

## **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"<sup>2</sup> agreements, nor by regional or plurilateral agreements. Some partial analyses have been undertaken on cargo traffic<sup>3</sup> and on the transatlantic sector.<sup>4</sup> 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).<sup>5</sup> 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.

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<sup>2</sup> 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.

<sup>3</sup> 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>.

<sup>4</sup> 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>.

<sup>5</sup> See third document on [http://www.icao.int/cgi/goto\\_m\\_atb.pl?icao/en/atb/ecp/dubai2006/Docs.htm](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 prices<sup>6</sup> have militated in favour of gathering further economic, trade and aviation data so as to extend these approaches on a universal scale.<sup>7</sup> 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 database<sup>8</sup> 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.<sup>9</sup>

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 WASA<sup>10</sup> 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

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<sup>6</sup> 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.

<sup>7</sup> 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).

<sup>8</sup> The terms WASA and WASA database are used interchangeably throughout this document.

<sup>9</sup> 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.

<sup>10</sup> 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.<sup>11</sup>

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.<sup>12</sup>

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 Members<sup>13</sup>, 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, withholding<sup>14</sup>, 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 (5<sup>th</sup>+, 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:

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

<sup>12</sup> 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.

<sup>13</sup> 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.

<sup>14</sup> 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 database<sup>15</sup>, extracting and manipulating the relevant data. The Secretariat stands ready, on request, to assist Members in this regard.

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<sup>15</sup> 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**

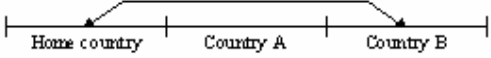
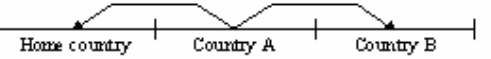
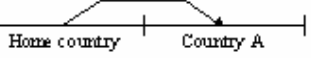
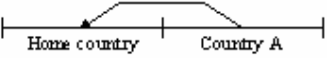
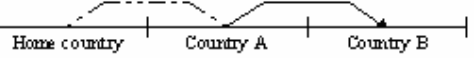
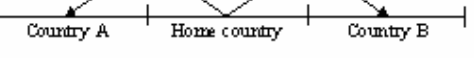
Element	References	Air Liberalisation Index							
		Standard	5th+	OWN+	DES+				
<b>GRANT OF RIGHTS</b>									
Fifth Freedom	Compilation page 194, paragraph 28	6	12	5	5.5				
Seventh Freedom	Compilation page 196, paragraph 40	6	5	5	5.5				
Cabotage	Compilation page 197, paragraphs 44-48	6	5	5	5.5				
<b>CAPACITY</b>	Compilation page 216, paragraphs 107-108 and pages 203-204, Table A2								
Predetermination		0	0	0	0				
"Other restrictive" <sup>16</sup>		2	1.5	1.5	1.5				
Bermuda I		4	3.5	3.5	3.5				
"Other liberal" <sup>1</sup>		6	5	5	5.5				
Free Determination		8	7	7	7.5				
<b>TARIFFS</b>	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	$\frac{4}{7}$	7	$\frac{3.5}{6}$	7	$\frac{3.5}{6}$	7.5	$\frac{3.5}{6.5}$
Free Pricing		8	7	7	7.5				
<b>WITHHOLDING</b>	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				
<b>DESIGNATION</b>	Compilation page 208, paragraph 65								
Single Designation		0	0	0	0				
Multiple Designation		4	3.5	3.5	7.5				
<b>STATISTICS</b>	Compilation page 202, Table A2								
Exchange of Statistics		0	0	0	0				
No exchange of Statistics		1	1	1	1				
<b>COOPERATIVE ARRANGEMENTS</b>	Compilation pages 223-224, paragraphs 16-20								
Not allowed		0	0	0	0				
Allowed		3	2.5	2.5	2.5				
<b>TOTAL</b>		<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>				

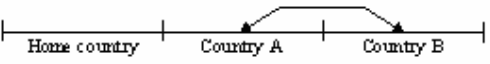
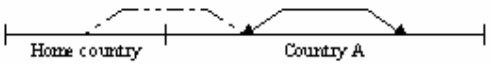
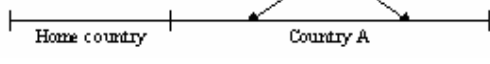
Source: WTO Secretariat.

<sup>16</sup> 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><b>FIRST FREEDOM</b> 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><b>SECOND FREEDOM</b> To make a technical stop in another country</p>	
 <p><b>THIRD FREEDOM</b> 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><b>FOURTH FREEDOM</b> To carry freight and passengers to the home country from another country</p>	
 <p><b>FIFTH FREEDOM</b> 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><b>SIXTH FREEDOM</b> 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><b>SEVENTH FREEDOM</b> 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><b>EIGHTH FREEDOM OR CABOTAGE</b> 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 agreements<sup>17</sup> though, for instance, the bilateral version of the ICAO Template Air Services Agreement<sup>18</sup> devotes a special provision to them<sup>19</sup> 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><b>TRUE DOMESTIC</b> 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.

<sup>17</sup> 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).

<sup>18</sup> 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.

<sup>19</sup> 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
<b>A</b>	3 <sup>rd</sup> and 4 <sup>th</sup>	Single designation	Substantive ownership and effective control	Double approval	Pre-determination	221 (11.2%)	18.4 m (5.3%)
<b>B</b>	3 <sup>rd</sup> and 4 <sup>th</sup>	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination	182 (9.2%)	19.7 m (5.6%)
<b>C</b>	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>	Single designation	Substantive ownership and effective control	Double approval	Pre-determination	432 (21.9%)	30.2 m (8.7%)
<b>D</b>	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>	Single designation	Substantive ownership and effective control	Double approval	Bermuda I	99 (5.0%)	10.4 m (3.0%)
<b>E</b>	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>	Multi-designation	Substantive ownership and effective control	Double approval	Pre-determination	267 (13.6%)	43 m (12.3%)
<b>F</b>	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>	Multi-designation	Substantive ownership and effective control	Double approval	Bermuda I	154 (7.8%)	71.1 m (20.4%)
<b>G</b>	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>	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%)
<b>i</b> <b>Incomplete ICAO coding</b>	<i>If either:</i>		"n/a"	"n/a"	"other"	302 (15.3%)	56 m (16.0%)
<b>o</b> <b>All other combinations</b>						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:

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

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.<sup>20</sup>

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

<sup>20</sup> 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.<sup>21</sup> 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.<sup>22</sup>

#### **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);<sup>23</sup>
- "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.<sup>24</sup> This list is in two parts.

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<sup>21</sup> 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.

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

<sup>23</sup> 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.

<sup>24</sup> 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](http://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.<sup>25</sup>
- the Single Aviation Market of the EC (1987)<sup>26</sup>;
  - 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)<sup>27</sup>;
  - 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)<sup>28</sup> 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).

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<sup>25</sup> The date of conclusion is indicated in parenthesis.

<sup>26</sup> 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).

<sup>27</sup> 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".

<sup>28</sup> 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](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**

<b>Plurilateral ASAs</b>	<b>Parties</b>
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

<b>Plurilateral ASAs</b>	<b>Parties</b>
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.