

**Embargoed until after delivery**

**Please check against delivery**

**SPEECH BY MR S ISWARAN, SENIOR MINISTER OF STATE FOR TRADE & INDUSTRY AND EDUCATION, AT THE GSTC-SATTECH 2010 ON THURSDAY, 28 JANUARY 2010, 0900 HRS AT ORCHARD HOTEL, SINGAPORE**

Your Excellencies

Distinguished Guests,

Ladies and gentlemen,

**Introduction**

1 I am pleased to join you this morning at this double bill event, the Global Space and Technology Convention-Satellite Technology Asia or GSTC-SATTECH 2010.

2 Few things come close to the sense of wonder and imagination that space can inspire. It has been the subject of much popular fiction and I am sure many of us have watched our fair share of science fiction movies and television shows in our youth. Who would have thought that the high tech gadgets and futuristic concepts in these shows would actually become everyday reality? Today, we have computers that can talk to us, an infinite array of sophisticated communication devices, and space travel may even become commonplace.

### **Vast Commercial Opportunities in Space**

3 Many of these advances were developed by space-related industries. Some were “spinoffs” from space-related technologies that found relevance in our daily lives. For example, the infra-red in-ear thermometer was developed using infra-red astronomy technology; protective apparel for extreme temperatures was designed based on space suit development; and new composite materials for space-crafts, like low-cost light-weight insulation foam, have found their way into aircrafts, cars, and houses.

4 All this underscores the significant potential for commercial opportunities in the global space industry. Today, more than half of the global space industry’s revenues come from the purchases of commercial space products and services. In 2008, the Space Foundation<sup>1</sup> estimated the global space industry to be worth US\$257 billion and growing at an impressive Compounded Average Growth Rate (CAGR) of 8.4 per cent since 2006.

---

<sup>1</sup> The Space Foundation, based in the US, is one of the world's premier non-profit organizations supporting space activities, space professionals and education.

5 Intrepid entrepreneurs and innovators are already venturing into arenas that were previously the domain of Governments and big corporations only. These innovative firms have leveraged on existing commercial off-the-shelf components to build low-cost micro-satellites, while others have reduced the cost of access to space by providing affordable launch services.

### **Asia as the next Space frontier**

6 In Asia, the space industry is poised to grow rapidly as many Asian nations set ambitious targets for their national space programs.

7 China is completing its first space station module - Tiangong-1 (otherwise known in English as Heavenly Palace-1) - and hoping to put it into orbit by the end of this year. Japan aims to put an astronaut on the Moon by 2030 while India aspires to put a man in space by 2015. South Korea is aiming to send a probe to the Moon by 2015.

### **Singapore, a Compelling Location for Space-related Innovation**

8 Singapore can potentially contribute to the rapidly developing space industry in Asia in several ways. Firstly, we can leverage on our traditionally strong aerospace, precision engineering, and electronics ecosystems. Take ST Engineering, for example, which offers a diverse range of leading proprietary solutions to its clients worldwide. Its subsidiary, ST Electronics, delivers innovative solutions for the design, development and integration of advanced electronics and communications systems, such as broadband radio frequency and satellite communication systems.

9 Secondly, Singapore's pro-business environment and technology and market-savvy workforce have helped complement the growth of satellite service providers in Asia. For instance, SingTel has grown to become Asia's leading communications group, providing a diverse range of communication services including fixed- and mobile- satellite services. Many other large corporations such as Arianespace, Spot Image, GeoEye, and DigitalGlobe have chosen Singapore to be their base from which to meet the growing demand for space-related services in the Asia-Pacific.

10 Thirdly, we are building up our research capabilities in space related technologies. Our Center for Research in Satellite Technologies, or CREST, has growing research and development ties with its counterparts overseas, such as Korea's Satrec-Initiative, the German Aerospace Center, and the Indian Space Research Organisation. Recently, CREST developed and integrated the first micro-satellite in Singapore.

11 We are also taking steps to nurture our young talent with learning and training opportunities. For example, the Singapore Space and Technology Association's annual "Space Challenge" attracts top students from our junior colleges and tertiary institutions. They are challenged to develop unique and realistic satellite designs and aerospace engineering concepts. Last year, the winning team from NUS High School designed a constellation of satellites that could not only pinpoint the location of pirate ships in neighbouring seaways, but also provide detailed dimensions of these ships to security agencies. Through such programmes, I hope that many more of our talented youth will be inspired to join the space industry and contribute to greater innovation in space related technologies.

## **Conclusion**

12 Given the regional and global developments in this sector, and our own capabilities and efforts, Singapore can certainly serve as a catalyst for the further growth of the space industry in Asia. Through platforms such as the GSTC-SATTECH, representatives from across the wide spectrum of space-related industries; government agencies and research institutions can interact and collaborate on the latest concepts and developments in the global space industry. In this regard, I would like to congratulate the Singapore Space and Technology Association (SSTA) and DTC Conferences (DTC) for taking the initiative to merge the two conferences into a single mega space event. Participants now have an even larger stage to showcase the latest developments in space & satellite technologies and applications. I look forward to Singapore hosting many more of such events and wish you all a successful and productive conference. Thank you.