DEFENCE PROCUREMENT IN SINGAPORE

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Scope of Presentation

- Introduction
- The Technological Edge
- Procurement System
- Defence Science & Technology Agency
- Conclusion
Republic of Singapore

- Land area: 650 sq km
- Population: 4 million people
Singapore Economy

- Limited resources - people & land

- Open economy - member of 1994 WTO Agreement

- Educated & trained workforce and well-developed infrastructure

- Good Economic Progress due to stable and secure environment

- Singapore is committed to Defence - up to 6% of GDP
Role of Technology

Limitations of size & resource

Technology as force multiplier
Integrated Defence Development

- Integration of Operations & Technology

- Integration over people & organisations in
  - MINDEF
  - SAF
  - local defence industry
  - academic & research institutions
The Technological Edge

- Customisation
  - to meet SAF’s unique requirements & local conditions
  - to understand & exploit performance limits of systems
The Technological Edge

- Customisation
- Life-Cycle Management (LCM) Methodology
  - Recognises full life-cycle cost

✓ Thorough planning & evaluation
  - trade-off decisions
  - upgrade vs replacement
The Technological Edge

- Customisation
- Life-Cycle Management (LCM) Methodology
- Smart Buying & Systems Engineering
  - Exploit marketplace efficiency
  - Acquire capability cost effectively

- Strong systems engineering capability
- Integration & Upgrade of systems

DSTA
Locally Designed Patrol Vessels
The Technological Edge

- Customisation
- Life-Cycle Management (LCM) Methodology
- Smart Buying & Systems Engineering
- Operations - Technology Integration
  - Close interaction at all levels
  - Shorter development cycle
Landing Ship Tank

Bionix Infantry Fighting Vehicle

SAR21 Assault Rifle
Procurement System

- ISO-certified
- Open & Transparent System
- Checks & Balances
- Direct Dealing
- Seek most cost-effective systems that meet requirements
Procurement System

- Analytical Hierarchy Process (AHP) evaluation
  - for major programmes
  - two-envelope system
- Every offer evaluated on its own merit
- No preference for any country or source
Commercial-Off-The-Shelf (COTS)

- Adopt & adapt COTS technologies & equipment for military use
  - benefits of emerging technology
  - less need for customisation
  - shorten development cycles
  - provide better supportability
  - reduce overall life cycle costs
Tapping on the Internet

- MINDEF Internet Procurement System (MIPS)
  - launched in Apr 98
  - employs Public Key Encryption Technology for security
  - provides equal opportunity to all suppliers - local & overseas
Tapping on the Internet

- Integrated into supply chain
- Seamless Process - from requisition to invoicing & payment to inventory management
- spearhead public procurement in cyberspace
- being adapted for use civil-service wide

(MIPS website: http://www.mips.mindef.gov.sg)
Lease-to-Own Arrangement

- Not commercial practice for military equipment

**Issues**

- US government did not handle such deals
  - need special approval to work out deal directly with contractor
  - secure better terms than FMS Letter of Acceptance
  - win-win situation for both aircraft manufacturer & MINDEF
Lease-to-Own Arrangement

F16

Chinook Helicopters
Partnership Agreements

- Long-Term contracts for strategic requirements
- Aircraft maintenance contract with ST Aerospace
  - TAT improved by 12% (2 mths)
  - $2M annual cost savings
- Design-Build-and-Operate Warehouse
  - Open-book approach
  - Jointly identify better solutions
To Separate

• Core Functions (policy formulation, planning and resource allocation)

• Service Provider Functions (including flexibility and autonomy to make decisions)
• Defence Science & Technology Agency was formed on 15 Mar 2000
• A statutory board legislated by Act of Parliament
• Empowered to act on Mindef’s behalf
• Flexibility and autonomy for its business operation
• Better anticipate and respond to changes
Mission

To harness science & technology to meet the defence & national security needs of Singapore
Roles & Functions

• Defence Procurement Agency

• Implement technology plans of MINDEF
  - acquire defence materiel
  - develop military infrastructure
  - develop information systems
  - manage defence R&D
  - conduct defence medical research
  - promote technological co-operation

• Advise MINDEF on science & technology matters

• Promote defence science & technology
Programme-Centric Organisation

Customers
- MINDEF
- JOINT
- ARMY
- RSAF
- RSN

Programme Management Teams & Programme Managers
- R&D Programmes
- Aero Systems Programmes
- Land Systems Programmes
- Naval Systems Programmes
- Armament Programmes
- Guided Systems Programmes
- Sensors Programmes
- IT Programmes
- Construction Programmes
- C4 Programmes

Management Support
- D(R)
- D(A)
- D(L)
- D(N)
- D(IS)
- D(BI)
- D(P)
- DCE(O)
- CE
- DCE(S)

Corporate Support
- Plans
- Systems Engrg
- Human Resource
- Corporate Svcs
- Finance
- Int’l Relations
- Defence Tech Offices
- Industry Devt

Development Units
- CSO Dev. Lab.
- SCO Systems
- DMRI
- DSO National Laboratories (affiliate)

Partners
- Industries
- R&D Institutions
- Industry Development
  - promotes Technology capability build up
  - facilitates defence export
- International Relations, and Defence Technology Offices
  - promote technology co-operation with foreign establishments
  - provide assistance in project management
Thank You!