsible for acquisition and integration of weapons systems/equipment and platforms and can be reached the following address.

Defence Materiel Organization
16th Level Tower A, Defense Technology Towers
1 Depot Road
Singapore 109679
Tel: 65-373-4631
Fax: 65-275-4358

- Defence Science Organization is the defense related research and development arm of MINDEF.

Defence Science Organization
20 Science Park Drive
Singapore 118230

Tel: 65-776-2255
Fax: 65-775-9011

- The Command, Control and Communications Systems Organization (CSO) is responsible for development and integration of command, control, and communications systems.

Command, Control and Communications Systems Organization Ministry Of Defence (MINDEF)
Defense Technology Towers, Tower A
1 Depot Road
Singapore 109679
Tel: 65-373-2828
Fax: 65-373-3418

- The System and Computer Organization (SCO) is responsible for designing and developing information technology systems for MINDEF.

System & Computer Organization
Ministry Of Defence (MINDEF)
Defense Technology Towers, Tower A
1 Depot Road
Singapore 109679
Tel: 65-373-2600
Fax: 65-273-9052

Defense Procurement Process

If you have products to sell or services to offer to MINDEF, you should approach Defence Procurement Division (DPD) with a minimum of three sets of brochures, specifications, samples, etc. and make a direct appointment with the relevant purchasing executive concerned with the range of products or services to be sold. Submit a company brief, giving details of the products and/or services you can supply, capability, financial status, and contact information for the appropriate sales executive. This will assist the Defence Procurement Division to place your company in MINDEF's potential suppliers list. It is MINDEF policy to deal directly with suppliers, not with intermediaries or agents. U.S. manufacturers that want to have a local presence in Singapore should consider the following alternatives:

- Establishment of an office, subject to MINDEF's security requirements, including security clearance of their personnel to deal with MINDEF;
- Utilize the offices and services of the U.S. Embassy in Singapore such as the Office of Defense Cooperation and the U.S. Commercial Service;

- Work with government-linked companies (such as any of the Singapore Technology companies) that are able to provide the requisite support and liaison with MINDEF and that meet MINDEF'S requirements for physical and personnel security.

MINDEF invites quotations for low-value, off-the-shelf items that do not require elaborate purchase terms or conditions. Normally, companies are asked to state only the price, delivery and payment terms.

Tenders are invited for higher value and complex purchases. Tenders are required to comply with MINDEF'S standard conditions of tender or contract, normally enclosed in the invitation to tender. Open tenders are advertised in the local newspapers every Friday and on Teleview. Only local companies registered as government contractors with the central procurement office are eligible to participate. Tender documents are collected from the DPD's tender office, located on the ground floor of the DPD's Defense Technology Tower office.

Defence Procurement Division
Ministry Of Defence (MINDEF)
Defense Technology Towers, Tower A
1 Depot Road
Singapore 109679
Tel: 65-373-4189
Fax: 65-373-8443

MINDEF has also established PROFNET (Procurement and Financial Network), an Electronic Data Interchange System (EDIS) which allows MINDEF to advertise its tenders, invite suppliers to tender or quote, and place orders with suppliers. PROFNET also allows suppliers to tender or quote their offers and send invoices for payment to MINDEF. The software necessary to access EDIS costs approximately \$900.00 and a usage fee is billed on a monthly basis. Subscriptions to PROFNET are available through:

Singapore Network Service
75 Science Park Dr #B1-01/13
CINTECH II Building
Singapore 118255
Tel: 65-778-5611
Fax: 65-778-5277

Diversification/Commercial Opportunities

In addition to providing a market for defense equipment, the sophisticated and expanding Singaporean economy offers many dual-use or commercial trade opportunities for U.S. firms. Some of the larger industry sectors are described below.

Aerospace

The aerospace sector continues to be one of Singapore's major industries. Singapore is evolving into a world class component manufacturing and overhaul center for the world market. This sector has grown steadily over the past five years and is expected to continue growing at an accelerated pace well into the 21st century.

Electronic Components

Electronics is a major industry in Singapore, accounting for 38 percent of the country's manufacturing output, 42 percent of its exports, and 34 percent of employment. The presence of many U.S. multinational companies in Singapore has generated a strong demand for U.S. equipment and components. Manufacturing know-how for "ruggedized" electronic components used in military applications is of interest to some Singaporean firms.

Transportation/Infrastructure

Changi Airport is Southeast Asia's major hub airport, linking 108 cities through more than 2,100 flights by 58 airlines each week. Singapore's goal is to become the leading air hub in the entire Asia-Pacific region by the end of the century. With two terminals and two runways, Changi Airport is capable of handling 24 million passengers a year. Physical planning for a third terminal and reclamation of land for a fourth terminal and a third runway have begun. Cargo capacity will be expanded to 1.3 million tons by 1995. As a result, demand for ground support equipment will increase. These expansion plans will present significant opportunities for U.S. suppliers of airport equipment and for consulting engineers.

Telecommunications Equipment

Singapore places great emphasis on the development and maintenance of a sophisticated and advanced telecommunications sector. For the next five years, \$2.19 billion has been earmarked for capital investment in technologies such as intelligence networks, broadband ISDN, and optical fiber links to all homes and offices.

Security and Safety Equipment

As Singapore has become more urbanized, its infrastructure more sophisticated, and its population more affluent, security systems have become part of new and existing buildings' standard features. Singapore enjoys a reputation as a relatively crime-free country, and wants to maintain this reputation. There is great emphasis on security, be it for individuals, for private dwellings, or for industrial/ commercial buildings and installations. Singapore's labor shortage means that advanced equipment and systems to replace traditional guard services are in demand.

These developments augur well for U.S. manufacturers of high technology detection and surveillance equipment and systems.

U.S. Government Points of Contact

The following is a list of points of contact for U.S. firms that are interested in the Singapore market.

U.S. Embassy

David Fulton
Senior Commercial Officer
U.S. Commercial Service
27 Napier Road
Singapore 258508

Mailing Address

Office Of Defense Cooperation
PSC 470, BOX ODC
FPO AP 96534-0001
Tel: 65-476-9336
Fax: 65-476-9483

Mailing Address

U.S. Commercial Service
PSC 470, BOX FCS
FPO AP 96534-0001

Chief, ODC - LtCol
Kaufhold
Tel: 65-476-9379
e-mail:
mkaufhol@san.okc.disa.mil

Tel: 65-476-9037
Fax: 65-476-9080

Dep Chief, ODC - LTC
Drake
Tel: 65-476-9033
e-mail:
wdrake@san.okc.disa.mil

U.S. Embassy-Singapore
Office of Defense Cooperation - Singapore
& Brunei
27 Napier Road
Singapore 258508

SOUTH KOREA

SOUTH KOREA

Overview

The Korean economy, which has been able to sustain nearly double digit growth in real GDP annually for the past 30 years, has cooled somewhat since its recent peak in the first quarter of 1995. This downturn has been attributed to several factors, including lower demand for key Korean exports, worsening overall terms of trade, and lower growth in both private and public investment. Despite these conditions, however, real GDP is projected to grow approximately 6.5 percent for 1996. As the level of military and political tensions escalate on the peninsula, defense spending will continue to reflect a growing trend for upgrading existing systems as well as an aggressive pursuit of indigenous technologies.

Defense Industry Environment

U.S. firms enjoyed a virtual monopoly in the Korean defense sector, with no real competition, until the early 1980's with U.S. firms accounting for approximately 90 percent of the market. In 1976, the Korean Defense Industry Association (KDIA) was formed under the auspices of the Korea Defense Industry Promotion Act in order to promote local manufacturing. As such, the Korean Government played an important role in helping some of the major firms develop the necessary conditions for participating in this lucrative sector. Companies such as Hyundai, Samsung, Daewoo, Lucky-Gold Star, Sunkyung, Ssangyong, and Kia clearly benefitted from such government support. Over the years, these and other KDIA affiliated firms began to chip away at U.S. dominance of the defense industry, eventually claiming upwards of 20 percent of all defense materiel manufacturing in Korea. Recent estimates indicate that U.S. share of the market over the next five years may shrink to approximately 50 percent.

As recent events would indicate, growing tensions between the Koreas continue to drive South Korea's spending in the military sectors. To address these needs and to improve its own capabilities, while assuaging public concern about stability on the peninsula, Korea has determined that the upgrading of existing defense systems and supporting intensive research and development of local industries are essential in defending its borders. This proactive surge for new and better technology is generating new challenges for U.S. defense firms. Korea continues to make progress in improving relations with Russia, the European Union (France, in particular) and Israel, looking for new partners for developing and procuring military systems. Korea has also intensified efforts to promote domestic companies in direct competition with U.S. firms as well. This diversification philosophy was encouraged by President Kim Yong-Sam's vision for "Globalization", which promotes an international outlook for Korea.

The Korean Government's commitment to improving defense capabilities is reflected in a projected defense budget of approximately \$17.9 billion for FY 1997 (with rumors in circulation that the actual figure may be higher by several percentage points), an increase of approximately

14 percent. Estimates indicate that approximately 10 percent of this budget will be allocated to procurement of foreign defense articles. The recently announced five year defense plan (1997-2001) sets aside about USD 30 billion (approximately 27 percent of the projected defense budget) for new acquisitions.

Despite the increasing presence of foreign competition and local initiative, U.S. firms, such as Boeing, Northrop-Grumman, Litton Industries, Lockheed-Martin, Raytheon, Textron, TRW, and United Technologies still dominate the market. These and other companies, primarily involved in aerospace, missiles, and electronic equipment fields appear to be well positioned to compete with Korea's efforts to diversify sourcing for such programs.

As a direct result of the Korean War and the ensuing commitment to maintain stability on the Korean peninsula, the United States provides the lion's share of compatible, deployed systems in Korea. Because of the special relationship, the United States has pressed for, and continues to receive, ROK compliance for interoperability of weapons systems. There has been a growing sense of concern regarding interoperability, however, as Korea charts a more independent and globalized course into the 21st century.

Defense Opportunities

The Korean Government has been managing the military Force Improvement Program (FIP) under the "Yulkok" project since the 1970's. As a result of the program, which was recently renamed as the Defense Improvement Plan (DIP), the Korean Government selected the aerospace and aircraft industries as two of the key industries to be developed by the year 2000. Both civilian and military aerospace and aircraft development were emphasized, indicating that these two industries will continue to be important product areas for the next few years.

The Korean military aerospace business has long been dominated by U.S. sales. Since 1990, U.S. firms have contracted for defense sales exceeding USD 10 billion. The 1996 projection is that approximately USD 1.5 billion in new orders will be issued to U.S. firms through both government (foreign military sales) and direct commercial transactions. The inaugural Seoul Air Show, held in October of 1996 under the auspices of the Prime Minister, showcased the efforts of the Korean Government to attract competition for Korea's civilian market as well as the next generation Korea Fighter Program.

The Korean Government also announced a three phase satellite development program, expected to cost USD 2.7 billion. Korean industries are relying upon government support as the means to acquire work share and technology, while paralleling these government programs with aggressive teaming with U.S. and/or European partners.

In other areas, recent incursions of North Korean military personnel into ROK territory have prompted a call to improve ROK naval capabilities as well as coastal surveillance systems. The Korean Government's commitment to these programs is still in the planning stages.

Current/Ongoing major projects are as follows:

ROK Air Force Programs and Korean Aerospace Firms:

- Acquisition of a next generation fighter
- Acquisition of an air-to-air refueling capability
- Acquisition of airborne early warning and control aircraft
- Upgrades of existing aircraft
- Establishment of a state of the art Air Combat Maneuvering Instrumentation
- Acquisition of a Theater Missile Defense system
- Development of the KTX2 advanced trainer

New Systems/Major Platforms

Equipment	Koran Airlines	Samsung Aerospace	Daewoo Heavy Industry
Fighters	F-5	KFP	
Trainers	Changkong-91	KTX-II	KTX-I
Helicopters	MD-500/UH-60		HA for Army
Engines	Civilian Use	Military Use	
Avionics	F-5	F-4	
Simulators	Changkong-91		For KTX-I

ROK Navy Programs:

- Shipbuilding projects for destroyers of the 3,800 ton to 5,200 ton classes
- Licensed production of 1,200 ton submarines
- Development of heavy and light torpedoes
- Acquisition of ASW helicopters
- Establishment of a comprehensive digital ship to shore C4I system
- Licensed production of amphibious assault vehicles
- Acquisition of additional P3 maritime patrol aircraft

ROK Army Programs:

- Development of a comprehensive counter-battery system

- Acquisition of MLRS and ATACMS
- Acquisition of attack helicopters
- Acquisition of man portable air defense missiles
- Development of a light combat helicopter

The overall defense plan is classified by the Ministry of National Defense and is tightly held. Within the MND's organizational structure, the Agency for Defense Development (ADD) takes the lead in testing, evaluating, and analyzing new defense related products, systems, and technology development and research. It is clearly evident, however, that dual-use technology based defense products are the target of both the MND and the Korean civilian industry, with local agents/representatives, distributors and marketers divided between the military and civilian markets.

Over the past several years, the Koreans have aggressively promoted such opportunities for acquiring dual-use technology through an active offset program in foreign defense purchases. This offset program means that Korean officials and Korean firms are scouring foreign countries' industries for exportable dual-use technologies that have commercial potential. Recent figures show the value of offset yields in excess of USD 50 million.

Defense Procurement Process

The defense procurement process in Korea can be quite complex and vague. The extensive bureaucracy of the Korean Government and its inherent inefficiencies can plague even experienced and established companies. Much of the process is governed by personal relationships between government officials and local agent representatives of foreign companies, rumors and innuendo, personnel turnover at key government posts, and non-transparent lobbying efforts. MND officials and procurement officers from the various services are usually not technically qualified and often rely on the experiences of other countries for deployed systems. This means that most of the weapons systems deployed in Korea have been deployed elsewhere.

As Korean business culture dictates, it is generally not sufficient to make contact with a Korean company or government agency only when a business wants to obtain a contract. U.S. firms must spend a considerable amount of time cultivating a personal relationship with their counterparts as well as maintaining a business presence in Korea. If establishing a branch office is not feasible, U.S. firms need to carefully select a local agent representative or distributor, all the while monitoring their activities carefully.

The following are key observations made over the years on the MND's procurement process. Although some of the general procedures may change as a result of key personnel changes and audits from the Korean National Assembly, most of the lessons learned are still valid.

1. The defense procurement process within the MND is encumbered by a large number of people at the service level and at the Joint Chiefs of Staff (JCS). Many of these people are directly or indirectly involved in the requirements, evaluation, and decision making process, passing the proposal along the chain of command, sometimes with no clear methodology involved. As the proposed weapons system flows through the procurement system, the contractor, usually through a licensed agent or consultant, must know precisely where the proposal is, identify who is currently involved in the evaluation, and bring influence to bear when necessary. The contractor also has to keep abreast of the various personnel changes within the procurement system and assess the political climate as well. Military staff officers dealing with procurement at the MND level may not be technical experts, and might only be serving in a two-year assignment as part of their career development. These officers must be educated, trained, and briefed by the U.S. company in order to secure favorable comments as the procurement process continues.
2. Another complicating factor in this process is that many people in the procurement cycle play multiple roles, as coordinators between bureaus within MND or as participants in various procurement committees, which gives them several opportunities to advocate for or against a particular system. Also, the close personal relationships between these officials, whether in the military or in the private sector, can alter the process. Bonds resulting from past professional/service dealings, class/school affiliation, hometown/communal similarities, often affect each other's decisions. This system of interdependency and "obligations" of social nepotism means that a procurement official will most likely concur with, rather than contradict, the opinions of his comrade regardless of his true position. Korean companies understand this and, as a result, help to perpetuate this system. The successful companies are those with an influential agent(s) with personal access to the right people at the right time in the process. These agents, who should have cultivated a personal relationship with these officials, also know which officials play a multiple role and are aware of the social network web within the system.
3. Official meetings between the U.S. company and the MND officials tend to serve as an initial forum to discuss very basic needs and requirements. In order to maximize this opportunity, the U.S. company is encouraged to submit proposals in Korean language documents, vice English. The Korean language documents can expedite the decision making process and may also leave a positive impression. Once the proposals have been reviewed at a cursory level, serious discussions will take place at a less formal venue. To help foster the social aspects of business, and to promote personal networking with the military, business is seldom conducted in the office or during briefings. Serious business negotiations occurs over lunch, dinner, or weekend golf outings which develops a sense of intimacy between the parties. As such, the company should plan on an expensive and extensive rapport building proposition.
4. U.S. companies need to make a stronger commitment to market their goods and services in Korea as stiff competition from European and Israeli sources begin to challenge U.S.

dominance. In the late 1980's, European firms, bolstered by an active government subsidy program, began active engagement in the Korean defense market. To develop exposure and local knowledge of their products, these European companies employed an aggressive marketing campaign which escalated the price of doing business in Korea. Most U.S. companies, who successfully sold to Korea during the 1970's and 1980's, relied heavily on Korea's proclivity for American products fueled by the legacy of the Korean War and tended to under-resource their marketing efforts. European companies, hungry for a share of this market, tend to be more generous with marketing expenditures and offer lucrative retainers and sales commissions when compared to U.S. business practices. As an example, for sales of USD 20 million or less, a European agent can expect a monthly retainer of USD 5,000 and a sales commission of 8-12 percent. For sales of USD 200 million or more, the agent's retainer will approach USD 12,000-13,000, and a sales commission between five and eight percent. In contrast, a U.S. agent can expect to receive a USD 0-3,000 monthly retainer and a commission of three to five percent for sales of USD 20 million or less. For sales of USD 200 million or more, the same agent will receive a USD 5,000 monthly retainer and a commission of one to four percent (the above is for illustration purposes only. These figures were gleaned from an informal survey of several European and U.S. firms in Korea). Because much of this data is dependent on the actual terms of the contract between the firm and the agent, it is difficult to draw a conclusion that U.S. companies are at a distinct disadvantage.

5. Some of these apparent disadvantages can be countered by selecting the best possible agent to represent the U.S. company's goods and services, whose success record, credibility with the Korean procurement officials, efficiency, and well positioned personal contacts can sustain a degree of competitiveness. Many believe that U.S. companies, however, are not on a level playing field with the Europeans for other reasons. Foreign countries provide more/better relief to Korean offset requirements in the form of tax breaks or cost allowances. Meanwhile, U.S. government regulations strictly monitor offset provisions, effectively limiting dual-use opportunities for Koreans. Given this inequality, the challenge is on the U.S. firm to sustain the quality and serviceability of the weapons systems as a selling feature. In addition, recent stories of extensive corruption in military procurement, reaching the ministerial level, indicate another reason U.S. firms must compete at their highest level in order to win in Korea.
6. The defense industry sector in Korea is one of the most dynamic for U.S. participants in the sense that, due to the current tensions on the peninsula, firms need to be flexible and responsive to sudden requirements to maintain market share. This makes Korea an exciting and challenging environment and is attracting intense competition from non-traditional partners such as Russia. Fueled by shrinking defense budgets and systems procurement opportunities in their own countries, these new players are forging ahead with very competitive export packages. Koreans are very much aware of this maneuvering for market share and are positioning themselves to take advantage of these conditions to promote self-dependency in defense of its borders. Koreans have become

tougher negotiators, unyielding and demanding, often requesting unrealistic concessions with hopes for weeding out all but the most cooperative firms. Only those who are committed to investing the extra time and effort, while providing the lowest priced package will have a chance to succeed.

Agencies involved in the procurement process

The following is a list of other government agencies and organizations involved in the procurement process:

- Defense Procurement Agency (DPA)
- Agency for Defense Development (ADD)
- Aerospace & Defense Industry Division, at the Ministry of Trade, Industry and Energy (MOTIE)
- National Defense University
- Ministry of Science and Technology (MOST)
- Defense Procurement Committee of the Association of Foreign Trading Agents of Korea (AFTAK)
- Korea Defense Industry Association (KDIA)
- Korea Institute for Defense Analysis (KIDA)
- Korea Aerospace Industry Association (KAIA)
- Korea Institute of Science and Technology (KIST)
- Korea Advanced Institute of Science and Technology (KAIST)
- Electronics and Telecommunications Research Institute (ETRI)

In general, normal procurement for defense equipment follows a direct line through the DPA of the MND and the following agencies:

- | | |
|-----------------|---|
| Inspections: | DPA and/or the Armed Forces Special Inspection Group, MND |
| Decision-Maker: | Minister of National Defense if the contract is worth less than WON 5 billion, if over WON 5 billion, an additional approval of the President is required (exchange rate, as of March 97 is USD 1.00 = WON 864) |

Typical procedures for importing foreign weapon systems are as follows:

- Request from one of the military services via requirements approval by the JCS
- Investigation by the MND, the Procurement Committees, and the JCS
- Contract routed through the DPA

All U.S. firms should work through JUSMAG-K (please see addresses at the end of this chapter) in order to understand and follow the procurement process for any particular sale.

Diversification/Commercial Opportunities

South Korea's fast pace, dynamic and vibrant economy continues to provide a wide range of opportunities for U.S. dual-use and/or commercial goods and services. The following is a list of large industry sectors in Korea which provide an excellent opportunity for U.S. participation:

Aircraft and Parts

The civilian aircraft market has recently confirmed its position as an important sector in Korea. Both Korean Airlines (KAL) and Asiana Airlines (AAR) continue to expand operations throughout the world, prompting increasing demand to upgrade and expand their fleets. KAL is in the process of reviewing proposals for their goal of 63 aircraft procurements by the end of the century, while AAR has been actively procuring aircraft to meet its stated goals of 51 total aircraft by 1998. KAL intends to decrease the average age of its fleet of transports to less than seven years, which will make it one of the youngest fleets in the world. This effort is expected to generate approximately USD 15-30 billion in total value. Both KAL and AAR currently operate approximately 100 U.S. manufactured transports (Boeing and McDonnell Douglas), with Korean companies (Samsung, Daewoo, and Hyundai) working in cooperation. Competition from Airbus is expected to be formidable.

To help establish the infrastructure necessary to support this expansion in the civil air sector, 12 military airports throughout the country have been opened, to date, to accommodate civilian flights. As for subsystems and parts, Korea has developed industry expertise in flat panel displays, spearheaded by Samsung Corporation's Aerospace Division.

Advanced Ceramics

Korea has made significant progress in the advanced ceramics market over the past few years, fostered by improved research and development in powdered metals technology. In terms of industry applications for this sector, the U.S. has become a willing partner in the emerging structural ceramics field. As Korea turns away from Japan, which has been the principle supplier, particularly with electronic applications, U.S. firms are well positioned for new trade opportunities.

Electronics

Dominated by an export oriented strategy, Korea continues to expand its world market share of consumer and industrial electronics. Although somewhat slowed in recent years by an overall cooling of the economy, this sector still enjoys growth rates beyond those of other sectors. As Korea's demand for production applications for high tech electronics continue to flourish, several sectors seem to be most promising for U.S. firms, including semiconductors (integrated circuits), passive components (resistors, capacitors), and mechanical components (connectors, printed circuit boards). Korea has committed significant capital investment towards

achieving greater Korean content of finished electronics goods, meaning U.S. sales of electronic production equipment to Korea will likely increase in the short term.

Computers, Peripherals, Software

U.S. firms should expect to see intense competition in this sector as Japanese and European companies will try to take advantage of recent modernization efforts by the Korean Government and the private sector. As more Korean institutions strive for decentralized data processing capabilities and interfacing office automation, U.S. companies need to increase their sales and marketing efforts to take advantage of this fast growth opportunity since brand recognition spurs on consumer loyalties in Korea.

In the areas of hardware and peripherals, U.S. suppliers should see promising business opportunities in several sectors, including mainframe/minicomputers, engineering workstations, microcomputers for home and office use (PCs), printers, and local area network equipment.

In software, fueled by an emphasis on computerization, demand continues to increase, particularly in the specialized areas which are geared towards the end user in Korea. Although protection of intellectual property rights is still a concern to most U.S. manufacturers, the Korea Government has nevertheless stressed greater commitment towards enforcing laws and regulations for protecting IPR. With the formation of the National Computer Agency, the Korean Government has taken strides to seriously address this issue, meaning greater encouragement for U.S. firms to participate in this sector.

Telecommunications

There is significant opportunity for U.S. firms in Korea's telecommunications industry which is generally recognized as one of the fastest growing markets in the world. Although details which govern the recent lifting of major technical barriers to imports continue to be debated, U.S. firms will benefit from government efforts to restructure and deregulate the market. Local consumer and sectoral demands are pushing for new, improved and expanded systems, such as Keyphone/PBX systems, cellular communications equipment, broadcast equipment, expanded cable television networks, data communications equipment, voice processing equipment, and satellite equipment.

Medical Equipment

As the Korean standard of living improves and demands for quality health care services increases, there has been a significant upward trend for acquiring improved and sophisticated medical technology. Since Korea has traditionally relied on imported medical supplies to meet the high standards being sought by the public, U.S. firms, the leaders in this sector, are well positioned to take advantage of this development. Increasing demand for several products should provide opportunities for U.S. firms to further establish themselves in the Korean market. These

include diagnostic imaging equipment (magnetic resonance imaging, CAT-scans), surgical laser equipment, contact lenses, catheters and medical equipment for the disabled.

Machine Tools and Metallurgy Equipment

Over the past few years, there has been a sudden shift in local demand away from basic machine tools and mills, in favor of high speed, numerically controlled precision tools. Heavy industry and manufacturing facilities have implemented a policy of automation and are continuing to look for new supply sources. Anti-Japanese imports sentiment continue to affect procurement decisions which give an advantage to U.S. suppliers in spite of the strengthening dollar exchange rate.

Pollution Control Equipment

Government regulations and public awareness of environmental protection have improved in recent years as Koreans experience a sudden surge in standard of living. Although municipal governments have implemented garbage recycling programs in large housing development areas, with a regulatory agency to enforce compliance, efforts to curb commercial and industrial waste have been uneven. Public concerns for cleaning up industrial waste and establishing safety standards, particularly water treatment, is generating a push to acquire technologies to address this long neglected problem. As the overall market development for environmental equipment and services keeps in pace with this movement, so does the opportunity for U.S. firms to gain market share in this sector. The following equipment and services are expected to be an integral part of this emerging market: air pollution control equipment, air quality monitoring equipment, desulfurization systems, water pollution control equipment, incineration equipment, recycling equipment, noise pollution monitoring systems, plastics and aluminum recycling (equipment and facilities), waste tire recycling, hazardous waste management (solid and liquid), sanitary landfill equipment and materials.

The following is a list of key non-defense ministries involved in above mentioned areas. Individual contact names are not provided since frequent personnel changes and sudden rotational assignments may preclude continuity of contact with a particular official. **It is suggested that interested firms contact the U.S. Embassy in Seoul for updated information:**

--Ministry of Trade, Industry and Energy (MOTIE)
1, Joongang-Dong, Kwachon City
Kyonggi-Do, Korea

--Ministry of Construction and Transportation (MOCT)
1, Joongang-Dong, Kwachon City
Kyonggi-Do, Korea

--Ministry of Health and Welfare (MOHW)
1, Joongang-Dong, Kwachon City
Kyonggi-Do, Korea

--Ministry of Environment (MOE)
7-16, Shinchon-Dong, Songpa-Ku
Seoul, Korea

--Ministry of Science and Technology (MOST)
1, Joongang-Dong, Kwachon City
Kyonggi-Do, Korea

U.S. Government Points of Contact

The following is a list of contacts for U.S. firms seeking additional information concerning the Korean market:

American Embassy

U.S. Commercial Service:

Mr. Jerry K. Mitchell
Minister Counselor for Commercial Affairs
American Embassy
Unit 15550, APO AP 96205-0001
Tel: 011-82-2-397-4208
Fax: 011-82-2-739-1628

Defense Attache Office (DAO)

Col. Robert Elliot
American Embassy
Unit 15550, APO AP 96205-0001
Tel: 011-82-2-397-4184
Fax: 011-82-2-725-5262

Science and Technology (S&T)

Mr. Ahmed Meer
Counselor
American Embassy
Unit 15550, APO AP 96205-0001
Tel: 011-82-2-397-4159

Fax: 011-82-2-733-4791

Political Office (POL)

Mr. James Keith
Military Affairs Officer
American Embassy
Unit 15550, APO AP 96205-0001
Tel: 011-82-2-397-4133
Fax: 011-82-2-733-4791

Joint U.S. Military Advisory Group-Korea (JUSMAG-K)

Col. Mark Shoemaker, Chief
Unit 15339, APO AP 96203-0187
Tel: 011-82-2-7915-3292/6077
Fax: 011-82-2-7915-8825

U.S. Department of Defense

LCDR. Joe Cummiskey
Defense Security Assistance Agency
Attn: DSAA OPS-ERP
Washington, D.C. 20301-2800
Tel: (703) 604-6609
Fax: (703) 604-6541

American Chamber of Commerce in Korea

American Chamber of Commerce in Korea
Room 307, Westin Chosun Hotel
87, Sokong-Dong, Chung-Ku
Seoul, Korea
Tel: 011-82-2-752-3061, 753-6471
Fax: 011-82-2-755-6577

TAIWAN

TAIWAN

Overview

Over the past four decades, Taiwan's economy has been one of the star performers in Asia, and the outlook for its future growth remains bright. Now a developed economy, Taiwan's real GDP grew in the range of 6-7 percent in the early nineties. Weakness in real estate and stock markets and the impact of increased tensions in the Taiwan Strait caused real GDP growth to decline from 6.5 percent in 1994 to 6.1 percent in 1995. In 1996 economic growth is, however, expected to return to 6.3-6.5 percent range. The island's ambition, first expressed a decade ago, to transform itself from an export platform to a high tech production center is proceeding apace. Taiwan exports of high-technology and capital intensive goods, which in 1993 exceeded exports of labor intensive goods for the first time, surpassed 60 percent of total exports in 1995.

Defense Industry Environment

Taiwan's Ministry of National Defense (MND) had a budget of US \$9.57 billion for Fiscal Year 1996, which began July 1, 1995, a 2 percent increase over the previous year's budget. The national defense budget accounted for 23 percent of the total budget of the central authorities, a slight reduction from its 24.5 percent share of the total FY 95 budget. US \$3.4 billion or 35.5 percent, of that budget was reportedly spent on military investment. Defense spending' as a percentage of Taiwan's GDP has been steadily decreasing over the past several years. The national defense budget for FY 1996 represented 3.6 percent of Taiwan's overall GDP.

The proposed national defense budget for FY 1997 reportedly shows a decline of 1.2 percent from the FY 96 Budget to US \$9.45 billion. The budget for weapons purchases is projected to be US \$2.24 billion.

Taiwan has a strong private-sector industrial base, but domestic production of defense equipment has traditionally been dominated by organizations run directly by the Taiwan military. Domestic production has been concentrated in two organizations: the Chung Shan Institute of Science and Technology (CSIST), especially the Aero Industry Development Center (AIDC), and the Combined Service Forces (CSF). Academic institutions and authority-owned firms, most notably the China Shipbuilding Corporation, have also played a significant role in the production of defense equipment.

The star of Taiwan's defense industry is the Chung Shan Institute of Science and Technology (CSIST). Established in 1968, CSIST employs over 6,000 scientists and more than 8,000 technicians. It has four major research divisions: Aeronautics, Missiles and Rockets, Electronics, and Chemistry. CSIST has six centers for systems development, systems

maintenance, quality assurance, materials research and development, aeronautic development, and missile manufacturing. CSIST jointly conducts independent research and development of weapon systems with the Aero Industry Development Center, which was Under CSIST's supervision. To date, a number of weapon systems have been domestically designed, tested, and produced on a mass scale by CSIST. These include the Kung-Feng 6A rocket, the Hsiung-Feng I and Hsiung-Feng II SAMs, artillery fire control systems, naval sonar systems, and naval electronic and warfare systems. CSIST has produced or plans to produce Tien-Kung I and Tien-Kung II SAMs and the Tien-Chien I AAMs. CSIST is also developing Tien-Chien II AAM system. The institute will downsize to about 10,000 employees over the next several years due to shrinking business as well as defense budget cuts. Within the next few years, the authorities plan to turn the institute into the Chung Shan science-based Industrial Park, which will accommodate local and foreign firms engaged in high-tech product research, development and manufacturing.

The Aero Industry Development Center (AIDC) was founded to secure an aerospace manufacturing capability in Taiwan. AIDC began with the co-production of UH-1 Helicopters and F-5 fighters and has since developed two indigenous jet aircraft, the AT-3 jet trainer and the Indigenous Defense Fighter (IDF). Established in 1969, AIDC is the leading aircraft and aircraft engine manufacturer. AIDC, with a workforce of 5,000 highly skilled employees, has four major entities comprising an aeronautical research laboratory, an aircraft factory, an avionics factory, and an aero engine factory. Through joint ventures, technology transfers and assistance programs with foreign aerospace companies, AIDC has been able to manufacture and assemble a total of more than six hundred military aircraft and over three hundred aircraft engines. AIDC has successfully developed an Indigenous Defense Fighter (IDF), now in full production. AIDC has recently joined a Sikorsky-led team to co-produce the S-92 helicopter. AIDC has obtained quality-assurance and testing certificates for more than 200 aircraft parts From European and American aerospace companies. A proposal to privatize AIDC was approved by the Legislature on May 16, 1995.

In July 1996, the military-run AIDC was restructured as a state-run enterprise under the Ministry of Economic Affairs. This conversion from military to public enterprise status is intended to facilitate the transfer of Taiwan's military aeronautic technology to the private sector while enabling the center to form joint ventures with high-tech foreign manufacturers. This in turn is expected to bring advanced aviation technology into Taiwan to accelerate the growth of its aerospace industry. A period of three and a half years has been granted to the center to carry out full privatization.

The Combined Service Forces (CSF) serves as the logistical command responsible for the production of ordinance, military maps, and communications equipment for Taiwan's armed forces. CSF also provides support and services commonly needed by all armed forces services, Such as finance, surveying, engineering, rear echelon administration, and armament appraisal and testing.

The state-run China Shipbuilding Corporation (CSC), with 6,400 employees, was contracted to build the Navy's second-generation ships: missile frigates and missile patrol boats. Taiwan plans to build eight missile frigates. Four PFG-2 (Perry Class) frigates have been produced by CSC and turned over to Taiwan's Navy. The fifth missile frigate is scheduled to be delivered to the Navy in January 1997. CSC will complete construction of the remaining frigates by 1999. The first 500-ton missile patrol boat was turned over to the Navy in December 1995. Construction of the remaining 11 missile patrol boats is underway.

Taiwan has traditionally relied heavily on U.S. suppliers for its defense equipment needs. From the U.S. entry into World War II until the break in diplomatic relations in 1979, the U.S. was a close military ally of Taiwan. Until 1994, Taiwan purchased advanced military equipment almost exclusively from the United States, often directly from the U.S. Government through the Foreign Military Sales (FMS) program. All of the major U.S. defense contractors have sold equipment and/or technology to Taiwan, and most of these firms have well-established, long-term relationships with individuals and institutions in the Taiwan military.

Since 1990, Taiwan has attempted to diversify its sources of defense equipment. Taiwan has ordered 60 Mirage 2000-5 fighters and six Lafayette frigates from France and has purchased two submarines from Holland. Purchasing from new suppliers not only decreases Taiwan's dependence on the United States, it also wins the politically isolated Taiwan authorities important friends among the world's hard-pressed defense contractors. European defense contractors are aggressively courting Taiwan decision makers and U.S. contractors will have to protect their market share.

Defense Opportunities

Taiwan's detailed plans for upgrades and new systems are a closely guarded secret, but a general outline of Taiwan's procurement plans is easily obtainable. Taiwan's military equipment is primarily U.S. military equipment of late 1940's and mid-1950's vintage (i.e. C-119, F-5E/F, and F-104 aircraft; towed artillery, M-41 Tanks; and Fletcher, Summer, Gearing Class Destroyers, LST, LSD, PF, and MSC ships). As a result, maintenance support and spare parts are increasingly difficult and, in some cases, impossible to find. Modification or upgrade of this obsolete equipment would be very costly. Consequently, the Taiwan military is looking to retire this old equipment as it procures replacement equipment.

Within the past five years, Taiwan has procured and produced numerous new weapon systems. The Air Force has ordered 150 F-16s, 60 Mirage 2000-5s, 4 E-2Ts, and a number of C-130H aircraft. They have also designed, developed, and are now producing the Indigenous Defense Fighter (IDF). The Navy has leased Knox Class frigates from the U.S., is awaiting delivery of the remaining five Lafayette class frigates from France, and has been building its own PFG-2 (Perry Class) frigates. The Army is receiving AH-64 and OH-58D helicopters from the U.S.. Taiwan is also buying an air-defense system based on Patriot missiles, Stinger

surface-to-air missiles, advanced targeting and navigation systems for fighter jets, electronic warfare devices, and M60A3 tanks from the U.S. Additionally, all services are upgrading radars and command and control equipment. Because these major procurements have occurred within the last five years and many of these systems are yet to be fielded, military spending for the next several years will be dedicated to funding and fielding these new systems.

These purchases typically include two years of spare parts as initial support for each major new system. Follow-on support is generally done via Foreign Military Sales (FMS) rather than by direct commercial sales. Due to the large number of new aircraft, the Taiwan Air Force is also modernizing its logistics management, however the vendors for this effort have largely been designated.

As Taiwan struggles to fund the huge costs of fielding so many major new systems over a short period of time, the newly empowered Legislative Yuan has played an increasing role in review and approval of military funding. Consequently, procurements move more slowly as legislators review how new weapons systems fit Taiwan's overall defense posture.

Taiwan's military strategy is a "defensive-defense" strategy. To implement this strategy, Taiwan's Ministry of National Defense (MND) will emphasize the following defense product areas in the next five years, which may provide trade opportunities for U.S. firms.

Control of the air: a) provide for maintenance and aircrew training, beddown, operate, and support of 150 New F-16 A/B fighters, 60 new Mirage 2000-5 fighters, and 130 new locally produced Indigenous Defense Fighters (IDF); b) modernize command, control, communication and intelligence systems (C3I) to digitally link Early Warning Systems, fight control, air-to-ground weapons, and central command networks; c) purchase long-range Early Warning radars and new air defense systems; d) Purchase electronic warfare systems and electronic countermeasures capabilities; e) upgrade F-5E/F fighter aircraft and subsystems and maintain follow-on logistic support of E-2 and C-130H aircraft.

Sea control: a) build the next generation surface combatant ships such as missile frigates, missile patrol frigates, and coastal patrol boats; b) lease Knox Class frigates and LSTs from the U.S.; c) purchase on-board missiles and control systems as well as three dimensional anti-submarine warfare assets.

Counter-landing operations: a) upgrade basic weapons And the C3I from corps to company level; b) procure and overhaul M60A3 tanks and buy new armored vehicles; c) procure combat helicopters, observation helicopters, training helicopters, and troop transport helicopters.

Defense Procurement Process

The Procurement Bureau (PB) and the Defense Procurement Division (DPD), Taipei Economic and Cultural Representative Office (TECRO)/Washington are Taiwan's two largest

and most important official military purchasing agencies. They purchase most of the military equipment and supplies required by Taiwan's defense organizations.

Other military procurement bodies, such as the military services' logistics commands and the Chung Shan Institute of Science and Technology play a relatively minor role in military purchasing abroad. Military organizations may purchase imported items without PB or DPD tendering bids, but all equipment and supplies with a purchase amount exceeding the designated audit ceiling of NTD50 million, approximately \$1.85 million, must be purchased through PB or DPD tenders.

There are two categories of military procurement in Taiwan: domestic purchase and overseas purchase. Both must be done in accordance with pertinent provisions of the Law of Audit. Under the Law of Audit, procurement can be made by open tender, restricted tender (selective tenders), or negotiation. Taiwan military purchasing agencies (except DPD/TECRO) usually solicit foreign bids through open tenders. Restricted tenders may be used for smaller purchases when the Executive Yuan specifies that the project should be awarded to entities in select geographical regions, or there is another policy reason for not holding an open tender. Restricted tenders, usually awarded on a price-comparison basis, require at least two bidders. Negotiated purchases require special authorization from the Ministry of Audit. Such authorization is granted only when the purchasing entity can demonstrate that there is only one qualified supplier or that the need is too urgent to conduct a competitive tender.

When less than three qualified bidders compete for an open tender, the bids will not be opened and the agency in charge will announce the cancellation of the tender. However, if there are only one or two bids and the agency has confirmed that only those bidders have the capability to take on the project, the procurement may be changed to a restricted tender or a negotiated purchase. This normally happens only on the third round of a tender (i.e. after the tender has twice failed to attract the mandatory three qualified bidders.)

Procurements can be classified into "single review" and "divided review" tenders, based on differences in the procedures used to review the bids. Tender documents usually ask the bidders to provide three main items: qualifications of the supplier, specifications of the commodity, and price. If these three items are reviewed at the same time, the tender is defined as a "single review" tender. If the item to be procured is expensive and technically complex, the qualifications of the bidders and the specifications of the product(s) they propose to supply are usually reviewed before proposals are opened. These tenders are defined as "divided review" tenders.

To begin the procurement procedure, the military purchasing agencies (except DPD/TECRO Washington) must publicly announce the invitation-to-bid in both Chinese and local English newspapers, namely the Youth Daily News and Central Daily News (Chinese), and the China Post and the China News (English). In case of restricted tenders or negotiated

purchases, invitation letters are sent to specific firms. An invitation to bid is attached to the letter.

The bidder must have its own copy of the invitation to bid, available at modest cost from PB/Taipei or DPD/Washington, D.C., to tender a bid. A bid bond of three percent of the total bid value in the form of cash, bank draft, certified check, bank guarantee, or letter of credit is required at the time of submission and will be refunded if the bid is unsuccessful. Unless otherwise stipulated in the contract, within 18 days after receiving the minutes of award, the seller must deposit a performance bond of five percent of the contract value.

New-to-market vendors interested in presenting their product line to Taiwan's military branches should first contact the Procurement Bureau within the Ministry of National Defense to schedule a presentation.

A primary function of the Procurement Bureau is the compilation of data and supplier lists which are made Available to Taiwan's military branches, so defense contractors are strongly encouraged to submit product literature and promotional material to the bureau's second division, which is also charged with making this information available to the various military service headquarters.

Product literature and all inquiries should be addressed to :

Procurement Bureau
Ministry of National Defense
172-1 Po Ai Road
Taipei, Taiwan
Tel: 886-2-382-6078
886-2-382-6079
Fax: 886-2-382-6444

Contacts: Captain Chang Wu-Tai, Chief, Second Division
Col. Y.F. Lin, Dep. Chief, Second Division
Lt. Colonel C.L. Chen, Procurement Officer
Commander Wei Hung, Procurement Officer

Barriers to U.S. firms

There are no known barriers to U.S. firms receiving solicitations, submitting offers, or obtaining contracts. The Taiwan offices or Taiwan representatives of U.S. firms may participate in domestic tenders and U.S. firms may participate directly in international tenders and invitations to bid. The specifications for international tenders are written in English and tendering firms' proposals are expected to be in English.

The Taiwan authorities have imposed offsets and technology transfer requirements on successful bidders for large military procurements, often after tenders have been awarded and contracts signed. Offsets or industrial cooperation programs range from 30%-60% of the contract price. Although no regulations stipulate that large projects must have local participation, the Taiwan authorities prefer to have domestic industry participation in major procurements to help local firms acquire foreign technology and high technology manufacturing experience. In addition, these industrial benefits make procurements more politically palatable.

Other Agencies with Jurisdiction over Defense Trade

The main push to require foreign suppliers to sign Industrial Cooperations Programs (ICP) comes from Taiwan's Legislative Yuan (LY), with strong support from the Ministry of Economic Affairs (MOEA). The first free elections for the LY in over 40 years were held in December 1992 and the second free elections in December 1995. The democratic and energized body is challenging the Executive Yuan on many fronts. Taiwan's historically independent military did not previously require offsets on military purchases, but obtaining an economic share for local business on multi-million dollar contracts with foreign firms is good politics, and pressure from the LY to obtain even larger offsets will continue.

MOEA is responsible for coordinating the Taiwan Authorities' efforts to upgrade Taiwan's industrial base, and as many defense products require sophisticated manufacturing capabilities, MOEA is interested in using LY-required ICP programs to assist Taiwan firms in moving into high value-added manufacturing. In addition, the Ministry of Foreign Affairs has jurisdiction over defense trade in accordance with Taiwan's foreign policy.

A key player in Taiwan's procurement process is the Ministry of Audit, which falls under the jurisdiction of the Control Yuan, an independent branch of Taiwan's Pentapartite government. The Ministry of Audit's job is to prevent corruption in the procurement process and ensure that the taxpayer's dollars are spent wisely. The Ministry of Audit monitors the procurement process to ensure that it is conducted in accordance with Taiwan laws and regulations, and has the power to decide when a tender can be awarded on a negotiated or restricted (only two bidders) basis.

Diversification/Commercial Opportunities

Privatization

Although Taiwan has plans to privatize many of the large, government-owned firms such as China Steel, China Petroleum, Taiwan Power, Bes Engineering, etc., few of these firms operate in the defense sector. Not only are privatizations far behind schedule, the Taiwan authorities are reluctant to allow significant foreign equity participation in the newly privatized firms. Although the privatization and removal of many special privileges from the large,

government-owned firms will open up new markets in Taiwan for U.S. competitors, U.S. firms will have to look very carefully at the cost of investments in these newly privatized firms.

One organization whose potential privatization has attracted a great deal of interest from the U.S. defense community is the Aerospace Industry Development Center (AIDC). The AIDC owns an advanced aerospace manufacturing center, has several thousand skilled workers on the payroll and is one of the few organizations in Taiwan with actual aerospace manufacturing experience. Current plans, however, are not to privatize AIDC, but to "corporatize" it from a non-profit research center to a profit-seeking, but still authority-owned corporation which would operate on a commercial basis. While U.S. firms may find opportunities to cooperate with AIDC on specific projects, there is little to no chance that Taiwan would allow foreign entities to hold a significant equity stake in a corporatized AIDC.

Opportunities for U.S. firms looking to sell dual-use or defense-related high technology products in Taiwan are excellent. Taiwan is seeking foreign suppliers and partners on a number of high technology products/projects, including the following industry sectors:

Environment

Taiwan launched a five-year Green Plan (1992-1996), which has strengthened enforcement of environment regulations. Strong political pressure from environmental groups and private citizens has forced the Taiwan authorities to launch several environmental improvement projects. The authorities have also provided attractive tax and financial incentives to encourage private firms to install proper pollution control facilities.

Computer Software

Taiwan has also become one of the most important and fastest-growing software markets in the Asia-Pacific region. Areas of opportunity in Taiwan's software market include multimedia, telecommunications, and internet-related products and services. In 1995, the total sales of Taiwan's information services industry exceeded USD 1.62 billion. Taiwan business firms are investing in various programs to automate offices and manufacturing operations. In addition, because of the growing awareness of intellectual property rights, Taiwan's purchases of foreign-developed software have expanded rapidly in recent years. The United States is the unchallenged leader, with an import share of over 70 percent. Furthermore, with over one million personal computers installed, the outlook for the PC-based software market is also promising. Taiwan is interested in acquiring 3D virtual reality PC technology. The Taiwan authorities have approved a budget of US\$ 2.5 million for the first phase of foreign technology acquisition.

MOEA has authorized an annual budget of NTD 6 million for a four-year plan to conduct preliminary work to research and promote CALS (Continuous Acquisition and Life-Cycle Support). Corporate Synergy Development Center is a key organization for CALS promotion.

The Industrial Development Bureau is executing its first 5-year plan (1993-97). The projects include:

1. Implementation of large-scale government projects for the development of pilot systems for National Information Infrastructure (NII);
2. Experimental broadband network system in Hsinchu Science-Based Industrial Park;
3. Information system for Land Affairs Administration;
4. Information system for National Geographic Management;
5. Office automation at basic-level government agencies;
6. Computerization of government documents; and
7. Computerization of the finance industry.

Sales of networking and application software have excellent prospects. Companies should consider localization of their products for Chinese language users.

Electronics Industry Production/Test Equipment

With several on-going and proposed high-tech investment projects and growing production of advanced electronic products and components, sales prospects for advanced EIPT equipment are bright. Most advanced EIPT equipment must be imported to meet domestic demand since Taiwan-produced equipment is still limited to simple, low-value added products. Furthermore, to upgrade production capabilities of the electronics industry, Taiwan has accelerated investment in the electronics manufacturing industry.

Laboratory Scientific Instruments

In recent years, Taiwan has made great efforts to improve its research and development environment. Public R&D expenditure on a wide range of projects has increased yearly. By 2002, more than USD 13.8 billion (NTD 360 billion) will be budgeted for science and technology related R&D. The authorities have also provided the private sector with attractive R&D tax incentives and other supports. High-end laboratory and scientific instruments are all imported. Since U.S. firms are particularly strong at the high end, sales in this area are expected to remain strong.

Telecommunications Equipment

As of 1996, the Taiwan authorities have begun to open up the telecommunications market to competition and privatization. The Telecommunication Law, promulgated in February, 1996, separates telecommunications regulation from operations and allows wholly foreign-owned value-added network service providers to compete in the market. The law also opens major wireless services to private competition with a maximum of 20 percent foreign investment. Cable television legislation has also become law. Since Taiwan does not produce advanced telecommunications equipment, many opportunities exist in this area for U.S. firms.

Transportation/Aerospace

Taiwan's airport projects include the expansion and modernization of the Chiang Kai Shek (CKS) International Airport and the renovation of domestic airports. All projects in this sector are the responsibilities of the Civil Aeronautics Administration (CAA), within the Ministry of Transportation and Communications (MOTC).

While local firms can undertake basic design work and civil construction, opportunities for American firms are limited to the sale of specialized equipment, or overall management.

The CKS second phase expansion project consists of two parts:

Passenger Terminal

The USD 960 million project involves the construction of an additional terminal, aprons for additional wide body jets, a multi-level parking structure, installation of a domestic transfer terminal and expansion of related support facilities. CAA has awarded two contracts and is yet to let contracts for a people mover system, baggage handling system, elevators/escalators, boarding bridges, and a baggage transfer system.

Cargo Terminal

This project consists of expansion of cargo terminal warehouse facilities, installation of an automated cargo processing system, construction of additional aprons for cargo planes, and parking facilities for cars and small trucks. Taiwan's CAA has undertaken the basic design. The cost for this project which may be undertaken as a turnkey operation is estimated at USD 160 million, covering design, construction, equipment procurement, training, etc. CAA estimates that approximately USD 80 million will be spent on electrical and mechanical equipment, much of which will be acquired from foreign suppliers.

Taiwan plans to build a third international airport in southern Taiwan but has yet to decide the airport site. Meanwhile, Taiwan's CAA plans to expand domestic airports in Tainan, Taichung, Hualien, and Matzu Island.

Helicopters

Taiwan has finalized plans to open its skies to commercial helicopter transportation for passengers, cargo and mail, thus spurring the demand for commercial helicopters. In line with this new policy, Taiwan will build eight heliports in Ilan, Miaoli, Taichung County, Nantou, Youlin, Tungyin island, Kinmen and Chu-Kwang.

Currently, Taiwan plans to open three flight routes for helicopter transportation. They are CKS Airport-Taipei Airport, CKS Airport - Hsinchu Science-Based Industrial Park, Taipei

Airport - Hsinchu Science-Based Industrial Park. The Taiwan authorities are considering opening tourist routes on a point to point basis.

Medical Equipment

Taiwan began implementation of an island-wide public health care insurance system in March 1995. A total of USD 3 billion has been set aside as health care continues to be a major issue in Taiwan. More than 22 large-scale hospital investment projects will be undertaken by 1999. Projected health care expenditures will double, to reach USD 4 billion by the end of 1996.

In addition, diagnostic and therapeutic equipment is in great demand in Taiwan. Taiwan's medical device market is growing at double digit rates and is projected to continue in the near future, which will translate into many trade opportunities for U.S. firms.

Process Controls: Industrial (PCI)

Taiwan's manufacturers continue to modernize their production equipment to hasten the shift toward automation. This has lead to increased demand for more advanced industrial process controls. U.S. suppliers are highly competitive in the growing markets for electronic and computer-based control systems. More than 80 percent of U.S.-made process control systems sold in Taiwan go to state-run firms and large-scale private enterprises. Private industrial firms are major purchasers of Japanese systems because of their lower selling price and good after-sales service. There is little competition from local manufacturers due to insufficient R&D and lack of technical know-how. Process control systems used in the chemical industry have the highest growth potential.

For further information regarding trade opportunities in these commercial sectors, please contact the following ministries and/or the American Institute in Taiwan (AIT).

Contact for airport expansion projects:

George C.C. Feng
Director
Division/Airport Expansion Construction
Division, Civil Aeronautic Administration
Ministry of Transportation & Communications
Sungshan Airport, Taipei Taiwan
Tel: 011-886-2-514-2931
Fax: 011-886-2-514-7216

Contact for purchases of helicopters:

Chih-Hsiang Chou (surname Chou)

Director
Flight Standards Division
Civil Aeronautics Administration
Taipei Sung Shan Airport
Tel: 011-886-2-514-2441
Fax: 011-886-2-712-1815

Contact for law enforcement:

Yao Kao-Chiao (surname Yao)
Director General
National Police Administration
7 Chunghsiao e. Road, Sec. 1
Taipei, Taiwan
Tel: 011-886-2-321-9011
Fax: 001-886-2-396-9781

Contacts for related technology fields:

H.H. Tsai
Administrator
Environmental Protection Administration
41, Sec. 1, Chung-Hwa Road
Taipei, Taiwan
Tel: 011-886-2-311-7772, ext. 2000
Fax: 011-886-2-311-6071

Chang Po-Ya, M.D., M.P.B.
Director-General
Department of Health, Executive Yuan
100 Aikuo H. Road
Taipei, Taiwan
Tel: 011-886-2-321-0151
Fax: 001-886-2-312-2907

Li-Chuan Chu, Ph.D.
Project Manager
Office of Committee for Aviation & Space
Industry Development (CASID)
International Trade Building, Suite 1712
333 Keelung Road, Sec. 1
Taipei, Taiwan
Tel: 011-886-2-757-6157

Fax: 011-886-2-757-6043

Richard Y. H. Lin
Director
Center for Aviation & Space Technology
Industrial Technology Research Institute
Chung Hsing Compound
195 Chung Hsing Road, Sec. 4
Chutung, Taiwan 310
Tel: 011-886-2-035-820-100
Fax: 011-866-35-820-045

Doing Business in Taiwan

Many books have been written on doing business in Asia and it is expected that many more will be written in the future. Doing business in Taiwan is different from doing business in the United States, but U.S. firms are best served by using common sense and sticking to certain fundamental rules which are briefly discussed below.

- Learn as much as possible about the market, competitors and the people with whom you will be doing business with by obtaining as much written information as possible.
- Know the strengths and capabilities of your products and the capabilities of your company.
- Communication is paramount. If necessary, hire a professional interpreter/translator to communicate your message effectively. Respond promptly and thoroughly to all requests for information or assistance.
- Be honest and considerate. Productive long-term business relationships are built on a foundation of honesty and mutual respect. U.S. firms should make an effort to learn about Taiwan business and cultural practices such as business-card giving, banqueting, and the importance of titles. Taiwan business people and Government officials will readily forgive small mistakes in Chinese etiquette if they believe the offender is honest and sincere.

Regulatory Environment

The Ministry of Economic Affairs had recently announced measures governing imports and exports of high-technology equipment and supplies. The measures stipulate that when a local importer is required by the government of the exporting country or the foreign exporter to submit an international Import Certificate (IC) and a Delivery Verification Certificate (DV) for a COCOM controlled product valued over \$5,000, the importer shall apply for such certificates in

accordance with the procedures outlined by MOEA. The measures also require a local exporter to apply for an export license from the Board of Foreign Trade in order to export high-technology equipment and supplies.

Import licensing requirements are being phased out on most civilian products, but importers must obtain an import license from MND to import munitions and armaments. MND must also approve the export of such products.

Foreign firms are prohibited by law from making investments in Taiwan's defense industries. As noted above, the Taiwan authorities have recently begun requiring "Industrial Cooperation Programs" (IPC), which normally contain offset provisions as a condition of all large government procurements, including defense equipment. The percentage for IPC (or offsets) is determined at the planning stages and will be no less than 30 percent of the purchase price. The authorities have traditionally encouraged co-production of many weapon systems.

U.S. firms should note that Taiwan procurement regulations specifically prohibit foreign firms pursuing defense contracts from employing local agents on a commission basis. While it is permissible to hire a local representative to liaise with the military and obtain information, it is not permitted for the foreign firm to link the agent's compensation to the results of a tender award. The Procurement Bureau prefers to work directly with foreign suppliers rather than through local representatives. Commissions cannot be paid to local sales intermediaries where procurement is in excess of \$1 million. This measure was adopted to reduce the possibility of corruption on large procurements.

U.S. Government Points of Contact

The following is a list of useful contacts for U.S. firms interested in doing business in Taiwan.

AIT Commercial Section

Suite 3207, 32/F International Trade Tower
333 Keelung Road, Section 1, Taipei, Taiwan
Tel: 886-2-720-1550
Fax: 886-2-757-7162

William Zarit
Deputy Chief

Cynthia Griffin
Commercial Officer

Peter Yen
Commercial Specialist

AIT Technical Section

7, Lane 134, Hsin Yi Rd., Sec. 3, Taipei, Taiwan

Tel: 886-2-7092000

Fax: 886-2-7027675

Gus Sorenson

Chief

Robert Van Horn

Army Logistics/Programs

George "Korky" Wright

Air Force Logistics/Programs

Richard Ames

Navy & Marine Logistics/Programs

AIT Technical Liaison Section

7, lane 134, Hsin Yi Rd.,

Sec. 3, Taipei, Taiwan

Tel: 886-2-7092000

Fax: 886-2-7027675

Larry Mitchell

Chief

Roger Dong

Deputy chief

AIT Economic Section

7, lane 134, Hsin Yi Rd., Sec. 3, Taipei, Taiwan

Tel: 886-2-7092000

Fax: 886-2-7014216

Ann K. Breiter

Science and technology Officer

AIT Washington

1700 North Moore Street

Suite 1700

Arlington, Virginia 22209

Tel: 703-525-8474-6

Fax: 703-841-1385

Gary Weis
Director, Political Military Affairs

U.S. Department of Defense

Mr. Wayne Laskofski
Defense Security Assistance Agency
DSAA/OPS/EPR
Washington, D.C. 20301-2800
Tel: (703) 604-6609
Fax: (703) 604-6041

THAILAND

THAILAND

Overview

Thailand's economic development policies are based on a competitive, export-oriented, free market philosophy. Its economy is in transition from its agricultural roots to a more open and broadly based system with a large manufacturing sector. In the last decade, Thailand enjoyed average annual economic growth rates of 8.2 percent and with healthy economic fundamentals the growth rate should remain in the range of 7-8 percent for the next two years. Thailand's trade relations have traditionally been oriented toward distant markets, particularly those in North America and Europe. The implementation of an ASEAN Free Trade Area (AFTA) is contributing to more rapid growth in Thai trade with its ASEAN partners. The United States has long been Thailand's key trading partner and military ally. This strong economic and military relationship will continue to provide trade opportunities for U.S. firms in both commercial and defense industry sectors.

Defense Industry Environment

Thailand's yearly defense spending is about US \$4 to 4.3 billion. The defense budget as a percentage of Gross Domestic Product (GDP) has remained constant over the past three years at 2.1 percent. About US \$800 million to US \$1 billion is spent annually for military hardware, both to replace outdated items and for new programs.

Thailand's domestic defense industry capabilities are rudimentary. Although Thai industry is able to produce some forms of ammunition, the Ministry of Defense (MOD) relies heavily on foreign sources for virtually everything else such as transportation, communications gear, and weapons.

The U.S. traditionally has been Thailand's primary source of defense equipment. In recent years, China has become an important supplier of frigates and wheeled vehicles. Traditional European suppliers are the UK, France, Germany, Italy, Spain, and the Czech Republic. The Thai military has also purchased defense equipment from the Republic of Korea, Israel, Austria, and Indonesia. This recent diversification of defense suppliers has led to increasing competition for U.S. vendors.

Defense Opportunities

All the military services, the Army, Navy, Air Force, and the Marine Corps, routinely seek to upgrade existing capabilities. Since Thailand possesses a large standing force (190,000 in the Army, 48,000 in the Air Force, and 53,000 in the Navy and the Marines), the requirements for military equipment vary widely. In general, all the services look for ways to upgrade basic

communications gear and transportation equipment. However, due to tight defense budgets, the Thai military places strong emphasis on cost.

Thailand's Ministry of Defense has published a defense white paper, the "Defense of Thailand 1996" which is a convenient source of information. This publication has been distributed recently at a regional security conference. With respect to future trends, the Thai Armed Forces have begun a process of downsizing the number of personnel. The military hopes to maintain readiness by offsetting the downsizing of personnel with more sophisticated equipment as outlined below.

Royal Thai Army (RTA)

RTA recently developed a plan to modernize its wheeled armored vehicles and main battle tanks. It also plans to change 200,000 assault rifles used by rangers to a new generation model, and to set up a Command, Control, Communications and Intelligence (C3I) System. The RTA also needs about 136 training aircraft to replace its aging T-41 aircraft.

Royal Thai Air Force (RTAF)

RTAF has several major programs in their FY '96/97 budget/acquisition plan. These include a squadron of 8 second generation fighters; training aircraft; C-47 aircraft modification; AMRAAM missiles; four to six new C-130H aircraft; and a hypobaric chamber. In addition, the RTAF, in its five year plan (1997-2001) plans to invest another US \$3.2 billion for the procurement of new aircraft and for upgrading/modification programs.

Royal Thai Navy (RTN)

RTN is considering the following equipment/systems for possible acquisition: diesel powered submarines; mine countermeasure ships; airborne early warning systems, tactical data links for ships, aircraft, and shore sites; weapons systems and service life extension programs for amphibious assault vehicles; and anti-submarine helicopters.

Defense Procurement Process

There are three defense procurement processes in Thailand, first, through government to government sales (Foreign Military Sales (FMS) program), second via public tenders, and third, by direct commercial sales from foreign manufacturers. The FMS program is coordinated by the Joint U.S. Military Advisory Group, Thailand (JUSMAGTHAI). Most military hardware and software acquisitions are initiated by the individual military branches within the Royal Thai Armed Forces. Each service makes known its specific requirements for an intended acquisition, including prices, expected payment schedules, etc., and then approaches governments or invites bidders to compete for the order. For procurements of most major systems, special committees

are formed composed of senior military officials. The procurement process is opaque, and politicization of that process has increased markedly over the past year.

All large procurements require cabinet approval. The Ministry of Defense can present any proposal for military procurement to the cabinet for approval. While other organizations, including the Foreign Affairs Ministry, the Finance Ministry, the Commerce Ministry, and the Office of the Prime Minister, have some influence over the approvals of large procurements, most input, comes from the individual military services.

Recently, the Royal Thai Government established a counter trade requirement for government procurement exceeding US \$20 million, but for military sales, the threshold was raised to US \$40 million. Under the new requirement, partial payment for goods and services procured by all government agencies and armed forces must be in the form of barter goods. Bidders for large-scale contracts are required to submit a "Letter of Undertaking" agreeing to accept Thai commodities in partial payment. The amount of such counter trade items is negotiated on a case-by-case basis, but averages 20 to 30 percent of the purchase price. Successful bidders negotiate a final counter trade amount with the Ministry of Commerce before a formal contract is signed. Thai commodities used in counter trade deals include rubber, rice, tapioca flour, and certain kinds of manufactured goods. In some cases, offers of technology or co-production are considered in lieu of commodities. There are restrictions on the overseas markets where counter trade commodities can be sold in order to limit competition with Thai commercial exporters.

Diversification/Commercial Opportunities

U.S. defense firms seeking to diversify will find opportunities in the following rapidly expanding infrastructure sectors:

Aerospace/Transportation
Telecommunications
Health Care

Aerospace/Transportation Sector

A new development in the aerospace sector which will provide trade opportunities for U.S. firms is Thai Airways International plan to create a Heavy Aircraft Maintenance Center (HAMC). The HAMC is one of four major infrastructure projects highlighted under the second phase development of the Eastern Seaboard New Economic Zone. Within the first phase, Thailand invested US \$12 billion to develop two seaports, a petrochemical zone and industrial parks.

In the second phase, valued at US \$8 billion, the Thai Government will continue the momentum of development in this area, focusing on transportation-related projects.

■ *Heavy Aircraft Maintenance Center (HAMC)*

Under the Royal Thai Government (RTG) resolution of August 30, 1994, the HAMC project would have been a joint venture with foreign investors. However, the RTG in November 1995, decided to let Thai Airways go it alone by establishing a fully-owned subsidiary company, the Thai Aircraft Engineering Services Company Limited, to handle the project. Under this new resolution, TAESC will be privatized after it is in operation. TAESC is being incorporated as a limited liability company with a registered capital of US \$8 million. TAESC will be positioned to perform aircraft maintenance, component maintenance, and other repair work for the Thai Airways fleet and other Asian customers, as well as the Royal Thai Armed Forces.

Aerospatiale's subsidiary SORGERMA-SOCEA was the first foreign investor expressing interest to participate in the HAMC and plans to take an initial twenty percent equity. However, due to the RTG's new resolution in November, 1995, the TAESC is now open for foreign joint venture. U.S. companies have especially good prospects to participate in this project due to their comparative advantage in technology and expertise.

■ *Thailand Global Transpark*

This will be a US \$100-200 million just-in-time industrial park for manufacturing and distribution proposed for the Utapao Airport by the National Economic and Social Development Board (NESDB). A preliminary feasibility study was funded by the U.S. Agency for International Development. The "transpark" concept was developed by the Kenan Institute of Private Enterprise in North Carolina. The U.S. Trade and Development Agency (TDA), on September 27, 1995, approved a grant of US \$495,000 to support a comprehensive feasibility study of this project. In addition, the RTG has approved the Eastern Seaboard Development committee's request for another US \$1 million to co-support this study project. Selection of a consulting engineer is underway.

■ *Second Bangkok International Airport (SBIA)*

A US \$4 billion project scheduled for completion by 2001, the construction of SBIA by the New Bangkok International Airport Company Ltd, a subsidiary of the Airports Authority of Thailand (AAT), will provide trade opportunities for U.S. firms. The SBIA was initiated by the AAT and was approved by the RTG in April 1991. The responsibility for project implementation was transferred to NBIA Company Limited in April 1996. The project will be constructed in three phases: Phase One, which began in 1992-93, consisted of preliminary planning and design with NACO/Louis Berger as general engineering consultant; Phase Two, which began in 1994 and completed in 1996, concentrates on design and engineering specifications; Phase Three is the construction phase, to begin in 1997.

In 1995, AAT awarded contracts to two U.S.-led consortia and one Taiwanese consortium for the detailed engineering designs for the following projects:

- US \$33.9 million design contract for the construction of a \$1 billion passenger terminal (Murphy Jahn/TAMS/ACT)
- US \$5.5 million airfield pavement design contract (DMJM)
- US \$2.0 million airport roads design contract (MOH Associates)

Additional contracts or concessions to be let in the medium term will cover:

Central utilities
Transformer stations
Permanent utilities (electrical, communications, water supply, waste management, etc.)
Air traffic control, radars, navigation aids
Aircraft fueling system
Medical building design/construction
Cargo terminal design/construction
Aircraft maintenance facilities
Hotel development
Express freight terminal
Equipment and supplies for terminals

■ *High Speed Intercity Train Service*

In August 1994, the Thai Cabinet approved a High Speed Rail project to interconnect Bangkok and Rayong province directing that the State Railway of Thailand (SRT) will lead project development and for the private sector to play as large a role as possible. In September 1994, the U.S. Trade and Development Agency (TDA) granted US \$500,000 through the Office of the National Economic and Social Development Board (NESDB) to the RTG to fund the cost of a Feasibility Study. The NESDB hired a U.S. consultant, Wilbur Smith Associates, to conduct the study. Wilbur Smith submitted its final report on the project to NESDB in November 1995. In March 1996, the SRT Board of Directors agreed to spend US \$1 billion right-of-way land acquisition, building the track, stations, a depot, a maintenance center, and other facilities. The Board also approved a proposal to invite the private sector to supply rolling stock and operate the system. Private participation value is estimated at US \$440 million. The Bangkok-Rayong route will be about 200 kilometers in length with standard gauge track and train speeds at about 160 kilometers per hour.

■ *Metropolitan Rapid Transit*

To solve the chronic traffic problems in the Bangkok Metropolitan area and its vicinity, the RTGT finally gave its approval for the Metropolitan Rapid Transit Authority (MRTA) to proceed with construction of a heavy rail transport system covering approximately 20 kilometers from Hualamphong to Bang Su. Approximately one half of the route will be underground with the rest elevated. A depot will be located at the middle of the route at Huai Kwang. Total investment is estimated at about US \$2 billion. MRTA recently awarded a US \$38 million contract to De Leuw Cather International to be project management.

For more information about these transportation projects, contact either the Commercial Service at the U.S. Embassy or the following Thai points of contact:

HAMC

Mr. Chusak Bhachaiyud
Senior Vice President
Office of the Second Aircraft Maintenance Center
Thai International Airways
89 Vibhavadi Rangsit Road
Bangkok 10330
Tel: 011-66-2-513-0121
Fax: 011-66-2-513-9410

Second Bangkok International Airport

Mr. Priti Hetrakul, Managing Director
New Bangkok International Airport Company Limited (NBIA)
c/o Airport Authority of Thailand (AAT)
Vibhavadi Rangsit Road
Bangkok 10210, Thailand
Tel: 662-535-3011
Fax: 662-535-3010

High Speed Train

Mr. Smaur Shavavai, General Manager
The State Railway of Thailand
Krung Kasem Road
Bangkok 10330
Tel: 662-225-3802
Fax: 662-225-3801

Dr. Suwat Wanisbut, Director
Infrastructure Projects Division
Office of the National Economic and Social Development Board
962 Thanon Krung Kasem
Bangkok 10100
Tel: 662-281-0992
Fax: 662-280-1860

Mass Transit System

Dr. Threerapong Attajarusit
Managing Director
Metropolitan Rapid Transit Authority (MRTA)
448 ratchadapisek Road
Huai Kwang
Bangkok 10310 Thailand
Tel: 662-286-2129
Fax: 662-287-1956

Telecommunications

Telecommunications is one of Thailand's fastest growing infrastructure sectors. The market for telecommunications equipment in Thailand in 1995 totaled approximately US \$2.4 billion. The United States, Japan, and Europe (mainly Germany, Sweden and Finland) were the major suppliers, each holding about 25 percent market share. The annual market growth rate is estimated at 20 percent. The on-going and planned projects include: installation of 4.9 million fixed telephone lines, the planned installation of 6 million additional fixed telephone lines, the launch of a third satellite (Thaicom 3), the launch of a Thai-Laos joint venture satellite (L-Star 1 and L-Star 2), the construction of satellite earth stations, and the construction of new cable television stations. In addition, the Thai Ministry of Defense is in the process of seeking approval from the Cabinet for the investment of approximately US \$1 billion for a Thai military satellite (Star of Siam) project. The Star of Siam system will consist of two satellites, two master control stations, and a series of fixed and mobile terminals. The two satellites, as planned, will have a total of 24 transponders -- two C-Band transponders; four X-Band transponders; and 18 KU-Band transponders.

Medical Equipment

Thailand is one of the largest markets in Southeast Asia for medical equipment. In 1995, there were 1,326 hospitals and health care centers in Thailand. Currently there are approximately 39 new hospital projects which have received promotional privileges from the Thai Board of Investment with a combined investment of US \$533 million. Most of these projects are underway and are expected to be completed within the next few years. One third of this

investment (US \$190 million), will be spent on medical equipment and machines. These new hospital projects will provide ample market opportunities for U.S. firms in a variety of hospital/medical equipment sub-sectors.

Royal Thai Government Points of Contact

Listed below are additional ministries and organizations in Thailand that are involved in the procurement of defense equipment as well as commercial products.

Office of the Prime Minister

National Economic and Social Development Board

The Metropolitan Rapid Transit Authority (MRTA)

Ministry of Commerce

Counter trade

Ministry of Finance

Ministry of Transport and Communications

Airports Authority of Thailand

Department of Aviation

Thai Airways International Limited

Port Authority of Thailand

State Railway of Thailand

Telephone Organization of Thailand

Ministry of Public Health

Ministry of Interior

Bangkok Metropolitan Administration

Doing Business in Thailand

The key to successful sales to the Thai defense industry is to have a reputable local representative with access to the military services and knowledge of specific requirements. Without the assistance of an effective representative, it is nearly impossible to do business. Local representatives are an accepted, legitimate part of the bidding process.

In Thailand, it is important to develop a close relationship with one's representative and the Thai customers in both the defense and commercial sectors. It is often beneficial to rotate American engineers to work with the local representative to assist with training of the Thai

customer and accompany the sales team on client visits. This will strengthen the relationship with the local representative as well as with the Thai customer.

Because many U.S. products are sophisticated in nature, manufacturers need to develop a comprehensive and reliable service network with the assistance of the local representative. End-users in Thailand sometimes are dissatisfied with the level and price of technical service provided by manufacturers' representatives. This is due to the lack of sufficiently trained service engineers and technicians. To overcome this problem, comprehensive training should be included with any sale so that customers are sufficiently prepared to handle any on-site problems. Highly technical service and support should be handled directly by the U.S. company.

Technology Transfer

Given the rudimentary nature of the domestic defense industry, the Thai Government to date has not required offset or other technology sharing agreements as is the case in other countries. However, Thai officials are currently deliberating the merits of offsets and may introduce this type of requirement in the future. In anticipation of these developments, some U.S. defense contractors have incorporated technology transfer packages into their proposals to enhance competitiveness.

In many large commercial projects, the Thai Government and the implementing state enterprises do not require significant local content. However, to increase price competitiveness, U.S. firms often maximize local content in selected areas.

Intellectual Property Protection (IPR)

Although the Thai Government has put into place a system of laws that protect intellectual property rights in the copyright, patent, and trademark areas, enforcement remains a serious issue. U.S. firms should protect themselves by registering all of their intellectual property. Lawyers specializing in this area can initiate legal actions to combat piracy, although this can be a lengthy process. The Thai government is also taking legislative and administrative steps to update and increase enforcement of existing copyright laws. Following the passage of copyright bills in 1994, the U.S. government moved Thailand from the U.S. Trade Representative's "priority watch list" to the "watch list". The U.S. Government continues to monitor Thailand's progress in implementing protective measures.

U.S. Government Points of Contact

The following is a list of useful contacts for U.S. firms interested in the Thai market.

U.S. Commercial Service:

Diethelm Towers, Tower A, 3rd Floor
93/1 Wireless Road
Bangkok 10330
Tel: 662-255-4365/7
Fax: 662-255-2915

Carol M. Kim
Commercial Counselor

Karla B. King
Commercial Attache

Other U.S. Embassy Contacts:

120 Wireless Road
Bangkok 10330

Eric W. Running
Political/Military Officer
Political Section
Tel: 662-205-4980
Fax: 662-253-3876

David R. Moran
Economic Counselor
Tel: 662-205-4995
Fax: 662-254-2839

Joint U.S. Military Advisory Group (JUSMAG)

7 South Sathorn Road
Bangkok 10120
Tel: 662-287-1036
Fax: 662-285-6228

Col. Karl F. Eickemeyer, JUSMAG Chief
LTC. Steven L. Rundle, Army Division Chief
Cap. Gregory R. Ostrowski, Navy Division Chief
Col. Anthony J. Sobol, Air Force Division Chief

U.S. Department of Defense

Mr. Wayne Laskofski
Defense Security Assistance Agency
DSAA OPS-ERP
Washington, D.C. 20301-2800
Tel: (703) 604-6609
Fax: (703) 604-6041

**DIVERSIFICATION & DEFENSE MARKET GUIDE
ORDER FORM**

To request the Pacific Rim or European guides or the follow-on Middle East or Western Hemisphere guides, please complete the following:

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE, FAX: _____

Please check which guide(s) you would like to receive:

PACIFIC RIM	_____	MIDDLE EAST	_____
EUROPEAN	_____	W. HEMISPHERE	_____

PLEASE MAIL, FAX, OR E-MAIL THE ABOVE INFORMATION TO:

**John S. Isbell, Editor
International Diversification and Defense Market Assessment Guides
Office of Strategic Industries and Economic Security, Room 3876
Bureau of Export Administration
U.S. Department of Commerce
Washington, D.C. 20230
FAX: 202-482-5650
E-Mail: orji@bmpcoe.org or jisbell@bxa.doc.gov**