Speech by Professor Lim Mong King
Deputy President and Dean, College of Engineering
Nanyang Technological University

At the Official Launch of the Aerospace Engineering Degree Programme
10th Feb 2006

Guest-of Honour, Mr Chan Soo Sen
Minister of State for Education & Trade and Industry

Distinguished guests,
Ladies and Gentlemen,

Good Afternoon.

Thank you for being here with us at the official launch of the aerospace engineering degree programme. This unique programme is offered by NTU’s School of Mechanical and Aerospace Engineering, and is the first and only aerospace engineering degree in Singapore.

The School of Mechanical & Aerospace Engineering started off in early 1980s with a pioneer batch of only 120 students. Today, the School has a cohort of more than 3,000 students with a yearly intake of some 800 students. Only about 10% of the annual intake is admitted to this prestigious Aerospace Engineering programme.

Aerospace education is not entirely new to the School. Some ten years ago, the School pioneered a final year specialization in aeronautical engineering which grew from strength to strength over the years. With the move by Singapore to become an aviation hub of the region, the School was ready to launch a brand new aerospace engineering degree programme.
The Aerospace Engineering programme admitted its pioneer intake in July 2005. The response from both JC and poly students was overwhelming and many enthusiastic, well-qualified applicants had to be turned away due to the limited number of places. I am glad to report that this special batch of bright young men and women, many of whom are here today, are doing very well in their course.

NTU’s mission is to educate leaders for Singapore and beyond. So too, in the field of aerospace engineering, we hope to nurture aspiring young talents and equip them with requisite knowledge and skills as competent aerospace engineers. This will help secure Singapore’s position as the major aviation hub of the region, and support her continuous move up the aerospace value chain.

In fact, the development of the aerospace programme is in line with EDB’s objective to create and grow skilled manpower for the aviation industry. The industry currently employs more than 14,000 people. With approximately 100 aerospace companies in Singapore, the opportunities for our well-trained graduates are endless.

The School has spared no effort to ensure that our aerospace engineering students receive an education that is strong in the fundamentals, but broad-based and market-relevant. The curriculum is designed to provide students with a strong foundation in aerospace engineering as well as to inculcate in them strong analytical, problem-solving and lateral thinking skills. This is critical for their future career in the competitive but rewarding aerospace industry. In addition, the School has also assembled a team of excellent faculty members, among them alumni from Imperial College, Cambridge, Caltech, Stanford and MIT.

The Aerospace Discovery Course is multi-disciplinary and covers the basics of flight science and engineering, aircraft design, maintenance, reliability and safety. To complement the course, the new Aerospace Discovery Laboratory is specially designed for students to learn about aerodynamics, propulsion, aircraft structures, flight stability and
aircraft systems through hands-on experiments. This Laboratory also houses artifacts that facilitate learning. Some of these experiments and artifacts are exhibited here today, and we invite you to take a closer look at them later.

To bring our students and the aviation industry closer together, every student is assigned an industrial mentor. These mentors are distinguished industry professionals, many of whom are here today. I take this opportunity today to thank them for their guidance of our students despite their hectic schedules. Very few academic courses, even in this University, are privileged to have industrial mentors to motivate and inspire their students.

In the following months, the building of our very own hangar will be completed. Apart from the many state-of-the-art teaching and research facilities, it will house a real-life SkyHawk which was donated by the RSAF. It will be instrumented and tested, and deployed for realistic hands-on training. Because of the generous gesture of the RSAF, our students can observe first-hand how the different systems in an aircraft work together to accomplish sustained and controlled flight.

On the School front, we have and are continually working towards establishing collaborative partnerships with renowned universities with top-notch aerospace degree programmes. These include Technical University of Delft, Georgia Institute of Technology, Cranfield University and the University of Toronto. We are working towards developing mutually beneficial exchange programmes, whereby our students can be exposed to extended overseas stints, and overseas students can come and profit from a very high quality programme. These exchanges are not limited to students. We are presently hosting many researchers from many prestigious universities.

Undoubtedly, the continued success of this aerospace engineering degree will depend to a large extent on the support of the aviation
industry. To this end, we are privileged to be the beneficiaries of strong and unwavering support of the EDB, RSAF, Rolls Royce and many others. We sincerely thank them for their material support, be it in the form of scholarships, sponsorship of awards, industrial mentorships, donations of artifacts. Their close association with the Programme will help us to constantly refine the curriculum and teaching methods.

We believe that with the continued support of all stakeholders, the Programme will grow to be among the best in the world.

Thank you.