S&T Challenges in Transformation

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Agenda

• Strategic Challenges
• 3rd Generation SAF
• Research and Technology (R&T)
• Our Collaboration
Strategic Challenges

- No hinterland
- No natural resources
- Vulnerable to changes in regional security environment

Area ~ 704 sq. km
Population ~ 4.8 million
Straits of Malacca: An Attractive Terrorist Target

Strategic Significance

- A third of world trade
- Half of all oil shipments by sea
- Two-thirds of all LNG shipments
- 50,000 ships
- 90% of China’s trade

900 km long

Natural chokepoints
To a small country like Singapore, the application of science and technology was even more critical. The country suffered from a small space and tiny population. Only the technology edge could overcome these natural constraints.

Integrated Planning

- RSAF Cap Devt
- SAF Cap Devt
- RSN Cap Devt
- Army Cap Devt
- JPTD
- System Acq
- Foreign Industry
- Local Industry
- DSTA
- DISO
- FSD
- DRD
- DRTech
- Foreign Industry
- R&D
- O/seas Partners
- DSO, TL, Univ
Defence Science & Technology Agency

Equipping and Technology support for defence and national security

♦ Integrative role
  ♦ Enterprise System
  ♦ Joint SAF Ammunition Command
  ♦ Central Procurement System

Singapore’s ammo stored safely – underground
International Comparison of GERD (Gross Expenditure on R&D)

Source: OECD Main Science and Technology Indicators (2005)
NATIONAL R&D PROGRAMS

BIO MEDICAL SCIENCE (BMS)

INTERACTIVE DIGITAL MEDIA (IDM)

ENVIRONMENTAL & WATER TECHNOLOGIES (EWI)
R&T

- Decisive Edge
- Unique Requirements
- Capability Sustenance
Technology Collaboration

USA

Sweden

France

Norway

UK

Germany

Australia

India

Singapore

Expand capacity
Reduce cost
Enhance capability
Reduce leadtime
Conclusion

• S&T critical for Singapore.

• Integration and networked systems for greater synergy.

• Collaboration to overcome resource constraints and expand capacity of ideas and innovation.
Thank you.

- Knowledge
- Trust
- Connectivity