

WORLD TRADE ORGANIZATION

RESTRICTED

S/C/W/270/Add.1
30 November 2006

(06-5754)

Council for Trade in Services

SECOND REVIEW OF THE AIR TRANSPORT ANNEX

DEVELOPMENTS IN THE AIR TRANSPORT SECTOR (PART TWO)

QUANTITATIVE AIR SERVICES AGREEMENTS REVIEW (QUASAR)

(VOLUME I)

Note by the Secretariat¹

Addendum

¹ This document has been prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

TABLE OF CONTENTS

LIST OF TABLES, FIGURES AND BOXES	I. 5
LIST OF ACRONYMS AND ABBREVIATIONS	I. 6
GENERAL INTRODUCTION.....	I. 8
PART A	
INTRODUCTION TO QUASAR.....	I. 9
1. Main market access features of bilateral Air Services Agreements	I. 11
(a) Sources and geographical scope	I. 11
(b) Selection of the main market access features and construction of an Air Liberalisation Index	I. 12
2. Types of bilateral agreements	I. 16
3. Weighting of the Air Liberalisation Indexes by traffic.....	I. 17
4. Comparing "governmental" networks to airlines' networks.....	I. 18
5. Application of the QUASAR methodology to plurilateral Air Services Agreements	I. 18
PART B	
PRELIMINARY RESULTS	I. 22
A. GLOBAL ANALYSIS	I. 23
1. Traffic concentration	I. 23
(a) Findings	I. 23
(b) Comments	I. 29
2. Impact of plurilateral agreements	I. 29
(a) Findings	I. 29
(b) Comments	I. 30
3. Degree of openness of high-traffic agreements.....	I. 31
(a) Findings	I. 31
(b) Comments	I. 31
4. Restrictive market access features prevalent in bilateral agreements	I. 33
(a) Findings	I. 33
(b) Comments	I. 33
5. Typology of bilateral agreements	I. 35
(a) Findings	I. 35
(b) Comments	I. 35
6. Analysis by type	I. 35

(a)	Findings	I. 35
(b)	Comments	I. 36
7.	QUASAR types and ICAO's Template Air Services Agreements.....	I. 37
(a)	Findings	I. 37
(b)	Comments	I. 39
B.	REGIONAL ANALYSIS	I. 39
1.	Analysis by Air Liberalisation Index range.....	I. 39
2.	Analysis by type of agreements.....	I. 40
3.	Analysis by traffic destination	I. 41
4.	Analysis by features	I. 42
(a)	Fifth freedom traffic rights.....	I. 42
(b)	Seventh freedom traffic rights	I. 42
(c)	Cabotage traffic rights.....	I. 43
(d)	Designation	I. 43
(e)	Withholding/ownership.....	I. 43
(f)	Capacity	I. 44
(g)	Tariffs.....	I. 46
(h)	Cooperative arrangements	I. 46
(i)	Exchange of statistics.....	I. 46
	APPENDIX TO PART B – GLOBAL AND REGIONAL PROFILES	I. 47
	ANNEX B-I.....	I. 66
	ANNEX B-II	I. 81
	PART C	
	ECONOMIC, TRADE AND TRAFFIC PROFILES	I. 82
	INDEX OF CONTRACTING STATES PROFILED	I. 89
	PART D	
	METHODOLOGICAL NOTES AND POSSIBLE REFINEMENTS	II. 643
A.	METHODOLOGICAL NOTES	II. 644
1.	Scope of the analysis	II. 644
(a)	Qualifications to the Air Services Agreements included in the WASA	II. 645
(b)	Qualifications to ICAO's coding of Air Services Agreements	II. 646
2.	Weighting system – Air Liberalisation Index.....	II. 647
(a)	Selection of market access features	II. 647
(b)	Relative importance of each market access feature in the Air Liberalisation Index.....	II. 648
(c)	Variants of each market access feature – ICAO coding and relative weights	II. 650

(i)	<i>Traffic rights</i>	II. 650
(ii)	<i>Designation</i>	II. 651
(iii)	<i>Statistics</i>	II. 651
(iv)	<i>Cooperative arrangements</i>	II. 652
(v)	<i>Capacity</i>	II. 652
(vi)	<i>Tariffs</i>	II. 655
(vii)	<i>Withholding</i>	II. 656
(d)	Non-standard weighting systems	II. 658
(i)	<i>Fifth freedom traffic rights (5th +)</i>	II. 658
(ii)	<i>Withholding/ownership provisions (OWN+)</i>	II. 659
(iii)	<i>Multiple designation (DES+)</i>	II. 660
3.	Types	II. 662
4.	Traffic data	II. 664
5.	Additional indicators	II. 666
B.	CONCLUSIONS – POSSIBLE REFINEMENTS TO QUASAR	II. 667
ANNEX D-I		II. 668
ANNEX D-II		II. 722

LIST OF TABLES, FIGURES AND BOXES

PART A – QUASAR: INTRODUCTION

Table A1: Air Liberalisation Index weighting systems	I. 14
Table A2: Definitions of the Freedoms of the Air and their incorporation in the Air Liberalisation Index	I. 15
Table A3: QUASAR types of bilateral Air Services Agreements	I. 17
Table A4: Parties to plurilateral Air Services Agreements, 2005	I. 20

PART B – PRELIMINARY RESULTS

Box B1: Main findings	I. 23
Table B1: Parties to the top-67 (over one million passengers) and top-100 WASA agreements in terms of traffic, and their traffic relations of similar size not appearing in WASA.....	I. 25
Table B2: Share of total international scheduled traffic covered by plurilateral agreements, 2005	I. 30
Table B3: Weighted Air Liberalisation Index of high-traffic bilateral Air Services Agreements	I. 31
Table B4: Analysis by Air Services Agreement type	I. 36
Table B5: Correspondence between QUASAR types A to G and the ICAO Template Air Services Agreements provisions.....	I. 38
Table B6: Template for the comparison of routes and capacity granted	I. 45

PART D – METHODOLOGICAL NOTES AND POSSIBLE REFINEMENTS

Table D1: Relative importance of the market access features in the Air Liberalisation Index.....	II. 649
Table D2: Standard Air Liberalisation Index weighting system.....	II. 658
Table D3: 5 th + Air Liberalisation Index weighting system.....	II. 659
Table D4: OWN+ Air Liberalisation Index weighting system	II. 660
Table D5: DES+ Air Liberalisation Index weighting system	II. 661
Figure D1: Possible combinations of the main market access features of Air Services Agreements	II. 663
Figure D2: Difference between OFOD and IATA passenger data	II. 665

LIST OF ACRONYMS AND ABBREVIATIONS

A	
ACAC	Arab Council Economic Commission
ACS	Association of Caribbean States
ALI	Air Liberalisation Index
ANDEAN	Pact Decisions 297, 320, 360, as consolidated by decision 582
ASA	Air Services Agreement
ASAP	Air Services Agreement Projector
ASEAN	Association of South-East Asian Nations
ATI	Air Transport Intelligence
B	
BIMP/EAGA	Brunei Indonesia Malaysia Philippines/East Asia Growth Area
BSP	Billing Settlement Plan
BST	Brunei Singapore Thailand
C	
CAPA	Centre for Asia Pacific Aviation
CARICOM-MASA	Caribbean Community Multilateral Air Services Agreement
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale
CEPII	Centre d'Études Prospectives et d'Informations Internationales
CIS	Commonwealth of Independent States
CLMV	Cambodia Lao Myanmar Vietnam
COMESA	Common Market for Eastern and Southern Africa
CRS	Computer Reservation System
D	
DAGMAR	Database of Aeronautical Agreements and Arrangements
DES+	Designation-plus (weighting system)
DOT	(US) Department of Transport
E	
ECA	Economic Community of Africa
ECAA	European Common Aviation Area
ECJ	European Court of Justice
EEA	European Economic Area
F	
FTA	Free Trade Agreement
G	
GDP	Gross Domestic Product
I	
IASTA	International Air Services Transit Agreement
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IDB	(WTO) Integrated Data Base
IMF	International Monetary Fund
IMT	Indonesia Malaysia Thailand
M	
Maint	Repair and maintenance
MALIAT	Multilateral Agreement on the Liberalization of International Air Transport
MFN	Most Favoured Nation
MIDT	Market Information Data Tapes
O	
OAA	Open Aviation Area
OAG	Official Airline Guide

OECD	Organisation for Economic Co-operation and Development
OFOD	On-Flight Origin and Destination
OWN+	Ownership-plus (weighting system)
P	
Pax	Passengers (abbreviation used for statistical purposes)
PIASA	Pacific Islands Air Services Agreement
PPOB	Principal Place Of Business
Q	
QUASAR	Quantitative Air Services Agreements Review
S	
SAM	Single Aviation Market
Sell/Mark	Selling and marketing
SOEC	Substantial Ownership and Effective Control
T	
TASA	(ICAO's) Template Air Service Agreement
W	
WAEMU	West African Economic and Monetary Union
WALI	Weighted Air Liberalisation Index
WASA	(ICAO's) World Air Services Agreements (database)
5 th +	Fifth freedom-plus (weighting system)

GENERAL INTRODUCTION

1. This Note is the second part of the documentation on developments in the air transport sector that the Secretariat has been mandated to produce by the Council for Trade in Services in the framework of the second review of the GATS Annex on Air Transport Services.
2. It is focused on scheduled air passenger services and seeks to offer a detailed and, as far as possible, comprehensive analysis of market access features of bilateral Air Services Agreements (ASAs). For the purpose of this analysis, the Secretariat has developed a specific approach, the Quantitative Air Services Agreement Review (QUASAR), which combines both a methodology and a database of information drawn from a variety of sources.
3. It is structured in four parts. While Part A provides an introduction to the QUASAR methodology, Part B outlines the preliminary global and regional results that emerge from its application. Part C provides a systematic and in-depth analysis of the bilateral ASAs concluded by 184 Contracting States, the term used by the International Civil Aviation Organization (ICAO) for its members, and of their level of openness. Finally, Part D contains a detailed methodological note on the QUASAR and suggestions for possible future methodological refinements.
4. A number of issues, which have not been addressed in the current Note in light of time and resource constraints, have been suggested as possible areas of further work that Members might wish to consider. There might be further refinements or additional facets that could be addressed in the QUASAR, and the Secretariat stands ready to undertake such further work, provided any necessary additional data can be secured in a functional format.
5. Because of technical problems linked to the dissemination of such a large document, both on paper and electronically, it has been necessary to divide it into two volumes of roughly equal sizes. Volume I contains Parts A and B, as well as about half of Part C, while Volume II contains the remainder of Part C and Part D. Given that this sub-division is dictated by purely technical reasons, this Note is treated in all respects (e.g. cross-references) as a single document, save for page numbering.
6. A more detailed analysis of the global and regional results obtained for bilateral ASAs (in terms of types, level of openness, traffic concentration, regions, region-pairs, etc.) and an examination of plurilateral ASAs based, *mutatis mutandis*, on the QUASAR methodology will be contained in a second document.
7. This second document will be complemented by a CD-Rom containing an analytical tool, the Air Services Agreement Projector (ASAP). The ASAP allows Members to select bilateral ASAs on the basis of a number of criteria, namely combinations of signatories and regions, levels of openness, types and traffic levels. Once selected, these ASAs will be charted on a map and the underlying relevant data will be displayed. The maps contained in Part C of the present Note are black and white versions of the maps that it will be possible to generate from the ASAP.

PART A

INTRODUCTION TO QUASAR

8. Current literature on air transport contains no comprehensive analysis of the degree of liberalization of bilateral Air Services Agreements. For instance, there are no statistics on the amount of global traffic covered by "open skies"² agreements, nor by regional or plurilateral agreements. Some partial analyses have been undertaken on cargo traffic³ and on the transatlantic sector.⁴ The only systematic study carried out thus far is a recently published analysis of the "Economic impact of air services liberalization" by InterVISTAS Consultants-ga (September 2006).⁵ This study tries to assess the impact of air services liberalization on air fares and traffic and on economic growth, via an econometric model based on a sample similar to that of the QUASAR (around 2000 bilateral agreements), which is applied to five test cases.

9. Hence, most current accounts of air transport services liberalization are of an "impressionistic" nature and based, at best, on a listing of the provisions contained in the relevant bilateral ASAs. For instance, a "classical open skies" agreement between the US and Burkina Faso, which covers no direct traffic, was given more prominence than a semi-liberal agreement between the US and China, which cover millions of passengers.

10. In the documentation produced for the first review, the WTO Secretariat had been constrained by the state of the documentation available at the time and followed this same "impressionistic" approach (see compilation, pages 167-216).

11. By the time of the second review, however, the data needed to establish the equivalent of an WTO Integrated Data Base (IDB) (i.e. merchandise trade flows on the one hand, and level of obstacles to trade on the other) had become available in a convenient format, *mutatis mutandis*, also for the air transport services sector. In May 2006, ICAO published, on a CD-Rom, the World Air Services Agreements (WASA) database, 2005 edition. The database contains, in a searchable format, codified summaries of the main provisions of bilateral ASAs.

12. The QUASAR combines the information contained in the WASA database, which has been assessed in terms of degree of openness in consultation with a group of aviation professionals, government experts, international civil servants and academics, with traffic data obtained from the International Air Transport Association (IATA). This has allowed, for the first time, the simultaneous measuring of the openness and volume of air transport exchanges on a global level.

² The expression "open skies" has no single undisputed definition. It seems to cover at least two kinds of agreements. The US Department of Transport, which coined the term, uses it to designate agreements with no control of routes, tariffs and capacity and allowing fifth freedom rights (see compilation pages 167-169). Such agreements may, however, differ depending on the time of signature and on the bilateral partner concerned (some of which refuse or refused to term such agreements "open skies"). Other WTO Members (e.g. Australia, New Zealand) also use the term, but in relation to more ambitious ASAs (which include principal place of business, seventh freedom, and, in certain instances, cabotage). In view of these ambiguities, the Secretariat has avoided using the term "open skies". It has either qualified it, by distinguishing between "classical open skies" for the first kind and "more than open skies" for agreements of the second, or replaced it, whenever possible, by an objectively defined *sui generis* concept, i.e. "type G" agreements.

³ Micco, A. and T. Serebrisky, "Infrastructure, Competition Regimes, and Air Transport Costs: Cross-Country Evidence" (July 2004). World Bank Policy Research Working Paper no. 3355, available at SSRN: <http://ssrn.com/abstract=610399>.

⁴ See, for instance, The Brattle Group, "The economic impact of an EU-US Open Aviation Area" report prepared for the European Commission, December 2002 available at: <http://www.brattle.com/Publications/PublicationListings.asp?ParentExpertiseID=61&PublicationTableID=2>.

⁵ See third document on http://www.icao.int/cgi/goto_m_atb.pl?icao/en/atb/ecp/dubai2006/Docs.htm or <http://www.intervistas.com/4/reports.asp>.

13. Furthermore, some earlier partial studies applying econometric models to measure the impact of air transport liberalization on traffic, levels of service and prices⁶ have militated in favour of gathering further economic, trade and aviation data so as to extend these approaches on a universal scale.⁷ Air transport is, in effect, a special case within services in so far as that both its regulatory environment and economic reality are heavily documented. It thus appears possible to establish correlations and, hopefully, causalities, provided all determinants of traffic are identified.

14. To construct the QUASAR, the Secretariat has undertaken the following steps: first, assessing the main market access features of bilateral Air Services Agreements and their level of openness; second, categorizing these ASAs by type; third, weighting the agreements by the traffic covered; and, fourth, introducing an element of "reality check" through a comparison with commercial data. In addition, the Secretariat has applied, *mutatis mutandis*, the same methodology to plurilateral ASAs. Each of these steps is discussed in more detail below.

1. Main market access features of bilateral Air Services Agreements

(a) Sources and geographical scope

15. To identify the main market access features of bilateral ASAs, the WTO Secretariat has used the recently published World Air Services Agreement (WASA) database of ICAO, 2005 edition, which codes in detail the provisions of the over 2200 bilateral agreements recorded by ICAO.

16. This implies that the QUASAR has a broader coverage than WTO Membership, as it covers 184 ICAO Contracting States. Part C of the present document therefore contains 184 Contracting State profiles.

17. Since ICAO Contracting States do not always comply with their notification obligations in full (confidential memoranda are not notified, for example), the 2200 agreements coded in the WASA do not give a complete picture of all bilateral agreements in force. The WASA database⁸ also contains a number of outdated agreements. Cases in point are the bilateral agreements concluded between EC Member States (which were superseded by the Single Aviation Market (SAM) in 1993), which were excluded from the Secretariat's analysis.⁹

18. WASA is, however, by far the best and most homogeneous data set on bilateral agreements. Calculations by the WTO Secretariat based on IATA statistics for country-pair scheduled passenger traffic show that the WASA¹⁰ covers about 70 per cent of international scheduled traffic (349 million passengers out of 496 million in 2005). WASA is, therefore, a much better source than usually

⁶ See, for instance, the report by The Brattle Group (*op. cit.*); Gonenc, R. and G. Nicoletti, "Regulation, Market Structure and Performance in Air Passenger Transportation" (August 2000), OECD Economics Department Working Paper no. 254, available at SSRN: <http://ssrn.com/abstract=238207>; Harrigan, J. (2005), 'Airplanes and comparative advantage', (October 2005), NBER Working Paper no. 11688.

⁷ QUASAR data sources include ICAO (coding of bilateral agreements, fleet, number of international airports, etc), IATA (traffic statistics, existing services), Centre d'Études Prospectives et d'Informations Internationales (CEPII) (distance, historical ties, common borders, etc), other UN agencies (population density, size) and the WTO (various trade data relevant to air transport).

⁸ The terms WASA and WASA database are used interchangeably throughout this document.

⁹ With the SAM, the EC operates as a quasi-domestic market, where, for instance, stand-alone cabotage is permitted and all restrictions on foreign ownership of airlines are lifted vis-à-vis EC nationals.

¹⁰ Out of the 2204 agreements coded in WASA, the Secretariat has retained 1970 in its analysis (for a fuller explanation, see the Methodological notes in Part D.) In the present document, notions of WASA agreements and WASA traffic refer to those 1970 agreements and the traffic they cover.

assumed. Experts estimate the coverage of WASA in terms of number of ASAs to be about 60 per cent, which would imply a traffic coverage of about 70 per cent.¹¹

19. There is, at least, one source that claims to be more extensive than WASA, i.e. the Aeroaccords database (<http://www.aeroaccords.com>). It is not clear whether this database codes all clauses of the bilaterals concerned, but, at any rate, it lacks the official status of ICAO coding.¹²

20. Another source of data that only partially overlap with ICAO registration is the UN Treaties series, but these contain no "coded" information either. Also, through web searches it would be possible to find more up to date agreements than those contained in WASA, but this information would not be coded and there may be serious linguistic problems.

21. The Secretariat has thus preferred to rely on the WASA coding at the expense of the size of the sample. However, this work could be complemented with additional data drawn from other sources and from information communicated by individual Members¹³, if Members so wish. The coding would be done in a transparent manner, so as to allow for corrections by Members, and with the help of the ICAO Secretariat.

(b) Selection of the main market access features and construction of an Air Liberalisation Index

22. Among the numerous provisions coded by ICAO in the WASA, the WTO Secretariat has selected those deemed to be of particular significance for market access: i.e. designation, withholding¹⁴, tariffs, capacity, traffic rights, absence of exchange of statistics, allowance of cooperative arrangements. It has then given "points" to the various variants of these provisions (e.g. dual approval of tariffs, a very restrictive provision, is attributed zero points, whereas free pricing, the most liberal of the tariff provisions, is given eight points). Both the selection and the weighting have been undertaken in collaboration with a panel of professionals, academics and air transport negotiators.

23. The points attributed can be altered to take into account the specific situation of a country, by giving more weight to fifth freedom traffic rights (5th+, e.g. Australia and New Zealand), liberal withholding/ownership provisions (OWN+, e.g. Switzerland and Hong Kong, China) or multiple designation (DES+, e.g. the UK, US, India, China and Brazil). The software employed for the development of the ASAP CD-Rom (i.e. Flash) did not allow to incorporate further flexibility with regard to the weighting, but this may remain a long-term objective for any future versions of the QUASAR.

24. The Air Liberalisation Index (ALI) is the sum of the points obtainable by a given Air Services Agreement. The value of the ALI ranges between zero, for very restrictive ASAs, and fifty, for very liberal ones. This valuing system is intended to fulfil four objectives, namely:

¹¹ See, for example, Earl Scott in *Airline Business*, April 2006. The above estimates are necessarily subject to uncertainties.

¹² In spite of repeated e-mail messages, the Secretariat has received no reply and has thus been unable to access the database on a trial basis. It would appear, at any rate, to be more expensive than the WASA database.

¹³ Annex D-II in Part D contains a template for any Member wishing to provide the Secretariat with complementary information about ASAs it has concluded or amended, but which are not recorded as such in the WASA database.

¹⁴ The term "withholding clause" is used by ICAO, but this clause is often referred to as "designation" or, more frequently, "ownership" clause, given that the "standard" requirement is that, to be designated by a Contracting State to utilize the rights granted in an ASA, an airline be "substantially owned and effectively controlled" by the nationals of that Contracting State.

- easy conversion into an index of restrictiveness ranging between 0 and 1 for regression purposes;
- consideration of additional features coded by ICAO that have not been retained in the QUASAR, which Members may want to see included (e.g. routes, commercial opportunities for selling and marketing or ground handling, access to/use of equipment and infrastructure, etc);
- possibility of coding of new features that may emerge in the future such as those found in "more than open skies" common aviation markets; and
- future attribution of points to cargo and non-scheduled services, if data comparable to those for scheduled passenger traffic become available in those two sectors.

25. Table A1 indicates the number of points attributed to each feature in each of the weighting systems: standard, 5th+, OWN+, and DES+. The definitions of market access features, as per the WASA Explanatory Notes, can be found in the Methodological notes in Part D. Alternatively, definitions drawn from the ICAO Manual of Regulation (2004), are reproduced in the compilation and cross-referenced in the second column of Table A1.

26. The QUASAR database does not contain the details of ICAO coding because of copyright-related constraints. It would nevertheless be possible for a Member to re-calculate its ALI by purchasing the WASA database¹⁵, extracting and manipulating the relevant data. The Secretariat stands ready, on request, to assist Members in this regard.

¹⁵ The WASA database can be ordered at the following address:
<http://icaodsu.openface.ca/documentItemView.ch2?ID=9515>.

Table A1
Air Liberalisation Index weighting systems

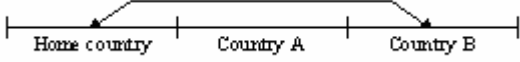
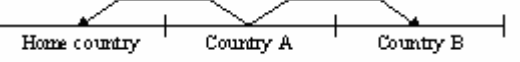
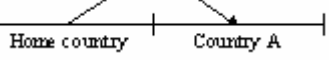
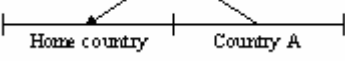
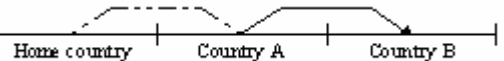
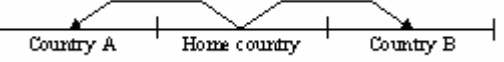
Element	References	Air Liberalisation Index							
		Standard		5th+		OWN+		DES+	
GRANT OF RIGHTS									
Fifth Freedom	Compilation page 194, paragraph 28	6		12		5		5.5	
Seventh Freedom	Compilation page 196, paragraph 40	6		5		5		5.5	
Cabotage	Compilation page 197, paragraphs 44-48	6		5		5		5.5	
CAPACITY	Compilation page 216, paragraphs 107-108 and pages 203-204, Table A2								
Predetermination		0		0		0		0	
"Other restrictive" ¹⁶		2		1.5		1.5		1.5	
Bermuda I		4		3.5		3.5		3.5	
"Other liberal" ¹		6		5		5		5.5	
Free Determination		8		7		7		7.5	
TARIFFS	Compilation page 201-202, Table A2								
Dual Approval		0		0		0		0	
Country of Origin		3		2.5		2.5		2.5	
Dual Disapproval		6		5		5		5.5	
Zone Pricing		8	4 7	7	3.5 6	7	3.5 6	7.5	3.5 6.5
Free Pricing		8		7		7		7.5	
WITHHOLDING	Compilation page 208, paragraph 66								
Substantial Ownership and Effective Control	Compilation page 208, paragraphs 66 and 68	0		0		0		0	
Community of Interest	Compilation page 210, paragraph 78	4		3.5		7		3.5	
Principal Place of Business	Compilation page 209, paragraph 77	8		7		14		7.5	
DESIGNATION	Compilation page 208, paragraph 65								
Single Designation		0		0		0		0	
Multiple Designation		4		3.5		3.5		7.5	
STATISTICS	Compilation page 202, Table A2								
Exchange of Statistics		0		0		0		0	
No exchange of Statistics		1		1		1		1	
COOPERATIVE ARRANGEMENTS	Compilation pages 223-224, paragraphs 16-20								
Not allowed		0		0		0		0	
Allowed		3		2.5		2.5		2.5	
TOTAL		50		50		50		50	

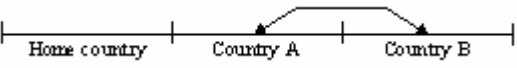
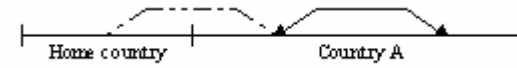
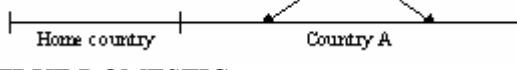
Source: WTO Secretariat.

¹⁶ See Methodological notes in Part D.

27. For readers not familiar with the concept of freedoms of the air and the precise scope of individual elements, Table A2 recalls the definitions of the nine freedoms, and indicates to what extent they have been taken into account in the analysis.

Table A2
Definitions of the Freedom of the Air and their incorporation in the Air Liberalisation Index

Definitions of the Freedoms of the Air	Coverage in the ALI
 <p>FIRST FREEDOM To overfly one country en-route to another</p>	<p>First and second freedoms are regulated either by a multilateral instrument, the ICAO IASTA (see compilation pages 184-191, paragraphs 1 to 16), or by unilateral regimes.</p> <p>They are not coded by WASA and therefore not dealt with in the QUASAR.</p>
 <p>SECOND FREEDOM To make a technical stop in another country</p>	
 <p>THIRD FREEDOM To carry freight and passengers from the home country to another country</p>	<p>These freedoms are not given any points <i>per se</i> because they are the main object of the bilateral ASA.</p> <p>What appears in the QUASAR are the various elements on capacity, tariffs, designation, withholding/ownership, statistics and cooperative arrangements, which apply mainly to third and fourth freedom and only marginally, from a statistical perspective, to fifth and seventh freedoms.</p>
 <p>FOURTH FREEDOM To carry freight and passengers to the home country from another country</p>	
 <p>FIFTH FREEDOM To carry freight and passengers between two countries by an airline of a third country on route with origin / destination in its home country</p>	<p>Taken into consideration as a self-standing element.</p> <p>It proved impossible to isolate statistically fifth freedom traffic as such. Hence, figures given in the QUASAR are traffic figures about agreements granting fifth freedom rights, not fifth freedom traffic figures.</p>
 <p>SIXTH FREEDOM To carry freight and passengers between two countries by an airline of a third country on two routes connecting in its home country</p>	<p>Although certain bilateral agreements deal explicitly with sixth freedom, they have no real bearing on this type of "land-bridge" traffic as it is regulated by the combination of a fourth-freedom right under a first bilateral (from A to B) and of a third freedom right under a second bilateral agreement (from B to C). Sixth freedom is therefore not considered in the QUASAR.</p>

Definitions of the Freedoms of the Air	Coverage in the ALI
 <p>SEVENTH FREEDOM To carry freight and passengers between two countries by an airline of a third country on a route with no connection with its home country</p>	<p>Taken in consideration as a self-standing element.</p> <p>It proved impossible to isolate statistically seventh-freedom traffic as such. Hence, figures given in the QUASAR are traffic figures about agreements granting seventh freedom rights, not seventh freedom traffic figures.</p>
 <p>EIGHTH FREEDOM OR CABOTAGE To carry freight and passengers within a country by an airline of another country on a route with origin / destination in its home country</p>	<p>Clauses granting eighth and ninth freedom traffic rights are relatively rare in bilateral agreements¹⁷ though, for instance, the bilateral version of the ICAO Template Air Services Agreement¹⁸ devotes a special provision to them¹⁹ in anticipation of their future spreading and although one can find them in several plurilateral agreements some of which are effectively implemented. They can also be granted exceptionally to foreign operators through national regulations on ownership .</p>
 <p>TRUE DOMESTIC To carry freight and passengers within a foreign country with no connection with the home country</p>	

Source: ICAO Manual of Regulation (2004) and WTO Secretariat.

2. Types of bilateral agreements

28. As a next step, the Secretariat sought to specify a limited number of "standard" types of ASAs. Although it is often said that there is an infinite diversity of agreements, a closer look reveals certain recurrent patterns of market access features.

29. The QUASAR has allowed the identification of seven types of agreements that cover 1424 ASAs and more than 70 per cent of the traffic. Hypothetically, these 1424 agreements could, therefore, be replaced by seven plurilaterals, at least for key provisions (i.e. capacity, pricing, withholding/ownership, fifth and seventh freedom, cabotage and multi-designation). The analysis by types as well as the analysis of plurilaterals contain more details in this regard. The types retained by the Secretariat are illustrated in Table A3.

¹⁷ They are found in the following ASAs: China-Albania (ICAO no. N0109, 28 March 1972), New Zealand-Brunei Darussalam (ICAO no. 4265, 4 March 1999) and New Zealand-Australia (not recorded in WASA, but mentioned in the compilation, page 197, paragraphs 47 and 49).

¹⁸ ICAO has produced two Template Air Services Agreements (TASAs), one for bilateral situations and one for regional or plurilateral situations. Unless otherwise indicated, all references to the TASA in the current document are to the bilateral version.

¹⁹ See ICAO's bilateral Template Air Services Agreement (Attachment A), page A-93, Annex I, route schedules, "Full liberalization" option, which reads:

"A. Routes to be operated by the designated airline (or airlines) of Party A: point to, from and within the territory of party B.

B. Routes to be operated by the designated airline (or airlines) of Party B: point to, from and within the territory of party B".

Table A3
QUASAR types of bilateral Air Services Agreements

Type	Freedoms	Designation	Withholding/ownership	Tariffs	Capacity	Number of ASAs	Traffic covered
A	3 rd and 4 th	Single designation	Substantive ownership and effective control	Double approval	Pre-determination	221 (11.2%)	18.4 m (5.3%)
B	3 rd and 4 th	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination	182 (9.2%)	19.7 m (5.6%)
C	3 rd , 4 th , 5 th	Single designation	Substantive ownership and effective control	Double approval	Pre-determination	432 (21.9%)	30.2 m (8.7%)
D	3 rd , 4 th , 5 th	Single designation	Substantive ownership and effective control	Double approval	Bermuda I	99 (5.0%)	10.4 m (3.0%)
E	3 rd , 4 th , 5 th	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination	267 (13.6%)	43 m (12.3%)
F	3 rd , 4 th , 5 th	Multi-designation	Substantive ownership and effective control	Double approval	Bermuda I	154 (7.8%)	71.1 m (20.4%)
G	3 rd , 4 th , 5 th	Multi-designation	Substantive ownership and effective control <i>or</i> Community of interest <i>or</i> Principal place of business	Free pricing <i>or</i> Double disapproval	Free determination	69 (3.5%)	58 m (16.6%)
i Incomplete ICAO coding	<i>If either:</i>		"n/a"	"n/a"	"other"	302 (15.3%)	56 m (16.0%)
o All other combinations						244 (12.4%)	41.8 m (12%)

Source: WTO Secretariat.

3. Weighting of the Air Liberalisation Indexes by traffic

30. ALIs have been combined with IATA traffic statistics so as to compute a Weighted Air Liberalisation Index (WALI) by ICAO Contracting State, region, region-pair, type, level of traffic, etc. The WALIs are based on a conventional weighted-average formula. For example, for Contracting State A, which has three bilateral agreements with B, C and D:

$$WALI\ A = \frac{(T_{A-B} \times ALI_{ASA\ (A-B)}) + (T_{A-C} \times ALI_{ASA\ (A-C)}) + (T_{A-D} \times ALI_{ASA\ (A-D)})}{T_{A-B} + T_{A-C} + T_{A-D}}$$

Note: T = traffic covered by the ASA in question

31. The country-pair scheduled passenger traffic statistics that IATA has kindly provided are by far the most comprehensive set of data available. They do not suffer in particular from the reporting difficulties and the confidentiality constraints of the ICAO statistical series OFOD.²⁰

32. These IATA country-pair statistics cover all traffic between a country-pair, including indirect traffic (e.g. US-Burkina Faso via France), and do not therefore always correspond exactly to the ambit of a given bilateral agreement. Yet, this limitation is essentially relevant only for thin routes without direct traffic which, therefore, have a marginal statistical impact. In any event, comprehensive statistics corresponding to the precise ambit of bilateral agreements do not seem to exist either in

²⁰ For a detailed explanation of the statistical difficulties faced and of the statistical choices made, see the Methodological notes in Part D.

ICAO, IATA or Official Airline Guide (OAG) at an affordable price.²¹ There is contradicting information about the ability of Computer Reservation System (CRS) vendors to provide similar data through their Market Information Data Tape (MIDT), but the price of MIDT information is even higher.

33. Finally, in view of their commercial value and of confidentiality requirements, IATA statistics have been re-aggregated by ranges of 500,000 passengers for any given bilateral agreement. However, IATA has allowed the WTO Secretariat to give exact summations when needed. Should Members be willing to obtain, against payment, more detailed statistics they may turn directly to IATA.²²

4. Comparing "governmental" networks to airlines' networks

34. The Secretariat has tried to compare the "governmental" network of bilateral ASAs as reflected in the ICAO WASA database and the network effectively operated by airlines as covered by the IATA mileage statistics

35. This comparison has allowed for the identification of:

- unused rights (at least for the summer 2006 IATA season), that is, ASAs concluded between two parties which have no corresponding direct air transportation service (i.e., a service operated under the same flight number);²³
- "orphan services", i.e. existing direct air transportation services for which no corresponding bilateral agreement is recorded in WASA. This lack of correspondence may reflect different causes: in rare instances, the absence of a bilateral agreement (e.g. between France and Switzerland before the EC-Switzerland agreement); the substitution of a plurilateral for a bilateral agreement (a factor imperfectly taken into account by WASA, which, for instance, still records intra-EC agreements); or, in most instances, non-registration of the agreement in question with ICAO.

5. Application of the QUASAR methodology to plurilateral Air Services Agreements

36. Since the 1980s, there has been a proliferation of plurilateral agreements, whose relationship with pre-existing bilateral ASA is not always clear. Nevertheless, plurilateral ASAs lend themselves to the quantification of traffic and assessment of openness through the application, *mutatis mutandis*, of the same methodology used for bilaterals.

37. In order to be consistent with the approach followed for bilateral agreements, where the ICAO selection has been used as a basis, the WTO Secretariat has decided to use a list recently drawn up by ICAO for the Global Symposium on Air Transport Liberalisation held in Dubai in September 2006.²⁴ This list is in two parts.

²¹ Direct services traffic mileage statistics (IATA) and direct services capacity statistics (OAG) do exist, but the price of subscriptions to these data is, respectively, US\$39,000 and GB£20,000.

²² IATA's Business Intelligence Services can be contacted at bis@iata.org

²³ An unused right in a given season does not necessarily mean that the ASA serves no purposes, as airlines increase, diminish and redeploy capacity constantly depending on the general economic conditions and the growth or contraction of given markets. An unused right over the last five to ten years would be a more meaningful indicator, but its identification would imply full access to very costly data sets.

²⁴ See "Regulatory and Industry Overview", Information Paper presented by the ICAO Secretariat at the Global Symposium on Air Transport Liberalisation, dated 15 August 2006, paragraphs 2.3 to 2.10, available from: www.icao.int/cgi/goto_m_atb.pl?icao/en/atb/ecp/dubai2006/index.html.

38. The first part consists of 14 agreements, grouped without a precise common criterion.²⁵
- the Single Aviation Market of the EC (1987)²⁶;
 - the Decision on the Integration of Air Transport within the Andean Pact (Andean Pact; 1991);
 - the Caribbean Community Multilateral Air Services Agreement (CARICOM-MASA; 1996);
 - the Fortaleza Agreement (1996);
 - the Cambodia, Lao, Myanmar, Vietnam (CLMV) Agreement (1998; followed by formal multilateral agreements in 2003);
 - the Intra-Arab Freedom of the Air Programme of the Arab Council Aviation Commission (ACAC; 1999)²⁷;
 - the Air Transport Agreement of the Communauté Economique et Monétaire d'Afrique Centrale (CEMAC; 1999);
 - the Air Transport Liberalization Programme of the Common Market for Eastern and Southern Africa (COMESA; 1999);
 - the Yamoussoukro II Ministerial Decision (1999);
 - the Indonesia, Malaysia, Thailand (IMT) Growth Triangle Region (1999);
 - the Brunei, Indonesia, Malaysia, Philippines East Asia Growth Area (BIMP/EAGA; 1999);
 - the Multilateral Agreement on the Liberalization of International Air Transport (MALIAT; 2001); and
 - the Brunei, Singapore, Thailand (BST) Agreement (2004).
39. The second part consists of "arrangements in the signature or ratification process" and comprises:
- the Pacific Islands Air Services Agreement (PIASA; 2003);
 - the Common Air Transport Programme of the West African Economic and Monetary Union (WAEMU; 2002);
 - the Association of South-East Asian Nations (ASEAN) Sectoral Integration Protocol for Air Travel (ASEAN Roadmap; 2005);
 - the Air Transport Agreement for a Common Aviation Area of the Association of Caribbean States (ACS; 2004);
 - the Open Aviation Area (OAA)²⁸ between the EC and United States (started in December 2005);
 - the Euro-Mediterranean Agreement between the EC and Morocco (EU-Morocco Euro Mediterranean Air Transport Agreement; 2005); and
 - the European Common Aviation Area (ECAA) between the EC, Norway, Iceland and several Balkan States (started in December 2005, opened for signature as of June 2006).

²⁵ The date of conclusion is indicated in parenthesis.

²⁶ The SAM has not been included in the analysis of plurilateral agreements, since it has been considered throughout this document as covering domestic traffic. It has been described at length in the documentation produced for the first review (see compilation, pages 178-179 and 207).

²⁷ It should be noted that, for the present document, the Secretariat has taken into consideration a more recent agreement concluded under the aegis of the ACAC in December 2004, the "Agreement on the Liberalization of Air Transport between the Arab States".

²⁸ The Open Aviation Area is the term used by ICAO (see footnote 24) and by the European Communities (see http://ec.europa.eu/transport/air_portal/international/pillars/global_partners/us_en.htm). It is not used by the US, which refers to the agreement in formal terms as the "Draft First-Phase US-EU Air Transport Agreement". The expression "US-EU Air Transport Agreement" seems to be acceptable to both parties and will henceforth be used in the present document.

40. The membership of all these agreements is described in Table A4. The borderline between these two groups is not very clear, given uncertainties surrounding the state of ratification of individual agreements.

41. The present document will only deal with the traffic impact of plurilaterals. The measurement of their degree of openness raises relatively complex questions and will be dealt with in a second document.

Table A4
Parties to plurilateral Air Services Agreements, 2005

Plurilateral ASAs	Parties
Andean Pact Decisions 297, 320, 360, as consolidated by decision 582 ("Andean pact"), 1991	Bolivia, Colombia, Ecuador, Peru
Caribbean Community Multilateral Air Services Agreements (CARICOM-MASA), 1996	Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, Montserrat, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago
FORTALEZA Agreement, 1996	Argentina, Bolivia, Brazil, Chile, Paraguay, Uruguay
BANJUL Accord Group Agreement, 2004	Cape Verde, Gambia, Ghana, Guinea Bissau, Nigeria, Sierra Leone
The Cambodia, Lao, Myanmar, Vietnam (CLMV) Agreement, 1998-2003	Cambodia, Lao People's Democratic Republic, Myanmar, Vietnam
Agreement on the Liberalization of Air Transport between the Arab States (ACAC) 1999-2004	Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates
Agreements on Air Transport among the Members of the Communauté Économique et Monétaire de l'Afrique Centrale (CEMAC), 1999	Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon
Air Transport Liberalization Program of the Common Market for Eastern and Southern Africa (COMESA), 1999	Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea, Gabon
Yamoussoukro II Ministerial Decision, 1999	Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Democratic Republic, Côte d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe

Plurilateral ASAs	Parties
Memorandum of Understanding between the governments of Indonesia, Malaysia, Thailand (IMT) on expansion of air linkages, 1995	Indonesia, Malaysia, Thailand
The Brunei, Indonesia, Malaysia, Philippines East Asia Growth Area (BIMP/EAGA), 1995	Brunei, Indonesia, Malaysia, Philippines
Multilateral Agreement on the Liberalization of International Air Transport (MALIAT), 2001	Brunei, Chile, Cook Islands, New Zealand, Peru, Samoa, Singapore, Tonga, United States
Multilateral Agreement on the Liberalization of passenger Air Services between Brunei, Singapore and Thailand (BST), 2004	Brunei, Singapore, Thailand
<i>Common Program on air Transport of the West African Economic and Monetary Union (WAEMU), 2002</i>	<i>Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, Togo</i>
<i>Pacific Islands Air Services Agreement (PIASA), 2003</i>	<i>Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu</i>
<i>Air Transport Agreement among the Member States and associate Members of the Association of Caribbean States (ACS), 2004</i>	<i>Antigua and Barbuda, Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Mexico, Venezuela</i>
<i>ASEAN Sectoral Integration Protocol for Air Travel (ASEAN Roadmap), 2005</i>	<i>Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam</i>
<i>US-EU Air Transport Agreement, 2005</i>	<i>EC and US</i>
<i>EU-Morocco Euro-Mediterranean Air Transport Agreement, 2005</i>	<i>EC and Morocco</i>
<i>European Common Aviation Area (ECAA), 2005</i>	<i>EC, Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYROM, Iceland, Norway, Romania, Serbia and Montenegro, United Nations Mission in Kosovo</i>

Note: Agreements that are still in the signature/ratification process are indicated in italics.

Source: Compiled by the WTO Secretariat on the basis of ICAO regulatory data.

PART B

PRELIMINARY RESULTS

42. This Part outlines the preliminary results that emerge from the application of the QUASAR methodology. It is divided into two sections: the first section describes the salient findings of a global analysis, while the second section contains an account of regional results, in terms of range of ALI, type of ASA, geography of traffic and individual market access features.

43. The main findings of the global analysis are summarised in box B1.

Box B1
Main findings

- Traffic is highly concentrated: 100 ASAs, involving 50 parties, cover two-thirds of total WASA traffic.
- Plurilateral agreements could, theoretically, have a decisive liberalising impact on one-quarter of the traffic.
- High-traffic bilateral ASAs are only marginally more liberal than the others.
- Restrictive features, such as dual approval of tariffs and substantial ownership and effective control, are still largely prevalent in ASAs, at least on paper.
- Bilateral agreements exhibit a great degree of similarity: just seven types cover 72 per cent of the traffic.
- An analysis by type reveals a more liberal picture: one out of six passengers travels under liberal conditions and one out of three under liberal or semi-liberal conditions.
- The key market access provisions of 1424 agreements could be replaced by seven sets of provisions drawn from ICAO's Template Air Services Agreements.

A. GLOBAL ANALYSIS

1. Traffic concentration

(a) Findings

44. An analysis of the traffic covered by bilateral ASAs reveals the following:

- the agreements covering over one million passengers (67 agreements), i.e. 3.4 per cent of all WASA agreements, involve 39 parties²⁹ and cover 55.7 per cent of the WASA traffic;
- the first 100 agreements ranked by traffic, i.e. 5.1 per cent of all WASA agreements (involving 50 parties)³⁰, account for 63.5 per cent of the traffic; and

²⁹ Argentina, Australia, Bolivarian Republic of Venezuela, Brazil, Canada, China, Colombia, Costa Rica, Dominican Republic, El Salvador, France, Germany, Hong Kong, China; India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Norway, Philippines, Republic of Korea, Russian Federation, Singapore, South Africa, Spain, Switzerland, Thailand, Tunisia, Turkey, United Arab Emirates, United Kingdom and United States.

³⁰ The eleven additional parties concerned are: Aruba, Austria, Belgium, Denmark, Ecuador, Guatemala, Netherlands Antilles, Pakistan, Peru, Saudi Arabia and Sweden.

- the first 200 agreements ranked by traffic, i.e. 10.1 per cent of all WASA agreements (involving 76 parties)³¹, account for 77.4 per cent of the traffic.

45. Table B1 lists the 67 agreements covering over one million passengers and the 100 most traffic-intensive agreements. The parties involved in the first 67 agreements are indicated in bold, those involved only in the next 31 in normal font. Parties are listed in alphabetical order, so that each agreement is quoted twice, first for party A and then for party B. For more elements on the agreements concerned (e.g. ALI, distance, traffic range, etc.) see either the Contracting State profiles of the parties concerned (Part C of the present document) or the table listing the main features of the bilateral Air Services Agreements considered in the QUASAR in Annex D-I. Table B1 also lists the bilateral traffic relations of comparable volume which do not appear in WASA.

³¹ The 27 additional parties involved as compared to the top-100 ASAs are: Barbados, Cambodia, Chile, Egypt, Fiji, Finland, Honduras, Kenya, Kuwait, Lebanon, Mauritius, Myanmar, Nepal, Nicaragua, Oman, Panama, Portugal, Romania, Senegal, Serbia and Montenegro, Sri Lanka, Syrian Arab Republic, Trinidad and Tobago, Ukraine, Uruguay, Uzbekistan, Vietnam.

Table B1
Parties to the top-67 (over one million passengers) and top-100 WASA agreements in terms of traffic,
and their traffic relations of similar size not appearing in WASA

PARTY A	WALI	NUMBER OF ASAS	WASA AGREEMENTS	TRAFFIC RELATIONS NOT APPEARING IN WASA
			PARTY B (TRAFFIC RANGE, ALI)	PARTY B (TRAFFIC RANGE)
Argentina	8.8	19	Brazil (1.5-2 m pax, ALI 10), Spain (0.715-1 m pax, ALI 11), US (0.715-1 m pax, ALI 5)	Chile (1-1.5 m pax)
Aruba	34	1	US (0.715-1 m pax ALI 34)	-
Australia	9	42	China (0.715-1 m pax, ALI 0), Hong Kong, China (1-1.5 m pax, ALI 12), Indonesia (0.715-1 m pax, ALI 6), Japan (1-1.5 m pax, ALI 8), Malaysia (0.715-1 m pax, ALI 6), New Zealand (3.5-4 m pax, ALI 10), Singapore (1.5-2 m pax, ALI 6), Thailand (0.715-1 m pax, ALI 10), United Kingdom (1-1.5 m pax, ALI 14), US (1.5-2 m pax, ALI 8)	-
Austria	10.6	61	Switzerland (0.715-1 m pax, ALI 14)	-
Belgium	12.6	64	US (0.715-1 m pax, ALI 25)	-
Bolivarian Republic of Venezuela	8	14	US (1-1.5 m pax, ALI 10)	-
Brazil	8.8	36	Argentina (1.5-2 m pax, ALI 10), US (2-2.5 m pax, ALI 15)	-
Canada	20.2	45	China (0.715-1 m pax, ALI 6), France (1-1.5 m pax, ALI 10), Germany (0.715-1 m pax, ALI 14), Mexico (0.715-1 m pax, ALI 4), United Kingdom (2-2.5 m pax, ALI 12), US (18-18.5, m pax, ALI 27)	-
China	5.5	73	Australia (0.715-1 m pax, ALI 0), France (0.715-1 m pax, ALI 6), Germany (0.715-1 m pax, ALI 11), Republic of Korea (5.5-6 m pax, ALI 4), Malaysia (1-1.5 m pax, ALI 0), Singapore (2-2.5 m pax, ALI 11), Thailand (1.5-2 m pax, ALI 0), US (2-2.5 m pax, ALI 14)	Japan (6-6.5 m pax); Hong Kong, China (6.5-7 m pax)
Colombia	11.8	11	US (1-1.5 m pax, ALI 15)	-
Costa Rica	22	12	US (1.5-2 m pax, ALI 28)	-
Denmark	15.3	44	US (0.715-1 m pax, ALI 28)	Norway (1-1.5 m pax)
Dominican Republic	28.9	8	US (3-3.5 m pax, ALI 34)	-
Ecuador	12.5	12	US (0.715-1 m pax, ALI 15)	-
El Salvador	33.7	2	US (1-1.5 m pax, ALI 34)	-
France	9.4	60	Canada (1-1.5 m pax, ALI 10), China (0.715-1 m pax, ALI 6), Japan (0.715-1 m pax, ALI 15), Morocco (2-2.5 m pax, ALI 11), Russian Federation (0.715-1 m pax, ALI 0), Switzerland (1-1.5 m pax, ALI 7), Tunisia (1-1.5 m pax, ALI 13)	US (4.5-5 m pax); Algeria (2.5-3 m pax)
Germany	16.4	80	Canada (0.715-1 m pax, ALI 14), China (0.715-1 m pax, ALI 11), Japan (0.715-1 m pax, ALI 10), Norway (0.715-1 m pax, ALI 7), Russian Federation (2-2.5 m pax, ALI 1), Switzerland (2.5-3 m pax, ALI 6), Thailand (0.715-1 m pax, ALI 10), Turkey (3.5-4 m pax, ALI 12), US (7-7.5 m pax, ALI 42)	-
Guatemala	31.7	7	US (0.715-1 m pax, ALI 34)	-

PARTY A	WALI	NUMBER OF ASAS	WASA AGREEMENTS	TRAFFIC RELATIONS NOT APPEARING IN WASA
			PARTY B (TRAFFIC RANGE, ALI)	PARTY B (TRAFFIC RANGE)
Hong Kong, China	13.5	50	Australia (1-1.5 m pax, ALI 12), Japan (2.5-3 m pax, ALI 18), Malaysia (0.715-1 m pax, ALI 12), Philippines (1-1.5 m pax, ALI 12), Singapore (1.5-2 m pax, ALI 12), Republic of Korea (1-1.5 m pax, ALI 12), Thailand (2.5-3 m pax, ALI 12), United Kingdom (1-1.5 m pax, ALI 16), US (1.5-2 m pax, ALI 17)	China (6.5-7 m pax); Chinese Taipei ³² (5-5.5 m pax)
India	7.9	73	Malaysia (0.715-1 m pax, ALI 6), United Kingdom (1.5-2 m pax, ALI 10), Singapore (1-1.5 m pax, ALI 10), US (1.5-2 m pax, ALI 12)	United Arab Emirates (3-3.5 m pax); Saudi Arabia (1.5-2 m pax); Thailand (0.715-1 m pax)
Indonesia	12.9	25	Australia (0.715-1 m pax, ALI 6), Japan (0.715-1 m pax, ALI 10), Malaysia (2-2.5 m pax, ALI 14), Singapore (3-3.5 m pax, ALI 16)	-
Ireland	13.3	10	US (1.5-2 m pax, ALI 14)	-
Israel	11.9	32	US (1-1.5 m pax, ALI 25)	-
Italy	13	34	Switzerland (0.715-1 m pax, ALI 4), US (3-3.5 m pax, ALI 28)	-
Jamaica	24.7	19	US (2-2.5 m pax, ALI 28)	-
Japan	14.8	51	Australia (1-1.5 m pax, ALI 8), France (0.715-1 m pax, ALI 15), Hong Kong, China (2.5-3 m pax, ALI 18), Germany (0.715-1 m pax, ALI 10), Indonesia (0.715-1 m pax, ALI 10), Philippines (1-1.5 m pax, ALI 14), Republic of Korea (6.5-7 m pax, ALI 14), Singapore (1-1.5 m pax, ALI 14), Thailand (2-2.5 m pax, ALI 15), United Kingdom (0.715-1 m pax, ALI 14), US (11-11.5 m pax, ALI 18)	China (6-6.5 m pax); Chinese Taipei (2.5-3 m pax)
Malaysia	10.7	39	Australia (0.715-1 m pax, ALI 6), China (1-1.5 m pax, ALI 0), Hong Kong, China (0.715-1 m pax, ALI 12), India (0.715-1 m pax, ALI 6), Indonesia (2-2.5 m pax, ALI 14), Singapore (1.5-2 m pax, ALI 14), Thailand (1-1.5 m pax, ALI 11)	-
Mexico	14.6	32	Canada (0.715-1 m pax, ALI 4), US (15.5-16 m pax, ALI 17)	-
Morocco	10.5	51	France (2-2.5 m pax, ALI 11)	-
Netherlands	14.8	83	US (2.5-3 m pax, ALI 25)	-
Netherlands Antilles	34	1	US (0.715-1 m pax, ALI 34)	-
New Zealand	13.4	34	Australia (3.5-4 m pax, ALI 10)	-
Norway	9.4	53	Germany (0.715-1 m pax, ALI 7), United Kingdom (1.5-2 m pax, ALI 4)	Denmark (1-1.5 m pax); Sweden (0.715-1 m pax)
Pakistan	9.6	53	United Kingdom (0.715-1 m pax, ALI 14)	United Arab Emirates (1.5-2 m pax); Saudi Arabia (1-1.5 m pax)
Peru	22.7	15	US (0.715-1 m pax, ALI 34)	-
Philippines	13.1	38	Hong Kong, China (1-1.5 m pax, ALI 12), Japan (1-1.5 m pax, ALI 14), Republic of Korea (1-1.5 m pax, ALI 7), US (1-1.5 m pax, ALI 29)	-

³² Chinese Taipei does not appear in WASA since it is not an ICAO Contracting State.

PARTY A	WALI	NUMBER OF ASAS	WASA AGREEMENTS	TRAFFIC RELATIONS NOT APPEARING IN WASA
			PARTY B (TRAFFIC RANGE, ALI)	PARTY B (TRAFFIC RANGE)
Republic of Korea	11.7	45	China (5.5-6 m pax, ALI 4), Hong Kong, China (1-1.5 m pax, ALI 12), Japan (6.5-7 m pax, ALI 14), Philippines (1-1.5 m pax, ALI 7), Thailand (1-1.5 m pax, ALI 6), US (3-3.5 m pax, ALI 28)	Chinese Taipei (1-1.5 m pax)
Russian Federation	4.2	94	France (0.715-1 m pax, ALI 0), Germany (2-2.5 m pax, ALI 1)	Ukraine (0.715-1 m pax)
Saudi Arabia	9.3	19	United Arab Emirates (0.715-1 m pax, ALI 10)	India (1.5-2 m pax); Egypt (1.5-2 m pax); Pakistan (1-1.5 m pax)
Singapore	13	68	Australia (1.5-2 m pax, ALI 6), China (2-2.5 m pax, ALI 11), Hong Kong, China (1.5-2 m pax, ALI 12), India (1-1.5 m pax, ALI 10), Indonesia (3-3.5 m pax, ALI 16), Japan (1-1.5 m pax, ALI 14), Malaysia (1.5-2 m pax, ALI 14), Thailand (2.5-3 m pax, ALI 10)	-
South Africa	9.9	52	United Kingdom (1-1.5 m pax, ALI 14)	-
Spain	8.3	61	Argentina (0.715-1 m pax, ALI 11), Switzerland (1.5-2 m pax, ALI 5), US (1.5-2 m pax, ALI 18)	-
Sweden	9	52	US (0.715-1 m pax, ALI 7)	Norway (0.715-1 m pax)
Switzerland	9.8	103	Austria (0.715-1 m pax, ALI 14), France (1-1.5 m pax, ALI 7), Germany (2.5-3 m pax, ALI 6), Italy (0.715-1 m pax, ALI 4), Spain (1.5-2 m pax, ALI 5), United Kingdom (3.5-4 m pax, ALI 14), US (1-1.5 m pax, ALI 28)	-
Thailand	9.9	50	Australia (0.715-1 m pax, ALI 10), China (1.5-2 m pax, ALI 0), Germany (0.715-1 m pax, ALI 10), Hong Kong, China (2.5-3 m pax, ALI 12), Japan (2-2.5 m pax, ALI 15), Malaysia (1-1.5 m pax, ALI 11), Republic of Korea (1-1.5 m pax, ALI 6), Singapore (2.5-3 m pax, ALI 10), United Kingdom (1-1.5 m pax, ALI 10)	Chinese Taipei (1-1.5 m pax); India (0.715-1 m pax)
Tunisia	9.9	36	France (1-1.5 m pax, ALI 13)	-
Turkey	11.5	46	Germany (3.5-4 m pax, ALI 12), United Kingdom (0.715-1 m pax, ALI 11)	-
United Arab Emirates	11.3	20	Saudi Arabia (0.715-1 m pax, ALI 10), United Kingdom (1.5-2 m pax, ALI 14)	India (3-3.5 m pax); Iran (1-1.5 m pax); Pakistan (1.5-2 m pax); Bahrain (0.715-1 m pax); Egypt (0.715-1 m pax)
United Kingdom	12	90	Australia (1-1.5 m pax, ALI 14), Canada (2-2.5 m pax, ALI 12), Hong Kong, China (1-1.5 m pax, ALI 16), India (1.5-2 m pax, ALI 10), Japan (0.715-1 m pax, ALI 14), Norway (1.5-2 m pax, ALI 4), Pakistan (0.715-1 m pax, ALI 14), South Africa (1-1.5 m pax, ALI 14), Switzerland (3.5-4 m pax, ALI 14), Thailand (1-1.5 m pax, ALI 10), Turkey (0.715-1 m pax, ALI 11), United Arab Emirates (1.5-2 m pax, ALI 14), US (14.5-15 m pax, ALI 13)	-

PARTY A	WALI	NUMBER OF ASAS	WASA AGREEMENTS	TRAFFIC RELATIONS NOT APPEARING IN WASA
			PARTY B (TRAFFIC RANGE, ALI)	PARTY B (TRAFFIC RANGE)
United States	22.6	98	Argentina (0.715-1 m pax, ALI 5), Aruba (0,5-1 m pax ALI 34), Australia (1,5-2 m pax, ALI 8) , Belgium (0.715-1 m pax, ALI 25), Bolivarian Republic of Venezuela (1-1.5 m pax, ALI 10) , Brazil (2-2.5 m pax, ALI 15) , Canada (18-18.5 m pax, ALI 27) , China (2-2.5 m pax, ALI 14) , Colombia (1-1.5 m pax, ALI 15) , Costa Rica (1.5-2 m pax, ALI 28) , Denmark (0.715-1 m pax, ALI 28), Dominican Republic (3-3.5 m pax, ALI 34) , Ecuador (0.715-1 m pax, ALI 15), El Salvador (1-1.5 m pax, ALI 34) , Germany (7-7.5 m pax, ALI 42) , Guatemala (0.715-1 m pax, ALI 34), Hong Kong, China (1.5-2 m pax, ALI 17) , India (1.5-2 m pax, ALI 12) , Ireland (1.5-2 m pax, ALI 14) , Israel (1-1.5 m pax, ALI 25) , Jamaica (2-2.5 m pax, ALI 28) , Japan (11-11.5 m pax, ALI 18) , Italy (3-3.5 m pax, ALI 28) , Mexico (15.5-16 m pax, ALI 17) , Netherlands (2.5-3 m pax, ALI 25) , Netherlands Antilles (0.715-1 m pax, ALI 34), Peru (0.715-1 m pax, ALI 34), Philippines (1-1.5 m pax, ALI 29) , Republic of Korea (3-3.5 m pax, ALI 28) , Spain (1.5-2 m pax, ALI 18) , Sweden (0.715-1 m pax, ALI 7), Switzerland (1-1.5 m pax, ALI 28) , United Kingdom (14.5-15 m pax, ALI 13)	France (4.5-5 m pax) , Bahamas (3.5-4 m pax) , Chinese Taipei (2-2.5 m pax)

Notes: Parties to the top-67 agreements (i.e. those over 1 million passengers) are indicated in bold.
"m pax" stands for "million passengers".

Source: Computed by the WTO Secretariat on the basis of ICAO regulatory data and IATA traffic data.

(b) Comments

46. While corresponding to a large extent to trade patterns, these results seem to contradict traditional perceptions in the sector. It is generally deemed impossible to harmonize the bilateral ASA regime because bilateral agreements are so numerous and diverse. ICAO has recorded over 2200 bilaterals, and the total number of existing bilaterals is estimated to be over 3000, if not even 4000.

47. However, this perception is clearly unfounded in terms of volume of traffic covered. The QUASAR figures suggest that, in order to liberalize nearly two-thirds of world traffic, only 100 agreements involving 50 parties would need to be changed.³³

48. The top-100 agreements in terms of traffic all are all above the threshold of 715,000 passengers and, as Table B1 shows, the coverage of high-traffic bilateral relations in the WASA is particularly good. The WASA database covers 89 per cent of the traffic of bilateral relations over 715,000 passengers, compared with an estimated coverage for all bilateral ASAs of 70 per cent.³⁴

2. Impact of plurilateral agreements

(a) Findings

49. The WTO Secretariat has computed the traffic covered by plurilateral agreements, whether in existence or in the process of signature or ratification, as identified in ICAO's "Regulatory and Industry Overview"³⁵ on the basis of IATA traffic statistics. It has added up the traffic for all bilateral relations involved (e.g. for the Yamoussoukro II Agreement, 50x49 = 2450 traffic relations) and related it to total scheduled international traffic (496 million passengers), rather than to WASA traffic (348 million), since at present WASA does not record any plurilateral agreement.

50. As Table B2 illustrates, the traffic covered by plurilateral agreements is relatively high, accounting for 23.3 per cent of international traffic.

³³ These figures do not take into account any increases in traffic that would result from the opening-up of those 100 agreements.

³⁴ These figures exclude traffic with Chinese Taipei (15.9 million passengers), which is not an ICAO Contracting State.

³⁵ See *op. cit.*

Table B2
Share of total international scheduled traffic covered by plurilateral agreements, 2005

Plurilateral agreements	Total traffic covered by the plurilateral (pax)	Share of plurilateral in total international traffic
Andean Pact	1,068,223	0.2%
CARICOM-MASA	1,999,281	0.4%
Fortaleza	5,200,960	1.0%
Banjul	446,285	0.1%
CLMV	718,696	0.1%
ACAC	12,798,832	2.6%
CEMAC	423,328	0.1%
COMESA	1,693,025	0.3%
Yamoussoukro II	9,255,464	1.9%
IMT	4,132,715	0.8%
BIMP/EAGA	2,911,980	0.6%
MALIAT	2,489,974	0.5%
BST	3,076,749	0.6%
<i>WAEMU</i>	<i>1,131,880</i>	<i>0.2%</i>
<i>PIASA</i>	<i>239,578</i>	<i>0.1%</i>
<i>ACS</i>	<i>5,847,233</i>	<i>1.2%</i>
<i>ASEAN Roadmap</i>	<i>17,469,507</i>	<i>3.5%</i>
<i>US-EC</i>	<i>26,880,170</i>	<i>5.4%</i>
<i>EU-Morocco</i>	<i>4,100,435</i>	<i>0.8%</i>
<i>ECAA</i>	<i>13,681,311</i>	<i>2.8%</i>
Total	115,565,626	23.3%

Note: Agreements that are still in the signature/ratification process are indicated in italics.

Source: Computed by the WTO Secretariat on the basis of ICAO regulatory data and IATA statistical data.

(b) Comments

51. The high share of traffic covered by plurilateral agreements needs to be interpreted with caution. There are at least two caveats.

52. First, more than half of the traffic covered, i.e. 12.8 per cent, comes from agreements in the process of signature or ratification (*WAEMU*, *PIASA*, *ASEAN Roadmap*, *US-EU Air Transport Agreement*, *EU-Morocco*, *ECAA*) on the fate of which it is difficult to speculate. The *US-EU Air Transport Agreement* counts, in that respect, for 5.42 per cent of the traffic.

53. Second, even for those plurilateral agreements that have entered into force, the degree of effective implementation varies considerably, according to both operators and the parties concerned. The extensive literature of the Economic Community of Africa (ECA) about the difficulties generated by the non-application of the Yamoussoukro II declaration is a case in point.³⁶ Another example is a statement by the former Deputy Director of the Air Transport Bureau of ICAO, Chris Lyle who, in a recently published article, writes "The [agreements] related to the European Union are substantive in effect, as are the *CLMV*, *MALIAT* and the three current intra-ASEAN agreements (*BST*, *IMT* and

³⁶ See www.uneca.org/itca/Yamoussoukro

BIMP/EAGA). However, the others are each only partly functional. One reason for this is that there is no strong underlying economic authority for the regions concerned."³⁷

54. Against this background, the fact that most of these twenty plurilateral agreements have semi-liberal and liberal features akin to "classical open skies" and type G agreements needs to be seriously qualified.

3. Degree of openness of high-traffic agreements

(a) Findings

55. Table B3 contains the WALIs for the high-traffic bilateral ASAs, as well as for all the ASAs considered in the QUASAR.

Table B3
Weighted Air Liberalisation Index of high-traffic bilateral Air Services Agreements

ASAs concerned	WALI
Top-67 ASAs	16.6
Top-100 ASAs	16.1
Top-200 ASAs	15.4
All QUASAR ASAs (1970)	14.0

Source: Computed by the WTO Secretariat.

56. The WALI of the first 200 agreements by volume is of 15.4, compared with the only slightly lower WALI of 14.0 for the totality of the QUASAR ASAs (i.e. 1970). This figure needs to be contrasted with an ALI of zero for "traditional" ASAs³⁸, an ALI of 30 for "classical open skies" agreements³⁹, and an ALI of 50 for "more than open skies" agreements.⁴⁰

(b) Comments

57. These results might appear somewhat surprising at first glance. Given that the parties to "classical open skies" and "more than open skies" bilateral and plurilateral agreements include the largest aviation markets (e.g. US, EC, Singapore, Australia, New Zealand) one might have expected the high-traffic ASAs to be substantially more open, in terms of their WALIs, than smaller-traffic ASAs. This is the picture described, for instance, in ICAO's "Regulatory and Industry Overview".⁴¹

58. However, a closer analysis provides at least two sets of explanations for the above results. First, the outcome is affected by the absence of intra-EC traffic. If intra-EC ASAs had been included, they would have obtained an ALI of 50, which would have had to be weighted by the 192 million passenger intra-EC traffic (to be compared with a current WASA traffic of 348 million, or a rectified

³⁷ Airlines Business, November 2006. This article contains also some general considerations about the GATS and air transport services.

³⁸ Those including third and fourth freedom traffic rights, predetermination of capacity, dual approval of tariffs, substantial ownership and effective control, single designation, exchange of statistics and no provision for cooperative arrangements.

³⁹ Those including third, fourth and fifth freedom traffic rights, free determination of capacity, free pricing, substantial ownership and effective control, multi-designation, no exchange of statistics and provision for cooperative arrangements.

⁴⁰ Those including third, fourth, fifth, seventh freedom and cabotage traffic rights, free determination of capacity, free pricing, principal place of business, multi-designation, no exchange of statistics and provision for cooperative arrangements.

⁴¹ See *op. cit.*, paragraphs 2.2 and 2.3.

one of 348+192=540 million). The exclusion of intra-EC traffic lowers the WALI of the largest ASAs considerably.

59. Second, a large part of the biggest traffic relations are either not, or not yet fully, governed by liberal provisions. In case they are, the relevant provisions are not necessarily amended or recorded as such in WASA. Hence, they are not analysed in the QUASAR. The following examples illustrate this point:

- Not governed by fully liberal provisions
 - US-Japan: fourth largest WASA agreement in terms of traffic, between 11 and 12 million passengers, ALI 11;
 - Japan-Republic of Korea: sixth largest WASA agreement in terms of traffic, between 6.5 and 7 million passengers, ALI 14;
 - China-Republic of Korea: seventh largest WASA agreement in terms of traffic, between 5.5 and 6 million passengers, ALI 4;
 - Turkey-Germany: eighth largest WASA agreement in terms of traffic, between 3.5 and 4 million passengers, ALI 12;
 - US-China: twenty-fourth largest WASA agreement in terms of traffic, between 2 and 2.5 million passengers, ALI 14.
- Not yet governed by liberal provisions
 - Agreements between the US and individual EC Member States which are not "classical open skies" agreements (e.g. US-United Kingdom: third largest WASA agreement in terms of traffic, between 14 and 15 million passengers, ALI 13) pending the ratification by both parties of the US-EU Air Transport Agreement, which would bring the US-EC ALI from 22 to 32 for the 18 EC Members States that have registered an agreement with the US with ICAO.
- Governed by liberal provisions, but not yet amended as such in WASA
 - US-Mexico: second largest WASA agreement in terms of traffic, between 15 and 16 million passengers, WASA ALI 17, actual ALI unknown;
 - Australia-New Zealand: ninth largest WASA agreement in terms of traffic, between 3.5 and 4 million passengers, ALI 10. With the Trans-Tasman Single Aviation Market (see compilation, page 197, paragraph 47), this ALI should be in the order of 50;
 - Switzerland-United Kingdom: tenth largest WASA agreement in terms of traffic, between 3.5 and 4 million passengers, ALI 14, but in fact covered by the EC-Switzerland agreement, which is a common market and therefore would rank in the vicinity of 50;
 - Switzerland-Germany: sixteenth largest WASA Agreement in terms of traffic, between 2.5 and 3 million passengers, ALI 6 (same considerations apply as for Switzerland-United Kingdom).
- Governed by liberal provisions but not recorded at all in WASA
 - US-France: between 4.5 and 5 million passengers (a "classical open skies" agreement);
 - Denmark-Norway: between 1 and 1.5 million passengers. Covered by the European Economic Area (EEA), which is a common market, and whose ALI would amount to about 50.

60. While these examples underline the incompleteness of the WASA sample, one should also note that ICAO has added to its 2005 edition of WASA, *proprio motu*, without registration by the parties concerned, the largest bilateral agreement in volume terms, i.e. US-Canada (between 18 and 18.5 million passenger), whose elements give it an ALI of 27.

4. Restrictive market access features prevalent in bilateral agreements

(a) Findings

61. The following restrictive market access features are commonly contained in bilateral ASAs:

- Dual approval of tariffs are found in 85 per cent of agreements, covering 73 per cent of the traffic.
- Substantial ownership and effective control (SOEC) clauses are found in 90 per cent of agreements, covering 90 per cent of the traffic. By comparison, principal place of business provisions are found in 6 per cent of agreements, covering 8 per cent of the traffic, while community of interest clauses are found in less than 1 per cent of agreements, covering 0.1 per cent of the traffic.⁴²
- Exchange of statistics, a key control instrument for governments, is still included in 77 per cent of agreements, covering 63 per cent of the traffic.
- Only 6 per cent of the agreements, covering 26 per cent of the traffic, contain a clause explicitly allowing cooperative arrangements among airlines.

(b) Comments

62. Current practice may be more liberal than what these figures seem to imply.

63. With regard to dual approval of tariffs, Civil Aviation Directorates no longer seem to control tariffs in a systematic manner. Such control, which would require considerable resources, has become extremely difficult in practice, since, with the advent of yield management systems, not a single passenger on the same plane pays the same tariff. According to industry practitioners and government officials, control of tariffs is done *ex post* and only in case of complaints by competitors. It is relatively difficult to document these practices, however. The same could be said, *mutatis mutandis*, for the exchange of statistics but, again, this point is difficult to document.

64. As for substantial ownership and effective control, the relevant clause has remained dominant. Still, three qualifications are necessary.

65. First, as a result of the November 2002 European Court of Justice (ECJ) judgements⁴³, any bilateral agreement by an EC Member State is illegal under EC law if it does not contain a withholding/ownership "Community clause" to cover the possibility of designating airlines of other EC Member States. The WASA database records 888 ASAs by EC Member States, accounting for 21 per cent of the WASA traffic (nearly 73 million passengers out of 348 million).

66. Following the ECJ decision, the EC Commission has been mandated to conclude aviation agreements on behalf of the Member States with a number of third-country partners, such as the US (the US-EU Air Transport Agreement, covering 28.6 million passengers and 5.4 per cent of total scheduled traffic⁴⁴), Morocco (Euro-Mediterranean Agreement, covering 4.1 million passengers and

⁴² The WASA does not code withholding/ownership provisions for 3.05 per cent of agreements, representing 2.26 per cent of the traffic.

⁴³ European Court of Justice (2002), *Commission v. the United Kingdom, Denmark, Sweden, Finland, Belgium, Luxembourg, Austria, Germany*, cases C-466/98, C-467/98, C-468/98, C-469/98, C-471/98, C-472/98, C-475/98 and C-476/98.

⁴⁴ The comparison with WASA traffic is difficult because only 18 EC Member States out of 25 have, thus far, an ASA with the US which is recorded in the WASA database and significant portions of the US-EC

0.8 per cent of world traffic) and eight South-East-European partners (the ECAA⁴⁵, covering 13.6 million passengers and 2.8 per cent of total scheduled traffic). The Commission has also been mandated to negotiate, on behalf of the Member States, "horizontal agreements", i.e. agreements aimed at modifying only the withholding/ownership clause in existing bilateral ASAs (as of July 2006, 342 such agreements have been concluded, involving 23 non-EC parties). Individual EC Member States have also started re-negotiating their own bilateral ASAs, with the aim of introducing a "Community clause" (as of July 2006, 84 agreements have been amended, involving 40 non-EC parties).⁴⁶

67. The second factor that qualifies the pervasiveness of the substantial ownership and effective control clause is that variations in restrictiveness do not appear in the WASA coding. For instance, a SOEC clause can cover a 100 per cent national ownership requirement, a 75 per cent ownership requirement (e.g. US) or a 49 per cent ownership requirement (e.g. EC, waived for other EC Members States' investors, who can own 100 per cent of any EC airline).

68. The third qualification concerns the fact that substantial ownership requirements, but also the effective control prerequisite, are often waived in practice. Aerolineas Argentinas, for instance, was never denied the right to fly although it had two successive Spanish majority owners. The same was true for Sabena when it was owned by Air France and then by Swissair, and the same is hoped for by the foreign owners of KLM (i.e. Air France)⁴⁷, and of Swiss (i.e. Lufthansa) when the respective merger processes will be completed.

69. This situation is, however, legally uncertain, as there is no entitlement to a permanent waiver. A threat by the US Department of Transport (DOT) to refuse such a waiver dissuaded British Airways from taking over KLM (see compilation, page 221, footnote 4). In Latin America, Lan Peru and the companies owned by Brazil's Synergy Group have faced at various times similar difficulties. Nevertheless, Latin America, with at least five trans-nationally-owned airlines (i.e. TACA, LAN, the Synergy Group's carriers⁴⁸, Aerolineas and Gol) appear to certain observers⁴⁹ as a place where a "*lex mercatoria*"⁵⁰ with regard to the withholding/ownership clause is progressively emerging.

70. A more systematic follow-up of waivers and examples of "*lex mercatoria*" could be undertaken on the basis of flights effectively flown and the ownership structure of airlines as contained, for instance, in the annual ownership reports of Airline Business. All flights operated by the airlines recorded in the compilation (page 220, Table 1, second row, and Table A1, pages 230-233, listing airlines trans-nationally owned) would fall under this category, if the nationality of their owner has not changed since.

traffic (e.g. France-US) escape the WASA reach. At any rate, the US-EU Air Transport Agreement would account for a higher share of traffic if the numerator were the WASA traffic rather than total traffic.

⁴⁵ Once fully implemented, the ECAA will integrate Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the FYROM, Romania, Serbia and Montenegro and the U.N. Mission in Kosovo into the EC's internal aviation market, which consists of the 25 EC Member States as well as Norway and Iceland (see also http://ec.europa.eu/transport/air_portal/international/pillars/common_aviation_area/ecaa_en.htm).

⁴⁶ The complete list of extra-EC parties involved in horizontal agreements and in individual EC Member States' re-negotiations is contained in Annex B-II.

⁴⁷ Insofar as the term "foreign" can be applied to intra-EC ownership.

⁴⁸ In Latin America, these are: Avianca and its subsidiary SAM in Colombia, Ocean Air in Brazil, Wayraperú in Peru and VIP in Ecuador.

⁴⁹ Carlos Grau Tanner, IATA Director for Government and Industry Affairs. This is a personal opinion that does not engage IATA.

⁵⁰ The body of pragmatic rules and principles laid down by medieval merchants to regulate their dealings that replaced the various feudal laws and Roman law, which were not sufficiently responsive to the growing demands of commerce.

71. With regard to cooperative arrangements, the notion of "lex mercatoria" appears even more relevant. The specialized literature, and in particular Airline Business's annual reports on alliances and code-sharing, shows that the geographical scope of cooperative arrangements spans well beyond the 126 WASA agreements that contain a clause explicitly allowing them.

72. Individual decisions taken by the States concerned outside the framework of bilateral agreements may explain this situation, but these decisions are difficult to document. However, in view of the quasi-universality of the practice⁵¹ and its inherent bilateral nature, it seems strange that cooperative agreements' clauses are not more systematically included within bilateral agreements.

5. Typology of bilateral agreements

(a) Findings

73. By combining the main market access features of the QUASAR coding system, 1536 different kinds of agreements are theoretically possible⁵², i.e. nearly as many as the number of agreements in WASA (i.e. 1970).

74. However, a detailed examination of bilateral agreements shows that just seven "types", combining features on freedoms, designation, withholding/ownership, tariffs and capacity, cover 1424 agreements and 72 per cent of the WASA traffic (and possibly more, since ICAO has not fully coded 15 per cent of its registered agreements due to incomplete notifications).

(b) Comments

75. It is often said that one of the reasons that would prevent the establishment of a multilateral framework in aviation is the "infinite variety" of bilaterals. This commonly held perception is, however, invalidated by the figures above, which imply that the key market access provisions of the 1424 agreements concerned could theoretically be replaced by just seven sets of provisions.

76. It could still be argued that the diversity of ASAs is attributable to three other provisions, namely:

- Confidential memoranda, which are not available for analysis;
- Differences in route schedules. However, although difficult to examine (see Methodological notes in Part D), it is likely that a closer look at the routes granted and effectively flown would show very similar patterns for each ASA type (i.e. unlimited granting of city-pairs for type G, capital cities and two or three of the largest cities for the preceding types);
- Capacity. The level of capacity and number of frequencies allowed for each city-pair would seem to be the only remaining factor of diversity. Its relevance could be further explored, however, for instance by relating capacity levels granted to the total traffic of the two airports concerned (see also section B.4(f) in this regard).

6. Analysis by type

(a) Findings

77. As illustrated by section 3 above, an analysis based on WALIs is not very informative. The top-67 WASA agreements (i.e. those covering over 1 million passengers), as well as the top-100 and

⁵¹ Third country code-sharing arrangements are rarer, however, though increasingly frequent.

⁵² In this regard, see the Methodological notes in Part D.

top-200 WASA agreements in terms of traffic show a relatively similar average WALI to that of the full WASA sample (see Table B3). This is because the high-traffic agreements have not proven to be necessarily more liberal than the lower-traffic ones.

78. ICAO has developed a rudimentary classification of ASAs based on whether they follow one of the three approaches – i.e. traditional, transitional and full liberalization – defined in its Template Air Services Agreements. However, the allocation of the over 2200 agreements contained in WASA among these three approaches – 1982 traditional, 154 transitional and 65 full liberalisation ASAs – does not allow for a particularly informative analysis either. The QUASAR types prove more useful in this regard.

79. Table B4 illustrates the situation for the seven QUASAR types in terms of number of ASAs, volume and percentage of traffic covered, as well as their average WALI.

Table B4
Analysis by Air Services Agreement type

Type	Number of agreements	Traffic covered (million pax)	Percentage of WASA traffic	WALI
A	221	18.4	5.3%	0.3
B	182	19.7	5.6%	4.2
C	432	30.2	8.7%	6.2
D	99	10.4	3.0%	10.2
E	267	43.0	12.3%	10.3
F	154	71.1	20.4%	15.5
G	69	58.0	16.6%	30.4
i	302	56.0	16.0%	10.6
o	244	41.8	12.0%	14.3

Source: Computed by the WTO Secretariat

(b) Comments

80. An analysis by type traces a rather liberal picture.

- The most liberal type, type G⁵³ (comprising multi-designation; substantial ownership and effective control, principal place of business or community of interest; free pricing or dual disapproval of tariffs; fifth freedom traffic rights; and free determination of capacity), covers 3.5 per cent of the agreements (69), but 16.6 per cent of the traffic.
- The next type in terms of openness, type F (comprising multi-designation, substantial ownership and effective control, double approval, fifth freedom traffic rights and Bermuda I) covers 7.8 per cent of the agreements (154), but 20.4 per cent of the traffic.
- The above data suggest that, for more than one third of the WASA traffic, i.e. 129 million passengers, there are relatively few restrictions and very similar rules.

⁵³ Type G covers "classical open skies" and "more than open skies" agreements. It is the most liberal type identified, but not all of the features that define it are necessarily the most liberal ones (e.g. substantial ownership and effective control may still be present).

81. A tendency towards openness and common rules is also manifest in recent plurilateral agreements. If they were all ratified and fully implemented, plurilateral agreements would result in the application of liberal or semi-liberal provisions to 115 million passengers. Added to the 129 million passengers covered by type G and F bilateral agreements, they would nearly double the share of total scheduled traffic covered by liberal provisions.

7. QUASAR types and ICAO's Template Air Services Agreements

(a) Findings

82. ICAO devised the Template Air Services Agreements for the Fifth ICAO Worldwide Air Transport Conference. The TASAs are constructed as three sets of provisions following three possible approaches: traditional, transitional and full liberalization. ICAO has allocated the over 2200 ASAs contained in the WASA database to these three categories, in what could be termed a "top-down" approach.

83. The QUASAR types have instead been constructed in a "bottom-up" manner. The WTO Secretariat used the coding of the WASA database to assess the 1970 ASAs retained for its analysis. An examination of this coding revealed recurrent patterns that led to the identification of the seven types.

84. The various elements making up each type were found to have exact counterparts in the TASAs, but not necessarily within the same approach. For a given type, the corresponding provisions of the TASAs combined different approaches.

85. Table B5 illustrates the correspondence between the QUASAR types and the provisions of the TASAs. The text corresponding to the TASAs' provisions for each type is contained in Annex B-I.

Table B5
Correspondence between QUASAR types A to G and the ICAO Template Air Services Agreements provisions

	Freedoms	Designation	Withholding/Ownership	Tariffs	Capacity
TYPE A	3 rd and 4 th only Art TD 2.2.c page A-9 + Annex I, Section 1, TD.A, page A-92	Single designation Art TD 3.1, page A-11	Substantive ownership and effective control Art TD 4 a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Pre-determination Art TD 16.1-5, pages A36- 37
TYPE B	3 rd and 4 th only Art TD 2.2.c page A-9 + Annex 1, Section 1, TD.A, page A-92	Multi-designation Art TS 3.1, page A-12	Substantive ownership and effective control Art TD 4.a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Pre-determination Art TD 16.1-5, pages A- 36-37
TYPE C	3 rd , 4 th , 5 th Art TS-FL 2.2.c & 3, page A-9 + Annex I, Section 1, TS option 1.A-B, page A-92	Single designation Art TD 3.1, page A-11	Substantive ownership and effective control Art TD 4.a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Pre-determination Art TD 16.1-5, pages A- 36-37
TYPE D	3 rd , 4 th , 5 th Art TS-FL 2.2.c & 3, page A-9 + Annex I, Section 1, TS option 1.A-B, page A-92	Single designation Art TD 3.1, page A-11	Substantive ownership and effective control Art TD 4.a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Bermuda I Art TS 16.1-5, pages A-37- 38
TYPE E	3 rd , 4 th , 5 th Art TS-FL 2.2.c & 3, page A-9 + Annex I, Section 1, TS option 1.A-B, page A-92	Multi-designation Art TS 3-1, page A-12	Substantive ownership and effective control Art TD 4.a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Pre-determination Art TD 16.1-5, pages A- 36-37
TYPE F	3 rd , 4 th , 5 th Art TS-FL 2.2.c & 3, page A-9 + Annex I, Section 1, TS option 1.A-B, page A-92	Multi-designation Art TS 3-1, page A-12	Substantive ownership and effective control Art TD 4.a, page A-16	Double approval Art TD 17.1-2, pages A-41-42	Bermuda I Art TS 16.1-5, pages A-37- 38
TYPE G	3 rd , 4 th , 5 th Art TS-FL 2.2.c & 3, page A-9 + Annex I, Section 1, TS option 1.A-B, page A-92	Multi-designation Art FL 3-1, page A-14	Substantive ownership and effective control Art TD 4.a, page A-16 <i>or</i> Principal Place of Business Art TS 4, option 2.a., page A-17 <i>or</i> Community of interest Regional or Plurilateral TASA (Attachment B), page B-11, TD 2.a	Free Pricing Art FL 17, page A-51 <i>or</i> Double Disapproval Art TS 17.1-17.2, option 1-2, pages A-49-50	Free Determination Art FL 16.2-4, pages A-39- 40

Notes: TD: Traditional approach; TS: Transitional approach; FL: Full liberalization approach

Source: Compiled by the WTO Secretariat.

(b) Comments

86. The provisions of the TASAs are directly inspired by "real life" examples and by the various editions of the ICAO Manual of Regulation.⁵⁴ From a technical perspective, they could perfectly replace the corresponding market access features of the bilateral ASAs concerned.

B. REGIONAL ANALYSIS

87. At the outset, it should be noted that the regions used correspond to those normally identified in WTO publications. They are based on geographical criteria and, therefore, not homogeneous in terms of size, number of countries or territories (e.g. 3 in North America, 54 in Africa), level of development or volume of traffic. Hence the value of a percentage point identified in the charts and tables for Africa or the Middle East is much lower than in Asia and Oceania or North America. The only percentage data that are comparable among regions are those contained in the "all regions" profile.

88. The charts presented in the Appendix to Part B, "Global and Regional Profiles", follow, *mutatis mutandis*, the same structure as those contained in the profiles by Contracting State in Part C of the present document.

1. Analysis by Air Liberalisation Index range

89. The most prevalent range of ALI is the 10-14 range⁵⁵, which covers 41 per cent of WASA traffic. It is the most common range, in terms of traffic, in five out of seven regions, i.e. Africa, Asia and Oceania, Europe, the Middle East and South and Central America and the Caribbean.

90. The 10-14 range comes only third in the Commonwealth of Independent States (CIS) region, where more restrictive index values prevail, and in North America, where more liberal ones are more common. In South and Central America and the Caribbean, the most liberal range, 26-50 is as common, in terms of traffic covered, as the 10-14 one, probably because of the numerous "classical open skies" agreements concluded with North America and the liberal policy of some Contracting States of the region (e.g. Costa Rica, with a WALI of 22).

91. The most liberal range, 26-50, accounts for 16 per cent of worldwide WASA traffic. To reach an ALI of more than 25, an ASA must contain most of the features of a "classical open skies" agreement or, at least, half of the characteristics of a "more than open skies" agreement. This level of ALI corresponds almost exclusively to type G agreements.⁵⁶ This means, in essence, that one passenger out of six travels under a "classical open skies" or "more than open skies" regime. The next most liberal range, 20-25, covers 2 per cent of worldwide WASA traffic.

92. The more liberal ranges, 26-50 and 20-25 are completely marginal in the CIS, Africa, the Middle East, and, perhaps more surprisingly, Asia and Oceania, where big volumes combine with low ALIs (see also Table B1). However, the effects of certain plurilateral agreements (BIMP/EAGA, BST, IMT, CLMV, ASEAN Road Map, MALIAT) or bilateral agreements (Australia-New Zealand Trans Tasman Single Aviation Market) in the Asia and Pacific region, whose ALIs are well above 25, are not taken into account by these WASA figures.⁵⁷

⁵⁴ The latest edition (i.e. the fourth one) is dated 2004.

⁵⁵ The features that make up these 10-14 points and their variations will be analysed in more details in a second document as well as the features determining other ranges.

⁵⁶ Type G agreements all rank between 24 and 50, with a WALI of 30.42; type F agreements all rank between 14 and 18, with a WALI of 15.54.

⁵⁷ A more detailed analysis of the WALIs and traffic impact of plurilateral agreements will be conducted in a second document.

93. The two most liberal traffic ranges also account for a surprisingly low proportion of traffic in Europe. However, it should be recalled that intra-EC traffic relations are excluded (ALI 50; traffic 194 million passengers) and that several plurilateral and bilateral agreements concluded by the EC (e.g. EC-Switzerland, or, pending ratification, the ECAA or US-EU Air Transport Agreement) as well as some existing high-traffic liberal agreement (e.g. US-France) are not taken into account. This qualification would need to be borne in mind more generally for all the results obtained for Europe.

94. In North America, the two most liberal ranges account for nearly half of the traffic. This is due, notably, to the liberal policies and high-traffic volumes of the US, but also of Canada. These are the only developed countries with WALIs higher than 20.⁵⁸ Mexico, which in line with WTO practices has been included in the North American region, contributes, to a certain extent, to these results. Its WALI of 14.6, though lower than that of Canada and the US, exceeds that of Contracting States with similar size, population and GDP per capita and of many developed countries.

95. The liberal policies and high traffic of North America have strong knock-on effects in South and Central America and the Caribbean, for which North America represents 53 per cent of the traffic and where a number of "classical open skies" agreements have been concluded with the US (e.g. US-Costa Rica, US-Dominican Republic, US-Guatemala, US-El Salvador, US-Jamaica). As for Europe, traffic with North America is largely liberalized, with the notable exception of the UK. Ratification of the US-EU Air Transport Agreement would provide an additional push.

96. The most restrictive ranges, 0-4 and 5-9, account for, respectively, 12 per cent and 14 per cent of worldwide WASA traffic. They are mostly found in the CIS region, where they represent 80 per cent of the traffic, but also in Africa and the Middle East.

2. Analysis by type of agreements

97. Types are analysed in four groups: G and F (liberal and quasi-liberal), D and E (types with two liberal features, i.e. fifth freedom and Bermuda I for D, and fifth freedom and multi-designation for E), C and B (types with only one liberal feature, i.e. multi-designation for B and fifth freedom for C) and type A ("traditional" agreements scoring zero). Type "o", all other ASAs, may cover very different situations, from totally illiberal to liberal, and it is too heterogeneous to draw any general conclusions.⁵⁹

98. The most liberal types, type G ("classical open skies" and "more than open skies") and F represent together 35 per cent of the traffic. They are prevalent in the two American regions, and their combined share is much lower in other regions.

99. Types which encompass two liberal features, i.e. D and E, account together for 15 per cent of worldwide WASA traffic. Type D is insignificant in every region except Asia and Oceania, where it accounts for 6 per cent of the traffic. Type E is the prevalent type in the Middle East and Africa (24 per cent), while it is marginal in the CIS and North America.

100. Types B and C, which encompass only one liberal feature, account together for 15 per cent of global traffic. They are most prevalent in the CIS, Africa and the Middle East, and of marginal importance in North America.

⁵⁸ All other Contracting States having a WALI higher than 20 are developing countries, namely: Aruba, Netherlands Antilles, El Salvador, Honduras, Guatemala, Dominican Republic, Marshall Islands, Nicaragua, Grenada, Jamaica, Peru, Costa Rica and Nauru.

⁵⁹ Type "i" (incomplete WASA coding) which accounts for 16 percent of the traffic globally and is mostly present in the CIS, Europe and Africa has been discarded. This "incomplete coding" category has no equivalent in the ALI ranges, as any incomplete or un-coded features is given a "0" value by the QUASAR methodology, thereby lowering the ALI of the bilateral agreement concerned..

101. Type A, i.e. the "traditional" ASA, accounts globally for only 5 per cent of WASA traffic, and is particularly frequent in the Middle East, where it accounts for 11 per cent of the traffic.

3. Analysis by traffic destination

102. Regional traffic patterns reflect a variety of factors, including size, geography, levels of economic activity. They must be interpreted with care. Also, it is important to bear in mind that traffic relations are not symmetrical when expressed in percentages: for example, the traffic between Europe and Africa constitutes 10 per cent of overall traffic to and from Europe, but only 61 per cent of traffic to and from Africa.

103. Intra-regional traffic ranks first in three regions, i.e. Asia and Oceania, where it accounts for 70 per cent of the traffic, North America, where it stands at 40 percent, and Europe, where it covers 35 per cent.⁶⁰ It ranks second in South and Central America and the Caribbean, with traffic with North America ranking first, Africa and the Middle East, where the largest share of the traffic is with Europe. In the CIS, instead, intra-regional traffic ranks third, with traffic with Europe and Asia and Oceania taking, respectively, the first and second places.

104. The importance of intra-regional traffic gives particular weight to regional plurilateral liberalization initiatives.

105. As for inter-regional traffic patterns, they correspond to a very large extent to goods and services trade flows, historical links and geographical proximity. There are very few, if any, surprise observations in that regard, as the following figures show.

106. For Africa, traffic to Europe comes first (61 per cent), followed distantly by traffic with Asia and Oceania, the Middle East, and North America. Traffic with South and Central America and the Caribbean and with the CIS is virtually inexistent.

107. For Asia and Oceania traffic with Europe and North America rank first at 13 per cent, with the bulk of the traffic being intra-regional. Other regions represent only marginal shares.

108. Traffic with Europe is by far the most important for the CIS, accounting for 66 per cent of total traffic, followed distantly by Asia and Oceania, with 14 per cent, North America and the Middle East. Traffic with Africa and South and Central America and the Caribbean is trivial.

109. For Europe, traffic is the least concentrated of all regions. Aside from intra-European traffic, which accounts for 35 per cent, inter-regionally North America comes first, at 25 per cent of total traffic, followed by Asia and Oceania at 15 per cent, Africa at 10 per cent, and the CIS, South and Central America and the Caribbean and the Middle East all standing at 5 per cent.

110. For Middle East, Europe comes first with 41 per cent of total traffic, followed by Asia and Oceania and North America. The other regions only account for more marginal traffic.

111. For North America, Europe also comes first, with 27 per cent of total traffic, followed by Asia and Oceania and South and Central America and the Caribbean. Traffic with all other regions is minor.

112. Finally, South and Central America and the Caribbean is the only region where Europe, with 30 per cent of total traffic, ranks second. For obvious reasons, it trails after North America, which accounts for 53 per cent of the traffic. The share for Asia and Oceania seems particularly low,

⁶⁰ Intra-European traffic excludes intra-EC traffic.

notably in view of at least one trans-Pacific plurilateral air transport agreement, the MALIAT, and numerous trans-Pacific trade agreements.

4. Analysis by features

(a) Fifth freedom traffic rights

113. Fifth freedom traffic rights are granted in two-thirds of all agreements which, in turn, cover close to 80 per cent of global traffic. Of course, the share of fifth freedom traffic in total traffic is much lower, because not all rights are used and because third and fourth freedom traffic constitutes the bulk of the traffic. The identification of fifth freedom traffic flows has been impossible with the set of available data and, to the Secretariat's knowledge, it has never been attempted. Estimates might be possible in the context of a longer-term project requiring relatively costly data sets.⁶¹

114. Like multi-designation, fifth freedom rights are frequently associated with "classical open skies" agreements. Traffic coverage of almost 80 per cent implies, however, that fifth freedom is present in many more agreements than just types F and G. Somewhat paradoxically, this may cast doubts on the degree of openness implied. While frequently used to introduce third-party competition on a given route, fifth freedom would not be granted so widely if it had such radical effects.

115. Two technical elements may contribute to explaining these findings. First, WASA only codes the existence or absence of a clause granting fifth freedom rights, but does not indicate if these rights are unlimited or limited to some, or even just one city-pair. A proper assessment would necessitate a detailed analysis of the route schedules, a probably very revealing, but complex and time-consuming exercise (see Methodological notes in Part D).

116. Second, a closer look at the rights effectively exercised would probably show that fifth freedom is really needed only by a handful of Contracting States. Due to their geographic situation or insufficient hinterland, carriers may need to serve intermediary or beyond destinations to operate economically viable services. For other carriers, fifth freedom rights may be of marginal importance, and be used only to generate additional revenue while aircraft are repositioned. In most instances, carriers prefer to serve beyond markets either directly, if it makes commercial sense, or otherwise via code-shares and alliances.

117. At regional level, variations appear relatively limited, save for the CIS, where fifth freedom rights are granted in ASAs accounting only for 29 per cent of the traffic. In all other instances, the granting of fifth freedom concerns two-thirds or more of the traffic covered by the agreements concerned.

(b) Seventh freedom traffic rights

118. Seventh freedom rights remain, as expected, a marginal feature. They are granted only in 39 agreements (2 per cent of all QUASAR agreements), covering about 6 per cent of the WASA traffic. However, this feature is present in all regions, even if only marginally in the CIS, Africa, Asia and Oceania, and the Middle East.

119. It should be borne in mind, however, that the WASA coding does not distinguish between seventh freedom rights for cargo, a more common feature, and seventh freedom rights for passengers,

⁶¹ The IATA and OAG data sets could provide the starting point for the estimation of fifth freedom traffic. IATA and OAG data would allow to distinguish, within direct services (e.g. services operated under the same flight number), between non-stop flights (i.e. third and fourth freedom flights) and other flights where a third city is served (i.e., either flights entailing consecutive cabotage – a very rare feature – or flights with a fifth freedom component).

a very uncommon feature. Furthermore, it has not been possible to identify seventh freedom traffic flows with the set of data available to the Secretariat. They might, however, be estimated in the context of a longer-term project, using the same costly data sets as for fifth freedom traffic.

(c) Cabotage traffic rights

120. The granting of cabotage is an extremely rare feature in WASA. It appears in only two agreements, i.e. China-Albania and New Zealand-Brunei Darussalam, which cover very little traffic.

121. Cabotage traffic has not been identified as such by the Secretariat. In view of the low number of agreements involved, given the appropriate data sets it might be possible to identify whether such rights are used, and it might even be feasible to estimate the traffic. Further analysis could include at least one additional agreement not recorded in WASA, which covers significant traffic (i.e. Australia-New Zealand, with between 3.5 and 4 million passengers). Moreover, several plurilateral agreements covering several million passengers contain cabotage rights implicitly or explicitly (e.g. EEA, ECAA).

(d) Designation

122. The results obtained for multi-designation clauses are comparable to those for fifth freedom traffic rights. While traditionally considered as a liberal and modern feature, associated with "classical open skies" agreements, multi-designation is in fact not confined to these kinds of ASAs. Globally, this feature appears in 1063 agreements (54 per cent of QUASAR agreements), covering close to 80 per cent of WASA traffic. However, in most instances, Contracting States have only one international scheduled airline and would therefore not actually need multi-designation, even if this situation is progressively changing with the multiplication of low-cost carriers operating international services, notably in Asia.

123. Aside from the CIS, where it accounts for 42 per cent of the traffic, in all other regions multi-designation covers more than two-thirds of the traffic. It accounts for nearly 95 per cent in North America.

124. WASA coding does not distinguish between double and multiple designation. Identifying instances where designation is limited to two airlines might be possible, but it would require using ICAO's Database of Aeronautical Agreements and Arrangements (DAGMAR) to access the text of the agreements.⁶² Nevertheless, the fact that, in numerous instances, designation may be limited to two airlines is not necessarily a restrictive feature, provided that the parties involved do not have more than two international airlines each.

125. It might be interesting to analyse changes in the number of airlines by Contracting State over time, taking into account the type of traffic carried (national, international, scheduled, non-scheduled) and fluctuations in the participation of low-cost carriers, to see whether the need for multi-designation has increased and whether the agreements have followed suit.

(e) Withholding/ownership

126. The substantial ownership and effective control criterion (SOEC) remains overly dominant, representing about 90 per cent of total traffic, and exhibits very little regional variation.⁶³ The

⁶² Out of the 2204 WASA agreements, only 1837 are recorded in DAGMAR and the Secretariat would need to obtain the text of the remaining agreements. ICAO's DAGMAR is available from: http://www.icao.int/applications/dagmar/main.cfm?UserLang=_e

⁶³ SOEC accounts for 91 per cent of traffic in Europe. An important qualification results from the November 2002 European Court of Justice rulings, which make the community of interest criteria compulsory for all agreements involving EC Member States

pervasiveness of the SOEC criterion, however, needs to be qualified in at least two respects. First, as discussed earlier (see section 4 of the Global Analysis), the WASA only codes the nature of the withholding/ownership provision, not its actual content, which may be more or less restrictive. Second, waivers to this requirement are widespread. Hence, a statistical follow-up of waivers granted would also show that reality is more complex and more liberal, though less stable, than these figures might suggest.

127. The principal place of business criterion accounts for less than 8 per cent of overall traffic. It is found predominantly in Asia and Oceania, in agreements covering 14.5 per cent of the regional traffic, in North America (5.6 per cent) and in Europe (5.2 per cent). In other regions, this criterion is virtually inexistent.

128. The community of interest criterion accounts for about 2 per cent of the traffic in the CIS region and is insignificant in all other regions.

129. Finally, WASA contains an "undetermined" category which accounts for 2 per cent of global traffic, but 18 per cent in the CIS region.

(f) Capacity

130. Predetermination is the dominant capacity feature, accounting for about 44 per cent of world traffic. However, it represents over 90 per cent of the traffic in the CIS, and only about 10 per cent in North America.

131. Anecdotal evidence⁶⁴ suggests that predetermination of capacity is a restrictive market access feature, even if the actual effects may vary widely in practice. A predetermination clause limiting capacity to a level well above the commercial potential of a city-pair is in practice equivalent to a free determination clause.

132. Details of capacity clauses are often contained in confidential memoranda that are not notified to ICAO. Even if available, e.g. through the ICAO DAGMAR application, it would be difficult to assess whether these actually restrain traffic as long as the route schedules are not taken into account.

133. Two sets of benchmarks could be used, nevertheless, to judge the degree of openness of capacity and routes. The first is of commercial nature: Are the individual city-pairs covered by the route schedule of commercial interest? Are commercially attractive city-pairs missing from the schedule? Do the capacity clauses (frequencies, number of seats, change of gauge) offered by the agreement exhaust the commercial potential of the city-pairs covered? Information about the commercial potential of city-pairs is highly valuable and IATA, for instance, organizes regular meetings ("routes") on this subject. In practice, this information is concentrated with the two airlines of the two countries served plus the major "global airlines" and fifth and sixth freedoms carriers, CRS vendors (when providing MIDT services), some very specialized consulting firms (Air Transport Intelligence (ATI), the Centre for Asia Pacific Aviation (CAPA), OAG) and the planning sections of aircraft manufacturers. However, the different view taken by Boeing and Airbus with regard to the intensification of the hub-and-spoke model (possibly best served by A380s) versus the multiplication of city-pair links (possibly best served by the Boeing 787s) is an example of the uncertainties surrounding such information. The same goes for the capacity granted on a given city-pair, e.g. only a handful of experts would know if two flights a week between Paris and Chengdu are restrictive or not.

⁶⁴ According to air negotiators, capacity and route features are key because agreements tend to be very similar (virtually all of them include substantial ownership and effective control and dual approval of tariffs, which is never applied in practice except on denunciation) and because what airlines are predominantly interested in, when briefing their national governments, is the commercial potential of city-pairs.

134. The second type of benchmark consists of a comparison of the patterns of capacity and routes granted by a country to its partners within a given ASA type. This comparison could take the form of a matrix of routes, as exemplified by Table B6. For each route, the level of capacity granted could be assessed via an index. Such an index would take into account a number of different elements, including:

- total international traffic of the two airports concerned;
- the relative size of these two airports, as the volume of traffic between a given city-pair is largely determined by the smallest of the two airports concerned (e.g. Brussels-Beijing versus London-Beijing);
- the level of development of the parties concerned, insofar as it influences the volume and nature of the traffic (scheduled versus non-scheduled, business versus economy class), through indicators such as GDP per capita or the share of air passenger travel in total trade;
- the distance between the two airports;
- the capacity granted for the city-pair,⁶⁵ and, possibly
- the load factor.

Table B6
Template for the comparison of routes and capacity granted

Party A	Bilateral partners for type F ASAs: parties B, C, D and E				
	1 st largest city	2 nd largest city	3 rd largest city	4 th largest city	5 th largest city
1 st largest city	B,C,D	C,D			
2 nd largest city	B,F				
3 rd largest city					
4 th largest city					
5 th largest city					

Source : WTO Secretariat

135. Such comparisons are subject to caveats. For example, there are obvious reasons why the capacity clause of an agreement, say between Mali and China on capital cities (Bamako-Beijing), is lower than the capacity clause between Beijing and London. Still, it would allow for useful inferences when the cities concerned are located at similar distances, have similar levels of development and similar traffic volumes (e.g. Beijing on the one hand, Paris, Frankfurt and London on the other).

136. The second most frequent capacity clause is Bermuda I, which accounts for 26 percent of world traffic, with limited regional variation. The only exception is the CIS region, where, in light of the pervasiveness of predetermination, Bermuda I is only found in ASAs covering less than 4 per cent of the traffic.

137. Bermuda I is a semi-liberal criterion where the control of capacity takes place *ex post*. The actual degree of restrictiveness depends on the parties' approach to monitoring. Since it is generally difficult to backtrack on a liberal capacity policy, this criterion has been valued as semi-liberal in the QUASAR. Similarly, the absence of a requirement to exchange statistics, which is combined with Bermuda I in 70 cases out of 341, is another clue to the relative openness of this capacity clause.⁶⁶

⁶⁵ These data would be available from OAG.

⁶⁶ A possible refinement of the QUASAR methodology could consist of giving additional weight to the combination of certain features, such as Bermuda I and absence of exchange of statistics.

138. The most liberal capacity criterion, free determination, accounts for 18 per cent of global traffic, but covers as much as 46 per cent of the traffic in North America. It is of marginal importance in Africa and the CIS.

139. Finally, WASA contains an "undetermined" category for capacity whose weight is significant, accounting for 12 per cent of total traffic, and nearly twice as much in Europe.

(g) Tariffs

140. Free determination, the most liberal tariff clause, is of marginal importance. It is found in only one region, i.e. Asia and Oceania, in ASAs covering 310,000 passengers, i.e. 0.25 per cent of regional traffic.⁶⁷ Two other semi-liberal features, i.e. zone pricing and country of origin, are of little significance as well.

141. The dominant tariff clause is dual approval, which accounts for 73 per cent of total traffic, over 90 per cent of traffic in Asia and Oceania and around 50 per cent in Latin America, the Caribbean and North America. In both regions several "classical open skies" agreements are in force.

142. A semi-liberal clause, i.e. dual disapproval, ranks a distant second. It accounts for 20 per cent of world traffic, but for as much as 45 per cent of traffic in North America and just below 7 per cent in Asia and Oceania. Finally, WASA has an "undetermined" category for tariffs which covers about 4 per cent of world traffic.

143. As discussed in section 4 of Global Analysis, these results are somewhat surprising in view of yield management practices, whereby the price for the same seat varies significantly depending on time of purchase and the load factor of the plane. Such practices imply a degree of tariff flexibility which appears difficult to reconcile with a completely *a priori*-administered pricing system. However, apart from rare cases making the headlines (e.g. the Italian authorities checking British Airways tariffs in 2004), tariff practices are not documented and problems, if any, tend to be solved discreetly through bilateral consultations.

(h) Cooperative arrangements

144. Clauses allowing for cooperative arrangements are found in ASAs accounting for only one-quarter of world traffic. While covering over 70 per cent of the traffic in North America, they are of little importance in Africa and the CIS. As explained in section 4 of the Global Analysis, these arrangements are more widespread in practice than these shares might suggest.

(i) Exchange of statistics

145. The absence of compulsory exchanges of statistics among governments is indicative of the intention not to monitor closely the evolution of capacity and prices.

146. There are three regions where the exchange of statistics is relatively unimportant, i.e. South and Central America and the Caribbean, North America, and the CIS. Agreements requiring the exchange of statistics account for 63 per cent of world traffic, but over 80 per cent in Asia and Oceania.

⁶⁷ The agreements concerned are New Zealand-Singapore, New Zealand-Brunei Darussalam and Marshall Islands-Nauru.

APPENDIX TO PART B

GLOBAL AND REGIONAL PROFILES

This Appendix contains global and regional profiles. They consist of charts reflecting the degree of openness, incidence of types and regional distribution of traffic, as well the main market access features of bilateral ASAs, globally and for each of the seven WTO statistical regions, i.e. Africa, Asia and Oceania, Commonwealth of Independent States (CIS), Europe, Middle East, North America and South and Central America and the Caribbean.

Each profile is made up of the following elements:

- Chart 1 illustrates the share of the total WASA traffic⁶⁸ of the region concerned accounted for by bilateral ASAs falling within given ALI ranges.⁶⁹
- Chart 2 illustrates the share of the total WASA traffic of the region concerned accounted for by bilateral ASAs belonging to given QUASAR types.
- Chart 3 illustrates the share of the total WASA traffic of the region concerned accounted for by bilateral ASAs concluded with partners from given geographical regions.
- Chart 4 illustrates, for each of the market access elements analysed in QUASAR, the share of the total WASA traffic of the region concerned that is accounted for by the ASAs that contain each of the different options (e.g. for fifth freedom, the share of traffic accounted for by those ASAs that grant it and the share of traffic accounted for by those that do not).

147. A mock profile for a hypothetical region A, which contains all the data sources and technical notes for the individual tables and charts, precedes the global and regional profiles.

⁶⁸ This is total incoming and outgoing WASA traffic.

⁶⁹ The ALI ranges are as follows: 0-4; 5-9; 10-14; 15-19; 20-25; and above 25.

REGION A

Chart 1

Share of traffic by ALI range
(percentage, 2005)

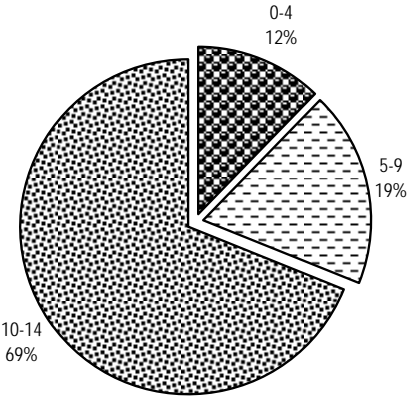


Chart 2

Share of traffic by type
(percentage, 2005)

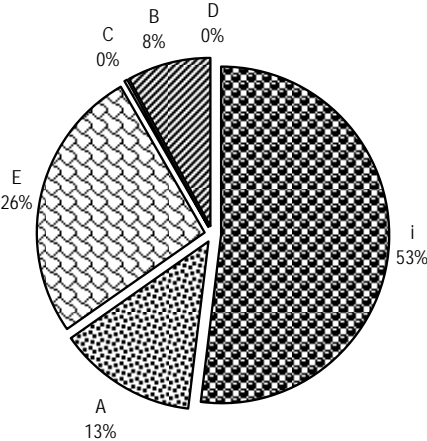
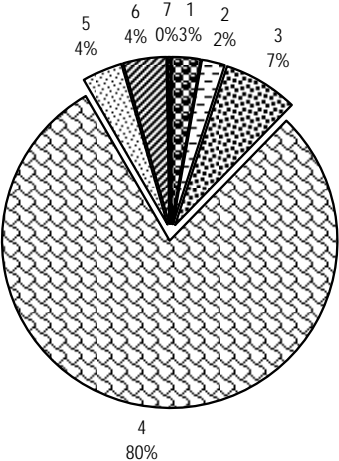


Chart 3

Share of traffic by region of partner
(percentage, 2005)



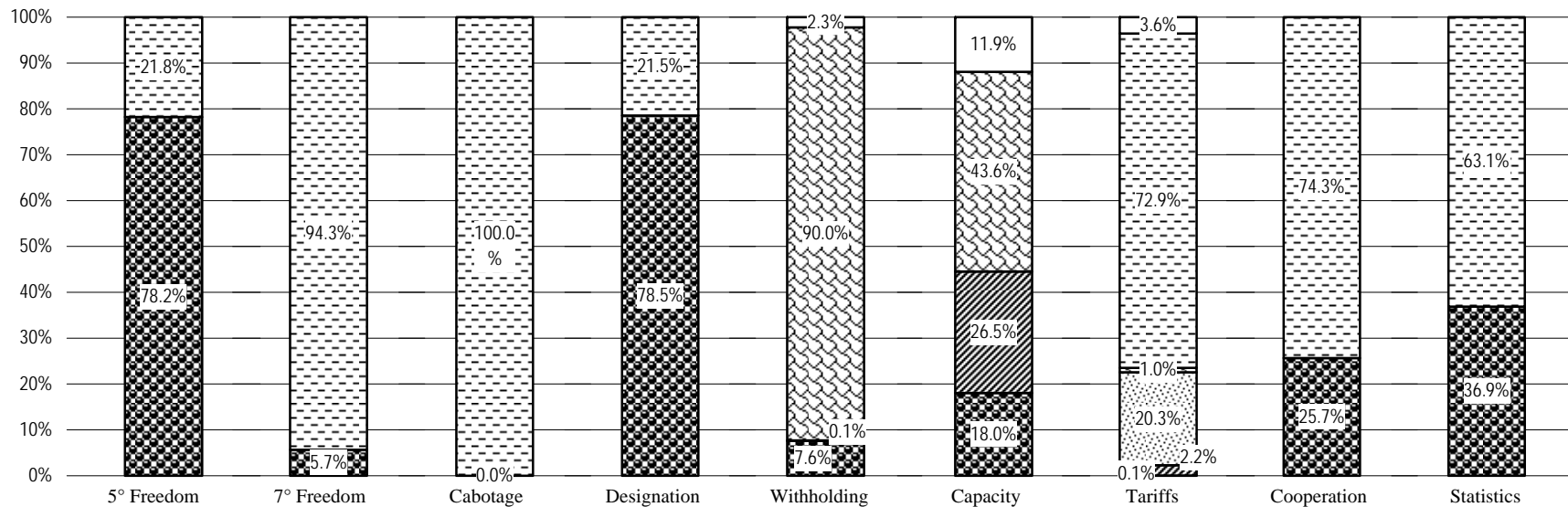
1 Africa, 2 Asia and Oceania,
3 Commonwealth of Independent States,
4 Europe, 5 Middle East, 6 North America,
7 South and Central America and the Caribbean

Note: "0%" indicates a share of between 0.01% and 0.49%. Total may not equal 100 due to approximation.
Source: WTO Secretariat (2006)

REGION A

Chart 4

Share of traffic by feature of bilateral Air Services Agreements (percentage, 2005)



Notes: Sum may not equal 100 due to approximation. 0%" indicates a share of between 0.01% and 0.49%.

Designation in this chart refers to the right to designate one or more airlines (i.e. **multiple** designation).

Statistics in this chart refers to "**no exchange of statistics**". In the example above, there is no requirement to exchange statistics in ASAs covering 36.9% of the traffic.

Cooperation refers to the presence of a provision for entering into cooperative marketing arrangements, such as blocked-space or code-sharing.

Source: WTO Secretariat (2006)

5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

With
Without

Withholding

Principal Place of Business
Community of Interest
Substantial Ownership and Effective Control
Undetermined

Capacity

Free Determination
Bermuda I
Pre-Determination
Undetermined

Tariffs

Free Pricing
Zone Pricing
Double Disapproval
Country of Origin
Double Approval
Undetermined

ALL REGIONS

Chart 1

Share of traffic by ALI range
(percentage, 2005)

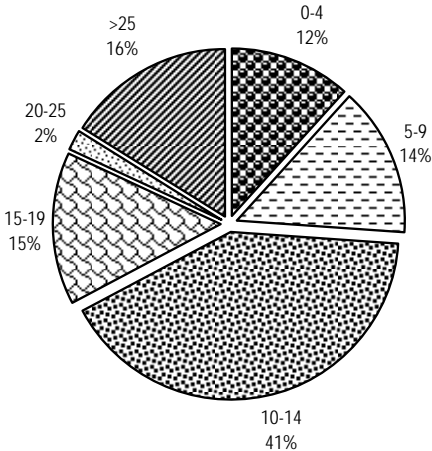


Chart 2

Share of traffic by type
(percentage, 2005)

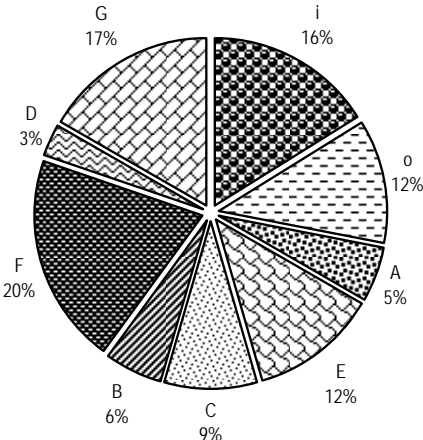
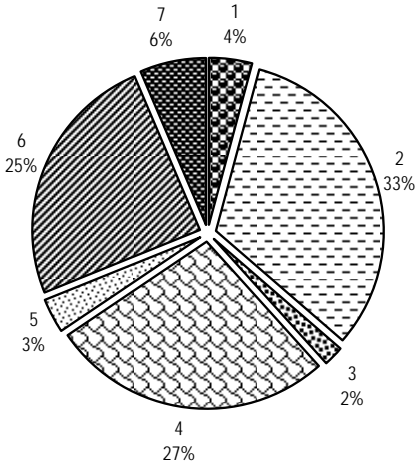


Chart 3

Share of traffic by region of partner
(percentage, 2005)

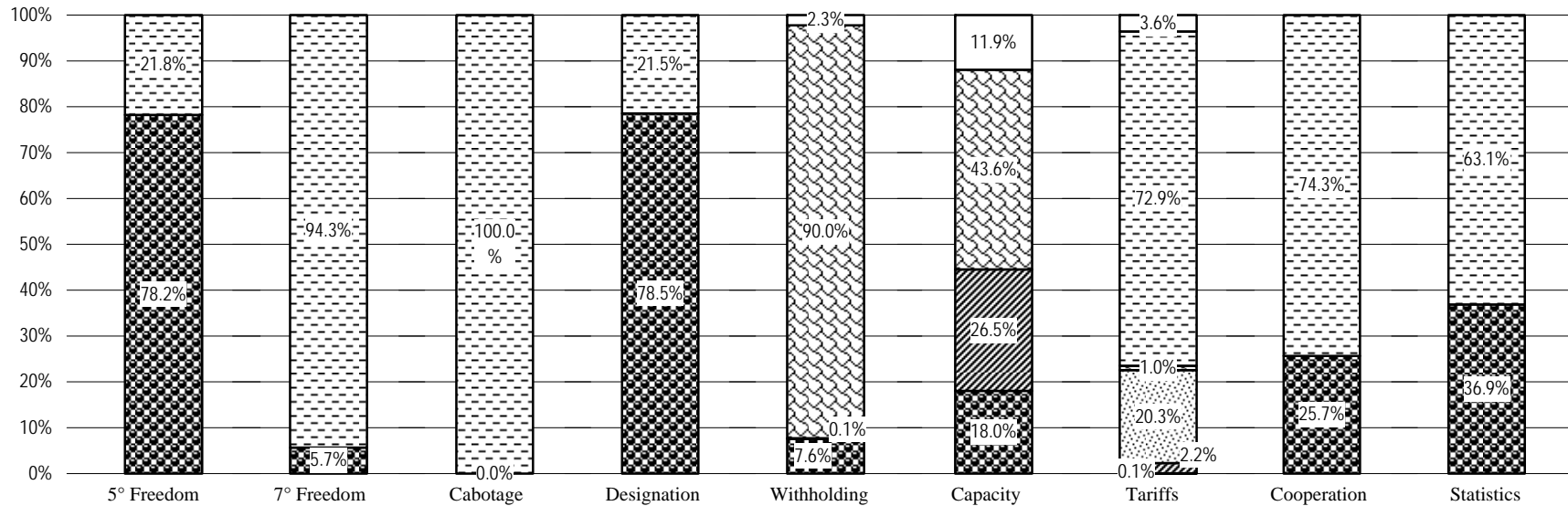


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

ALL REGIONS

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

AFRICA

Chart 1

Share of traffic by ALI range
(percentage, 2005)

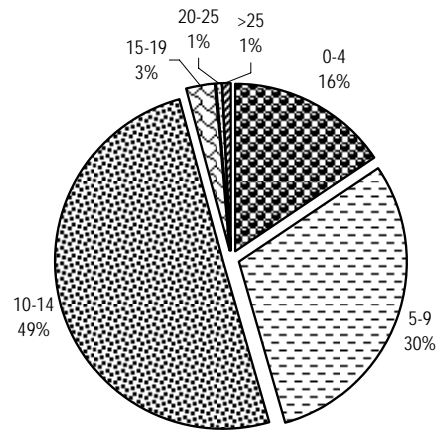


Chart 2

Share of traffic by type
(percentage, 2005)

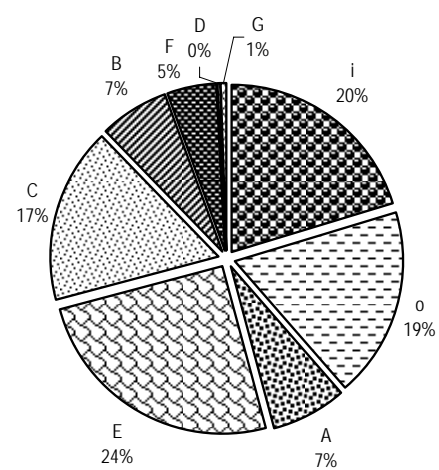
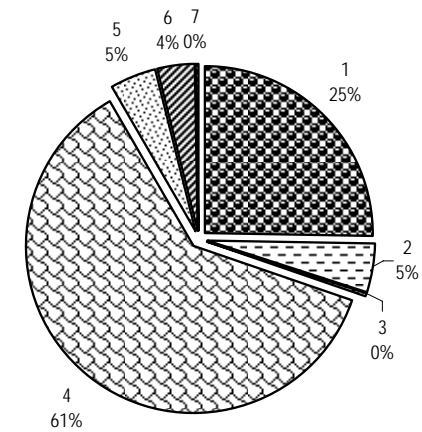


Chart 3

Share of traffic by region of partner
(percentage, 2005)

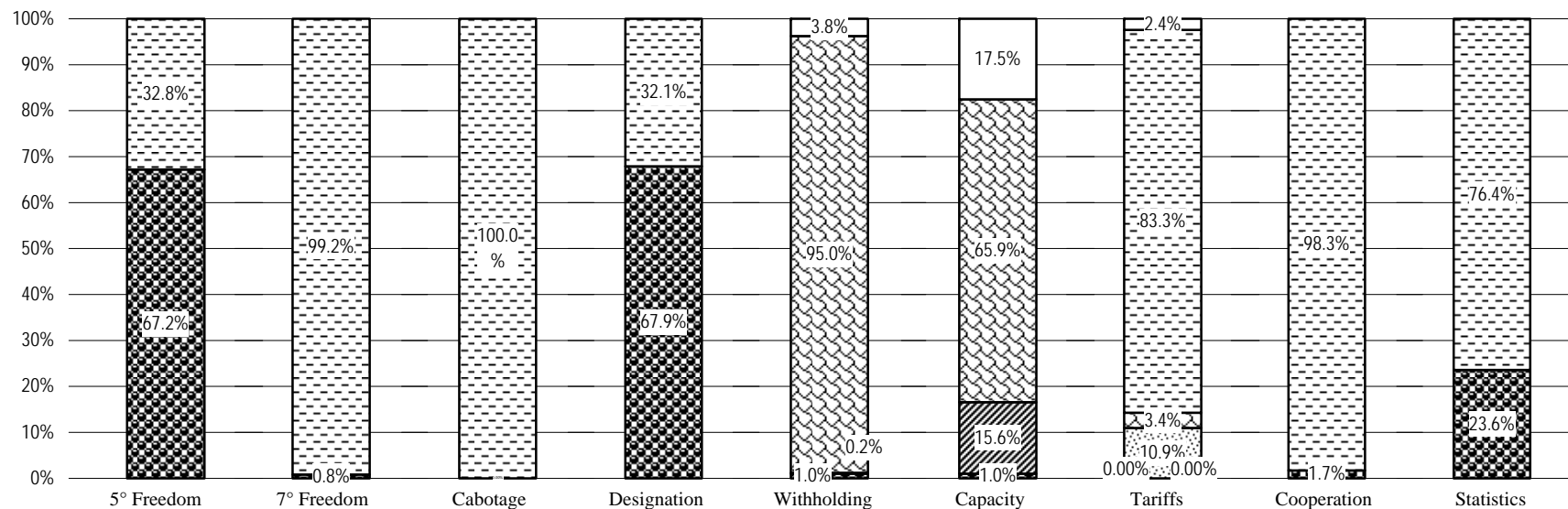


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

AFRICA

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

With
Without

Withholding

Principal Place of Business
Community of Interest
Substantial Ownership and Effective Control
Undetermined

Capacity

Free Determination
Bermuda I
Pre-Determination
Undetermined

Tariffs

Free Pricing
Zone Pricing
Double Disapproval
Country of Origin
Double Approval
Undetermined

ASIA AND OCEANIA

Chart 1

Share of traffic by ALI range
(percentage, 2005)

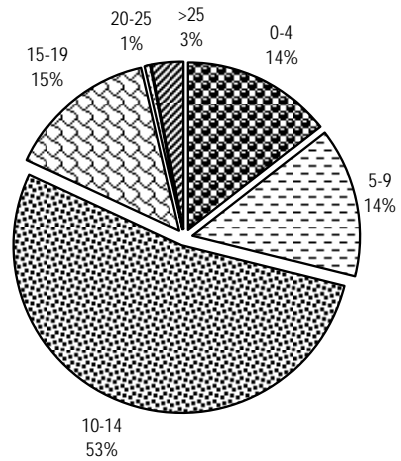


Chart 2

Share of traffic by type
(percentage, 2005)

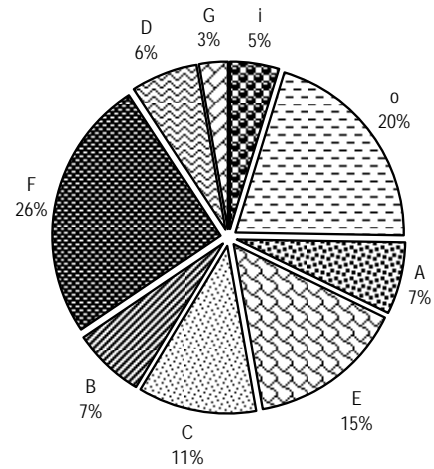
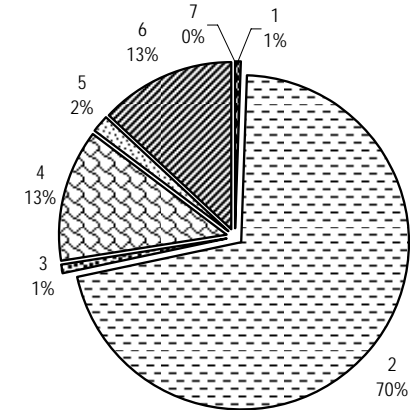


Chart 3

Share of traffic by region of partner
(percentage, 2005)

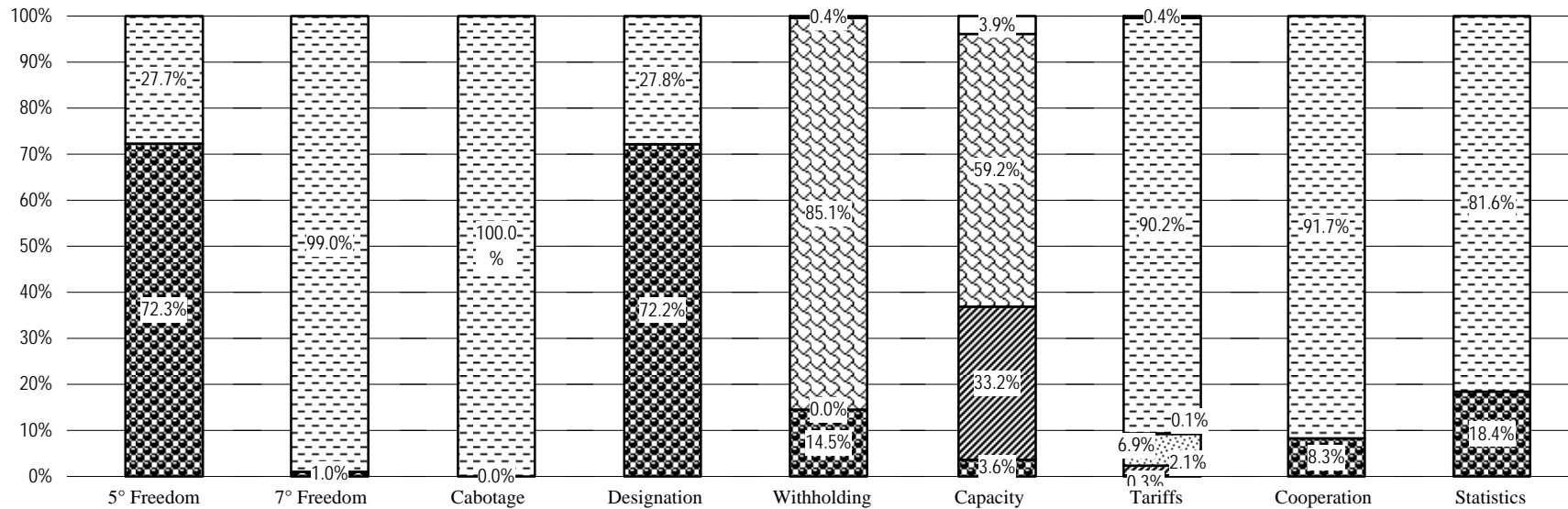


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

ASIA AND OCEANIA

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

COMMONWEALTH OF INDEPENDENT STATES

Chart 1
Share of traffic by ALI range
(percentage, 2005)

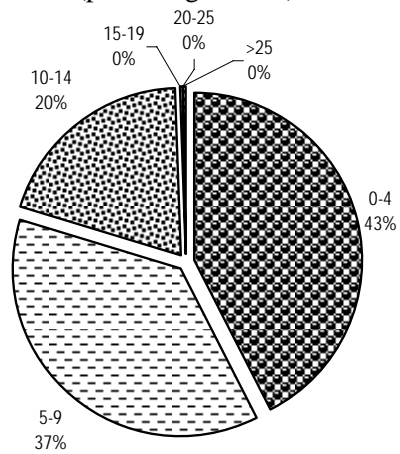


Chart 2
Share of traffic by type
(percentage, 2005)

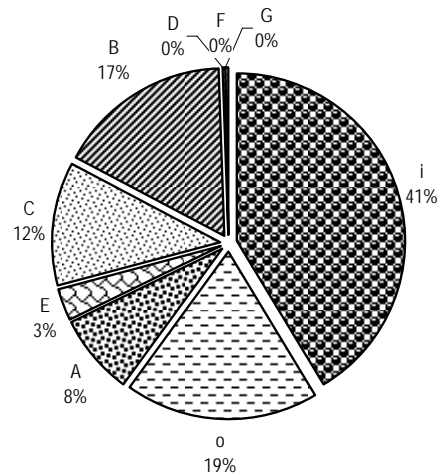
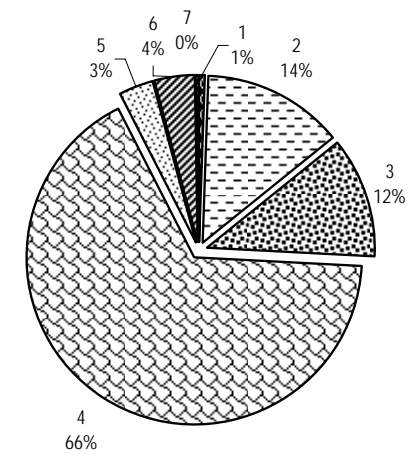


Chart 3
Share of traffic by region of partner
(percentage, 2005)

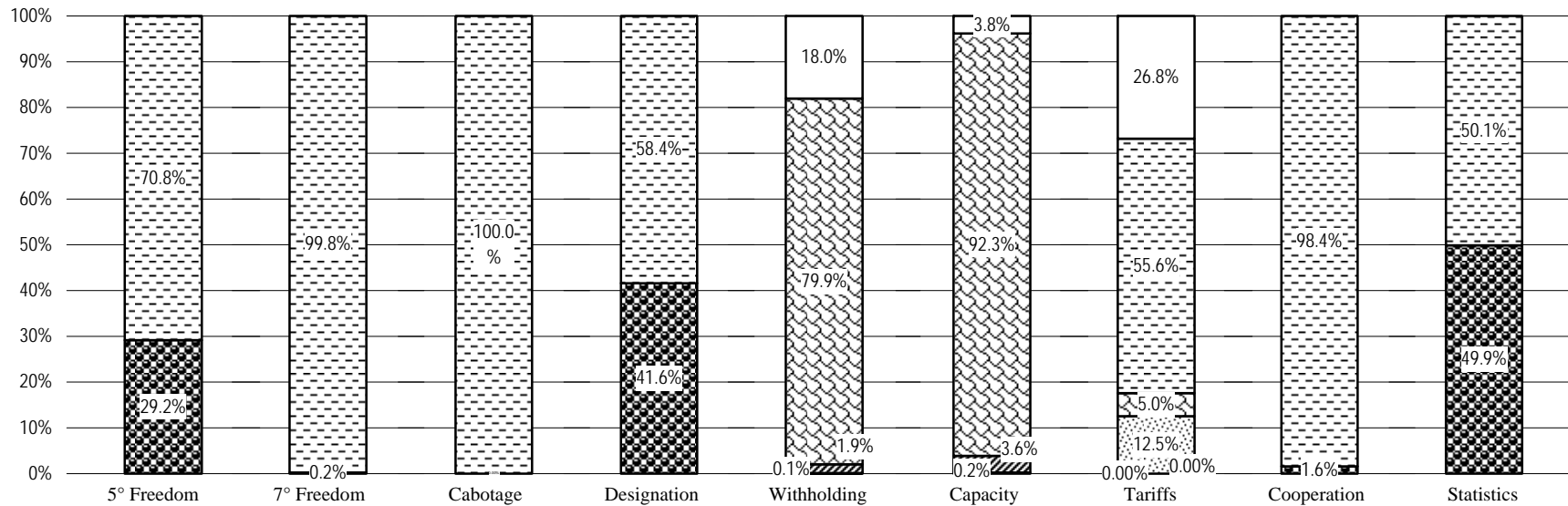


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

COMMONWEALTH OF INDEPENDENT STATES

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

EUROPE

Chart 1

Share of traffic by ALI range
(percentage, 2005)

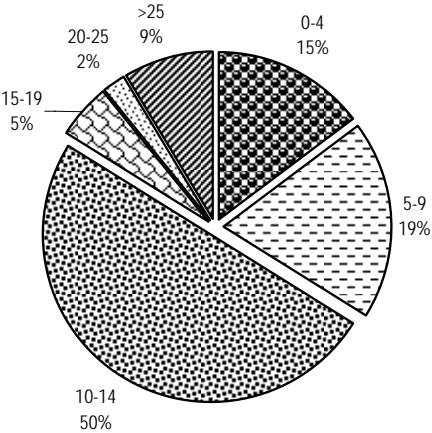


Chart 2

Share of traffic by type
(percentage, 2005)

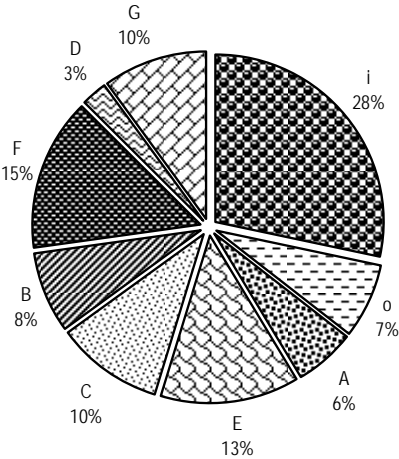
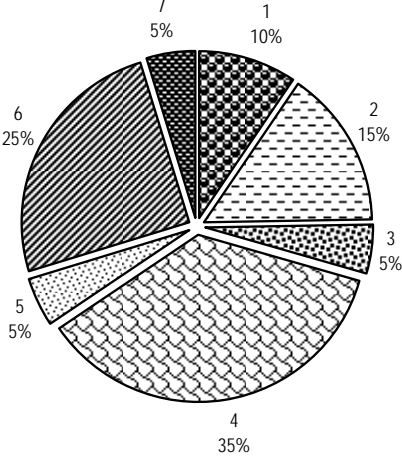


Chart 3

Share of traffic by region of partner
(percentage, 2005)

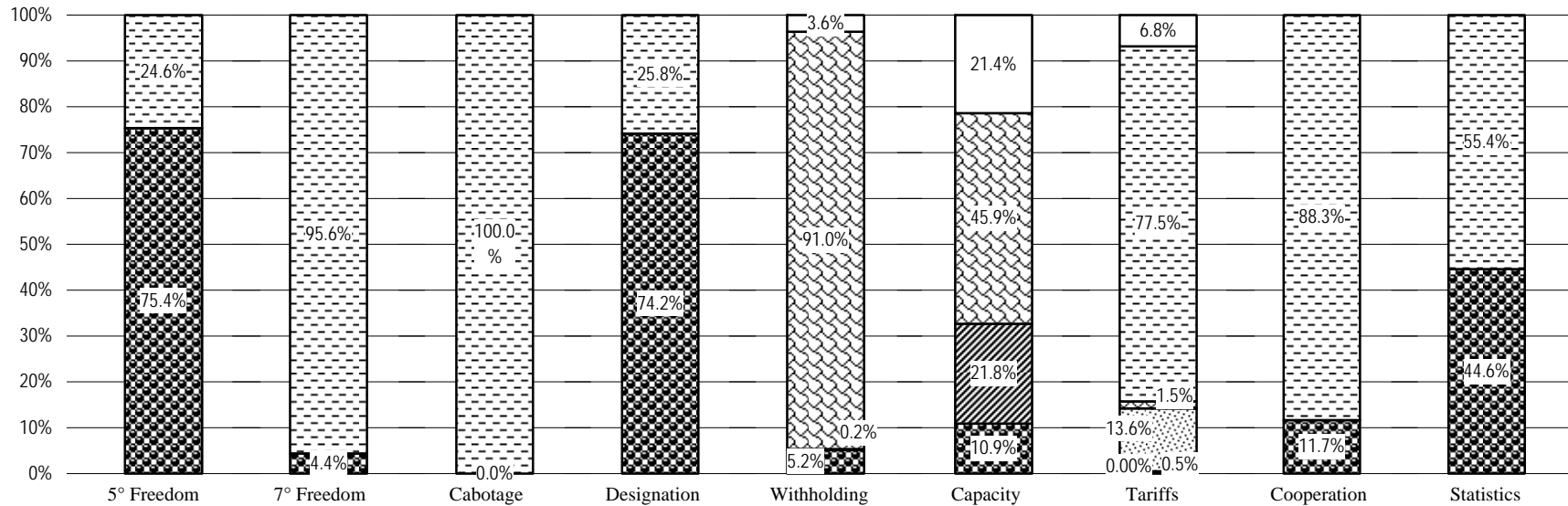


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

EUROPE

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

MIDDLE EAST

Chart 1

Share of traffic by ALI range
(percentage, 2005)

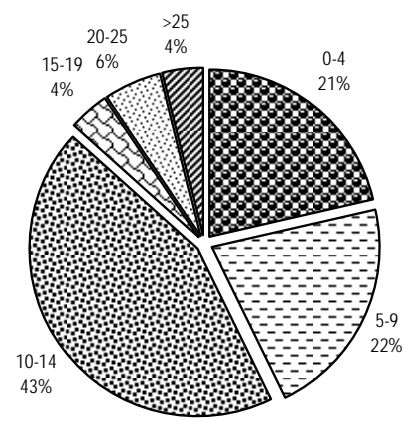


Chart 2

Share of traffic by type
(percentage, 2005)

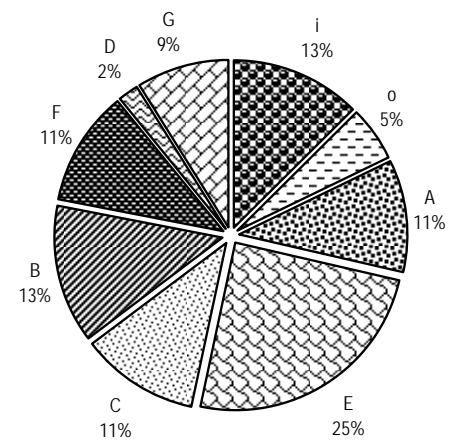
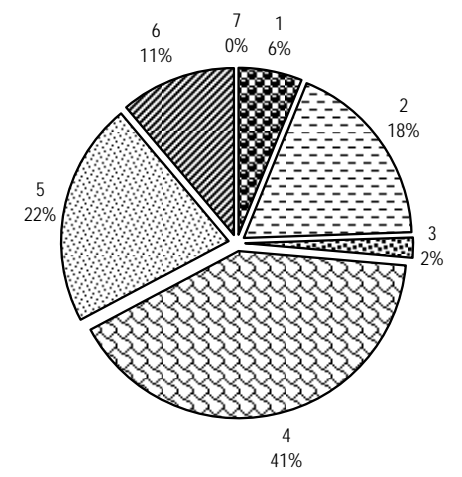


Chart 3

Share of traffic by region of partner
(percentage, 2005)

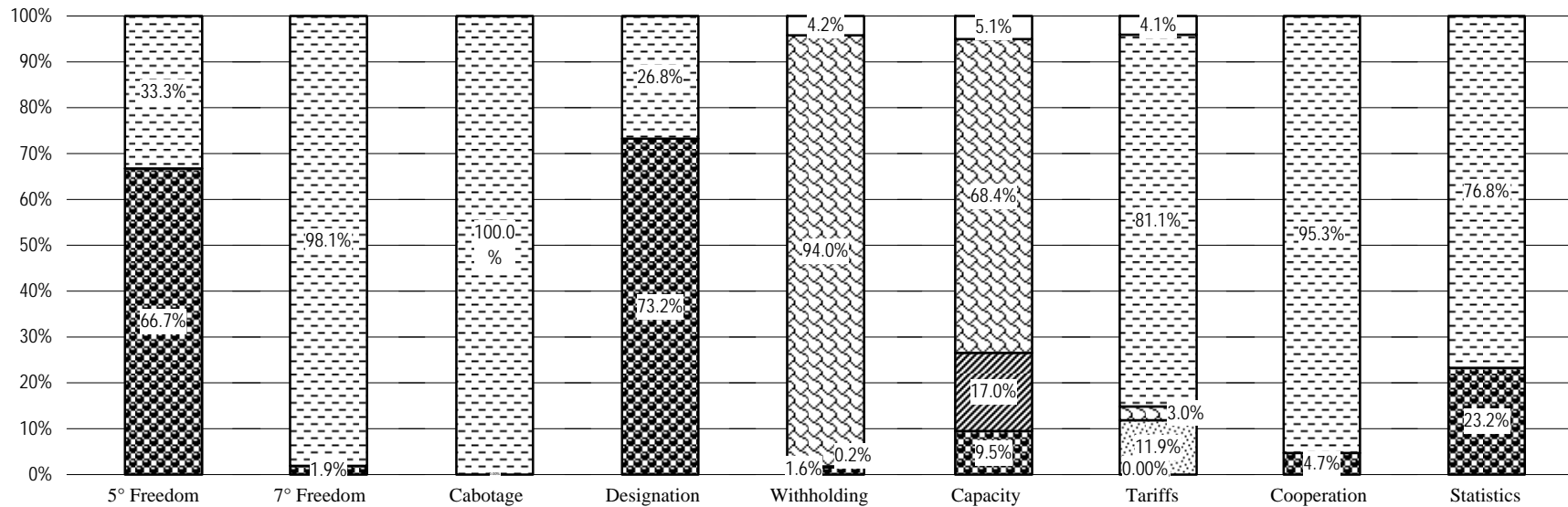


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

MIDDLE EAST

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

NORTH AMERICA

Chart 1
Share of traffic by ALI range
(percentage, 2005)

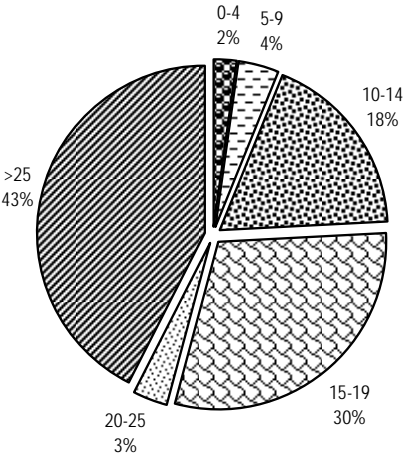


Chart 2
Share of traffic by type
(percentage, 2005)

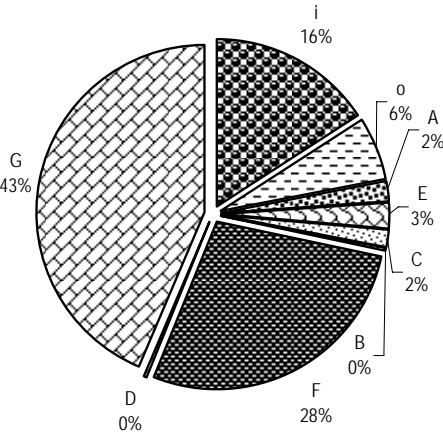
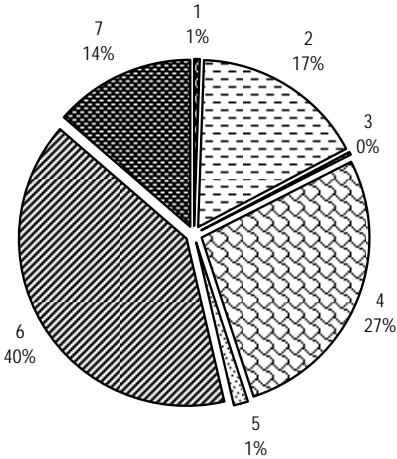


Chart 3
Share of traffic by region of partner
(percentage, 2005)

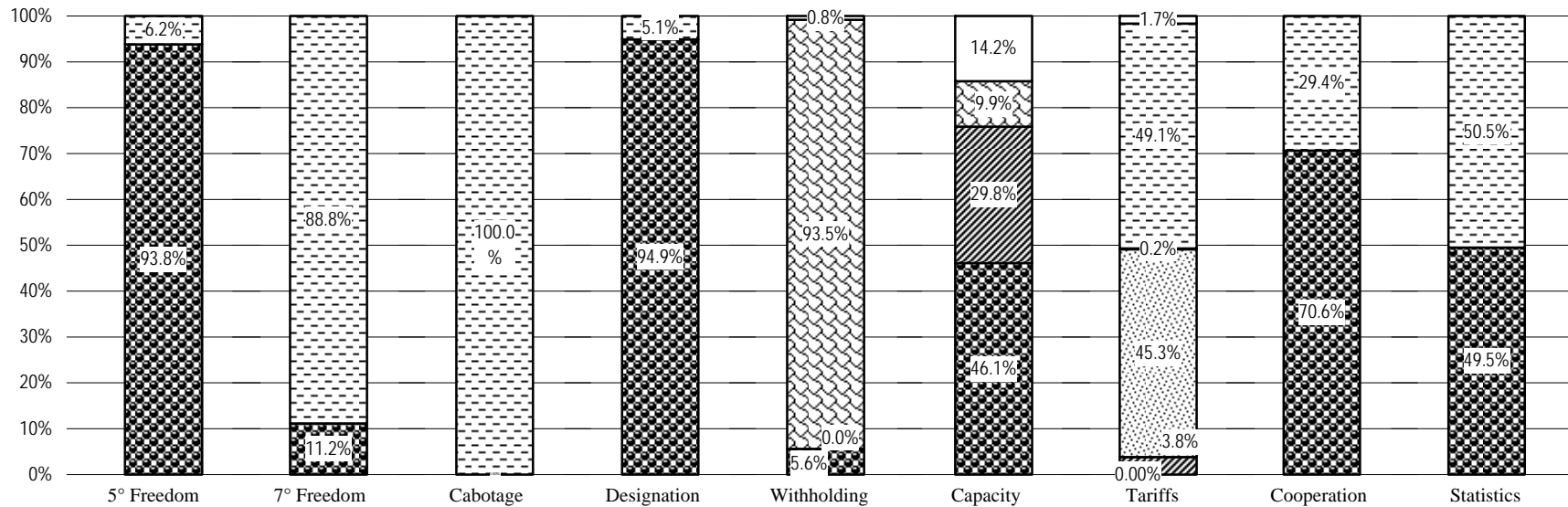


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

NORTH AMERICA

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

With
Without

Withholding

Principal Place of Business
Community of Interest
Substantial Ownership and Effective Control
Undetermined

Capacity

Free Determination
Bermuda I
Pre-Determination
Undetermined

Tariffs

Free Pricing
Zone Pricing
Double Disapproval
Country of Origin
Double Approval
Undetermined

SOUTH AND CENTRAL AMERICA AND THE CARIBBEAN

Chart 1

Share of traffic by ALI range
(percentage, 2005)

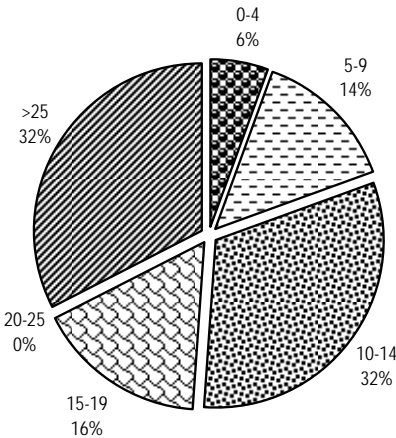


Chart 2

Share of traffic by type
(percentage, 2005)

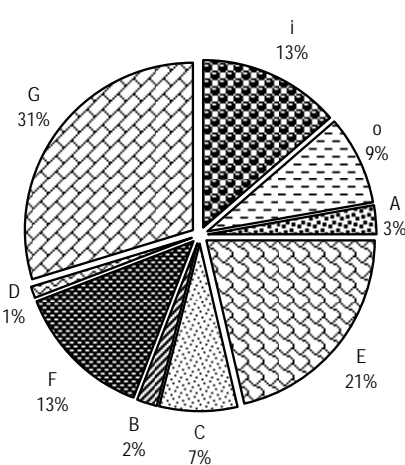
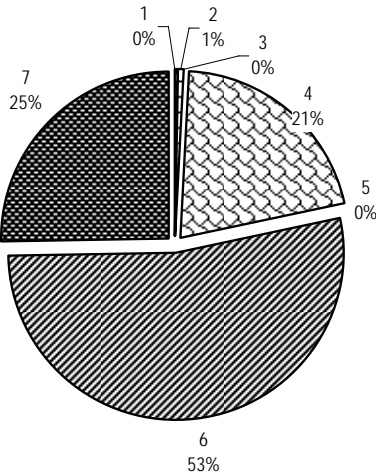


Chart 3

Share of traffic by region of partner
(percentage, 2005)

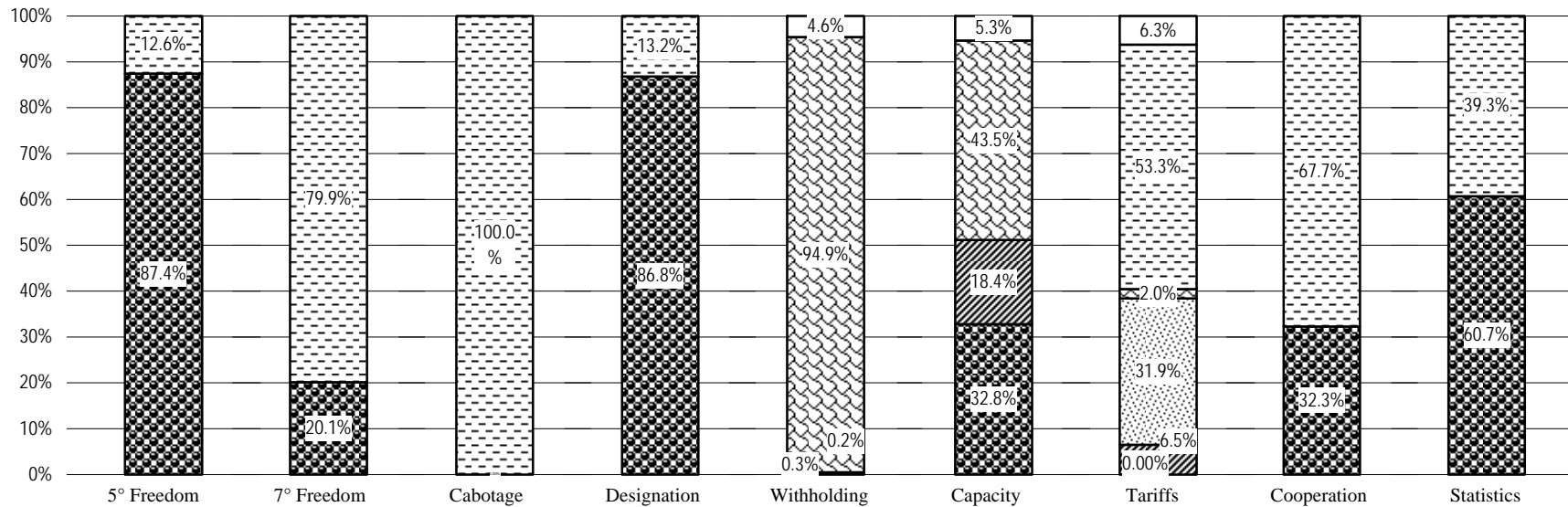


1 Africa; 2 Asia and Oceania;
3 Commonwealth of Independent States;
4 Europe; 5 Middle East; 6 North America;
7 South and Central America and the Caribbean

SOUTH AND CENTRAL AMERICA AND THE CARIBBEAN

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)



5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

- With
- Without

Withholding

- Principal Place of Business
- Community of Interest
- Substantial Ownership and Effective Control
- Undetermined

Capacity

- Free Determination
- Bermuda I
- Pre-Determination
- Undetermined

Tariffs

- Free Pricing
- Zone Pricing
- Double Disapproval
- Country of Origin
- Double Approval
- Undetermined

ANNEX B-I

Correspondence between the provisions of the ICAO Template Air Services Agreements and the QUASAR types

TYPE A

Freedoms

Art. 2.2.c, Traditional "Grant of rights"

Subject to the provisions of this Agreement, the airline(s) designated by each Party, shall enjoy the following rights:

[...]

the right to make stops at the point(s) on the route(s) specified in the Route Schedule to this Agreement for the purpose of taking on board and discharging international traffic in passengers, cargo or mail [separately or in combination].

Annex 1, Section 1, Traditional "Route schedules"

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From (named cities) in Party A via (intermediate points) to (named cities) in Party B and beyond (beyond points).

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From (named cities) in Party B via (named intermediate points) to (named cities) in Party A and beyond (named beyond points).

Designation

Art. 3.1 & 3.2.a, Traditional "Designation and authorization"

Each Party shall have the right to designate in writing to the other Party an airline to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization [and technical permission], each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

Substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Withholding/ownership

Art 4.1.a, Traditional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the rights to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently:

In the event that they are not satisfied that substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Tariffs

Art 17.1 & 2, Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5, Traditional "Capacity"

The total capacity to be provided on the agreed services by the designated airlines of the Parties shall be agreed between, or approved by, the aeronautical authorities of the Parties before the commencement of the operations, and thereafter according to anticipated traffic requirements.

The agreed services to be operated by the designated airlines of the Parties shall have as their primary objective the provision at reasonable load factors of capacity adequate to meet the traffic requirements between the territories of the two Parties.

Each Party shall allow fair and equal opportunity for the designated airlines of both Parties to operate the agreed services between their respective territories so as to achieve equality and mutual benefit, in principle by equal sharing of the total capacity between the Parties.

Each Party and its designated airline(s) shall take into consideration the interests of the other Party and its designated airline(s) so as not to affect unduly the services which the latter provides.

If, on review, the Parties fail to agree on the capacity to be provided on the agreed services, the capacity that may be provided by the designated airlines of the Parties shall not exceed the total capacity (including seasonal variations) previously agreed to be provided.

TYPE B

Freedoms

Art. 2.2.c, Traditional "Grant of rights"

Subject to the provisions of this Agreement, the airline(s) designated by each Party, shall enjoy the following rights:

[...]

the right to make stops at the point(s) on the route(s) specified in the Route Schedule to this Agreement for the purpose of taking on board and discharging international traffic in passengers, cargo or mail [separately or in combination].

Annex 1, Section 1, Traditional "Route schedules"

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From (named cities) in Party A via (intermediate points) to (named cities) in Party B and beyond (beyond points).

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From (named cities) in Party B via (named intermediate points) to (named cities) in Party A and beyond (named beyond points).

Designation

Art 3.1, Transitional "Designation and authorization"

On receipt of the operating authorization of paragraph 2, a designated airline may at any time begin to operate the agreed services for which it is so designated, provided that the airline complies with the applicable provisions of this Agreement.

Each Party shall have the right to designate in writing to the other Party one or more airlines to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization [and technical permission], each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Withholding/ownership

Art 4.1.a, Transitional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the right to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other

Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently.

In the event that they are not satisfied that the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Tariffs

Art 17.1 & 2, Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5, Traditional "Capacity"

The total capacity to be provided on the agreed services by the designated airlines of the Parties shall be agreed between, or approved by, the aeronautical authorities of the Parties before the commencement of the operations, and thereafter according to anticipated traffic requirements.

The agreed services to be operated by the designated airlines of the Parties shall have as their primary objective the provision at reasonable load factors of capacity adequate to meet the traffic requirements between the territories of the two Parties.

Each Party shall allow fair and equal opportunity for the designated airlines of both Parties to operate the agreed services between their respective territories so as to achieve equality and mutual benefit, in principle by equal sharing of the total capacity between the Parties.

Each Party and its designated airline(s) shall take into consideration the interests of the other Party and its designated airline(s) so as not to affect unduly the services which the latter provides.

If, on review, the Parties fail to agree on the capacity to be provided on the agreed services, the capacity that may be provided by the designated airlines of the Parties shall not exceed the total capacity (including seasonal variations) previously agreed to be provided.

TYPE C

Freedoms

Art 2.2.c, Transitional and full liberalization

Subject to the provisions of this Agreement, the airline(s) designated by each Party shall enjoy the following rights:

the rights otherwise specified in this Agreement.

Annex 1, Section 1, Option 1, Transitional "Routes schedules"

Airlines of each Party designated under this Annex shall be entitled to provide air transportation between points on the following routes:

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From any point or points in Party A via (intermediate points) to any point or points in Party B and beyond (beyond points):

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From any point or points in Party B via (intermediate points) to any point or points in Party A and beyond (beyond points).

Designation

Art 1, 3.1 & 3.2.a, Traditional "Designation and authorization"

Each Party shall have the right to designate in writing to the other Party an airline to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization [and technical permission], each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Withholding/ownership

Art 4.1.a, Traditional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the rights to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently:

In the event that they are not satisfied that substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Tariffs

Art 17.1 & 2, Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5 Traditional "Capacity"

The total capacity to be provided on the agreed services by the designated airlines of the Parties shall be agreed between, or approved by, the aeronautical authorities of the Parties before the commencement of the operations, and thereafter according to anticipated traffic requirements.

The agreed services to be operated by the designated airlines of the Parties shall have as their primary objective the provision at reasonable load factors of capacity adequate to meet the traffic requirements between the territories of the two Parties.

Each Party shall allow fair and equal opportunity for the designated airlines of both Parties to operate the agreed services between their respective territories so as to achieve equality and mutual benefit, in principle by equal sharing of the total capacity between the Parties.

Each Party and its designated airline(s) shall take into consideration the interests of the other Party and its designated airline(s) so as not to affect unduly the services which the latter provides.

If, on review, the Parties fail to agree on the capacity to be provided on the agreed services, the capacity that may be provided by the designated airlines of the Parties shall not exceed the total capacity (including seasonal variations) previously agreed to be provided.

TYPE D

Freedoms

Art 2.2.c Transitional and full liberalization

Subject to the provisions of this Agreement, the airline(s) designated by each Party shall enjoy the following rights:

the rights otherwise specified in this Agreement.

Annex 1, Section 1, Option 1, Transitional "Routes schedules"

Airlines of each Party designated under this Annex shall be entitled to provide air transportation between points on the following routes:

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From any point or points in Party A via (intermediate points) to any point or points in Party B and beyond (beyond points).

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From any point or points in Party B via (intermediate points) to any point or points in Party A and beyond (beyond points).

Designation

Art 3.1 & 3.2.a, Traditional "Designation and authorization"

Each Party shall have the right to designate in writing to the other Party an airline to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization [and technical permission], each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Withholding/ownership

Art 4.1.a, Traditional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the rights to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently:

In the event that they are not satisfied that substantial ownership and effective control are vested in the Party designating the airline, nationals of that Party, or both.

Tariffs

Art 17.1 & 2, Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5, Transitional "Capacity" (Bermuda I)

The air transport facilities available to the travelling public should bear a close relationship to the requirements of the public for such transport.

The designated airline or airlines of each Party shall have a fair and equal opportunity to [compete] [operate] on any agreed route between the territories of the two Parties.

Each Party shall take into consideration the interests of the airlines of the other Party so as not to affect unduly their opportunity to offer the services covered by this Agreement.

Services provided by a designated airline under this Agreement shall retain as their primary objective the provision of capacity adequate to the traffic demands between the country of which such airline is a national and the country of ultimate destination of the traffic. The right to embark or disembark on such services international traffic destined for and coming from third countries at a point or points on the routes specified in this Agreement shall be exercised in accordance with the general principles of orderly development of international air transport to which both Parties subscribe and shall be subject to the general principle that capacity should be related to:

- a) the traffic requirements between the country of origin and the countries of ultimate destination of the traffic;
- b) the requirements of through airline operations; and
- c) the traffic requirements of the area through which the airline passes, after taking account of local and regional services.

Consultations between the Parties shall be arranged whenever a Party requests that the capacity provided under the Agreement be reviewed to ensure the application of the principles in the Agreement governing the conduct of services.

TYPE E

Freedoms

Art 2.2.c, Transitional and full liberalization

Subject to the provisions of this Agreement, the airline(s) designated by each Party shall enjoy the following rights:

the rights otherwise specified in this Agreement.

Annex 1, Section 1, Option 1, Transitional "Routes schedules"

Airlines of each Party designated under this Annex shall be entitled to provide air transportation between points on the following routes.

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From any point or points in Party A via (intermediate points) to any point or points in Party B and beyond (beyond points).

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From any point or points in Party B via (intermediate points) to any point or points in Party A and beyond (beyond points).

Designation

Art 3.1, Transitional "Designation and authorization"

On receipt of the operating authorization of paragraph 2, a designated airline may at any time begin to operate the agreed services for which it is so designated, provided that the airline complies with the applicable provisions of this Agreement.

Each Party shall have the right to designate in writing to the other Party one or more airlines to operate the agreed services (in accordance with this Agreement) and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization (and technical permission), each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Withholding/ownership

Art 4.1.a, Transitional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the right to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other

Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently.

In the event that they are not satisfied that the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Tariffs

Art 17.1 & 2, Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5, Traditional "Capacity"

The total capacity to be provided on the agreed services by the designated airlines of the Parties shall be agreed between, or approved by, the aeronautical authorities of the Parties before the commencement of the operations, and thereafter according to anticipated traffic requirements.

The agreed services to be operated by the designated airlines of the Parties shall have as their primary objective the provision at reasonable load factors of capacity adequate to meet the traffic requirements between the territories of the two Parties.

Each Party shall allow fair and equal opportunity for the designated airlines of both Parties to operate the agreed services between their respective territories so as to achieve equality and mutual benefit, in principle by equal sharing of the total capacity between the Parties.

Each Party and its designated airline(s) shall take into consideration the interests of the other Party and its designated airline(s) so as not to affect unduly the services which the latter provides.

If, on review, the Parties fail to agree on the capacity to be provided on the agreed services, the capacity that may be provided by the designated airlines of the Parties shall not exceed the total capacity (including seasonal variations) previously agreed to be provided.

TYPE F

Freedoms

Art 2.2.c, Transitional and full liberalization

Subject to the provisions of this Agreement, the airline(s) designated by each Party shall enjoy the following rights:

the rights otherwise specified in this Agreement.

Annex 1, Section 1, Option 1, Transitional "Routes schedules"

Airlines of each Party designated under this Annex shall be entitled to provide air transportation between points on the following routes.

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From any point or points in Party A via (intermediate points) to any point or points in Party B and beyond (beyond points)

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From any point or points in Party B via (intermediate points) to any point or points in Party A and beyond (beyond points).

Designation

Art 3.1, Transitional "Designation and authorization"

On receipt of the operating authorization of paragraph 2, a designated airline may at any time begin to operate the agreed services for which it is so designated, provided that the airline complies with the applicable provisions of this Agreement.

Each Party shall have the right to designate in writing to the other Party one or more airlines to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization (and technical permission), each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Withholding/ownership

Art 4.1.a, Transitional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the right to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other

Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently.

In the event that they are not satisfied that the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

Tariffs

Art 17.1 & 2 Traditional "Pricing (tariffs)"

The tariffs to be applied by the designated airline or airlines of a Party for services covered by this Agreement shall be established at reasonable levels, due regard being paid to all relevant factors, including interests of users, cost of operation, characteristics of service, reasonable profit, tariffs of other airlines and other commercial considerations in the market-place.

The tariffs shall, wherever possible, be agreed by the designated airlines concerned of both Parties, after discussion as required with their respective governments and, if applicable, consultation with other airlines. Such agreement shall, wherever possible, be reached by the use of the appropriate international tariff coordination mechanism. Failing any multilateral or bilateral agreement, each designated airline may develop tariffs individually.

Capacity

Art 16.1 to 5, Transitional "Capacity" (Bermuda I)

The air transport facilities available to the travelling public should bear a close relationship to the requirements of the public for such transport.

The designated airline or airlines of each Party shall have a fair and equal opportunity to [compete] [operate] on any agreed route between the territories of the two Parties.

Each Party shall take into consideration the interests of the airlines of the other Party so as not to affect unduly their opportunity to offer the services covered by this Agreement.

Services provided by a designated airline under this Agreement shall retain as their primary objective the provision of capacity adequate to the traffic demands between the country of which such airline is a national and the country of ultimate destination of the traffic. The right to embark or disembark on such services international traffic destined for and coming from third countries at a point or points on the routes specified in this Agreement shall be exercised in accordance with the general principles of orderly development of international air transport to which both Parties subscribe and shall be subject to the general principle that capacity should be related to:

- a) the traffic requirements between the country of origin and the countries of ultimate destination of the traffic;
- b) the requirements of through airline operations; and
- c) the traffic requirements of the area through which the airline passes, after taking account of local and regional services.

Consultations between the Parties shall be arranged whenever a Party requests that the capacity provided under the Agreement be reviewed to ensure the application of the principles in the Agreement governing the conduct of services.

TYPE G

Freedoms

Art 2.2.c, Transitional and full liberalization

Subject to the provisions of this Agreement, the airline(s) designated by each Party shall enjoy the following rights:

the rights otherwise specified in this Agreement.

Annex 1, Section 1, Option 1, Transitional "Routes schedules"

Airlines of each Party designated under this Annex shall be entitled to provide air transportation between points on the following routes.

- **Routes to be operated by the designated airline (or airlines) of Party A:**

From any point or points in Party A via (intermediate points) to any point or points in Party B and beyond (beyond points)

- **Routes to be operated by the designated airline (or airlines) of Party B:**

From any point or points in Party B via (intermediate points) to any point or points in Party A and beyond (beyond points).

Designation

Art 3.1, Full Liberalization "Designation and authorization"

Each Party shall have the right to designate in writing to the other Party as many airlines as it wishes to operate the agreed services [in accordance with this Agreement] and to withdraw or alter such designation.

Withholding/ownership

Art 4.1.a, Transitional "Withholding, revocation and limitation of authorization"

The aeronautical authorities of each Party shall have the right to withhold the authorizations referred to in Article (Authorization) of this Agreement with respect to an airline designated by the other Party, and to revoke, suspend or impose conditions on such authorizations, temporarily or permanently.

In the event that they are not satisfied that the airline is and remains substantially owned and effectively controlled by nationals of any one or more States in a group, or by any one or more of the Parties themselves.

OR

Art 4, Option 2.a, Transitional, "Withholding, revocation and limitation of authorization"

In the event that they are not satisfied that the designated airline has its principal place of business (see (i) below) [and permanent residence] in the territory of the designating Party.

(i) Evidence of principal place of business includes such factors as: the airline is established and incorporated in the territory of the designating Party in accordance with relevant national laws and regulations, has a substantial amount of its operations and capital investment in physical facilities in the territory of the designating Party, pays income tax, registers and bases its aircraft there, and employs a significant number of nationals in managerial, technical and operational positions.

OR

Regional or Plurilateral TASA, (Attachment B), pages B-11, Traditional, "Designation and authorization"

Each Party shall have the right to designate in writing an airline [or an eligible airline from another Party State] to operate the agreed services in accordance with this Agreement and to withdraw or alter such designation. Such designation shall be transmitted to the other Parties in writing through diplomatic channels [and to the Depository].

On receipt of such a designation, and of application from the designated airline, in the form and manner prescribed for operating authorization [and technical permission], each Party shall grant the appropriate operating authorization with minimum procedural delay, provided that:

The airline is substantially owned and effectively controlled by one or more of the Parties to this Agreement, their nationals or both.

Tariffs

Art 17, Full Liberalization, "Pricing (Tariffs)"

Prices [Tariffs] charged by airlines shall not be required to be filed with, or approved, by either Party.

OR

Art 17.1 & 2, Option 1 & 2, Transitional "Pricing (Tariffs)"

The Parties agree to give particular attention to tariffs which may be objectionable because they appear unreasonably discriminatory, unduly high or restrictive because of the abuse of a dominant position, artificially low because of direct or indirect subsidy or support, or "predatory".

Each Party may require notification or filing of tariffs proposed by the designated airline(s) [of the other Party] [of both Parties] for carriage to or from its territory. Such notification or filing may be required not more than ... days before the proposed date of introduction. In special cases, this period may be reduced.

Prices for international air transportation between the territories of the Parties shall not be required to be filed, unless such filing shall be required for the purpose of implementing a mutual agreement reached under paragraph 3 of this Article. Neither Party shall require notification or filing by airlines of the other Party of prices charged by charterers to the public, except as may be required on a non-discriminatory basis for information purposes. Notwithstanding the foregoing, the designated airlines of the Parties shall continue to provide immediate access, on request, to information on historical, existing and proposed prices to the aeronautical authorities of the Parties in a manner and format acceptable to those aeronautical authorities.

Capacity

Art 16.2, 3 & 4, Full Liberalization "Capacity"

Each Party shall allow each designated airline to determine the frequency and capacity of the international air transportation it offers based on commercial considerations of the marketplace.

Neither Party shall unilaterally limit the volume of traffic, frequency, or regularity of service, or the aircraft type or types operated by the designated airlines of the other Party except as may be required for customs, technical, operational, or environmental reasons under uniform conditions consistent with Article 15 of the Convention.

Neither Party shall impose on the other Party's designated airlines a first refusal requirement, uplift ratio, no-objection fee, or any other requirement with respect to the capacity, frequency or traffic which would be inconsistent with the purposes of this Agreement.

Neither Party shall require the filing of schedules, programmes for charter flights, or operational plans by airlines of the other Party for approval, except as may be required on a non-discriminatory basis to enforce uniform conditions as foreseen by paragraph 2) of this Article or as may be specifically authorized in an Annex to this Agreement. If a Party requires filings for information purposes, it shall minimize the administrative burdens of filing requirements and procedures on air transportation intermediaries and on designated airlines of the other Party.

ANNEX B-II

Bilateral ASA brought into conformity with EC law since the ECJ judgments of 5 November 2002

Bilateral ASAs brought into legal conformity under Member States bilateral negotiations		Bilateral ASAs brought into legal conformity under EC Horizontal Agreements	
Third country	Number of bilateral ASAs amended	Third country	Total number of bilateral ASAs amended
Afghanistan	1	Albania	12
Algeria	5	Australia	14
Antigua and Barbuda	1	Azerbaijan	17
Argentina	4	Bosnia-Herzegovina	9
Armenia	1	Bulgaria	22
Bahrain	5	Chile	10
Belarus	1	Croatia	23
Belize	1	FYROM	14
Brunei	1	Georgia	12
Cambodia	1	Kyrgyzstan	5
Cape Verde	3	Lebanon	17
Costa Rica	1	Malaysia	19
Cuba	4	Maldives	7
Democratic Rep. of Congo	1	Moldova	15
Dominican Republic	2	Morocco	18
Ecuador	3	New Zealand	12
Fiji	1	Paraguay	6
Ghana	1	Romania	21
Guinea-Bissau	1	Serbia and Montenegro	19
Indonesia	1	Singapore	22
Iran	4	Ukraine	25
Macao	2	Uruguay	8
Madagascar	3	Vietnam	15
Netherlands Antilles	2		
North Korea	1		
Panama	1		
Peru	2		
Qatar	9		
Senegal	4		
Sri Lanka	1		
Suriname	1		
Syria	2		
Tajikistan	1		
Tanzania	1		
Togo	2		
Turkmenistan	2		
Uganda	1		
United Arab Emirates	4		
Uzbekistan	1		
Zambia	1		
Total:	40	23	342

Source: European Commission (July 2006)

(available from:

http://ec.europa.eu/transport/air_portal/international/pillars/horizontal_agreements_en.htm)

PART C

ECONOMIC, TRADE AND TRAFFIC PROFILES

148. This Part contains individual profiles for 184 Contracting States. Each profile is identical and made up of the following elements:

- A map, drawn from the Air Services Agreements Projector (ASAP) software. The map charts all bilateral ASAs concluded by the Contracting State concerned as recorded in the World Air Services Agreement (WASA) database.⁷⁰ The thickness of the lines linking the parties to each ASA is indicative of the volume of the traffic, with thicker lines signifying higher-traffic agreements. Given that the map is centred on the Atlantic Ocean, the lines do not follow actual aeronautical routes implying, for example, that trans-Pacific flights are shown as going all the way across the Atlantic.
- Table 1 contains data of general economic and demographic nature as well as trade and air transport statistics for the Contracting State, drawn from a variety of sources.
- Chart 1 illustrates the share of the total WASA traffic⁷¹ of the Contracting State accounted for by bilateral ASAs falling within given Air Liberalisation Index (ALI) ranges.⁷²
- Chart 2 illustrates the share of the total WASA traffic of the Contracting State accounted for by bilateral ASAs belonging to given QUASAR types.
- Chart 3 illustrates the share of the total WASA traffic of the Contracting State accounted for by bilateral ASAs concluded with partners from given geographical regions.
- Chart 4 illustrates, for each of the market access elements analysed in QUASAR, the amount of WASA traffic of the Contracting State that is accounted for by the ASAs that contain each of the different options (e.g. for fifth freedom, the traffic accounted for by those ASAs that grant it and the traffic accounted for by those that do not).
- Table 2 contains selected indicators for all bilateral ASAs concluded by the Contracting State as recorded by the WASA database, ordered by descending volume of traffic. For each agreement, the table lists the name of the ASA partner, the date of conclusion, the standard and non-standard (i.e. 5th+, OWN+ and DES+) ALIs, the QUASAR type, the existence, or otherwise, of a direct air transportation service between the two parties in question, the distance between them, and the traffic, expressed as a range, covered by the agreement.
- Table 3 lists the countries or territories with which the Contracting State has a direct air transportation service in the absence of a corresponding bilateral ASA as recorded in the WASA, as well as the range of traffic covered by this service.⁷³

149. The figure for total WASA traffic in Table 1 has been expressed as a range for those Contracting States which have concluded only one ASA⁷⁴ as recorded in the WASA for copyright

⁷⁰ The numbering of the ASAs currently reflects only software programming needs, but it will be refined in the final ASAP CD-Rom.

⁷¹ This is total incoming and outgoing WASA traffic.

⁷² The ALI ranges are as follows: 0-4; 5-9; 10-14; 15-19; 20-25; and above 25.

⁷³ In this respect, the scope of QUASAR extends further than that of the WASA to all countries and territories that appear as distinct entities within the IATA mileage statistics, including territories that have no autonomy regarding their air transport policy (e.g. the French Département of Guadeloupe).

⁷⁴ The Contracting States in question are: Antigua, Aruba, Bahamas, Bhutan, Djibouti, Estonia, Haiti, Netherlands Antilles, Saint Kitts and Nevis, Sao Tome and Principe, Swaziland.

reasons.⁷⁵ The same rationale is behind the removal of the traffic labels in Chart 4 of the relevant profiles. Charts 1 to 4 are empty whenever the WASA traffic of the Contracting State in question equals zero.

150. The index of the Contracting States profiled is contained on page I. 89. It is preceded by a mock profile for a hypothetical Contracting State A, which contains all the data sources and technical notes for the individual tables and charts.

⁷⁵ Otherwise, the exact amount of the traffic covered by the single ASA in question would have been disclosed.

CONTRACTING STATE A

Table 1
Selected indicators

STATISTICAL DATA						POLICY DATA			
General (2004)		Trade (2004)		Air transport (2004)		Trade (2006)		Air Transport (2005)	
Population (million)	1	Total trade (million US\$)	8	WASA traffic (passengers) (2005)	15	Final bound MFN tariffs (%)	23	Traffic weighted average ALI (Standard)	31
Share in world population (%)	2	Share in world trade (%)	9	Share of total WASA traffic (%) (2005)	16	Services sectors committed (out of ~160 sub-sectors)	24	Traffic weighted average ALI (5th+)	32
GDP (million current US\$)	3	Trade per capita (US\$)	10	Number of planes (<i>of which, in parenthesis, jets</i>) (2005)	17	Tourism and travel-related services sectors committed (out of 3 sub-sectors)	25	Traffic weighted average ALI (OWN+)	33
Share in world GDP (%)	4	Trade to GDP ratio (%)	11	Number of international airports (2005)	18	Services auxiliary to all modes of transport committed (out of 4 sub-sectors)	26	Traffic weighted average ALI (DES+)	34
GDP per capita (current US\$)	5	Commercial services trade (million US\$)	12	Domestic traffic (passengers) (2005)	19	Air transport services sectors committed (out of 4 sub-sectors)	27	Dispersion of ALI (standard)	35
Size (km ²)	6	Share in world commercial services trade (%)	13	Air transport services (million US\$)	20	MFN exemptions on air transport services	28	National ownership regime (2004)	36
Density (pop. by km ²)	7	Travel services (million US\$)	14	Passenger air transport services (million US\$)	21	Number of bilateral FTAs	29	Number of bilateral ASAs recorded by ICAO	37
				Freight air transport services (million US\$)	22	Number of regional FTAs	30	Number of plurilateral ASAs recorded by ICAO (2006)	38

Source: WTO Secretariat (2006), compiled on the basis of:

- 1-7** World Bank World Development Indicators online database (September 2006)
8-14,23-24 WTO Secretariat (as of September 2006)
15,16 WTO Secretariat, on the basis of ICAO, WASA Database (2005), and IATA traffic data (2005)
17-19 ICAO Secretariat
20-22 IMF Balance-of-Payments CD-Rom (July 2006)
25-30 WTO Secretariat
31-34,37 WTO Secretariat
36 ICAO Secretariat, Responses to State Letter SC5/6-03/88, 26 September 2003
38 ICAO Secretariat, Information Paper "Regulatory and Industry Overview", 15 August 2006

Notes:

- Unless otherwise indicated, "Statistical Data" refer to 2004, "Policy Data – Trade" to 2006 and "Policy Data – Air Transport" to 2005.
8-14 Data refer to exports plus imports of goods, commercial services and travel (balance of payments basis)
15,16 WASA traffic is traffic covered by the ASAs contained in the WASA database (2005)
17,18 **17** - Fixed wing civil aircraft registered in ICAO Contracting States with maximum certified take-off weight equal or greater than 2000 lbs. **18** - Airports from which international services are offered.
23 Simple average; excludes non *ad valorem* duties
24-28 Based on available information and in light of the W/120 and Air Annex classification
27 The 4 sub-sectors are: Computer Reservation System (CRS); Selling and marketing (Sell/Mark); Repair and maintenance (Maint); and Other
29,30 Goods FTAs in force, notified and non-notified to the GATT/WTO, as of 30 June 2006
31-35 For an explanation of "Standard", "5th+", "OWN+" and "DES+", see Methodological notes in Part D
36 SOEC = Substantial Ownership and Effective Control; PPOB = Principal Place of Business

Symbols and abbreviations:

- | | | | |
|-----|-------------------------------|------|---------------------------------|
| ... | Not available or not reported | - | Not applicable (non WTO Member) |
| ALI | Air Liberalisation Index | ASA | Air Services Agreement |
| GDP | Gross Domestic Product | MFN | Most Favoured Nation |
| FTA | Free Trade Agreement | WASA | World Air Services Agreements |

CONTRACTING STATE A

Chart 1

Share of traffic by ALI range
(percentage, 2005)

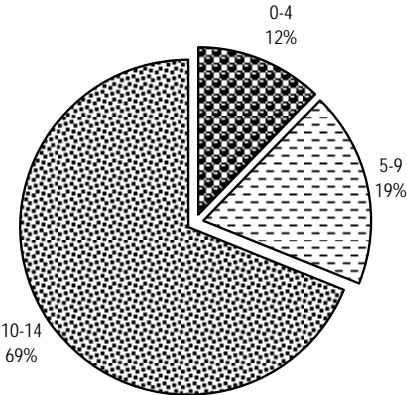


Chart 2

Share of traffic by type
(percentage, 2005)

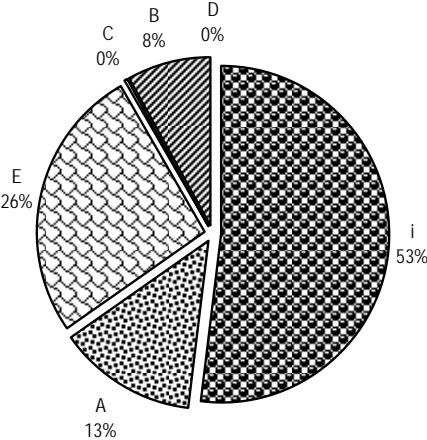
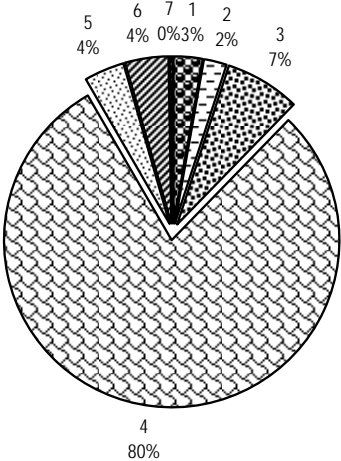


Chart 3

Share of traffic by region of partner
(percentage, 2005)



1 Africa, 2 Asia and Oceania,
3 Commonwealth of Independent States,
4 Europe, 5 Middle East, 6 North America,
7 South and Central America and the Caribbean

Note: "0%" indicates a share of between 0.01% and 0.49%. Total may not equal 100 due to approximation.

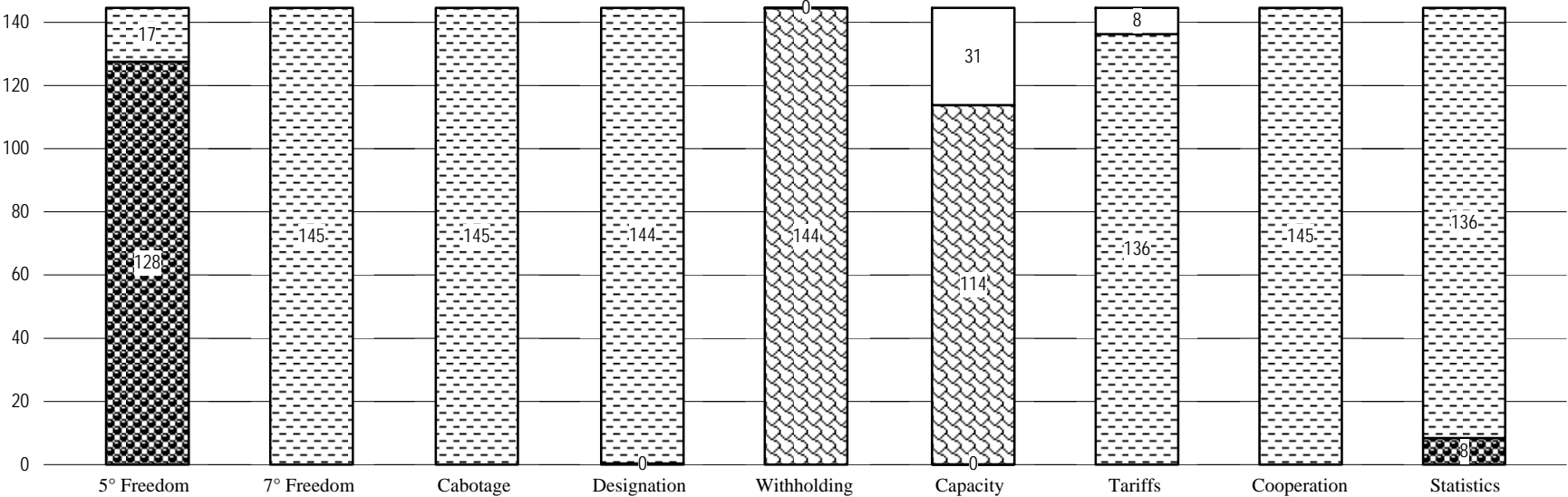
Source: WTO Secretariat (2006)

CONTRACTING STATE A

Chart 4

Distribution of traffic by feature of bilateral Air Services Agreements (thousand passengers, 2005)

1000 passengers



Notes: Sum of traffic may not equal the total WASA traffic figure contained in Table 1 due to approximation.
"0" indicates that a feature is present and covers between 1 and 999 passengers.
Designation in this chart refers to the right to designate one or more airlines (i.e. **multiple** designation).
Statistics in this chart refers to "**no exchange of statistics**". In the example above, there is no requirement to exchange statistics in ASAs covering 8,000 passengers.
Cooperation refers to the presence of a provision for entering into cooperative marketing arrangements, such as blocked-space or code-sharing.

Source: WTO Secretariat (2006).

5° Freedom, 7° Freedom, Cabotage, Designation, Cooperation, Statistics

With
Without

Withholding

Principal Place of Business
Community of Interest
Substantial Ownership and Effective Control
Undetermined

Capacity

Free Determination
Bermuda I
Pre-Determination
Undetermined

Tariffs

Free Pricing
Zone Pricing
Double Disapproval
Country of Origin
Double Approval
Undetermined

CONTRACTING STATE A

Table 2
Bilateral Air Services Agreements recorded by ICAO, selected indicators (2005)

Party	Date	Direct services	ALI Standard	ALI 5th+	ALI OWN+	ALI DES+	Type	Distance (km)	Traffic Range (passengers)
1	2	3	4	5	6	7	8	9	10

Notes: **1,2** List compiled on the basis of the information contained in ICAO, World Air Services Agreements (WASA) database (2005).
3 Existence of direct services (i.e. service operated under the same flight number) by IATA member airlines, based on summer 2006 data.
4-8 Computed by the WTO Secretariat
9 Data refer to the distance between the main city of Contracting State A and the main city of its ASA partner. Compiled from the Centre d'Études Prospectives et d'Informations Internationales (CEPII), Country Data "geo_cepii", available from <http://www.cepii.fr/anglaisgraph/bdd/distances.htm>.
10 IATA traffic data (2005).
 "<1" implies that there is no traffic.

Source: WTO Secretariat (2006)

Table 3
Direct air transport services not covered by a bilateral Air Services Agreement as recorded by ICAO (2005)

Countries or territories	Traffic range	Countries or territories	Traffic range
1	2	1	2

Notes: **1** List compiled on the basis of a comparison between the information contained in ICAO, World Air Services Agreements (WASA) database (2005), and data on direct services by IATA member airlines (summer 2006).
2 IATA traffic data (2005).
 Symbol: ... Not available

Source: WTO Secretariat (2006)

INDEX OF CONTRACTING STATES PROFILED

Afghanistan	I. 91	Czech Republic	I. 413
Albania	I. 97	Denmark	I. 421
Algeria	I. 103	Djibouti	I. 429
American Samoa	I. 111	Dominican Republic	I. 435
Angola	I. 117	Ecuador	I. 441
Antigua and Barbuda	I. 123	Egypt	I. 447
Argentina	I. 129	El Salvador	I. 455
Armenia	I. 137	Equatorial Guinea	I. 461
Aruba	I. 143	Estonia	I. 467
Australia	I. 151	Ethiopia	I. 473
Austria	I. 157	Fiji	I. 481
Azerbaijan	I. 165	Finland	I. 487
Bahamas	I. 171	France	I. 495
Bahrain	I. 177	FYR Macedonia	I. 503
Bangladesh	I. 185	Gabon	I. 513
Barbados	I. 191	Gambia	I. 519
Belarus	I. 197	Georgia	I. 525
Belgium	I. 203	Germany	I. 531
Benin	I. 215	Ghana	I. 541
Bhutan	I. 221	Greece	I. 549
Bolivarian Republic of Venezuela	I. 227	Grenada	I. 557
Bolivia	I. 233	Guatemala	I. 563
Bosnia and Herzegovina	I. 239	Guinea	I. 569
Botswana	I. 245	Guinea-Bissau	I. 575
Brazil	I. 251	Guyana	I. 581
Brunei Darussalam	I. 259	Haiti	I. 587
Bulgaria	I. 267	Honduras	I. 593
Burkina Faso	I. 275	Hong Kong, China	I. 599
Burundi	I. 281	Hungary	I. 607
Cambodia	I. 287	Iceland	I. 615
Cameroon	I. 293	India	I. 621
Canada	I. 299	Indonesia	I. 629
Cape Verde	I. 307	Iran, Islamic Republic of	I. 637
Central African Republic	I. 313	Iraq	I. 645
Chad	I. 319	Ireland	I. 653
Chile	I. 325	Israel	I. 659
China	I. 333	Italy	I. 667
Colombia	I. 341	Jamaica	I. 675
Comoros	I. 347	Japan	I. 683
Congo, Democratic Republic of	I. 353	Jordan	I. 691
Congo	I. 359	Kazakhstan	I. 699
Cook Island	I. 367	Kenya	I. 705
Costa Rica	I. 373	Korea, Democratic People's Republic of	I. 713
Côte d'Ivoire	I. 379	Korea, Republic of	I. 719
Croatia	I. 387	Kuwait	I. 727
Cuba	I. 397	Kyrgyz Republic	II. 5
Cyprus	I. 405	Lao People's Democratic Republic	II. 11

Latvia	II. 17	Rwanda	II. 331
Lebanon	II. 23	Saint Kitts and Nevis	II. 337
Lesotho	II. 31	Saint Lucia	II. 343
Liberia	II. 37	Samoa	II. 349

Libyan Arab Jamahiriya	II. 43	Sao Tome and Principe	II. 355
Lithuania	II. 51	Saudi Arabia	II. 361
Luxembourg	II. 57	Senegal	II. 369
Macao, China	II. 63	Serbia and Montenegro	II. 377
Madagascar	II. 71	Seychelles	II. 385
Malawi	II. 77	Sierra Leone	II. 391
Malaysia	II. 83	Singapore	II. 397
Maldives	II. 91	Slovak Republic	II. 405
Mali	II. 97	Slovenia	II. 411
Malta	II. 105	Solomon Islands	II. 417
Marshall Islands	II. 111	Somalia	II. 423
Mauritania	II. 117	South Africa	II. 429
Mauritius	II. 123	Spain	II. 437
Mexico	II. 129	Sri Lanka	II. 445
Moldova	II. 137	Sudan	II. 453
Mongolia	II. 143	Suriname	II. 459
Morocco	II. 149	Swaziland	II. 465
Mozambique	II. 157	Sweden	II. 471
Myanmar	II. 163	Switzerland	II. 479
Namibia	II. 171	Syrian Arab Republic	II. 489
Nauru	II. 177	Tanzania	II. 497
Nepal	II. 183	Thailand	II. 503
Netherlands Antilles	II. 189	Togo	II. 511
Netherlands	II. 195	Tonga	II. 517
New Zealand	II. 205	Trinidad and Tobago	II. 523
Nicaragua	II. 213	Tunisia	II. 529
Niger	II. 219	Turkey	II. 537
Nigeria	II. 225	Turkmenistan	II. 545
Norway	II. 233	Tuvalu	II. 551
Oman	II. 241	Uganda	II. 557
Pakistan	II. 249	Ukraine	II. 563
Panama	II. 257	United Arab Emirates	II. 571
Papua New Guinea	II. 263	United Kingdom	II. 579
Paraguay	II. 269	United States	II. 589
Peru	II. 275	Uruguay	II. 599
Philippines	II. 281	Uzbekistan	II. 605
Poland	II. 289	Vanuatu	II. 613
Portugal	II. 297	Viet Nam	II. 619
Qatar	II. 305	Yemen	II. 625
Romania	II. 313	Zambia	II. 631
Russian Federation	II. 321	Zimbabwe	II. 637