SPEECH BY MR NG CHEE MENG, MINISTER FOR EDUCATION (SCHOOLS) AND SECOND MINISTER FOR TRANSPORT, AT THE AVIATION COMMUNITY RECEPTION 2017 ON 20 APRIL 2017 (THURSDAY) AT 6.30PM AT MAX ATRIA

Mr Lee Hsien Yang, Chairman of CAAS,

Friends in the Aviation Community,

Singapore Aviation's success over the years

1 Good evening. We have come a long way from our earliest aviation days as simply a technical stop between Europe and Australia. Today, we are the hub of choice for travellers. Changi Airport and Singapore Airlines (SIA) consistently garner top accolades. Last year alone, they received a hundred awards. Growth has also been robust. Last year, we handled a record 58.7 million passengers and achieved 5.9 per cent traffic growth. And 2017 has started well, with 4.7 per cent growth in the first quarter.

2 Singapore is at the forefront of international aviation today because we have been bold and forward-looking.

3 At a time when others were focused on their domestic markets, we were focused on serving the world. From the onset, our aviation policies emphasised open skies, and our airport was designed to facilitate transfer passengers. We were a first-mover in these respects, and this secured our leading position. Today, Changi serves nearly 7,000 flights

every week, bringing passengers to and from more than 320 cities worldwide.

4 Furthermore, at a time when others were focused on cost, we were focused on the customer experience. We re-engineered processes to ensure that arriving passengers can leave the airport in as quickly as 20 minutes. We constantly introduced new and improved offerings, to provide the high level of service for which Changi has come to be known. We continued to strive for day-to-day excellence, including making sure that small things like toilets are first-class in cleanliness.

Our vision for Singapore Aviation's transformation

5 The road ahead, however, will be more challenging. We cannot rest. Many countries also have ambitions to be the hub of choice. They are expanding their airports and their airlines are growing aggressively. To stay ahead of the competition, we need to constantly reinvigorate and rejuvenate ourselves.

6 A business-as-usual approach will not do also because of our inherent constraints of land and manpower. For example, under business-as-usual, we will need to hire 10,000 more workers over the next decade. This will be very difficult given the shortage of manpower in Singapore.

7 We want to transform the sector, not only to meet these challenges, but to do even better. That is why our Air Transport Industry Transformation Map (ITM) is ambitious. We want to improve our sector's

competitiveness and Changi's service standards, and grow our real value-add from about \$7 billion today by another \$1 billion by 2020.

More jobs, better jobs

8 With Terminal 4, Jewel Changi and Terminal 5 on the horizon, we are confident of achieving these goals.

9 We target to redesign or create 8,000 good jobs between now and 2025. There will be more jobs for professionals, technicians and cabin crew. Together, they will make up over 70 per cent of jobs in the sector, compared to about 60 per cent today. Overall, we want to increase productivity by about 40 per cent between now and 2025. This is a very challenging target we are setting ourselves, as productivity in the sector has historically grown at lower rates. But we believe that we need to be ambitious, if we want to stay ahead.

10 At the same time, we want to make our airport even smarter. Systems will talk more to each other, and more autonomous systems will support our work. We want to track every piece of baggage, cargo and equipment moving across the airport in real time. Airport staff equipped with mobile devices and smart wearables can then locate them more swiftly. And airlines can pool information to improve decision-making and upgrade their services. Analysing data to identify bottlenecks and inefficiencies will allow us to optimise processes.

11 To raise our productivity by 40 per cent by 2025, we will need a comprehensive approach. We must address every aspect of the airport and airline business, from passenger services, to cargo handling, airside

functions, airline operations and air traffic control. Improvements in one area cannot achieve their full potential unless complemented by changes in other areas. For example, fast and seamless travel (FAST) initiatives reduce the time for check-in and boarding, but this is meaningless if aircraft cannot turnaround quickly. For that to happen, bags, cargo and in-flight meals must all be loaded rapidly.

12 And everyone has a role to play. We will need to integrate efforts across businesses, unions and the Government.

13 DG, CAAS will be sharing more details of the Air Transport ITM shortly.

14 The Government is committed to supporting the ITM through channels such as the Aviation Development Fund. Together with industry, we are already investing about \$0.5 billion to implement various projects over the next three years. More projects are in the pipeline and we are ready to commit more resources.

Opportunities for local enterprises

15 We will see new value being created as we implement the ITM. One key focus is to partner local companies to realise our aviation vision, and in the process, enable them to benefit from the innovations.

16 There will be many platforms for local companies, including small and medium enterprises (SMEs), to co-develop and export "designed-in-Singapore" aviation products. Already, companies are setting up innovation hubs to drive transformation from within. SATS will be launching its innovation centre next month. Earlier this year, the Changi Airport Group launched the \$50-million Living Lab programme in partnership with the Economic Development Board. Last year, Singapore Airlines Engineering Company established an Innovation Group, to focus on areas such as additive manufacturing, automation and robotics. I encourage you to visit their showcases here.

17 There will be more opportunities for Singapore companies to be part of our transformation efforts as CAAS launches more Aviation Challenges over the next few years, and as our aviation companies themselves initiate exciting projects.

Improving the working environment

18 For our workers to become more productive, working environments must improve in tandem. Companies should ramp up the use of technology such as robotics to ease physically-demanding and manual tasks in airport operations. Our workers can then be freed up to focus on more meaningful and value-added tasks.

19 For example, to protect our workers from harsh weather elements, we are exploring remote apron operations. It means that operators will be seated in a remote office, and can minimise time on the ground. The automated docking system by Singapore Technologies (ST) Dynamics aims to do this. Previous attempts did not work because the sensors did not work well in heavy rain. The new system uses precision lasers and cameras with smart algorithms to guide the docking process safely and autonomously.ST Dynamics will be testing this technology on the aerobridges this year. This will be the first automated docking system in the world designed to operate under harsh weather conditions, so that passengers will not be delayed in their journey. If successful, we can extend the same technology to other airport equipment, like catering trucks.

Supporting workers through the changes

As we roll out such innovations, some workers may be concerned for their jobs. This is understandable. Let me assure you that it will not be the case. As we pursue innovation, new roles will be created, and salaries improved. And we will support existing workers to deepen their skills to adapt to the changes. As long as workers are willing to learn, I am confident that they will have a long and meaningful career in the aviation sector.

Take for instance Mr Ang Hock Lye. He is 58 this year. Previously a cargo operations assistant, Hock Lye had to manually sort and lift mail bags, which can be as heavy as 35kg. At the new eCommerce AirHub, his employer, SATS, has implemented an automated tilt-tray sortation system. It has intelligent processing capabilities and assisted loading devices for lifting mail bags. Hock Lye underwent training to operate the automated systems at the AirHub as an eHub Specialist. His work has now become more comfortable and less strenuous, meaning that he can continue working for longer despite his advancing age. Higher-grade eHub Specialists like Hock Lye can also enjoy up to a 10 per cent pay rise.

22 Skills upgrading is a critical part of the ITM. To help our workers acquire and master the deep skills that are needed to stay relevant, the

sector has embraced continuous education and training. The SkillsFuture movement supports this. Today, we celebrate our second batch of SkillsFuture Study Award recipients. Since its launch in 2015, 49 workers have received the award. I am also heartened that SIA and SATS have provided \$500 top-ups of SkillsFuture Credits for their staff.

23 Aviation workers can use their SkillsFuture credits to sign up for more than 160 aviation courses, with more to be added by educational institutions and training providers. Next week, Temasek Polytechnic will start its new part-time Diploma in Aviation Management. The first two classes have been fully subscribed. The Diploma programme has been crafted through intensive consultation with companies to understand industry needs. I wish the 50 students a fruitful learning experience.

As we embark on our ITM journey, we can draw inspiration from Rama Kerisna, 70. One of our pioneer generation, Rama joined dnata in 1979 as a security officer, and has been diligently upgrading himself. He rose through the ranks from Flight In-Charge, to Supervisor, and later Duty Manager for apron services. In recognition of his skills, dnata transferred him to its training department, to train and mentor newcomers. He continues to upgrade himself and is now pursuing a Specialist Diploma in Dangerous Goods Regulations from the International Air Transport Association. Rama has been part of the changes since our time in Paya Lebar, and his unwavering drive to improve himself is inspiring. We look forward to Rama's continuing contribution to the aviation sector.

Conclusion

Let me conclude. The Air Transport Industry Transformation Map aims to secure the future of Singapore Aviation. To succeed, everyone in the industry, from the companies to the unions and Government agencies, must play their part in this journey.

26 I too, look forward to working with all of you to transform Singapore Aviation.

27 Thank you.