

Section 57 of the Competition Act (Cap. 50B)

Grounds of Decision issued by the Competition Commission of Singapore

In relation to the application for decision of the proposed joint venture between Airbus Services Asia Pacific Pte. Ltd. and Singapore Airlines Limited pursuant to section 57 of the Competition Act

19 December 2014

Case number: CCS 400/012/14

Confidential information in the original version of this Decision has been redacted from the published version on the public register. Redacted confidential information in the text of the published version of the Decision is denoted by [X]

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I. Introduction

The notification

1. On 29 October 2014, Airbus Services Asia Pacific Pte. Ltd. (“Airbus Asia”) and Singapore Airlines Limited (“SIA”) (collectively referred to as the “Parties”) filed a joint notification pursuant to section 57 of the Competition Act (Cap. 50B)(the “Act”) for a decision by the Competition Commission of Singapore (“CCS”) as to whether the proposed joint venture between Airbus Asia and SIA in respect of the provision of Airbus aircraft pilot training services in the Asia-Pacific (“APAC”) region (the “Transaction”) will infringe the section 54 prohibition of the Act, if carried into effect.
2. In reviewing the Transaction, CCS contacted 10 competitors, such as manufacturers of Full Flight Simulators (“FFS”)¹ and other independent training centres², and 14 customers³ for aircraft pilot training services. CCS also contacted the Civil Aviation Authority of Singapore (“CAAS”) for information as well as its views on the aircraft pilot training services market in Singapore. Out of the third-parties contacted, 10 have replied and six provided substantive responses to CCS’s questionnaires. Most of the customers⁴ have indicated that they have no concerns with the Transaction. As they utilise other service providers of aircraft pilot training services, it is generally easy to switch between service providers and that the Transaction is likely to increase competition and ultimately reduce prices.⁵ Some of the competitors have similarly provided feedback that they have no concerns with regards to the Transaction or that the Transaction would have limited effect on them.⁶
3. At the end of the consultation process and after evaluating all the evidence, CCS concludes that the Transaction, if carried into effect, will not infringe section 54 of the Act.

II. The Parties

Airbus Asia

¹ It is the Parties’ submission that manufacturers are increasingly offering aircraft pilot training services and therefore should also be considered as competitors. Appendix 10 of Form M1

² [REDACTED]

³ The customers contacted are [REDACTED]

⁴ [REDACTED]

⁵ [REDACTED]

⁶ [REDACTED]

4. Airbus Group N.V. (“Airbus Group”) is a public company with limited liability incorporated under the laws of Netherlands, having its registered office at Mendelweg 30, 2333 CS Leiden, The Netherlands.⁷ The Airbus Group is active in, amongst other things, the design, manufacture, sale and support of commercial aircraft, civil and military helicopters, military aircraft and defence electronics and systems. It organises its business into three main business divisions, namely (i) Airbus S.A.S (“Airbus”), (ii) Airbus Helicopters and (iii) Airbus Defence and Space.⁸
5. Airbus, which is headquartered in Blagnac, France, is a wholly-owned subsidiary of the Airbus Group which develops, manufactures and sells commercial aircraft ranging from a capacity of 100 to 500 seats (A320, A330/340, A350XWB and A380 aircraft families). The Airbus business accounts for 67 per cent of the Airbus Group’s total turnover.⁹
6. Airbus Asia, which is the party to the Transaction, is a wholly-owned subsidiary of Airbus¹⁰ and is registered and incorporated in Singapore¹¹. Airbus Asia provides, as an Airbus subcontractor, consulting and engineering services related to Airbus aircraft. These services comprise Field Service activities¹², Flight Hour Services (“FHS”)¹³ for the A380, Tailored Support Package (“TSP”)¹⁴ activities for the A320 and A330, Flight Operations support¹⁵ as well as marketing and promotional support with respect to Airbus aircraft and air traffic management solutions in the region.¹⁶

⁷ Paragraph 7.1.2 of Form M1

⁸ Paragraph 10.1.1(c)

⁹ Paragraph 10.1.1(c)

¹⁰ Paragraph 7.1.1 of Form M1

¹¹ Paragraph 10.1.1(e)

¹² Through “field services activities” Airbus sends representatives on-site to help airlines operate aircraft after aircraft have been delivered. It is not charged to airlines. These representatives do not themselves intervene on the aircraft, as they are sent only to facilitate the relationship with Airbus, by liaising with the right expert(s) within Airbus’ organization as and when needed

¹³ This consists of guaranteed solutions ranging from component supply and repair to full airframe maintenance. This guarantees the availability of all primary line replaceable unit spare parts through an exclusive on-site stocks and pool access services as well as repair services. Paragraphs 2.3 and 3.1 of the Parties’ responses to CCS RFI dated 5 November 2014

¹⁴ TSP is a modular and flexible solution which combines the FHS components module with engineering services, airframe maintenance services and additional services such as Airbus Real Time Health Monitoring which optimises maintenance and troubleshooting. Paragraph 2.2, 2.4 and 3.1 of Parties’ responses to CCS RFI dated 5 November 2014

¹⁵ Flight operations support includes e-solutions to safely and efficiently operate Airbus aircraft. Paragraph 3.1 of Parties’ responses to CCS RFI dated 5 November 2014

¹⁶ Paragraph 3.1 of Parties’ responses to CCS RFI dated 5 November 2014

7. Global turnover for Airbus Group was approximately S\$74.84 billion in the fiscal year ended 31 December 2013. Turnover in Singapore for the same period was approximately S\$[×].

SIA

8. SIA is a company incorporated in Singapore and listed on the Singapore Exchange Securities Trading Limited (“SGX-ST”). The SIA Group provides aviation services which comprise of (a) passenger and air cargo transportation services; (b) aircraft engineering and maintenance services; (c) training services; and (d) air charters, tour wholesaling and related activities.¹⁷ SIA subsidiaries include SIA Cargo which is the business of air cargo transportation, SIA Engineering Company which provides engineering and maintenance services to other airlines¹⁸ and Silkair (Singapore) Private Limited which provides regional passenger transportation services.¹⁹
9. SIA is the national airline of Singapore and therefore conducts the bulk of its operations from Singapore. Aircraft pilot training services are conducted at two sites, namely the SIA Training Centre and the Singapore Flying College Pte. Ltd. (“SFC”). The in-house training of staff and aircrew takes place in the SIA Training Centre which houses the Management Development Centre and four training departments²⁰. The SIA Training Centre provides pilot training primarily for its own pilots but also provides dry lease²¹ to third-parties.
10. The SFC located at Seletar Airport in Singapore, is a wholly-owned subsidiary of SIA which provides *ab initio* flight training to cadet pilots recruited by the SIA Group.²²
11. Global turnover for SIA was approximately S\$15 billion in the fiscal year ended 31 March 2014. Turnover in Singapore for the same period was approximately S\$ [×].

Relationship between SIA and Airbus

¹⁷ Paragraph 7.2.2 of Form M1

¹⁸ Paragraph 14.1 of Form M1

¹⁹ Pages 34-38, 165 and 210 of SIA Annual Report FY 2013/14 at Appendix 7 of Form M1

²⁰ Cabin Crew Training, Flight Crew Training, Commercial Training and Information Technology Training. Paragraph 10.2.1(d) of Form M1

²¹ As opposed to wet training, where a training provider provides access to both a simulator and instructors, dry training is where only equipment and infrastructure (i.e., simulators) is provided and the client provides the instructor. When offering dry training, companies provide simulator capacity to their clients i.e. dry lease

²² Paragraph 10.2.1(d) of Form M1

12. SIA has purchased aircraft and certain maintenance, repair and overhaul services in respect of the aircraft from Airbus since Airbus aircraft entered SIA's fleet. Presently, SIA Group operates the Airbus A320, A330, A340 and A380 and will be one of the first and largest airlines to operate the upcoming A350XWB aircraft.²³ [§<]^{24 25}.

III. The Transaction

13. The Airbus Asia Training Centre Pte Ltd ("AATC") was incorporated on 3 September 2014 in Singapore as a 100 per cent subsidiary of Airbus Asia. On or immediately following completion, pursuant to a Subscription Agreement, AATC would increase its share capital and both Airbus Asia and SIA would each subscribe for shares against cash. Airbus will contribute funding in cash for an amount of approximately S\$[§<] and SIA will contribute funding in cash for an amount of approximately S\$[§<]. Consequently, Airbus Asia will hold 55 per cent of the total issued shares in AATC and SIA will hold 45 per cent of the total issued shares in AATC.²⁶ CCS notes that the Transaction is not yet completed as [§<].

14. Pursuant to [§<].²⁷

15. Section 54(5) of the Act defines a joint venture that constitutes a merger as one that performs, on a lasting basis, all the functions of an autonomous economic entity. Paragraph 3.20 of the *CCS Guidelines on the Substantive Assessment of Mergers* ("CCS Merger Guidelines") states that, a joint venture that falls within the definition of a merger under section 54 of the Act must fulfil the following criteria:

- a. It must be subject to joint control;
- b. It must perform all the functions of an autonomous economic entity; and
- c. It must do so on a lasting basis.

Joint control

16. Joint control over an undertaking exists where two or more parties have the possibility of exercising decisive influence over that undertaking, including the power to block actions which determine the strategic commercial

²³ Paragraph 9.1 of Form M1

²⁴ [§<]

²⁵ Paragraph 9.2 of Form M1

²⁶ Paragraph 11.2 of Form M1

²⁷ Paragraphs 11.4 and 11.15 of Form M1

behavior of an undertaking.²⁸ According to the JVA, [X]. Although the shares [X] in AATC by Airbus Asia and SIA will be in the proportion of 55:45 respectively, the Parties submitted that the AATC is nevertheless subject to joint control by both parent companies. The Parties submitted that SIA, the minority shareholder [X] are essential to the strategic decisions of AATC. [X]²⁹³⁰ CCS notes that [X]³¹³².

17. In addition, [X], [X] is required on a list of reserved matters set out in the JVA³³ and that these reserved matters are critical to AATC's business and are to be considered as essential to the strategic commercial behavior of AATC.³⁴

18. In particular, a unanimous decision by all the Directors is required on the following decisions³⁵:

- a. [X];
- b. [X]; and
- c. [X].

19. [X].³⁶ [X].³⁷

20. It is the Parties' submission therefore that the minority shareholder, SIA [X] and this will therefore confer both Airbus Asia and SIA joint control over AATC.

Autonomous economic entity

21. In order for a joint venture to operate on a market, perform the functions normally carried out by undertakings operating on that market and to conduct its business activities on a lasting basis, the joint venture must have a management dedicated to its day-to-day operations and access to sufficient resources, including finance, staff and assets (tangible and intangible).³⁸

²⁸ Paragraph 3.22 of the *CCS Merger Guidelines*

²⁹ Clause 16.1(c) of the Joint Venture Agreement and Paragraph 11.9.5-11.9.6 of Form M1

³⁰ Clause 9.1(a)(ii) of the Joint Venture Agreement

³¹ Clause 8.1 of the Joint Venture Agreement

³² Clause 9.1(a)(i) and 9.2(b) of the Joint Venture Agreement

³³ Clause 8.2 of the Joint Venture Agreement

³⁴ Paragraph 11.9.9 of Form M1

³⁵ Paragraph 11.9.9 of Form M1

³⁶ The Parties submitted that an FFS costs between €[X] and €[X]. Paragraph 11.9.9(a) of Form M1

³⁷ Paragraph 11.9.9 of Form M1

³⁸ Paragraph 3.24 of the *CCS Merger Guidelines*

22. The Parties have submitted that [X]³⁹⁴⁰⁴¹.

23. [X]⁴²⁴³⁴⁴.

24. Lastly, although AATC will likely [X].⁴⁵

Function on a lasting basis

25. The Parties submitted that AATC is expected to be continuing for an indefinite period of time [X].⁴⁶

CCS's conclusion on whether the joint venture constitutes a merger

26. Based on the Parties' submission that the Transaction consists of the creation, on a lasting basis, of a joint venture in respect of the provision of aircraft pilot training services in the APAC region and which is subject to effective joint control of its parent companies (i.e., Airbus Asia and SIA) and performs all the functions of an autonomous economic entity, the Transaction constitutes a joint venture pursuant to section 54(5) of the Act.

IV. Competition Issues

27. As set out in the *CCS Merger Guidelines*, CCS is generally of the view that competition concerns are unlikely to arise in a merger situation unless the merged entity will have a market share of 40% or more or the merged entity will have a market share of more than 20% with the post-merger CR3⁴⁷ at 70% or more.⁴⁸

28. For this Transaction, the Parties submitted that with respect to APAC region, SIA and Airbus overlap in the provision of aircraft engineering and maintenance services to airlines and aircraft pilot training services. However, the Parties submitted that AATC's business is only focused on the provision

³⁹ Paragraph 11.10.2(a) of Form M1

⁴⁰ Paragraph 11.10.2(b) of Form M1. Clause 16.1 of the Joint Venture Agreements provides for [X].

⁴¹ Schedule 4 of the Joint Venture Agreement projects that [X]

⁴² Clause 4.2(e) and Schedule 2 of the Subscription Agreement together with the SIA Asset Purchase Agreement

⁴³ Paragraph 11.10.2(c) of Form M1 and Clause 12.1 of the Joint Venture Agreement.

⁴⁴ Paragraph 11.10.2(d) of Form M1

⁴⁵ Paragraphs 11.10.7 and 11.10.10 of Form M1

⁴⁶ Clause 23.2 of the Joint Venture Agreement. Paragraph 11.11.1 of Form M1

⁴⁷ Paragraph 5.14 of *CCS Merger Guidelines*. CR3 refers to the combined market shares of the three largest firms

⁴⁸ Paragraph 5.15 of the *CCS Merger Guidelines*

of aircraft pilot training services⁴⁹; as such, for the purposes of the current Transaction, the only relevant overlap between the Parties should be the provision of aircraft pilot training services.

29. In Singapore, the Parties submitted that there is no overlap between the Parties in aircraft pilot training services as Airbus Asia does not provide aircraft pilot training services at this stage. Aircraft pilot training services are currently provided by Airbus and Airbus training centres outside of Singapore.⁵⁰
30. In addition, CCS notes that Airbus, as the manufacturer of Airbus aircraft, is also a supplier of software and data packages⁵¹ i.e. software and technical documentation. CCS understands that the software and data packages are necessary to the functioning of the FFS used by aircraft pilot training service providers and that these can only be purchased from Airbus. Airbus supplies the software and data packages to the aircraft pilot training service providers, which include third-party independent service providers, Airbus-related training centres and FFS manufacturers, by way of a licence agreement.
31. In evaluating the potential impact of the Transaction, CCS considered whether the Transaction will lead to coordinated, non-coordinated and vertical effects that would substantially lessen competition or raise competition concerns in the markets for the provision of aircraft pilot training services in Singapore and/or APAC region and for the provision of FFS software and data packages.

V. Counterfactuals

32. As stated in paragraph 4.6 of the *CCS Merger Guidelines*, CCS will, in assessing mergers and applying the Substantial Lessening of Competition (“SLC”) test, evaluate the prospects for competition in the future with and without the merger. In which case the competitive situation without the merger is referred to as the “counterfactual”. The SLC test will be applied prospectively, that is, future competition will be assessed with and without the merger.
33. The *CCS Merger Guidelines* also states that in most cases, the best guide to the appropriate counterfactual will be prevailing conditions of competition, as this may provide a reliable indicator of future competition without the

⁴⁹ Table 14.1 and paragraph 16.1 of Form M1

⁵⁰ Table 14.1 of Form M1

⁵¹ Parties’ responses to Question 7 in CCS RFI dated 5 November 2014 read with Paragraph 1.2 (a) of Parties’ response to Question 1 in CCS RFI dated 2 December 2014

merger. However, CCS may need to take into account likely and imminent changes in the structure of competition in order to reflect as accurately as possible the nature of rivalry without the merger.⁵²

The Parties' submissions

34. The Parties submitted that without the Transaction, Airbus and SIA may possibly be considered as potential competitors in respect of the provision of aircraft pilot training services for Airbus aircraft in the APAC region (i.e., AATC's business). However the Parties stressed that, in respect of the Singapore market, this would not be a probable situation given that SIA conducts its trainings internally at present and it is, therefore, unlikely that Airbus would compete with SIA for the provision of aircraft pilot training in Singapore.⁵³
35. The Parties also submitted that the APAC and worldwide markets for the provision of aircraft pilot training services would continue to be competitive and dynamic with or without the Transaction, given the low barriers to entry and the increasing trend of entry by independent third-parties (e.g., FFS manufacturers).⁵⁴
36. CCS is of the view that the prevailing conditions of competition i.e. where Airbus and SIA are potential competitors in the provision of aircraft pilot training services, and where Airbus continues to license software and data packages to downstream aircraft pilot training services providers would be the appropriate counterfactuals with which CCS would base its competition assessment on.

VI. Relevant Markets

37. The Parties have submitted that the relevant market for the purposes of this application is the market for flight pilot training for all of the following aircraft: Airbus A320 family, A330 family, A340, A350XWB and A380 aircraft types, and, possibly, for other types of Airbus aircraft.⁵⁵ In relation to the types of trainings, the Parties submitted that these could be further segmented into *ab initio* training; type-rated pilot training and recurrent training.

⁵² Paragraph 4.7 of the *CCS Merger Guidelines*

⁵³ Paragraph 17.1 of Form M1

⁵⁴ Paragraph 23.1 of Form M1

⁵⁵ Paragraph 20.2 of Form M1

38. The Parties considered *ab initio* training, type-rated pilot training and recurrent training as distinct markets separate from each other although the Parties noted that the then UK Office of Fair Trading (“OFT”) had considered both type-rated pilot training and recurrent training to form the same market.⁵⁶
39. Further, the Parties submitted that the product market may also be segmented by type of training, type of aircraft and between contractual and additional training.⁵⁷ The different types of segmentation are described in the following paragraphs.
40. Separately, CCS is also of the view that given the Airbus is a supplier and proprietary owner of software and data packages necessary to the functioning of the FFS used by downstream aircraft pilot training services providers, the market for the provision of FFS software and data packages would also be relevant to CCS’s assessment of the Transaction.

(a) Product markets

Description of services – Pilot training⁵⁸

41. The Parties submitted that there are three broad “categories” of pilot training:
- (a) *Ab initio* training;
 - (b) Type-rated (or conversion) pilot training; and
 - (c) Recurrent training.
42. In practice, a pilot must first undergo *ab initio* training to obtain his/her licence. He/she will then undergo type-rated pilot training in order to be able to fly on a specific aircraft (and will need to do so each time his/her company assigns him/her to another type of aircraft, i.e. basically every five to seven years). When a pilot is type-rated (i.e., trained for a specific aircraft) he/she must then undergo recurrent training.

Ab initio training

43. The Parties submitted that there are two routes for *ab initio* training, namely Airline Transport Pilot License (“ATPL”) training and Multi-Crew Pilot Licence (“MPL”) training.

⁵⁶ Paragraphs 20.2 and 20.4 of Form M1

⁵⁷ Paragraph 20.6 of Form M1

⁵⁸ Paragraphs 19.2 to 19.24 of Form M1

44. ATPL training is the traditional route to training airline pilots and is a prescriptive course of training in which the student must complete a certain number of flight hours as part of the course to qualify for an ATPL. ATPL training is also delivered primarily as single pilot flight training with the multi-crew (two pilot) flight training element only introduced in the later stages of the course. The ATPL course takes students with little or no previous flying experience to a Commercial Pilot's Licence ("CPL") with a Multi-Engine Instrument Rating ("MEIR") (also commonly known as a "frozen" ATPL), from where they are then eligible to work as a First Officer with an airline once aircraft type training has been completed separately. The programme takes approximately 18 months to complete.
45. In many countries, Multi Crew Coordination ("MCC") allowance training is also required to proceed to type rating training. Students who graduate with a "frozen" ATPL are free to train onto any aircraft type and to fly for any airline that will accept the ATPL holder's particular national licence. Most airlines will initially assign new First Officers to short- or medium-haul fleets so they can rapidly build experience in the more demanding departure, climb, descent, approach and landing phases of flight. Once an ATPL holder has gained 1,500 hours experience, the ATPL becomes "unfrozen" and they are then eligible to be considered by their employer airline for promotion to Captain.
46. MPL training is a newer type of training which has emerged over the last 10 years due to a recognised need in the industry to better train pilots for the modern airliner flight deck. The MPL training course delivers multi-crew flight training from the outset, better preparing pilots for the modern Multi-Crew environment in airliner flight decks. MPL training is also competency-based training rather than prescriptive. Once a student has mastered a particular competence within the course, they can move on without having to complete pre-defined training hours in each area. The MPL qualifies the holder to fly for a particular airline on a particular aircraft type. Once the MPL holder has gained approximately 1,500 flight hours experience, they have the opportunity to convert their MPL to a full ATPL licence and they are then eligible to be considered by their employer airline for promotion to Captain.
47. The MPL training is divided into four phases: MPL Phase 1 (basic course); MPL Phase 2 (intermediary course); MPL Phases 3 and 4 (advanced courses). In Phase 3, the trainee uses flight simulation to reflect the behaviour of a generic aircraft. In Phase 4, the trainee will obtain, but is not limited to, an aeroplane type rating. The entire (MPL Phases 1 to 4) *ab initio*

training typically takes 24 months to complete and is generally undertaken on a residential basis by trainee pilots in their country of origin. However, it can also be executed in a country which is not necessarily the country of origin of a trainee pilot. In respect of *ab initio* training, AATC will only be providing advanced *ab initio* training (i.e., Multi-Crew Pilot Licence or MPL Phases 3 and 4).

Type rated pilot training (conversion training)

48. Type-rated or conversion training is where a pilot is first trained at the controls of a particular aircraft type and gains the necessary licence endorsements. Once the training has completed, the pilot has a “type rating” registered on its licence. A type rating is generally valid for one year.
49. The local aviation authority decides which aircraft requires a type rating. As a general rule, all aircraft over 5,700 kilograms (“kg”)/12,500 pounds (“lbs”) and turbojet-powered airplanes require a type rating specific to the aircraft.
50. The format of this training is a mix of theoretical and practical training. Theoretical training consists in self-study lectures, including web-training and classroom sessions. Practical training is performed either entirely on FFS or on flat panel trainers and FFS. The minimum amount of FFS training is 32 hours. Each type rating course finishes with a skill test on an FFS.
51. The length of the course varies depending on aircraft type and can be from one week for some small business jets, up to six to eight weeks for large complex airliners.
52. In the Parties’ experience, conversion training is always offered as wet training.
53. Wet training is where the TRTO⁵⁹ provides access to both a simulator and instructors as opposed to dry training where the TRTO only provides access to equipment and infrastructure (i.e., simulators) and the client provides the instructor.
54. When offering dry training, companies provide simulator capacity to their clients (each simulator has an “annual capacity”, which is offered to the market). Dry lease allows rapid and flexible access to simulator capacity.

⁵⁹ Type Rating Training Organisations (“TRTOs”), also known as “Approved Training Organisations” (“ATOs”), are aircraft manufacturers, airlines or independent third parties with the required authorisations to provide aircraft pilot training services

55. Type-rated pilot training costs approximately US\$[x] to US\$[x] per pilot.
56. There also exist abbreviated type rating courses such as Cross Crew Qualification (“CCQ”) courses, whereby pilots which hold a type rating for the “base” aircraft of a certain “family” (e.g., an A320) are eligible for a CCQ course. CCQ is a conversion training, which allows a pilot to obtain a new Airbus qualification, taking into consideration the experience gained on a given type of Airbus. As a result the conversion course will be shorter (as an example, an A320 rated pilot can obtain an A330 rating during an eight-day days course, while it requires 25 days for non A320 rated pilots).

Recurrent training

57. Recurrent training is required annually to ensure that the pilot retains the necessary licence endorsements. This typically takes two days of training to complete but may last longer depending on the airline. It consists of a mix of classroom based tuition and simulator training (on average four hours a day).
58. To revalidate a type rating, a pilot has to perform one flight route on an FFS under the supervision of an examiner and a Licence Proficiency Check (“LPC”). If a pilot holds multiple ratings, an LPC is required for each single rating .
59. Flight-crew members of an airline must also undergo recurrent training in relation to the type of variant of aircraft he/she is certificated to operate. The minimum training requirements on an FFS per year consist of one FFS refresher training and two Operator Proficiency Checks (“OPC”). Most airlines perform two FFS refresher trainings and two OPCs per year.
60. Recurrent training could be sub-segmented between wet and dry training. Wet training is where the TRTO provides access to both a simulator and instructors, whereas dry training is where the TRTO only provides access to equipment and infrastructure (i.e., simulators) and the client provides the instructor.
61. When offering dry training, companies provide simulator capacity to their clients (each simulator has an “annual capacity”, which is offered to the market). Dry lease allows rapid and flexible access to simulator capacity. In practice, 95 per cent to 100 per cent of recurrent training is currently provided as dry training. One of the objectives of AATC will be to convince airline companies to outsource this activity and thus develop the wet training segment for recurrent training.

62. Providing wet training requires obtaining more approval/certification from the relevant airworthiness authorities than for dry training:

- (a) To deliver dry training, one only needs to have the relevant equipment (FFS, premises, etc.) approved by national authorities. AATC will, therefore, have its equipment certified by the national authorities of its clients.⁶⁰ The time required to obtain certification varies from one authority to another. The process starts with a request for FFS qualification which is sent to the authority. Depending on the availability of the FFS's qualification experts of this authority, the testing can be scheduled up to six months after the initial request. The check itself requires one to four days of tests, including facility and FFS maintenance assessment. The cost of the qualification is in the range of US\$[x] to US\$[x] per FFS.
- (b) To deliver wet training, one needs to have not only the relevant equipment (FFS, premises, etc.) approved but also the courses (manual, course content, etc.), the instructors and the training centre's quality systems and processes. The AATC's recurrent training programs prepared by Airbus are dependent on EU-OPS requirements, under the supervision of the EASA. It is the responsibility of each operator to then ensure that the courses are in conformity with the relevant standards at national level. In practice, this may require adaptations to local requirements. However, most national authorities only require very limited adaptations (if any) when the trainings are certified by EASA or the FAA. The approval of a training centre by an authority usually requires six months of preliminary work in order to design the processes, the courses, the manuals and prepare the instructors. A training centre is approved for one to three years depending on the level of conformity achieved during the assessment performed by the civil aviation authority. The cost of such process can vary between US\$[x] and US\$[x].

63. The costs for these types of training are as follows:

- (a) For dry training, the leasing of an FFS would cost between US\$[x] and US\$[x] per hour (depending on the type of FFS). The rates are negotiated hourly but FFS are usually booked for the day ;

⁶⁰ For example, should an Australian airline wish to dry lease FFS, AATC will have to ensure that these FFS are certified by the Australian authorities. Certification of FFS is granted for one to three years (depending on the authority). A certification given by the European Aviation Safety Agency ("EASA") or the United States Federal Aviation Authority ("FAA") will generally easily be accepted by other regional authorities. On the other hand, for regional authorities such as the Civil Aviation Administration of China ("CAAC") for China, mutual recognition may be more difficult to obtain. The authority responsible for certification will depend on the location of the owner of the FFS (it is associated with maintenance services)

- (b) For wet training, in addition to the cost of leasing an FFS, courses and instructor's time would cost between US\$[X] to US\$[X] per day (depending on the instructor type).

*Segmentation per type of aircraft*⁶¹

64. From a demand perspective, the Parties submitted that FFS covering different models of aircraft are not suitable or adaptable for training pilots to fly other aircraft (e.g., conversion or recurrent training for A330 aircraft on A320 FFS is not possible), with the exception of (i) aircraft belonging to the same "family"⁶² and (ii) the dual A330/A340 FFS⁶³. Feedback from third-parties⁶⁴ has corroborated the Parties' submissions.
65. Flight simulator training for Airbus aircraft requires specific FFS per type of aircraft and training software. Airbus instructors also need to have Airbus aircraft-specific experience. Instructors specialised in the provision of training on Boeing aircraft cannot supervise training on Airbus aircraft flight simulators and *vice versa*.
66. In support of their submission that the product market should be segmented by aircraft types, the Parties cited the *General Electric/Thomson CSF* case, where the European Commission's ("EC") market investigation showed that the market for civil flight simulator training should be defined by aircraft types.

Distinction between contractual and additional training

67. The Parties also submitted that there is a distinction between contractual and additional pilot training.
68. Contractual training is linked to the purchase of Airbus aircraft by airlines. By definition, when a new aircraft is operated, contractual training can only be provided by aircraft manufacturers and can only be conversion training

⁶¹ Paragraphs 20.8.1 to 20.8.11 of Form M1

⁶² Airbus' "families" of aircraft and corresponding FFS are:

- (a) the A320 FFS, which will cover the A318, A319, A320 and A321 aircraft; and
- (b) the A330 FFS, which will cover the A330-200, A330-300 and A330-F aircraft.

For each "family", the same FFS is used, the training is the same and the certificate will be the same

⁶³ The European Commission noted that flight training was, in principle, specific to certain aircraft types, although it was becoming possible to simulate more than one aircraft type in a single simulator. An example is the dual A330/A340 FFS which is easy to adapt: it requires 20 to 30 minutes and no specific costs to change the software and hardware

⁶⁴ See response by [X]. See response by [X]. See response by CAAS dated 4 December 2014

(type rate), not recurrent training. Contractual training is provided following an Airbus aircraft sale and purchase agreement or lease agreement, through “credits” granted by Airbus to airlines. [3<].⁶⁵

69. This is to be distinguished from additional training which is purchased separately and can be provided by all training service providers. The manner by which the training is purchased is the only difference between contractual and additional training as the courses offered under both of these formats are similar.⁶⁶

Services offered by AATC

70. The Parties submitted that post-completion, AATC will provide *ab initio* training for MPL Phases 3 and 4, type-rated (including CCQ) and recurrent training to pilots on FFS for the Airbus A320, A330 family, A340, A350XWB and A380 aircraft types, and possibly for other types of Airbus aircraft. AATC will not be involved in training for ATPL and MPL Phases 1 and 2. Specifically, AATC will not provide full *ab initio* training but only MPL Phases 3 and 4 to trainee pilots.⁶⁷
71. From a supply-side perspective, the Parties have submitted that major airlines (such as SIA) have developed in house capabilities and are able to self-supply as qualified TRTOs. In the Parties’ view, in general an airline will become TRTO if it operates a fleet of approximately 75 aircraft from different manufacturers (i.e. operates three FFS).⁶⁸ Airlines also have an advantage should they decide to conduct their own training. This is because in order to become an instructor one needs to be or have been a pilot, which airlines have better access to.⁶⁹

Description of products – FFS software and data packages, training materials and databases for Airbus aircraft

72. The Parties submitted that a third-party service provider would have to purchase the following in order to provide pilot training:
- a. FFS data package;
 - b. FFS software package;
 - c. Training materials; and

⁶⁵ Paragraphs 20.9.1 and 20.9.2 of Form M1

⁶⁶ Paragraph 20.9.8 of Form M1

⁶⁷ Paragraph 19.25 of Form M1

⁶⁸ Paragraph 32.1 of Form M1

⁶⁹ Paragraph 32.5 of Form M1

d. Aeronautical databases.

FFS data package

73. The Parties submitted that the FFS software and data package are technical documentation. They are necessary to the functioning of the FFS. In order to manufacture a FFS, the manufacturer would need to obtain both packages from Airbus and, as of today, there is no alternative supplier for a FFS manufacturer.⁷⁰ However, the Parties also submitted that independent training providers may choose to obtain FFS data packages through FFS manufacturers who have already obtained licences from Airbus if they do not wish to obtain the data packages from Airbus directly.⁷¹ CCS understands that the licence for the FFS data package to FFS manufacturers are granted by Airbus in connection with a specific FFS and that therefore, if an independent training provider was to commission an FFS from an FFS manufacturer, subject to certain licence conditions including [§<], the FFS data package will be made available to the independent training provider in conjunction with the FFS.⁷² The same mechanism applies for upgrades of the FFS.⁷³

74. The Parties also submitted that specific data packages are required for each Airbus aircraft type i.e. for A320 FFS, A330 FFS, A350XWB FFS and A380 FFS. CCS understands that FFS data packages are updated every two to three years so as to adapt FFS to the technical changes of aircraft avionics. [§<].⁷⁴

75. The FFS data packages are supplied by Airbus to third-parties through a licence. With regard to the licensing arrangements, the Parties submitted that there are essentially two types of licensing agreements. The first one is specific to FFS manufacturers, while the second one is specific to operators (i.e., airlines, training centres, FFS manufacturers who operate the FFS that they produce). The rationale for these differences lies in the fact that FFS manufacturers need much more technical information to manufacture the device than operators, who only need the information necessary to operate the FFS. Apart from this difference which relates to the technicalities of the manufacturing process, licensing agreements are standard agreements which

⁷⁰ Response to Question 1 of CCS RFI dated 2 December 2014

⁷¹ Email response to CCS RFI dated 4 December 2014

⁷² Article 6.4(i) and Article 6.5.1 and Article 6.5.2(i) of the template Simulation Software Package & Data Package Licence Agreement provided by the Parties in response to CCS RFI dated 2 December 2014

⁷³ Article 6.5.2(i) of the template Simulation Software Package & Data Package Licence Agreement provided by the Parties in response to CCS RFI dated 2 December 2014

⁷⁴ Response to Question 2 of CCS RFI dated 2 December 2014

only vary to a very limited extent.⁷⁵ The total cost of the FFS data packages provided by Airbus is approximately €[X] or S\$[X].⁷⁶

Training materials

76. The Parties submitted that training materials include training lessons (syllabi), and software used to organise trainings. These also include a database listing questions used to assess instructors and trainees' knowledge (tests). For Airbus training, training materials can also be developed and provided by alternative suppliers (such as Pelesis, a training content provider) who produce independent documentation and software. According to the Parties, a provider would need to spend limited time [X] and reasonably small amount of money [X] to develop the training materials.⁷⁷

Aeronautical databases

77. The Parties submitted that aeronautical databases, which are to be loaded in the flight management systems elements, for example the map of a specific airport, in order to train the pilot to land, can be purchased from various providers (such as Jeppesen, Lido, Navetech, etc.).⁷⁸

Regulatory environment

78. In Singapore, any organisation intending to conduct training leading to an issuance of a Singapore professional pilot licence or an endorsement of an aircraft type rating on a Singapore licence must hold an Approved Training Organisation ("ATO") approval from the CAAS. The authority to grant an ATO approval and the stipulation of requirements which is to be satisfied in order to obtain such approval is provided for in paragraph 20(13) (c) of the Air Navigation Order.⁷⁹ The ATO is classified into Flying Training Organisations ("FTO") and TRTO. Equivalent approvals issued by foreign authorities are not accepted by CAAS as a substitute for the ATO approval.⁸⁰

79. The ATO ensures that a consistent and high level of training standard is maintained. As such, an ATO must be competent and have in place the

⁷⁵ Response to Question 3 of CCS RFI dated 2 December 2014

⁷⁶ Response to Question 3 of CCS RFI dated 2 December 2014

⁷⁷ Response to Question 1 of CCS RFI dated 2 December 2014

⁷⁸ Response to Question 1 of CCS RFI dated 2 December 2014

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http://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/PDF_Documents/Legislation/Air_Navigation_Order.pdf

⁸⁰ CAAS Response to Question 3 of CCS RFI dated 13 November 2014 and Paragraph 18.5 of Form M1

necessary system and procedures to support the conduct of pilot training.⁸¹ In order to obtain an ATO, the training organisation must satisfy the provisions in the Singapore Air Safety Publication (“SASP”) Part 10.⁸² In deciding whether to grant the ATO, CAAS will assess among others, the management systems for quality, documentation and safety (where applicable), the quality and quantity of instructors and personnel, the facilities and training equipment, training programmes (e.g. manuals, curricula, outlines, courseware) and training site.⁸³ The regulatory requirements for FTO and TRTO are largely the same and the main differences relate to the type of instructors and facilities used for training. In the case of an FTO, the pilots are trained to fly on single pilot aircraft, instructors have to be qualified to conduct single pilot training and such training require the use of an aircraft. In the case of a TRTO, the pilots are trained to operate on multi-pilot aircraft, instructors have actual flying experience on such multi-pilot aircraft and that training is done in a simulator.⁸⁴ The application process will take 8-10 weeks upon the receipt of an application.⁸⁵ An approval that is granted by the CAAS is valid for 12 months and the FTO and/or TRTO is subjected to an annual audit.⁸⁶ The ATOs are also required to notify and seek prior approval from CAAS for any changes to their Operations Manual and Training Manual.⁸⁷

80. Apart from ATO approvals, CAAS also regulates training equipment used in the provision of aircraft pilot training services. Singapore-registered aircraft utilised by an ATO in the provision of related pilot training require Certificate of Airworthiness⁸⁸ and Certificate of Registration⁸⁹ by CAAS. Flight Simulation Training Devices (“FSTD”) which a an ATO utilises as part of the provision of aircraft pilot training services also needs to be

⁸¹ CAAS Response to Question 4 of CCS RFI dated 13 November 2014

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http://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/Regulations/Safety/Singapore_Air_Safety_Publications_SASP/SASP_Part_10_Approval_of_an_Aviation_Training_Organization/SASP10_Issue2_Amendment2.pdf

⁸³ Paragraph 18.6 of Form M1 and CAAS Response to Question 4 of CCS RFI dated 13 November 2014

⁸⁴ See response by CAAS to Question 5 of CCS RFI dated 13 November 2014

⁸⁵ Upon receipt of an application, CAAS will conduct a desktop audit to evaluate the documents and manuals, an on-site inspection to ensure compliance, full evaluation of findings in the form of an audit report before the certificate of approval is issued. CAAS Response to Question 6 of CCS RFI dated 13 November 2014

⁸⁶ See response by CAAS Response to Question 6 of CCS RFI dated 13 November 2014

⁸⁷ See response by CAAS Response to Question 7 of CCS RFI dated 13 November 2014

⁸⁸ This indicates that the aircraft is maintained to the required safety standards and is airworthy. CAAS Response to Question 1 of CCS RFI dated 13 November 2014

⁸⁹ This identifies the country the aircraft is registered under and therefore the national aviation regulations that the aircraft needs to comply with. Response to Question 1 of CCS RFI dated 13 November 2014

qualified and approved by CAAS to ensure that the FSTD meets the required fidelity and capability to meet the training tasks and objectives.⁹⁰

81. Separately, CAAS also regulates flying instructors and flight examiners. Flying instructors in an FTO and those in a TRTO have specific requirements they have to meet under the SASP.⁹¹ Experienced pilots authorised by CAAS as flight examiners to conduct pilot licensing testing on its behalf also need to meet certain qualification requirements in the SASP.⁹²

(b) Geographic Market

Provision of aircraft pilot training services

82. The Parties submitted that the relevant geographic market is likely to be worldwide or at least regional in scope. In this regard, the Parties cited the EC in the *General Electric/Thomson CSF* decision whereby the parties submitted that “*the product market is world-wide or at least EEA-wide on the basis that competition takes place on a global level since the parties and their competitors serve clients who are mobile all over the world*” and the EC indicated that third-parties agreed with the scope of the geographic market as well, writing in the decision that “*a majority of third parties confirmed that the relevant market seems to be world-wide on the basis that airlines fly their crew where flight simulator training is available and readily switch supplier of flight simulator training in case of price increase. In addition, the rules governing the requirements of flight simulator training are mainly international*”.

83. The Parties also submitted that any training centre located in a city where the airline flies would be eligible for consideration as a possible training centre. The Parties explained that there is little difference in cost between training pilots in their home country or abroad on one of the routes on which the airline flies, as long as the accommodation cost is similar (generally true on a regional basis, even more given that most companies have corporate agreements with international hotel chains and the pilot can use a flight of his airline (i.e., no air ticket fee). It is common practice for most airlines to have their pilots fly an aircraft to its destination and rest several days when she/he has reached the place (usually three days). While on the ground, pilots often train on FFS.⁹³

⁹⁰ Response to Question 1 of CCS RFI dated 13 November 2014

⁹¹ For flying instructors in an FTO they have to obtain ratings under SASP Part 3 “Flying Instructor Ratings. Those instructing in a TRTO have to meet experience requirements in the SASP Part 10

⁹² SASP Part 7 “Authorised Flight Examiners”. The authorisation is valid for only two years.

⁹³ Paragraph 20.15 of Form M1

84. The envisaged geographical reach of AATC would be the APAC region with a [3<].⁹⁴

85. In addition, AATC is likely to capture, to a certain extent, the needs for training pilots of airlines located in Africa, Middle East, Russia and Europe, with routes to South East Asia. Although it cannot be excluded that airlines from North America and South America with routes to South East Asia may use AATC's services, this use would probably be marginal. Specifically, EU instructors will compete with Asian instructors for clients established in Africa/Middle East, which are established mid-way between the two regions.⁹⁵

86. Other elements that indicate that the market is at least regional in scope (if not worldwide) are the following:

- (a) all trainings are provided in English;
- (b) most rules are international;
- (c) EASA/FAA certification are widely recognised and allow training services worldwide (only in certain instances is it necessary to adapt them to local requirements); and
- (d) instructors are recruited on a worldwide basis.⁹⁶

Provision of FFS software and data packages, training materials and databases for Airbus aircraft

87. The Parties did not make a submission on the geographic market for (i) the provision of FFS software and data packages; (ii) training materials; and (iii) aeronautical databases.

CCS's assessment

Provision of aircraft pilot training services

88. With regard to the downstream market for the provision of aircraft pilot training services, CCS notes the Parties submissions⁹⁷ and third-parties comments⁹⁸ that from a demand-side substitution perspective, pilot training

⁹⁴ Paragraph 20.16 of Form M1

⁹⁵ Paragraphs 20.17 and 20.18 of Form M1

⁹⁶ Paragraph 20.19 of Form M1

⁹⁷ Paragraph 20.8 of Form M1

⁹⁸ See response by [3<] dated 21 November 2014. See response by [3<] dated 19 November 2014. See response by CAAS dated 4 December 2014

for each of the Airbus family of aircraft, namely: A320 family, A330 family, A340, A350XWB and A380 aircraft types are non-substitutable. This is in view of the fact that the different families of Airbus aircraft require different training, have separate sets of regulatory requirements and are not substitutable for one another. This would similarly apply to pilot training between Airbus and Boeing (or any other aircraft manufacturer) aircraft.

89. CCS also notes the Parties' submission that whereas AATC will have the capability of delivering A340 training, it is very unlikely that it will do so since the A340 aircraft is no longer in production. Further, SIA has since discontinued the use of the A340 aircraft in its fleet, and third-parties have not shown an interest in A340 pilot training within the Territory^{99 100}.
90. Further, CCS notes that from a demand-side substitution perspective, especially from a regulatory point of view, type rating training and recurrent training are not directly substitutable for each other.¹⁰¹
91. However, from a supply-side perspective, CCS notes that a TRTO which provides type rating training would also be able to provide recurrent training with minimal switching cost. Third-parties have indicated that they can and do provide both types of training within their training centres.¹⁰² As observed by the OFT in its decision in relation to the acquisition by CAE Inc. of Oxford Aviation Academy, TRTOs which run type-rated training courses, generally also offer recurrent type-rated training since the same trainers and equipment can be utilised for both courses and airlines are likely to contract with the same trainers, particularly where pilots have built up relationships with them.¹⁰³ In this regard, the Parties have submitted that most major airlines are TRTOs as well¹⁰⁴, which means that the airlines would be able to provide both type rating and recurrent training as well. Accordingly, airlines are well placed to be potential competitors to independent third-party aircraft pilot training service providers.
92. CCS notes that AATC will not be involved in training for ATPL and MPL Phases 1 and 2. Specifically, AATC will not provide full *ab initio* training but only MPL Phases 3 and 4 to trainee pilots.¹⁰⁵ In this regard, CCS considers that *ab initio* training and MPL Phases 1 and 2 type of training would not be relevant consideration for the purposes of the assessment.

⁹⁹ [§<]

¹⁰⁰ Footnote 22 of Form M1

¹⁰¹ See response by [§<]. See response by [§<]. See response by CAAS dated 4 December 2014

¹⁰² See response by [§<] dated 21 November 2014. See response by [§<] dated 19 November 2014

¹⁰³ Paragraph 20.7.7 of Form M1

¹⁰⁴ Paragraph 20.7.8 (b) of Form M1

¹⁰⁵ Paragraph 19.25 of Form M1

93. In light of the above and given the competition assessments below, CCS does not find it necessary to delineate the product market definitions of aircraft pilot training services into further sub-segmentation other than by aircraft types.
94. CCS has considered the Parties' submissions regarding geographic market at paragraph 82 to 86. CCS notes that third-parties including [X] have provided feedback that the geographic market for the provision of aircraft pilot training services is at least regional. Third-parties have also commented that customers are not limited to where the training centre is located and would travel to the training centre from around the region in order to receive aircraft pilot training services.¹⁰⁶ In this regard, CCS is of the view that the relevant geographic market in respect of pilot trainings services for each of the Airbus family of aircraft is regional.
95. CCS notes the Parties' submissions in paragraphs 64 and 65 above that specific FFS is required for each of the Airbus aircraft and further, in paragraphs 74 and 75, specific data packages are required for each Airbus aircraft type FFS. As the FFS software and data packages are proprietary to Airbus and which can only be supplied by Airbus, either directly to the FFS manufacturers by way of a licence, directly to the airlines which are customers of Airbus, or accessible to other independent training providers indirectly through the acquisition of an FFS from FFS manufacturers who have been licensed by Airbus. Since no other substitutes exist, CCS is of the view that the market for the provision of FFS software and data packages for Airbus aircraft is a standalone market. Training materials and aeronautical databases constitutes different markets for which substitutes exist.
96. Having regard to the nature of the type of products, i.e., data package and software, which are not limited by any just in time delivery factor and can be supplied over large distances, CCS is of the view that the geographic market is likely to be at least regional, if not worldwide. CCS notes that pursuant to the terms of the licence agreements, Airbus typically supplies the FFS software and data packages either through physical delivery or electronically by making it available for download through its Airbus World portal. CCS further notes that Airbus did not have a significant presence in the APAC region previously but that has not stopped airlines and independent training providers from obtaining the FFS software and data packages, training materials and databases needed to set up training facilities.

¹⁰⁶ See response by [X]. See response by [X]. CCS notes the comment by [X] that the geographic market for the provision of aircraft pilot training services is worldwide

The same rationale would apply to training materials and aeronautical databases, which are largely available on the market.

97. In any case, a finding on the relevant geographic market is not material to CCS's assessment in view of fact that Airbus is the sole supplier in respect of the Airbus aircraft proprietary FFS data packages and software.

VII. Market Structure

Market shares and market concentration

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

98. The Parties submitted that in the absence of market studies, market share figures, i.e., the market shares of the Parties in APAC (combined market shares of SIA (which will transfer its FFS to AATC post-closing) and Airbus) to date, based on current APAC market structure have been estimated by Airbus' business teams based on data packages sold by Airbus, for the manufacturing of FFS as of August 2014. Estimates are also based on Airbus' knowledge of the market, by reference to each airline's fleet and number of FFS installed as of August 2014¹⁰⁷. With regard to figures for 2011 and 2012, the Parties submitted that Airbus was not in a position to provide estimates for each possible market segmentation and could only provide market shares based on the number of FFS.¹⁰⁸
99. In deriving the market share figures, the Parties submitted that they consider that one FFS allows for the provision of 5,000 hours of training per year. However, in the estimates, the Parties also took into consideration the age of each FFS since old simulators are not able to run at full capacity.¹⁰⁹ This is notably due to maintenance needs which are higher for old simulators.¹¹⁰
100. In order to estimate the size of the merchant (open) market, the Parties estimated for each airline in the APAC region (as well as in China and India), the number of crews (based on each airline's fleet) and calculated the number of hours necessary for their training. It then compared this number to the annual capacity of FFS owned by each airline, in order to check

¹⁰⁷ Estimated considering that for airlines that on average, an airline will buy one A320 FFS for every 35 aircraft, one A330 FFS for every 28 aircraft, one A350XWBFFS for every 25 aircraft and one A380 FFS every 20 aircraft

¹⁰⁸ Paragraph 21.1.2 of Form M1

¹⁰⁹ For example, [3<] owns an old A320 FFS which can only be used at approximately 80 per cent of its capacity (therefore counted as 0.8 in the figures)

¹¹⁰ Paragraph 21.1.3 of Form M1

whether each airline has overcapacity (in which case this would be available on the merchant market) or uses 100 per cent of its FFS capacity for its own needs. In addition, Airbus added independent training centres (which by, definition, market 100 per cent of their capacity). The FFS taken into account for the purpose of these calculations are FFS which are ready for training ("RFT"), i.e., duly certified by the relevant authority.

Market for the supply of aircraft pilot training services for A320 family

Total APAC (including China and India)	Number of A320 FFS	Annual Capacity (Hours)	%	Number of A320 FFS	Annual Capacity (Hours)	%	Number of A320 FFS	Annual Capacity (Hours)	%
	2011			2012			As of August 2014		
Airlines	[X]	[X]	60-70	[X]	[X]	60-70	[X]	[X]	60-70
Independent Training Centres ("TCs")	[X]	[X]	20-30	[X]	[X]	30-40	[X]	[X]	20-30
SIA (to be contributed to AATC)	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
Airbus Beijing	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
SIA/Airbus Total	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
Total	[X]	[X]	100.0	[X]	[X]	100.0	[X]	[X]	100.0

Market for the supply of aircraft pilot training services for A330 family

Total APAC (including China and India)	Number of A330 FFS	Annual Capacity (Hours)	%	Number of A330 FFS	Annual Capacity (Hours)	%	Number of A330 FFS	Annual Capacity (Hours)	%
	2011			2012			As of August 2014		
Airlines	[X]	[X]	80-90	[X]	[X]	80-90	[X]	[X]	80-90
Independent Training Centres ("TCs")	[X]	[X]	0-10	[X]	[X]	10-20	[X]	[X]	0-10
SIA (to be contributed to AATC)	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
Airbus Beijing	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
SIA/Airbus Total	[X]	[X]	0-10	[X]	[X]	0-10	[X]	[X]	0-10
Total	[X]	[X]	100	[X]	[X]	100	[X]	[X]	100

Market for the supply of aircraft pilot training services for A350XWB

101. The Parties submitted that to date, [×]. AATC's market share in the region will, therefore, be [0-10] per cent and the proposed transaction will therefore not raise any issues on this segment.

Market for the supply of aircraft pilot training services for A380

102. The Parties submitted that to date, [×] in the APAC region. SIA operates [×] A380 FFS in the APAC region since 2006, [×].

103. AATC's market share in the APAC region will be of approximately [10-20] per cent, whichever market segmentation is used and [×].

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

104. The Parties did not submit market share figures in relation to this relevant market. However, as noted in paragraph 73 above, FFS manufacturers have no choice but to obtain FFS software and data packages only from Airbus who is the proprietary owner of these packages. Therefore, Airbus would have a monopoly of the market for the provision of FFS software and data packages to FFS manufacturers.

CCS's assessment

105. CCS notes that none of the markets for the provision of aircraft pilot training services, segmented by the type of Airbus aircraft, taking into consideration the excess capacities of airlines' owned FFS, crosses the indicative thresholds set out in the *CCS Merger Guidelines*, i.e. the merged entity will not have a market share of 40% or more and that the merged entity will not have a market share of more than 20% with the post-merger CR3 at 70% or more.¹¹¹ This is after accounting for the FFS facilities that Airbus has in Beijing, through the Airbus Beijing training centre, notwithstanding the fact that the joint venture is only between the Parties in Singapore. As noted in paragraph 91 above, airlines could credibly be potential competitors, if not already actual competitors or alternatives, to independent third-party aircraft pilot training service providers.

106. Even if the market share figures of airlines are excluded from the market share figures, CCS notes that the Transaction would not lead to any increase

¹¹¹ Paragraph 5.15 of the *CCS Merger Guidelines*

in the market share figures of the Parties in the markets for the supply of pilot training services for the A320, A350XWB and A380 families of aircraft. In the market for the supply of pilot training services for A330 family however, the Parties would have an estimated share of [50-60] per cent in the APAC region, with a CR3 of [90-100] per cent which crosses the indicative thresholds.

107. CCS notes that the market shares furnished by the Parties took into account the excess capacity available in the FFS which are owned by the airlines and further notes that aircraft pilot training is presently being performed internally by airlines owning their own FFS. CCS notes that the majority of the FFS are owned and operated by airlines and not independent training centres and that the FFS owned by airlines is primarily used for the purposes of internal training and that any excess capacity which exist may not necessarily translate into supply in the open market. However, CCS further notes that the excess capacity of FFS owned by the airlines can credibly be dry leased to other airlines as evidenced by the dry lease by SIA of its FFS¹¹² and that aircraft pilot training services can be performed by the airlines with ease in view of the fact that they can readily supply their own pilots as instructors., Lastly, the fact that airlines are able to self-supply (and with overcapacity) is a good indicator of the level of entry barriers and countervailing buyer power in this market. This also shows the amount of competitive constraints the airlines, who also are potentially the main customers of the training centres whether Airbus linked or independent, places or could potentially place on these training centres.

108. Further, CCS notes that the joint venture does not result in any increment in market shares of the Parties in the provision of aircraft pilot training services in Singapore as Airbus currently does not have a presence in Singapore. The joint venture would allow SIA (which currently provides its training services internally) and Airbus to establish a presence in Singapore and in fact, creates an additional player in the market in Singapore that would provide aircraft pilot training services regionally. This actually increases competition for the provision of aircraft pilot training services in the APAC region. This is corroborated by third-parties especially customers feedback and comments received by CCS.¹¹³

109. In relation to the market for the worldwide provision of FFS software and data packages for Airbus aircraft, CCS is of the view the Parties, specifically Airbus, would have a monopoly share of the market given that Airbus is the

¹¹² Paragraph 20.10.4 of Form M1

¹¹³ See response by [S<] dated 18 November 2014. See response by [S<] dated 18 November 2014. See response by CAAS dated 4 December 2014

proprietary owner of the technical and software data for Airbus aircraft and that all FFS manufacturers who wishes to manufacture an Airbus FFS will have to purchase the said technical and software data from Airbus in order to ensure the functioning of the FFS. It is to be noted however that airlines and training centres can purchase the FFS data packages from Airbus directly or indirectly through the purchase of FFS from the FFS manufacturers who have already obtained licences from Airbus.¹¹⁴

Barriers to entry and expansion

110. Entry by new competitors or expansion by existing competitors may be sufficient in likelihood, scope and time to deter or defeat any attempt by the merger parties or their competitors to exploit the reduction in rivalry flowing from the Transaction (whether through coordinated or non-coordinated strategies).¹¹⁵

The Parties' submission

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

111. The Parties submitted that barriers to entry are low as airlines and independent third-parties (e.g., FFS manufacturers) are able to obtain from the aircraft manufacturer all data required to set-up their training (called data packages which include data, environment and parts). However, the Parties acknowledged that this does not extend to training materials, which are widely available on the market. The Parties also submitted that total cost of the FFS data packages provided by Airbus is approximately €[<] or S\$[<], which is not prohibitive.¹¹⁶
112. Competition is also intense in the simulator market and simulator manufacturers offer different financing schemes (operating lease, finance lease or direct purchase) which tend to ease access to equipment.¹¹⁷
113. In terms of costs, on a worldwide basis, the Parties submitted that the capital expenditure required to enter the market and gain five per cent market share is (an estimated) [US\$ [<] or approximately S\$[<]. An approximate [<] per cent of this capital expenditure may however be recoverable by selling the simulators second-hand. The cost of FFS varies

¹¹⁴ Paragraph 3.2 of Parties' response to CCS RFI dated 2 December 2014

¹¹⁵ Paragraph 7.2 of *CCS Merger Guidelines*

¹¹⁶ Response to CCS RFI dated 4 December 2014

¹¹⁷ Paragraph 26.3 of Form M1

between approximately €[X] and €[X] (approximately S\$[X] and S\$[X]), as follows:

- (a) A320 FFS: on average €[X] (approximately S\$ [X])
- (b) A330 FFS: on average €[X] (approximately S\$[X])
- (c) A350XWB FFS: on average €[X] (approximately S\$[X])
- (d) A380 FFS: on average €[X] (approximately S\$[X]).¹¹⁸

114. The Parties also submitted that the increase in the year-on-year market shares of “other independent training centres” from 2011 to 2013 (for A320 aircraft in particular) in the APAC region evidences the diversity of offer and low barriers to entry in the relevant market, and the increasing trend of FFS manufacturers entering into the market.¹¹⁹

Market for the worldwide provision of FFS software and data packages, aeronautical databases and training materials for Airbus aircraft to FFS manufacturers and pilot training providers

115. The Parties submitted that a provider of training materials specifically, would need to spend limited time (approximately [X]) and reasonably low amount of money (around €[X] or approximately S\$[X]) to develop the training materials.¹²⁰ The Parties have also submitted that the cost of the data package is not prohibitive (approximately S\$[X]) and that the prices apply to all contracting parties without discrimination.¹²¹ The Parties did not make submissions with regard to the aeronautical databases.

Feedback from third-parties

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

116. Third-parties have provided feedback on the cost of purchasing the equipment i.e. FFS and related materials and these figures mirror those submitted by the Parties. Third-parties have also commented that a [X].¹²² In addition, third-parties¹²³ have commented that entry barriers are high as it is highly regulated business and that expert manpower is difficult to hire, therefore making it fairly difficult to set up a training centre.

¹¹⁸ Paragraphs 26.1 and 26.4 of Form M1

¹¹⁹ Paragraph 21.20 of Form M1

¹²⁰ Response to Question 1 of CCS RFI dated 2 December 2014

¹²¹ Paragraph 5 of Parties’ email Response to CCS RFI dated 4 December 2014

¹²² See response by [X]

¹²³ See response by [X]. See response by [X]

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

117. Certain concerns regarding the licence of data packages and procurement of related parts and equipment were [X]. As the FFS data and software packages, is only licensed from Airbus and as certain parts and equipment are also procured from the aircraft manufacturer, therefore in certain cases, no substitutes exist. As a result, the aircraft manufacturer, i.e. Airbus, which has the ability to determine the availability of these data packages, parts and equipment can therefore control and restrict competition through limiting access. This could be a concern for competitors in the downstream market of the provision of aircraft pilot training services. Further, data packages need to be updated with various modifications from time to time and the aircraft manufacturer may restrict or delay the facility of updating the data packages to benefit the aircraft manufacturer's own downstream related entity.¹²⁴

CCS's assessment

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

118. CCS notes that while the required capital for entry and expansion is relatively high in absolute sums, it is a reflection of the generally high costs involved in the airline industry. As a comparison, the Parties have submitted that type-rated pilot training costs approximately US\$[X] (approximately S\$[X]) to US\$[X] (approximately S\$[X]) per pilot and that also an approximate [X] per cent of this capital expenditure may also be recoverable by selling the simulators second-hand. CCS further notes that the lifespan of a FFS is between 15 – 20 years.¹²⁵

119. CCS notes that the number of A320 and A330 FFS has increased significantly over the last two years, as seen in the above paragraphs in the tables on market shares, which might indicate that entry and/or expansion barriers in the market are not significantly high or prohibitive.

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

¹²⁴ See response by [X]. See response by [X]

¹²⁵ Paragraph 26.4 of Form M1

120. CCS notes that given Airbus is the proprietary owner of the FFS software and data packages for Airbus aircraft, and that it is extremely cost prohibitive for a third-party FFS manufacturer or independent aircraft pilot training services provider to reproduce the data needed for the functioning of an Airbus FFS, CCS is of the view that the entry barriers are prohibitively high for the provision of FFS software and data packages for Airbus aircraft.

Countervailing buyer power

The Parties' submission

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

121. The Parties submitted that customers who utilise AATC's services will be airlines which have high countervailing buyer power. This is due to the presence of alternative sources of supply if the joint venture were to decide to increase prices, including turning to FFS manufacturers.¹²⁶ The Parties submitted that a recent development is the entry by major FFS manufacturers into the market for training services, offering a vertically-integrated offer. The Parties envisage that this trend is likely to be followed by other manufacturers of FFS.¹²⁷
122. The customers i.e. airlines, are also able to fly their crew easily to where a particular type of FFS is and will readily switch suppliers of FFS in case of price increase. As noted in paragraph 83 above, there is little difference in cost between training pilots in their home country or abroad on one of the routes on which the airline flies, as long as the accommodation cost is similar (which is generally true on a regional basis).
123. In addition, the Parties submitted that most training is of a short duration, and airlines buy services on a case by case basis. It is therefore very easy to select and switch to a new provider in case of price increase.
124. Airlines also have an advantage should they decide to conduct their own training. This is because in order to become an instructor one needs to be or have been a pilot, which airlines have better access to. Indeed, major airlines (such as SIA) have developed in-house capabilities and are able to self-supply as qualified TRTOs. In the Parties' view, in general an airline will

¹²⁶ Paragraph 32.2 of Form M1

¹²⁷ Paragraph 18.8 of Form M1

become TRTO if it operates a fleet of approximately 75 aircraft from different manufacturers (i.e., operates three FFS).¹²⁸

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

125. The Parties submitted that independent training centres (or airlines) may choose to obtain FFS software and data packages for Airbus aircraft through the acquisition of FFS from FFS manufacturers who have already obtained licences from Airbus if they do not wish to obtain the packages from Airbus directly.¹²⁹ Ultimately, however, the supply must be sourced from Airbus, directly or indirectly.

Feedback from third-parties

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

126. Third-parties¹³⁰ have commented that while training contracts for aircraft pilot training services between customers and training providers vary between [X] to [X] years in duration, customers have high countervailing buyer power due to the ability to choose from the numerous training providers in the region. One third-party¹³¹ commented that the TRTO market is highly competitive.

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

127. [X] expressed concerns that Airbus has the unfettered ability to determine the availability of these data packages, parts and equipment and can therefore control and restrict competition through limiting access.

CCS's assessment

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

128. CCS is of the view that customers presently have the choice of numerous training providers in the region from which they could choose from. Most

¹²⁸ Paragraphs 32.1 and 32.5 of Form M1

¹²⁹ Response to CCS RFI dated 4 December 2014

¹³⁰ See response by [X]. See response by [X]. See response by [X]

¹³¹ See response by [X]

customers have indicated generally that they have no concerns with the proposed Transaction. However, the ability of these independent third-party training providers to provide aircraft pilot training services hinges on these training providers' ability to procure the FFS software and data packages from Airbus. As noted above, Airbus is the sole supplier of FFS software and data packages for Airbus aircraft. On balance, the customers would be likely to be able to exercise some countervailing power with their choices of numerous independent third-party training providers if these training providers' ability to obtain FFS software and data packages is not hindered.

Market for the worldwide provision of FFS software and data packages for Airbus aircraft to FFS manufacturers and pilot training providers

129. CCS is of the view that given the lack of alternative suppliers of FFS software and data packages for Airbus aircraft especially for FFS manufacturers, FFS manufacturers who need the packages would not have significant countervailing buyer power. However, CCS notes that independent training centres (or airlines) may choose to obtain FFS software and data packages for Airbus aircraft directly from Airbus or indirectly from FFS manufacturers via the purchase of FFS from these FFS manufacturers who have obtained licences from Airbus. However, as highlighted in paragraphs 139 to 142 below, the mutually interdependent relationship between Airbus and FFS manufacturers, and Airbus and airlines, may serve to limit the incentives of Airbus to exercise its market power in this market.

VIII. Competition Assessment

(a) Non-coordinated effects

130. Non-coordinated effects may arise where, as a result of the Transaction, the merged entity finds it profitable to raise prices (or reduce output or quality) because of the loss of competition between the merged entities.¹³² Other firms in the market may also find it profitable to raise their prices because the higher prices of the merged entity's product will cause some customers to switch to rival products, thereby increasing demand for the rivals' products.¹³³

Market for the provision of aircraft pilot training services regionally for each of the Airbus family of aircraft

¹³² Paragraph 6.3 of *CCS Merger Guidelines*

¹³³ Paragraph 6.3 of *CCS Merger Guidelines*

131. The Parties submitted that given the low combined market shares of the Parties, the competitiveness of the aircraft pilot training services market and the availability of a multitude of alternative sources of supply in the market, the Transaction would not lead to a SLC in any market in Singapore.¹³⁴

132. In particular, the Parties submitted that AATC will hold low market shares (whatever the geographic definition of the market) in the markets concerned. Also, the market for the provision of aircraft pilot training services is very competitive and aircraft pilot training service providers compete notably on price and quality of their services. Customers, as highlighted in paragraph 121 above, have high countervailing buyer power due to the presence of alternative sources of supply.

CCS's assessment and conclusion on non-coordinated effects

133. CCS notes that the Transaction does not lead to any increase, or at the very least does not lead to a significant increase in the market share of the joint venture entity in market for provision of aircraft pilot training services in Singapore. In fact, none of the market share figures crosses the indicative thresholds set out in the *CCS Merger Guidelines*. CCS is also of the view and which has been corroborated by several third-parties¹³⁵, that the Transaction is likely to raise the level of competition in the market for aircraft pilot training services in the APAC region.

134. With regard to entry and expansion barriers, while CCS notes that the capital outlay of the equipment is high in absolute sums, it appears that is not insurmountable as competitors have been increasing the number of FFS (and accordingly the capacity for training hours) in recent years. There has also been entry by FFS manufacturers into the market for the provision of pilot training in recent years.¹³⁶ Customers thus have a number of alternative training providers to choose from.

(b) Coordinated effects

135. A merger may also lessen competition substantially by increasing the possibility that, post-merger, firms in the same market may coordinate their behaviour to raise prices, or reduce quality or output. Given certain market conditions, and without any express agreement, tacit collusion may arise

¹³⁴ Paragraph 33.2 of Form M1

¹³⁵ See response by [X]. See response by [X]. See response by CAAS dated 4 December 2014

¹³⁶ Examples of FFS manufacturers who provide aircraft pilot training services include CAE (including Oxford), L-3 (ex Thales), Sim-Industries (Lockheed Martin), Flight Safety International, Mechtonix, Indra and Haite

merely from an understanding that it will be in the firms' mutual interests to coordinate their decisions. Coordinated effects may also arise where a merger reduces competitive constraints in a market, thus increasing the probability that competitors will collude or strengthen a tendency to do so.¹³⁷ Vertical mergers may facilitate coordination, for example by increasing market transparency. Integration may afford the merged entity better knowledge of selling prices in the upstream or downstream market, thereby facilitating collusion in either of those markets.¹³⁸

136. The Parties submitted that Airbus (as an aircraft manufacturer) and SIA (as an airline) are essentially active in different markets and pursue very different objectives from the joint venture. The likelihood of co-ordination can therefore be excluded.¹³⁹

CCS's assessment and conclusion on coordinated effects

137. CCS is of the view that given the number of players in the market for the provision of aircraft pilot training services in the region, customers have significant countervailing buyer power and this might render cooperation between competitors ineffective. There are also excess capacities in the market which would make it harder for competitors to coordinate behaviour. Further, the Transaction does not significantly increase the market shares in the market that would raise competition concerns.

138. In light of the above, CCS concludes that the Transaction does not raise concerns in terms of coordinated effects on competition.

(c) Vertical effects

139. With regard to the provision of FFS software and data packages, the Parties submitted that it would not be in Airbus' commercial interests to restrict the licensing of FFS software and data packages for Airbus aircraft as Airbus' mainstay business is the sale of aircraft and it follows that in order to sell aircraft, Airbus must provide the FFS software and data packages and ensure that pilots are trained to fly the Airbus aircraft. By making it difficult for any person/group of persons to obtain FFS software and data packages and train for Airbus aircraft, this would only have a detrimental effect on Airbus' mainstay business; i.e., the sale of Airbus aircraft. It would also not be logical for Airbus to refuse to license its FFS

¹³⁷ Paragraph 6.7 of *CCS Merger Guidelines*

¹³⁸ Paragraph 8.8 of *CCS Merger Guidelines*

¹³⁹ Paragraph 35.1 of Form M1

software and data packages for Airbus aircraft to FFS manufacturers as the sale of its aircraft is dependent on the airlines' ability to train its pilots to operate Airbus aircraft using FFS. Similarly, Airbus' view is that a greater number of pilots trained for Airbus aircraft would ultimately boost the sales of its aircraft and, as such, Airbus would be incentivised to provide its FFS software and data packages to any provider of aircraft pilot training services requesting them, including independent training centres.¹⁴⁰

140. CCS notes that Airbus has submitted that it has, through the drafting of the IATA document titled "Flight Simulation Training Device Design and Performance Data Requirements Edition 7", committed to licence FFS software and data packages for Airbus aircraft to any provider of aircraft pilot training services requesting it and in any case to sell FFS software and data packages for Airbus aircraft under non-discriminatory commercial conditions i.e. that Airbus does not discriminate between Airbus-related and non-related entities. CCS has taken Airbus' submission on its licensing policy into consideration in the assessment of vertical effects.

CCS's assessment and conclusion on vertical effects

141. In light of the assessment in the preceding paragraphs, CCS is of the view that while Airbus has the ability to discriminate against their fellow competitors in the downstream market, the incentives to do are limited as they have an interdependent relationship with (i) airlines, who are also their customers in the purchase of aircrafts, and which is the main bulk of their businesses and (ii) FFS manufacturers, who supply Airbus with the FFS they need to compete downstream in the market for the provision of aircraft pilot training services, although Airbus can choose between multiple FFS suppliers, while all FFS suppliers must purchase the software package from Airbus. The only parties who do not have this interdependent relationship would be independent training providers. However, there is no specific example of Airbus having done so, even when they are currently present in the downstream market as their fellow competitors. Further, CCS notes the submission provided by the Parties in relation to its licensing policy, specifically its commitment to license FFS software and data packages to any provider of aircraft pilot training services and to do so under non-discriminatory commercial conditions.

142. Based on the foregoing, especially having regard to Airbus's stated policy of licensing its FFS software package on non-discriminatory commercial terms, CCS concludes that the risk is low for the Transaction to give rise to

¹⁴⁰ Response to CCS RFI dated 4 December 2014

vertical effects that would raise competition concerns in the markets for the provision of aircraft pilot training services and for the provision of FFS software and data packages for Airbus aircraft.

IX. Efficiencies

143. The Parties submitted the Transaction will enable SIA to outsource its pilot training activities and allow the parent companies to focus on their respective businesses. In this regard, also, AATC would be able to focus on growing the joint venture business.
144. The setting up of a joint venture with the combined expertise and resources of the parent companies will also allow for the joint venture company to focus on the expansion of the provision of services to cater to third party airlines' demands for pilot training in the APAC region. AATC will thus enable a more efficient allocation of resources and meet the APAC region's pilot training needs.

CCS's assessment

145. CCS notes that claimed efficiencies may be taken into account at two separate points in the analytical framework: first, where they increase rivalry in the market so that no SLC will result from the merger and second, efficiencies can be taken into account where they do not avert an SLC, but will nevertheless bring about lower costs, greater innovation, greater choice or higher quality and be sufficient to outweigh the detriments to competition caused by the merger in Singapore.¹⁴¹
146. Given that the above competition assessment did not point to an SLC, CCS is of the view that it is not necessary to make an assessment on the claimed efficiencies by the Parties.

X. Ancillary Restraints

147. Paragraph 10 of the Third Schedule to the Act states that “the section 34 prohibition and the section 47 prohibition shall not apply to any agreement or conduct that is directly related and necessary to the implementation of a merger” (the “Ancillary Restriction Exclusion”). In order to benefit from the Ancillary Restriction Exclusion, a restriction must not only be directly

¹⁴¹ Paragraphs 7.15 to 7.17 of *CCS Merger Guidelines*

related, but also necessary to the implementation of the merger.¹⁴² A restriction is not automatically deemed directly related to the merger simply because it is agreed at the same time as the merger or is expressed to be so related¹⁴³ but needs to be connected with the merger but subordinate to its main object.¹⁴⁴ In determining the necessity of the restriction, consideration such as whether its duration, subject matter and geographical field of application are proportionate to the overall requirements of the merger will be taken into account.¹⁴⁵

148. The Parties have submitted that the following constitutes ancillary restrictions to the Transaction. The restrictions involved in this transaction are detailed in JVA and consist of procurement obligations on the part of both Parties and non-compete and non-solicitation obligations by SIA as well as Airbus and Airbus Asia. The restrictions are set out below:

(a) SIA and Airbus procurement obligations

SIA procurement obligations¹⁴⁶

149. [X]¹⁴⁷

150. [X].

151. [X].¹⁴⁸

Airbus procurement obligations¹⁴⁹

152. [X]¹⁵⁰.¹⁵¹

153. [X].

154. The Parties have submitted that in respect of the procurement obligations, the obligations ensure the continuity of supply [X] of aircraft pilot training services and the quality of the aircraft pilot training services as well as the

¹⁴² Paragraph 10.9 of *CCS Merger Guidelines*

¹⁴³ Paragraph 10.12 of *CCS Merger Guidelines*

¹⁴⁴ Paragraph 10.10 of *CCS Merger Guidelines*

¹⁴⁵ Paragraph 10.13 of *CCS Merger Guidelines*

¹⁴⁶ Paragraph 43.2 of Form M1

¹⁴⁷ [X]

¹⁴⁸ Paragraph 1.1 of Parties' Response to CCS RFI dated 25 November 2014

¹⁴⁹ Paragraph 43.3 of Form M1

¹⁵⁰ [X]

¹⁵¹ Footnote 41 of Form M1 and Clause 19.2(c)(i) of the Joint Venture Agreement respectively

ability of AATC to grow its business in the APAC region for the initial start-up period.¹⁵²

155. The Parties further submitted that AATC does not occupy a dominant position and that the agreements do not foreclose competition in the relevant market.

CCS's assessment on the procurement obligations of SIA and Airbus

156. As the main object of the JVA relates to the provision of aircraft pilot training services by AATC to SIA and other airlines and from the perspective of each of the Parties, to enable SIA to outsource its pilot training activities and for Airbus to provide training services to its customers in the region, CCS agrees [X] are directly related to the proposed joint venture. Similarly, the obligation for Airbus to [X].

157. The *CCS Merger Guidelines* recognises that purchase and supply agreements may be acceptable where an acquired business was formerly part of an integrated group of companies and relied on another company in the group for raw materials or represented a guaranteed outlet for the company's products. In such circumstances, purchase and supply agreements may be considered ancillary for a transitional period so that the businesses concerned can adapt to their new circumstances.¹⁵³ The duration of purchase and supply obligations must however be limited to a period necessary for the replacement of the relationship of dependency by autonomy in the market.¹⁵⁴

158. Under the present facts, SIA conducts its pilot training internally and will, following the JVA, [X], CCS accepts the Parties' submission that the SIA procurement obligations ensures that [X] continues to have access to Airbus aircraft pilot training services required in order for it to continue to operate its business activities¹⁵⁵ and which have been taken over by AATC.

159. The Parties submitted that the requirement for [X] start-up period of the joint venture is necessary to the joint venture to preserve the Parties' co-operation and commitment to the joint venture. Further, the requirement for the [X] is intended to ensure AATC's continued business and growth in the

¹⁵² Paragraph 43.7 of Form M1

¹⁵³ Paragraph 10.15 of *CCS Merger Guidelines*

¹⁵⁴ Paragraph 33 read with paragraph 44 of Commission Notice on restrictions directly related and necessary to concentrations (2005/C 56/03) ("EC Notice on Ancillary Restraints")

¹⁵⁵ Type rated pilot training is required for a pilot to fly an aircraft with the same type rating and recurrent training is required annually to ensure the pilot retains his licence endorsements. Paragraphs 19.8 and 19.17 of Form M1

market, and to protect significant investments made in AATC.¹⁵⁶ On the duration of the [X], the Parties submitted that [X] initial start-up period is the period of time the Parties envisage that AATC will be able to gain the necessary skills, reputation and goodwill to effectively compete in the market.¹⁵⁷

160. Any restriction must relate only to the goods and services of the acquired business and apply only to the area in which the relevant goods and services were established under the previous/current owner.¹⁵⁸ CCS notes that the SIA procurement obligations do not exceed the scope of the Transaction i.e. Airbus aircraft pilot training services. CCS accepts that the duration of [X] is a reasonable amount of time to acquire the full value of the Transaction.

161. Similarly, CCS is of the view that the Airbus Procurement Obligations does not exceed the scope of the Transaction and that the duration of [X] is a reasonable amount of time to acquire the full value of the Transaction. CCS further notes that the Airbus Procurement Obligations is limited [X].¹⁵⁹

162. In view of the above, CCS is satisfied that the SIA and Airbus Procurement Obligations in the context of the Transaction constitutes ancillary restrictions and consequently fall within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as they apply to Singapore.

(b) SIA and Airbus non-compete and non-solicitation obligations

SIA non-compete obligations

163. [X]¹⁶⁰¹⁶¹¹⁶².

164. [X].¹⁶³

165. [X].¹⁶⁴

166. [X].¹⁶⁵

¹⁵⁶ Paragraph 2.1 of Parties' Response to CCS RFI dated 25 November 2014

¹⁵⁷ Paragraph 2.2 of Parties' Response to CCS RFI dated 25 November 2014

¹⁵⁸ Paragraph 10.15 of the *CCS Merger Guidelines*

¹⁵⁹ Paragraph 43.3.1 of Form M1 and Clause 17.2 of the Joint Venture Agreement

¹⁶⁰ As defined in the Joint Venture Agreement

¹⁶¹ Paragraph 43.4.1 of Form M1

¹⁶² Paragraph 4.1 of Parties response CCS RFI dated 25 November 2014

¹⁶³ Paragraph 43.4.2 of Form M1

¹⁶⁴ Paragraph 25.1 and 25.2 of Parties' response to CCS RFI dated 17 November 2014

167. [X].¹⁶⁶

Airbus non-compete obligation

168. [X]¹⁶⁷:

(a) [X];

(b) [X]; *and*

(c) [X]¹⁶⁸

169. [X].

CCS's assessment regarding the Parties non-compete obligations

170. The *CCS Merger Guidelines* state that non-compete clauses, if properly limited, are generally accepted as essential if the purchaser is to receive the full benefit of any goodwill and/or know-how acquired with any tangible assets. CCS will consider the duration of the clause, its geographical field of application, its subject matter and the persons subject to it. Any restriction must relate only to the goods and services of the acquired business and apply only to the area in which the relevant goods and services were established under the previous/current owner.¹⁶⁹

171. The [X] and it is the Parties' submission that these are directly related and necessary to the joint venture to preserve the Parties' co-operation and commitment to the joint venture and to ensure AATC's continued business and growth in the market.¹⁷⁰

172. CCS is of the view that the SIA and Airbus Non-Compete obligations is limited [X] and therefore does not exceed the scope of the Transaction i.e., aircraft pilot training services in the APAC region.¹⁷¹ [X]

173. The duration of the SIA non-compete obligations is limited [X].

¹⁶⁵ Paragraph 43.4.3 of Form M1

¹⁶⁶ Paragraph 43.4.5 of Form M1

¹⁶⁷ Paragraph 43.5.1 of Form M1

¹⁶⁸ Clause 19.2(c)(i) and (ii) of the Joint Venture Agreement

¹⁶⁹ Paragraph 10.15 of the *CCS Merger Guidelines*

¹⁷⁰ Paragraph 43.6 of Form M1

¹⁷¹ Paragraph 36 and 38 of the EC Notice on Ancillary Restraints

174. [REDACTED].

175. CCS has assessed that it is reasonable that the non-compete obligations between the parent undertakings SIA and Airbus and AATC [REDACTED].¹⁷² [REDACTED], CCS is of the view that the SIA and Airbus Non-Compete obligations are directly related to and necessary for the Transaction and in the context of the Transaction constitutes ancillary restrictions which fall within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as it applies to Singapore.

(c) SIA and Airbus non-solicitation obligations

SIA non-solicitation obligations

176. [REDACTED]¹⁷³:

(a) [REDACTED];

(b) [REDACTED];

(c) [REDACTED].

Airbus Asia non-solicitation obligations

177. [REDACTED]¹⁷⁴:

(a) [REDACTED];

(b) [REDACTED]; *or*

(c) [REDACTED].

CCS's assessment regarding the Parties non-solicitation obligations

178. It is the Parties' submission that the Parties Non-Solicitation obligations are directly related and necessary to the joint venture to preserve the Parties'

¹⁷² Paragraph 36 of the EC Notice on Ancillary Restraints similarly states that non-compete obligations can be regarded as directly related and necessary to the implementation of the concentration for the lifetime of the joint venture

¹⁷³ Paragraph 43.4.4 of Form M1

¹⁷⁴ Paragraph 43.5.2 of Form M1

co-operation and commitment to the joint venture and to ensure AATC's continued business and growth in the market.¹⁷⁵

179. CCS notes that the scope of the Parties' Non-Solicitation Obligations is narrow in terms of geographic application, [X]. Geographically the non-solicitation obligation is limited to [X].

180. CCS further notes that the Non-Solicitation Restrictions are entered into by the Parties for the purposes of retaining and benefitting from the human resource assets [X]. CCS is of the view that the [X] duration for each of these Non-Solicitation Obligations is reasonable and allows AATC to protect the value of the business.

181. CCS concludes that the Non-Solicitation Obligations set out in paragraph 176 and paragraph 177 constitute ancillary restriction and consequently fall within the exclusion under paragraph 10 of the Third Schedule of the Act insofar as they apply to Singapore.

(d) SIA prohibition from use of Airbus' intellectual property

182. [X]¹⁷⁶:

[X].

CCS's assessment regarding the SIA prohibition from use of Airbus' intellectual property

183. The Parties have submitted that Clause 18.4(d) is directly related and necessary to the joint venture as [X].¹⁷⁷

184. [X]¹⁷⁸, CCS is of the view that the recourse for any unauthorised use by SIA of Airbus's proprietary marks will be available through the intellectual property regime.

185. [X]. As the Ancillary Restraint Exclusion applies only in relation to agreements or conduct which may infringe the section 34 and/or section 47 prohibition, the aforementioned exclusion is not applicable to Clause 18(d) of the JVA in this case.

¹⁷⁵ Paragraph 43.6 of Form M1

¹⁷⁶ Paragraph 43.5.2 of Form M1

¹⁷⁷ Paragraph 6.5 of Parties response dated 1 December 2014 to CCS RFI dated 25 November 2014

¹⁷⁸ Clause 3.1 of the Trademark Licence Agreement

186. In view of the above, Clause 18.4(d) of the JVA does not constitute subject matter of an Ancillary Restraint Exclusion. In any case, Clause 18.4(d) is neither directly related nor necessary to the present Transaction and therefore does not constitute an ancillary restriction that is within the exclusion in paragraph 10 of the Third Schedule of the Act.

XI. Conclusion

187. For the reasons above and based on the information available, CCS assesses that the Transaction is unlikely to lead to SLC concerns, and accordingly, will not infringe the section 54 prohibition if carried into effect.

188. The Parties submitted that [×]. In accordance with section 57(7) of the Competition Act, this decision shall be valid for a period of one year from the date of this decision



Toh Han Li
Chief Executive
Competition Commission of Singapore