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SECTORAL ANALYSIS - SINGAPORE  
DEFENSE INDUSTRY

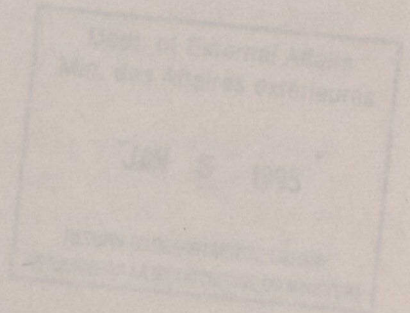
# CANADIAN HIGH COMMISSION

## SECTORAL ANALYSIS - SINGAPORE DEFENSE INDUSTRY

February 1990

SRI International  
Southeast Asia & South Pacific  
Regional Headquarters

Project #7895



SRI International



333 Ravenswood Ave. • Menlo Park, California 94025  
(415) 326-6200 • Cable: SRI INTL MPK  
Telex: 344-486 • Fax: (415) 326-5512

65 Chulia Street • #28-04, OCBC Centre,  
Singapore 0104 • Tel: 5343331  
Telex: RS 55272 SRISEA • Fax: 5326447







# BACKGROUND **SECTORAL ANALYSIS - SINGAPORE DEFENSE INDUSTRY**

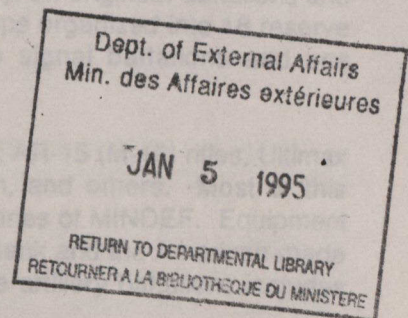
## DIRECTIONAL EMPHASIS OF SECTOR

In order to maintain Singapore's stability and growth, the government has identified a need for a "total defense" policy. This policy comprises 5 separate components, each under the responsibility

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**SRI International  
Southeast Asia & South Pacific  
Regional Headquarters**

The Canadian High Commission in Singapore, Commercial Section, commissioned SRI International to prepare this sectoral analysis overview. This report is designed to help Canadian organizations meet their initial information needs regarding participation in this sector in Singapore. The information presented is believed to be accurate and from public sources SRI believes to be reliable. Readers are urged to verify pertinent information before committing resources.

43 269 992







## **BACKGROUND**

### **DIRECTIONAL EMPHASIS OF SECTOR**

In order to maintain Singapore's stability and growth, the government has identified a need for a "total defense" policy. This policy compasses 5 separate components, each under the responsibility of a Ministry:

- Psychological Defense - Ministry of Communications and Information
- Social Defense - Ministry of Community Development
- Economic Defense - Ministry of Trade and Industry
- Civil Defense - Ministry of Home Affairs
- Military Defense - Ministry of Defense (MINDEF)

Psychological defense involves the strengthening of the people's commitment to the country, while social defense seeks to increase the people's ability to live harmoniously as a community. Economic defense ensures that basic daily necessities are available even during an emergency, while civil defense aims to equip the population with the ability to respond in a trained and organized manner in times of emergencies. Finally, military defense involves the maintenance of efficient warfare capabilities by the Singapore Armed Forces (SAF).

### **AN OVERVIEW OF THE SINGAPORE ARMED FORCES**

The SAF began building its forces in 1965 (with independence). It started with the formation of the First Battalion and the Singapore Infantry Regiment. Today, SAF is composed of 50,000 in personnel and 660,000 in available manpower.

The SAF is composed of 3 major services - the army, the airforce, and the navy.

The army - Singapore's largest service with a strength of 45,000 soldiers organized into one divisional headquarters staff, one armored brigade, three infantry brigades, one artillery brigade, six artillery battalions, one commando battalion (one of the best in the region), six engineer battalions and three signal battalions. Army reserves total an additional 150,000 troops organized into 18 reserve battalions, nine artillery battalions, six engineering battalions, two signal battalions and one commando battalion.

It is also equipped with Infantry weapons such as SAR-80 assault rifles, AR-15 (M-16) rifles, Ultimax 100 light machine guns, 81mm mortars, Armburst anti-tank weapon, and others. Most of this equipment and complementary ammunition is manufactured by subsidiaries of MINDEF. Equipment used by the armoured regiment includes the French built AMX-13 light tank and the American-made M113 Armoured Personnel carrier. Equipment used by the Singapore artillery battalions includes 120mm and 160mm mortars as well as the locally built 15mm FH 88.

The airforce (of 6,000 personnel) is equipped with more than 100 aircraft including F5E/F Tiger II which serves as an interceptor. Other aircraft include A4S Skyhawks, Hawker F-74S fighters, F16s, C-130 Hercules and Skyvans, and helicopters like Bell UH-1B's, UH-1Hs and AS 332M Super Pumas. For ground-based air defense surface-to-air missile systems like the Bloodhound MarkII, Improved-Hawks, Rapier, RBS-70 and E2C Hawkeyes are utilized.

The navy is composed of 4,500 personnel deployed on board ships and at shore establishments. it has a fleet of 32 ships organized into 6 squadrons. These include 6 missile gun boats, 6 patrol craft, 12 coastal patrol craft, 5 landing tanks, 2 minesweepers, and 1 training ship.



## BACKGROUND ...

### AN OVERVIEW OF THE SINGAPORE ARMED FORCES

The missile gun boats are armed with harpoon and gabriel anti-aircraft guns, as well as 57mm and 40mm Bofors anti-surface and anti-aircraft guns. The navy is also planning to acquire another squadron of 6 Missile Corvettes armed with harpoon anti-ship missiles, a 76mm Oto-Melara Super Rapid Gun and anti-submarine torpedoes.

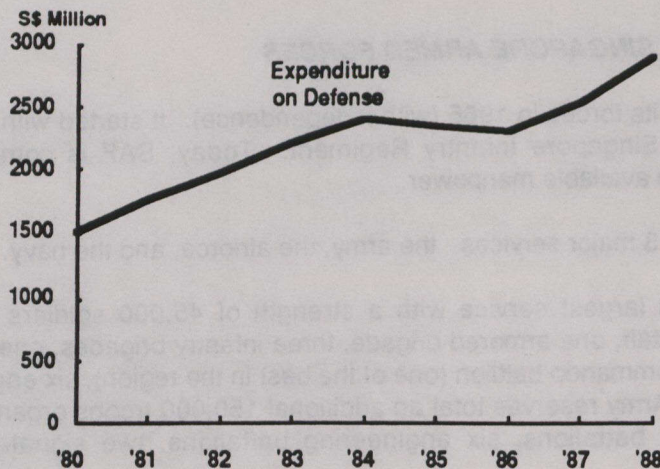
In order to enhance training, shore-based simulators and trainers are used extensively.

Paramilitary forces include 7,500 policemen, gurkha guard units and approximately 30,000 people's defense force personnel.

### CURRENT SITUATION - DEMAND FOR DEFENSE EQUIPMENT

Government expenditure on defense is estimated to be 6% of gross domestic product (GDP). Between 1980 - 1988, the market for defense equipment grew from 1.5 billion to 2.9 billion.

**EXPENDITURE ON DEFENSE  
(BASED ON 6% OF GDP ESTIMATE)**



The market for defense equipment is divided into 3 categories - equipment replacement, training equipment, and new technologically advanced equipment.

The replacement market is one that is difficult to penetrate despite the market being open to technological improvements and upgrades. Difficulties arise from replacements/upgrades having to be compatible with existing equipment. Furthermore, price is a major consideration in this market.

In contrast, there is a large potential for foreign suppliers of training equipment. Because of the limited geographic size of Singapore, maintenance (e.g. technician training) and tactical systems (e.g. computer aided instruction systems and aircraft simulators) are used extensively. There is also an on-going move from simple technical training to the more advanced tactical systems.

The market for new and advanced equipment, like that of training equipment offers a large potential for foreign suppliers. However, this area is very competitive and involves a substantial amount of R&D and capital investment by the supplier.



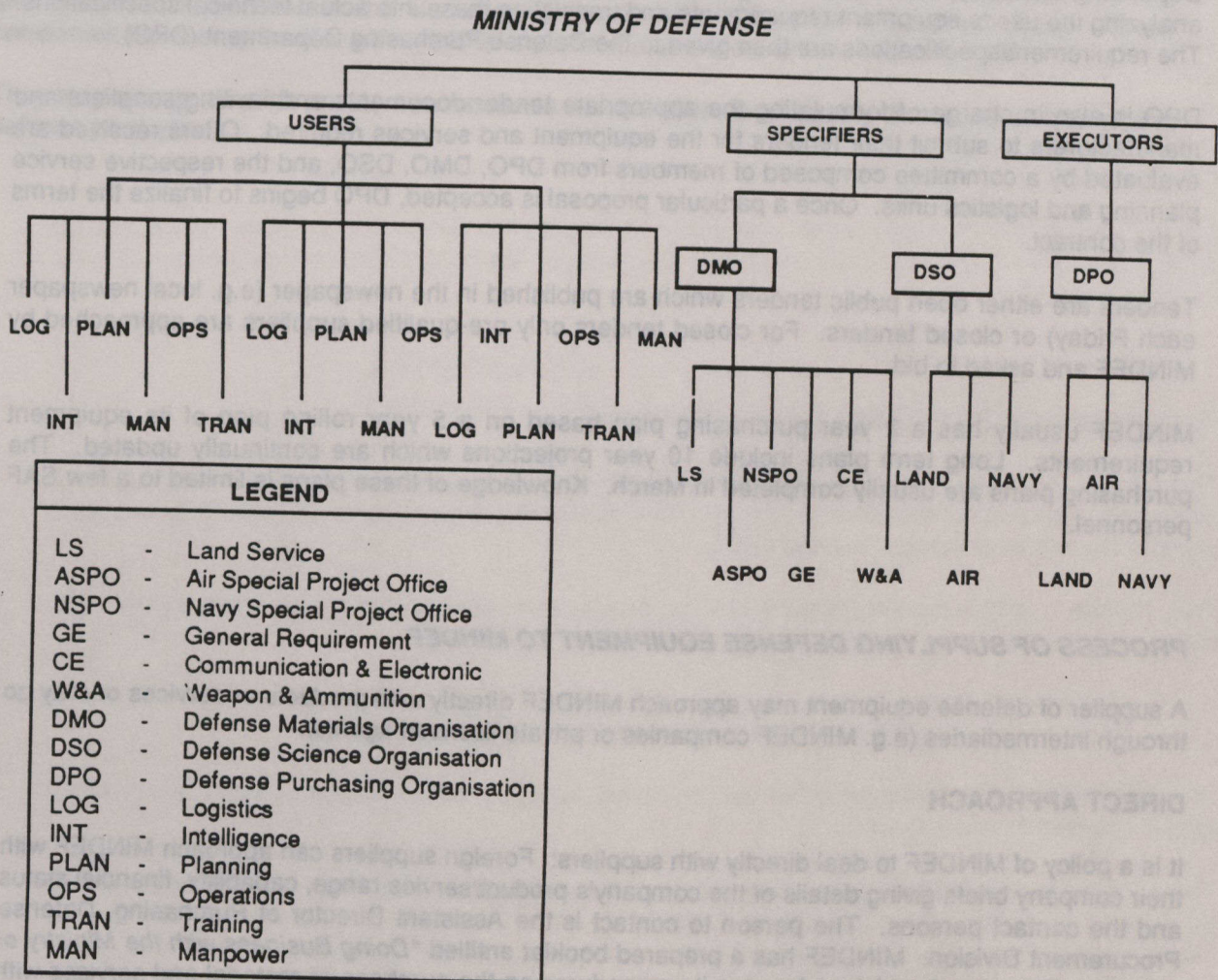
**BACKGROUND ...**

**DETERMINATION OF EQUIPMENT REQUIREMENTS**

The Ministry of Defense (MINDEF) is the organization responsible for national defense and security. Its functions include:

- The development and maintenance of an effective and operationally ready armed forces.
- The promotion of defense consciousness among the population.
- The management of certain government-owned companies.

For the purpose of determining its equipment requirements, MINDEF is divided into 3 major groupings - the users, the specifiers, and the executors.



The users are composed of 3 sub-groups, the land, air and navy. Each sub-group has its own logistics, intelligence, planning, operations and training units. In order to determine the current and future equipment requirements of the group, the planning and intelligence units work together with the logistics and operations groups. Each user group then submits its requirements to the Defense Materials Organization (DMO) and the Defense Science Organization (DSO) which are known as the specifiers.



## **BACKGROUND ...**

### **DETERMINATION OF EQUIPMENT REQUIREMENTS**

The DMO is the systems engineering, design development integration and project management authority for all defense systems and equipment in the SAF. Its functions include systems acquisition, upgrading of existing equipment and interfacing new upgraded projects with historical equipment. DMO is also responsible for establishing policies and guidelines for the support and maintenance of defense materials.

The DSO provides scientific support and evaluation of particular types of high technology equipment requests by DMO. The DSO's main function is to perform defense research and development. This organization includes a team of engineers, scientists, software professionals.

Depending on the type of equipment requested DMO, or both DMO and DSO, may be involved in analyzing the user's equipment requirements and translating these into actual technical specifications. The requirement/specifications are then given to the Defense Purchasing Department (DPO).

DPO is also in charge of formulating the appropriate tender documents and inviting suppliers and manufacturers to submit their tenders for the equipment and services required. Offers received are evaluated by a committee composed of members from DPO, DMO, DSO, and the respective service planning and logistics units. Once a particular proposal is accepted, DPO begins to finalize the terms of the contract.

Tenders are either open public tenders which are published in the newspaper (e.g. local newspaper each Friday) or closed tenders. For closed tenders only pre-qualified suppliers are approached by MINDEF and asked to bid.

MINDEF usually has a 2 year purchasing plan based on a 5 year rolling plan of its equipment requirements. Long term plans include 10 year projections which are continually updated. The purchasing plans are usually completed in March. Knowledge of these plans is limited to a few SAF personnel.

### **PROCESS OF SUPPLYING DEFENSE EQUIPMENT TO MINDEF**

A supplier of defense equipment may approach MINDEF directly with products or services or may go through intermediaries (e.g. MINDEF companies or private licensed agents).

#### **DIRECT APPROACH**

It is a policy of MINDEF to deal directly with suppliers. Foreign suppliers can approach MINDEF with their company briefs giving details of the company's product/service range, capability, financial status and the contact persons. The person to contact is the Assistant Director of Purchasing, Defense Procurement Division. MINDEF has a prepared booklet entitled "*Doing Business with the Ministry of Defense, Singapore*" which elaborates its procedures on the purchase of material and services with the potential suppliers in mind.

Because of the large number of suppliers, if economically feasible, the possibility of conducting trials using the equipment should be indicated. This may improve supplier "recall" when future demand for the equipment arises.



## BACKGROUND ...

COMPETITOR ANALYSIS

### PROCESS OF SUPPLYING

KEY PARTICIPANTS IN THE DEFENSE INDUSTRY

### INTERMEDIARY APPROACH

Several foreign companies have opted to go through a third party because of they are not familiar with procedures and persons to contact. Another advantage of going through a local agent is that it facilitates coordination with local contractors/suppliers in the case of projects costing S\$10m or more, as these require 30% local sourcing.

Companies that opt to go through intermediaries may approach MINDEF-linked companies which include Unicorn International Pte Ltd, The International Marketing Division of the Singapore Technical and Industrial Corporation or the Marketing Division of the Singapore Aircraft Industries. These companies are usually familiar with MINDEF's plans and future equipment requirements.

They may also go through private intermediaries which include local agents cleared to do business in defense products.

## APPENDICES February 1998

FUTURE TRENDS AND MARKET OPPORTUNITIES

The market for defense equipment is expected to remain at about 6% of GDP. Although this percentage figure is not expected to change, the actual dollar value of defense product purchases is expected to rise over the next several years.

This, therefore, offers market opportunities for suppliers of defense equipment and services. The major growth areas are:

- Training equipment.
- New and more technologically advanced equipment.

With MINDEF's plans to establish its own company for spare parts, supply of spare parts will no longer be listed as open tenders.

The Singapore government encourages foreign manufacturers to set up joint ventures for the production of high technology defense products. As Canadian manufacturers have unique technological know-how on certain defense products such as air-to-ground missiles, radar equipment and other, they may consider setting up manufacturing and servicing operations to service the region.

Initially, however, Canadian companies may choose to establish presence and a track record either by going directly to MINDEF or by approaching licensed MINDEF contractors or private agents.



## **COMPETITOR ANALYSIS**

### **KEY PARTICIPANTS IN THE DEFENSE INDUSTRY**

The Singapore defense industry is primarily a government run body. Almost all defense industries are under the control of the MINDEF controlled umbrella group, and the Singapore Technologies Group (which includes more than 40 companies organized into 4 business sectors: industrial, ordnance, aerospace and marine).

The ordnance-based companies of the Chartered Industries of Singapore produce equipment both for the local market and for export. The range of products include small arm weapons, anti-tank weapons, ammunition for small arms, machine guns and aircraft, mortar bombs, explosives, military electronics, communication equipment and others. All products are made to international standards such as US and NATO Military Standards.

Major suppliers of imported defense equipment are the USA, UK and Germany. Some US companies include United Technologies, AAR Technical Service and EMGO Overseas which supply aircrafts and engines, rotables for aircraft, and ordnance products respectively. All these companies go through local intermediaries. Similarly, UK firms such as Irvine Industries (parachutes and components) and Painx-Wessex Schermuly (ammunition) go through local agents.

Canadian suppliers that have been successful in tapping the Singapore defense market include Bristol Aerospace, CAE of Montreal, Spar Aerospace, Marconi, Fathom Oceanology, Sperry, Henotex and others.

### **FUTURE TRENDS AND MARKET OPPORTUNITIES**

The market for defense equipment is expected to remain at about 6% of GNP. Although this percentage figure is not expected to change, the actual dollar value of defense product purchases is expected to rise over the next several years.

This, therefore, offers market opportunities for suppliers of defense equipment and services. The major growth areas are:

- Training equipment.
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Initially, however, Canadian companies may choose to establish presence and a track record either by going directly to MINDEF or by approaching licensed MINDEF companies or private agents.



## KEY INDUSTRY AND GOVERNMENT CONTACTS

## GOVERNMENT AGENCIES IN SINGAPORE

Economic Development Board  
250 North Bridge Road  
#24-00 Raffles City Tower  
Singapore 0517  
Telephone (65) 335 2222  
Telex RS 25233  
Facsimile (65) 335 5077

Trade Development Board  
1 Maritime Square, #12-40, Leong Oo  
World Trade Center  
Taik Sangah Road  
Singapore 0409  
Telephone (65) 271 9389  
Telex RS 29817 / 28176 TRADEV  
Facsimile (65) 274 0770 / 275 2513

Ministry of Defense  
Defense Materials Organization  
Defense Procurement Division  
LEO Building, Paya Lebar Airport  
Singapore 1953  
Telephone (65) 288 5228  
Facsimile (65) 288 4338

## GENERAL BUSINESS ASSOCIATIONS

Canada - Singapore Business Association  
Asia-Pacific  
Foundation of Canada  
2525 Kings Avenue  
West Vancouver, BC  
Canada, V7V 2G7  
Telephone (1-604) 584 5086

Singapore Manufacturers' Association  
20 Orchard Road  
6th Floor  
Singapore 0623  
Telephone (65) 734 8744

Canadian Business Association  
on Private Secretarial Services  
20 Belford Road  
#11-05 Wellington Building  
Singapore 0622  
Telephone (65) 734 2400

## GOVERNMENT AGENCIES IN CANADA

Singapore Trade Development Board  
Canada House  
100 King Street West  
Toronto, Ontario  
Canada, M5X 1C4  
Telephone (1-416) 363 8227  
Telex 06-213034 CUBSSC TOR  
Facsimile (1-416) 363 1671

Department of Regional Industrial Expansion  
235 Queen Street  
Ottawa, Ontario  
Canada, K1A 0H5  
Telephone (1-613) 955 5771  
Telex 053-4123

Department of External Affairs  
125 Sussex Drive  
Ottawa, Ontario  
Canada, K1A 0G2  
Telephone (1-613) 996 5134  
Telex 053-3745

## SECTORAL ANALYSIS - SINGAPORE DEFENSE INDUSTRY

### APPENDICES February 1990

SRI International  
Southeast Asia & South Pacific  
Regional Headquarters

Project #7895







## KEY INDUSTRY AND GOVERNMENT CONTACTS

### GOVERNMENT AGENCIES IN SINGAPORE

#### **Economic Development Board**

250 North Bridge Road  
#24-00 Raffles City Tower  
Singapore 0617

Telephone : (65) 336 2288  
Telex : RS 26233  
Facsimile : (65) 339 6077

#### **Trade Development Board**

1 Maritime Square, #10-40 (Lobby D)  
World Trade Center  
Telok Blangah Road  
Singapore 0409

Telephone : (65) 271 9388  
Telex : RS 28617 / 28170 TRADEV  
Facsimile : (65) 274 0770 / 278 2518

#### **Ministry of Defense**

Defense Materials Organization  
Defense Procurement Division  
LEO Building, Paya Lebar Airport  
Singapore 1953

Telephone : (65) 282 5228  
Facsimile : (65) 285 4336

### GENERAL BUSINESS ASSOCIATIONS

#### **Canada - Singapore Business Association**

##### **Asia-Pacific**

##### **Foundation of Canada**

2529 Kings Avenue  
West Vancouver, BC  
Canada, V7V 2C7

Telephone : (1-604) 684 5986

#### **Singapore Manufacturers' Association**

20 Orchard Road  
SMA House  
Singapore 0923

Telephone : (65) 338 8787

#### **Canadian Business Association**

c/o Private Secretarial Services  
20 Bideford Road  
#11-05 Wellington Building  
Singapore 0922

Telephone : (65) 734 2608

### GOVERNMENT AGENCIES IN CANADA

#### **Singapore Trade Development Board**

c/o United Overseas Bank (Canada)  
The Standard Life Center, 10th Floor  
121 King Street West

Toronto, Ontario  
Canada M5H 3T9  
Telephone : (1-416) 363 8227  
Telex : 06-218004 OUBSC TOR  
Facsimile : (1-416) 363 1671

#### **Department of Regional Industrial Expansion**

235 Queen Street  
Ottawa, Ontario  
Canada, K1A 0H5

Telephone : (1-613) 995 5771  
Telex : 053-4123

#### **Department of External Affairs**

125 Sussex Drive  
Ottawa, Ontario  
Canada, K1A 0G2

Telephone : (1-613) 996 9134  
Telex : 053-3745



## OTHER TAX INCENTIVES ADMINISTERED BY ECONOMIC DEVELOPMENT BOARD

OTHER TAX INCENTIVES ADMINISTERED BY ECONOMIC DEVELOPMENT BOARD			
Tax Incentives	Qualifying Activities	Minimum Requirements	Tax Concession
• Pioneer Status			This incentive provides for complete exemption of corporate income tax. A company granted pioneer status is exempted from the 33% corporate income tax for a period of 5-10 years from the day it begins commercial production.
• Investment Allowance	Manufacturing and specialized technical servicing projects as an alternative to pioneer status.		Under the scheme, a company is granted tax exemption on a specified amount of profits equal to the approved investment allowance which is a percentage (up to a maximum of 50%) of the fixed investment in plant, machinery and equipment actually incurred by the company on the project. The amount of investment allowance to be approved will depend on the merits of the project.
• Capital Assistance			Under this scheme, industrial investors with desirable projects can obtain long term loans at concessionary interest rate.
• Operational Headquarters (OHQ)	Approved headquarters operations.	Operational Headquarters 1. should hold equity investments in companies outside of Singapore, and 2. must provide approved headquarters services to these companies from Singapore	1. Income arising from the provision in Singapore of approved services will be taxed at 10%. 2. Other income from overseas subsidiaries and associated companies may also be eligible for effective tax relief. 3. Incentive will be up to 10 years with provision for extension.
• Post-Pioneer Incentive	Approved companies enjoying pioneer status, or export incentive where the export incentive is a follow-up to the pioneer status previously awarded.	Companies must be enjoying pioneer status or export incentive on or after 1 April 1986 and should incur additional investment.	Corporate tax rate of 15% upwards for up to 5 years upon expiry of pioneer or export incentive.
• Venture Capital Incentive	Investment by eligible companies and individuals in approved new technology projects.	Companies must be 1. at least 50% owned by Singapore citizens or Singapore permanent residents, and 2. incorporated and resident in Singapore for tax purposes.  Individuals must be Singapore citizens or permanent residents.	Losses incurred from the sale of shares, up to 100% of equity invested can be set off against the investors' other taxable income.



**MINISTRY OF DEFENCE****Allied Engineering and Construction Co**

Block 6006 Bedok Reservoir Road, #01-1960  
Singapore 1646

Telephone : (65) 2420606  
Facsimile : (65) 2420606

**Chartered Industries of Singapore Pte Ltd**

249 Jalan Boon Lay  
Singapore 2262

Telephone : (65) 2651066

**Ministry of Defense**

Defence Procurement Division

LEO Building

Paya Lebar Airport

Singapore 1953

Telephone : (65) 2825228

Telex : RS 51092/37814

Contact : Assistant Director (Purchasing)

**Ordnance Development & Engineering Co of Singapore (Pte) Ltd**

15 Chin Bee Drive

Singapore 2263

Telephone : (65) 2655322

Facsimile : (65) 8611462

**Sheng Li Holding Co Pte Ltd**

3 Lim Teck Kim Road, #12-01

Singapore 0208

Telephone : (65) 2257737

Facsimile : (65) 2258685

**Singapore Aircraft Industries Pte Ltd**

Airport Road

Singapore 1953

Telephone : (65) 2871111

Facsimile : (65) 2843136

**Singapore Automotive Engineering (Pte) Ltd**

5 Portsdown Road

Singapore 0513

Telephone : (65) 4736311

Facsimile : (65) 4751991

**Singapore Computer Systems Pte Ltd**

3 Lim Teck Kim Road, #09-02

Singapore 0208

Telephone : (65) 2257555

**Singapore Shipbuilding & Engineering Ltd**

7 Benoi Road

Singapore 2262

Telephone : (65) 8612244

Facsimile : (65) 8613028



## LIST OF SINGAPORE DEFENCE AGENTS

### LOCAL AGENT

#### **Ancel Singapore Pte Ltd**

Tiong Bahru Industrial Estate  
1090 Lower Delta Road #05-07  
Singapore 0316

Telephone : (65) 273 5544  
Telex : RS 36508 ANCEL  
Contact : Mr C H Kam  
Mr S G Lim

#### **Associated Equipment Pte Ltd**

16 Scotts Road  
Thong Teck Building  
Singapore 0922

Telephone : (65) 737 7922  
Telex : RS 21449  
Contact : Mr Chan U Seek  
Mr Choy Yoon Hong

#### **A T S Aviation Pte Ltd**

20 Kramat Lane #02-01  
United House  
Singapore 0922

Telephone : (65) 235 1679  
Telex : RS 35285 ASIATEC  
Contact : Mr Patrick Garez  
Dr Jacques De Beijer

### REPRESENTATION

#### **CAE Electronics, Canada**

##### **Raytheon, USA**

Products : Flight simulator, marine navigation equipment

#### **De Havilland, Canada**

##### **United Technologies, USA**

##### **British Aerospace, UK**

Products : Aircrafts, engines (Pratt & Whitney),  
helicopters (Sikorsky) hunters.

#### **Mensasco Canada Ltee**

600 Campbell Street  
Cornwall, Ontario  
Canada K6H 6C9

Products : Landing gear and flight control systems

#### **Heroux Inc**

755 Thurber  
Longueuil, Quebec  
Canada J4H 3N1

Products : De Havilland Twin Otter Landing gear

#### **AAR Corporation**

Elk Grove, Illinois

Products : Jet engines and parts as well as avionics

#### **Smith & Smith Aircraft Corporation**

Louisiana, USA

Products : Complete spares support for T28, HU-16,  
S2F and A4 Skyhawks.

#### **Intamar Logistics Inc, USA**

Products : In association with Intamar, represent Metrics  
Systems Corpn, the Manufacturer of cargo  
drop systems including that which is installed  
on all C130's operated by the US Armed  
Forces



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**W H Brennan & Co (Pte) Ltd**

11 Keppel Road #02-01

Keppel House

Singapore 0208

Telephone : (65) 542 9722  
 Telex : RS 55539 BRENCO  
 Contact : Mr Choy Cheek Wing  
 Mr Joseph Choo

**Canadian Marconi Co**

Blk A, 5000 Marine Parade Rd #21-03

Singapore 1544

Telephone : (65) 241 9772  
 Telex : RS 24723 PBLIM  
 Contact : Mr Lim Ang Seng

**Chartered Industries of S'pore Pte Ltd**

249 Jalan Boon Lay

Singapore 2261

Telephone : (65) 261 5360  
 Telex : RS 38951  
 Fax : (65) 2610766

**Dynamar International Ltd**

12 Lorong Bakar Batu #05-11

Kolam Ayer Industrial Park

Singapore 1334

Telephone : (65) 747 6188  
 Telex : RS 26283 DYNAMA  
 Contact : Mr Norman Nunn

**Eagle Aero Pte Ltd**

International Plaza #35-16

10 Anson Road

Singapore 0207

Telephone : (65) 222 4079  
 Telex : RS 22621 EAERO  
 Contact : Mr Kenneth Kok  
 Mr Lim Yong Choon

## REPRESENTATION

**Valcartier Industries Inc**

1010 Sherbrooke St W

Suite 608, Montreal, Quebec

Canada H3A 2R7

Product : Ammunitions

**Painx-Wessex Schermuly, UK**

Products : Marine Flares and Rockets

**G Q Defense**

Products : Entire range of defense products

**Canadian Marconi Co**

Defense Communications Division

2442 Trenton Avenue

Montreal, Quebec

Canada H3P 1Y9

Products : Defense Communications

**Canadian Marconi Co**

Avionics Division

**Singer, USA****HP, USA**

Products : Avionics, computer components, fibre optics,  
 specialised optical system, computerised  
 security control, vision processing

**Macdonald, Detteller & Associates**

(MDA) in Vancouver

Products : Digital mapping

**Levy Auto Parts Co**

1400 Weston Road

Toronto, Ontario

Canada M6M 4S7

Products : Military vehicles and related products

**Emgo Overseas, USA**

Products : Ordnance products



**LIST OF SINGAPORE DEFENCE AGENTS****LOCAL AGENT****Edgro Engineering**

3 Lorong Bakar Batu #06-02

Brightway Building

Singapore 1334

Telephone : (65) 743 4009

Telex : RS 50743 EDGRO

Contact : Mr Jeffrey Lim

**GKL Equipment Pte Ltd**

450/452 Alexandra Road

Inchcape House #10-10

Singapore 0511

Telephone : (65) 473 3497

Telex : RS 21686 GKL EQPT

Contact : Mr Eric Keen  
Miss Linda Lee**IAL International Aeradio (FE) Pte Ltd**

17 Harper Road

Singapore 1335

Telephone : (65) 288 4486

Telex : RS 23033 IAFELTD

Contact : Mr Michael Thio  
Miss June Ngiam**Information Engineering Services (Pte) Ltd**

16 Arumugam Road #07-00

Teck Chiang Industrial Bldg

Singapore 1441

Telephone : (65) 748 8666/748 7456

Telex : RS 39611 IESPL

Contact : Mr Lim Koon Sang  
Mr Roger Tan**Jardine Matheson Holdings (S) Ltd**

4 Shenton Way #17-00

Shing Kwan House

Singapore 0106

Telephone : (65) 220 5111

Telex : RS 24485 JARDINE

Contact : Mr Boon Yong Chiang  
Mr Joseph Chia**REPRESENTATION****SNC, Canada****Electro-Mosaik, Canada**Products : Communication equipment, hotel system  
fire-intercommunication system, power control  
panels.**Emerson, Canada****MBB, West Germany**Products : Military products, medical and laboratory  
equipment, educational and scientific  
instruments, MBB helicopters**Canadian Marconi Co**

Defense Communications Division

2442 Trenton Avenue

Montreal, Quebec

Canada H3P 1Y9

Products : Defense communications

**Dipix Systems Ltd**

120 Coronanade Road

Ottawa, Ontario

Canada K2E 7J5

Products : Aries aided mapping systems, mapping  
software & mapping terminal**MARKETING & SUPPORTING****Digital Equipment Corporation, USA**

Products : Mini computers

**Rolls-Royce Ltd, UK****Westland, UK****Singer, Link Division USA**Products : Aviation equipment, military vehicles,  
simulation equipment



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**Mecomb Singapore**

896 Dunearn Road #04-02

Sime Darby Centre

Singapore 2158

Telephone : (65) 469 8833  
 Telex : RS 23178 MECOMB  
 Contact : Mr Ronnie Poh  
 Mr Steven Yong

**Metta Energy Resource Pte Ltd**

2-C Jalan Pesawat

Jurong

Singapore 2261

Telephone : (65) 265 4933/261 4732  
 Telex : RS 34341 ELPIJI  
 Contact : Mr Rex Shelley

**Radio-Holland B V**

900 Dunearn Road, 11 Km

Singapore 1129

Telephone : (65) 467 3144  
 Telex : RS 23347 RADHOL  
 Contact : Mr Jan Vanderknapp  
 Mr T H L Merkus

**Rank O'Connors**

O'Connor House

98 Pasir Panjang Road

Singapore 0511

Telephone : (65) 473 7944  
 Telex : RS 21023 OCONSIN  
 Contact : Mr Keen Wong  
 Mr D Rankin

**Communications Systems Engrg Pte Ltd**

67 Ayer Rajah Crescent #07-01

Singapore 0513

Telephone : (65) 776 5191  
 Telex : RS 23036 DEBEGPL  
 Contact : Mr D McNaughton-Fisken

## REPRESENTATION

**Versatech Inc**

60 Riverside Drive

North Vancouver, British Columbia

Canada V7H 1T4

**Narada Corporation, USA****Tektronix Inc, Oregeon, USA**

Products : Pollution control equipment such as boons, skimmer, oil absorbent pad, storage containers, pleasure vessels for cruiser

**New Agency**

Products : Headed by former INTRACO official, interested in defense products in general

**Telemit, West Germany**

Products : Defense communications

**Honeywell-ELAC, West Germany**

Products : Echo sounder for navy ships.

**Istec, Canada****Speery, Canada****Electromed, Canada****Perkin-Elmer, USA****John Fluke Manufacturing, USA**

Products : Airport X-ray equipment, studio broadcasting equip, TV receiver, analytical instruments, electronic instrumentation.

**AEG, Germany****Interstate Electronics, USA****Rediffusion Radio Systems Ltd, UK****Telemeter GMBH, Germany**

Products : Direction finders, plasma displays radio comms, antenna switches, cypher/crypto



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**Singapore Aircraft Industries (SAI)**

540 Airport Road  
SAI Building, Paya Lebar  
Singapore 1953

Telephone : (65) 287 1111  
Telex : RS 51158 SAI  
Contact : Mr Quek Poh Huat  
Mr Wong Peng Hock  
Mr Teo Yong Hwee

**Singapore Automotive Engrg Pte Ltd (SAE)**

5 Portsdown Road  
Off Ayer Rajah Road  
Singapore 0513

Telephone : (65) 473 6311  
Telex : RS 25755 SINENG  
Contact : Mr Chia Pak Chong  
Mr M T Sim

**Singapore Computer Systems Pte Ltd**

26 Ayer Rajah Crescent #05-01  
Ayer Rajah Industrial Estate  
Singapore 0513

Telephone : (65) 775 2477  
Telex : RS 38585 SCS  
Contact : Mr Wee Kim Hin  
Mr Tay Siew Choon

**Singapore Electronic & Engrg Pte Ltd (SEEL)**

24 Ang Mo Kio Street 65  
Industrial Park 3  
Singapore 2056

Telephone : (65) 459 3555  
Telex : RS 21901 SEEL  
Contact : Mr Lye Hoeng Fai  
Mr C Y Tham

## REPRESENTATION

Interested in Aviation Products

**Bombardier Inc**

1350 Nobel Street  
Boucherville, Quebec  
Canada J4B 1A1

Products : Military Truck

**M A N, West Germany**

Products : Military/commercial trucks

**Stein Bock GMBH, West Germany**

Products : Military forklift

**Creusot Loive, France**

Products : Wheeled military vehicles and components

**Cognos, Canada****IBM, USA****Sperry, USA****Roim, USA**

Products : Computer related defense products

**Canadian Marconi Co**

Defense Communications Division  
2442 Trenton Avenue .  
Montreal, Quebec  
Canada H3P 1Y9

Products : Defense communications with particular emphasis on electronics



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**Singapore Shipbuilding & Engrg Ltd (SSE)**

7 Benoi Road  
Singapore 2262

Telephone : (65) 861 6844  
Telex : RS 21206 SINGA  
Contact : Mr Philip Yeo  
Mr Shih Chih Chung

**Sperry Corporation**

Electronic Systems  
#06-08 Orchard Plaza  
Orchard Road  
Singapore 0923

Telephone : (65) 734 8177  
Telex : RS 36407 SPDSIN  
Contact : Mr John Wilson

**Talang**

865 Mountbatten Road #06-32  
Katong Shopping Centre  
Singapore 1543

Telephone : (65) 445 0214  
Telex : RS 24592 TALANG  
Contact : Mr Max Bertrand

**Ultramare Singapore Pty Ltd**

14 Warringin Park  
Singapore 1441

Telephone : (65) 241 8911  
Telex : RS 26464 ULTSIN  
Contact : Mr Vincent Teo  
Mr Albert Chin

## REPRESENTATION

Products :  
Interested in defense related naval products

Representative office of Sperry Corporation, USA. The company will soon function as a trading entity.

Products : Aerospace and marine products, military avionics

**Irvin Industries Canada Ltd**

479 Central Avenue  
Ford Erie, Ontario  
Canada L2A 5M9

Products : Parachutes

**BDI-Belgium Defense Industries, Belgium**

Products : Armaments

**Irvin Industries UK****Letchworth, UK**

Products : Parachutes and components

**Eagle Copter Ltd**

823 McTavish Road, NE  
Calgary, Alberta  
Canada T2P 7G9

Products : Sales & service-helicopter spares



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**Ultramare Singapore Pty Ltd**

14 Warringin Park  
Singapore 1441

Telephone : (65) 241 8911  
Telex : RS 26464 ULTSIN  
Contact : Mr Vincent Teo  
Mr Albert Chin

**Unicorn International Pte Ltd**

3 Lim Teck Kim Road  
STC Bldg, #11-01/02  
Singapore 0208

Telephone : (65) 225 4788  
Telex : RS 39882 UIPL  
Contact : Mr Samson Yang

## REPRESENTATION

**Eagle Copter Ltd**

823 McTavish Road, NE  
Calgary, Alberta  
Canada T2P 7G9

Products : Sales & service-helicopter spares

**Dav-Indal Ltd**

3570 hawkeston Road  
Mississauga, Ontario  
Canada L5C 2V8

Products : Military airborne spares & services, ground support equipment.

**Standard Manufacturing, Dallas, USA**

Products : Boom Loader

**Aviall, Dallas, USA**

Products : Engine Overhaul

**Pacific Propeller, Seattle USA**

Products : Repair, maintained and overhaul of aircraft components and spare parts. General defense products

**Bristol Aerospace Ltd**

P O Box 874  
Winnipeg, Manitoba  
Canada R3C 2S4  
Products : CRV Rockts

**CAE Electronics Ltd**

P O Box 1800  
St Laurent, Montreal, Quebec  
Canada H4L 4X4  
Products : Simulators & electronic products for submarine warfare

**Canadian Arsenal Ltd**

5 Montee des Arseaux  
Ville de La Gardeur, Quebec  
Canada J5Z 2P4  
Products : Entire range of defense products

**Leigh Instruments Ltd**

2680 Queensview Drive  
Ottawa, Ontario  
Canada K2B 8J9  
Products : Runway Lightings, mobile air traffic control towers



## LIST OF SINGAPORE DEFENCE AGENTS

## LOCAL AGENT

**Allied Ordnance Company of Singapore (Pte) Ltd**

Tanglin Road #11-01  
Tanglin Shopping Centre  
Singapore 1024

Telephone : (65) 737 7711  
Telex : RS 23570 AOS  
Fax : (65) 732 5418  
Contact : Mr Daniel Goh  
Mr Nara Krishnan

**FXC Aerospace Pte Ltd**

80 Marine Parade Road  
Parkway Parade #10-01  
Singapore 1544

Telephone : (65) 345 2629  
Telex : RS 20957 FXC CJ  
Fax : (65) 345 2619  
Contact : Mr Walter Kan  
Mr David K M Chew

**Ministry of Defense**

Defense Procurement Division  
LEO Building  
Paya Lebar Airport  
Singapore 1953

Telephone : (65) 2825228  
Telex : RS 51092/37814  
Fax : (65) 2873052  
Contact : Assistant Director

## REPRESENTATION

**A B Borors, Sweden**

Products : Guns, ammunitions

**General Electric Aerospace**

Daytona Beach, Florida

Products : Trainners, tank turret drives, simulators systems

**Mustang Industries,**

Richmond, British Columbia

Products : Life preservers, life support systems

**FXC Corporation**

Santa Anna, California, US

Products : Parachutes

**General Instruments**

New York, US

Products : Airborne readers

**Airbank Manufacturing Inc**

Burbank, California, US

Products : Specialized hardware

**Trilectron Industries Inc**

Port Manatee, Florida, US

Products : Ground support equipment





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## LIST OF SINGAPORE DEFENCE AGENTS

### LOCAL AGENT

#### **Ordnance Development & Engrg Co of S'pore**

15 Chin Bee Drive

Singapore 2261

Telephone : (65) 2655322

Telex : RS 27144

Fax : 8611462

#### **Sheng -Li Holding Co Pte Ltd**

3 Lim Teck Kim Rd #10-02

STC Building

Singapore 0208

Telephone : (65) 2257737

Telex : RS 2258685

Fax : (65) 2258685

DATE DUE	DUE DATE	DATE DE RETOUR
<del>12/12/85</del>		







