
REPORT

July 2008
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<th>Description</th>
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1. EXECUTIVE SUMMARY

1.1 This report presents the results of the recent ICAO survey assessing the status of ownership, organization and regulatory practices of airports and air navigation services providers (ANSPs) in 2007 and planned changes thereof. The survey covered 101 reporting ICAO Contracting States, their ANSPs and nearly 600 airports.

1.2 The continued establishment of autonomous entities for both airports and ANSPs and the involvement of private interests in airport operations strengthened the trend towards commercialization and mostly partial privatization. Common goals are good corporate governance, managerial efficiency, cost-effectiveness, service quality and financial viability. In 2007, autonomous entities represented 40 per cent of all sampled airports and 44 per cent of all sampled ANSPs.

1.3 As for the composition of capital, the survey reveals that 73 per cent of the sampled international airports were, fully or partially, State-owned. Blending corporate objectives of financial viability with profitability and accountability to shareholders seems to work well for State-owned airports. A ratio of 4 to 1 applies for national to regional/municipal governments as shareholders. Full or partial private ownership was reported for 24 per cent of the sub-sample of airports for which capital composition was indicated. Private participation in the provision of air navigation services remains rare to date.

1.4 An examination of major airport services that were owned and/or operated by private corporations reveals that airport operators opted more and more for outsourcing. The private sector was to a large extent involved in providing ground handling (84 per cent), cargo and passenger terminal services (74 per cent and 67 per cent, respectively), as well as airport security (65 per cent).

1.5 The survey found that approach and aerodrome control services were provided in 80 per cent of the States by the same entity that provides air traffic services (ATS) en route, while in the remaining 20 per cent of the States the services were provided by the airport operator. In most States, the ATS providers were also responsible for aeronautical communication services (COM) and aeronautical information services (AIS) (89 per cent), and to a large degree for meteorological services for air navigation (MET) (42 per cent) and search and rescue services (SAR) (44 per cent).

1.6 The survey also established to what extent performance measurement and benchmarking were in effect. Almost all of the international airports, reporting on performance indicators, measured (or plan to measure) service quality, safety, productivity and cost-effectiveness (listed in decreasing order). At the regional level, safety was a priority in the Asia/Pacific region. Other areas where performance indicators had been established included security, environment, air traffic volume, pricing and risk assessment. Almost all of the ANSPs under review measured (or plan to measure) performance of safety, closely followed by service quality, productivity and cost-effectiveness (listed in decreasing order).

1.7 Along with the trend towards commercialization and privatization comes the need to separate the provision of airport and air navigation services from regulatory functions. Out of 84 reporting States, the airports in 72 States and the ANSPs in 64 States were separated from the regulator, with more States planning to separate these functions.

1.8 Economic oversight is a State responsibility with various public policy objectives including the prevention of the risk that a service provider could abuse its dominant position. Out of 84 reporting States, 47 confirmed that they exercise economic oversight for airports and 42 for ANSPs; more States are planning to do so.
1.9 The survey also inquired about the involvement of service providers and regulators in setting charges. Almost half of the reporting States indicated that service providers set the charges upon prior approval by regulators as required by the respective Governments. A few service providers set the charges according to price setting regulations in force. A variety of determinants and approaches were applied in setting air traffic charges. Transparent accounting systems were reportedly used as a determinant by one third of the airports and ANSPs, while the principle of cost-based charges ranked first in approaches in over half of the 84 reporting States.

1.10 The survey examined also the extent to which airports and ANSPs in the 85 reporting States conducted consultations with users on charges and infrastructure development. The results show that consultations were held, either on a mandatory or voluntary basis, on charges in about four out of five States but less with respect to infrastructure development.

2. SURVEY COVERAGE AND ANALYSIS

2.1 This report presents the results of the recent ICAO survey assessing the status of ownership, organization and regulatory practices of airports and air navigation services providers (ANSPs) in 2007 and planned changes thereof. The survey covered 101 reporting ICAO Contracting States, their ANSPs and nearly 600 airports.

2.2 Data from States were collected through questionnaires, a specimen of which is attached in the Appendix, which were evaluated and then aggregated into regional and total samples. The previous report, undertaken in connection with the Conference on the Economics of Airports and Air Navigation Services (ANSConf 2000), presented results by States, while this report measures both the number of States and/or the number of airports, as appropriate. This approach has been adopted because the ownership structures are no longer homogeneous within a State and several organizational forms can co-exist.

2.3 Furthermore, in order to arrive at aggregated results within the evaluation framework, categories from the questionnaires were grouped into broader categories with common characteristics, where appropriate. For example, in Table 1, the categories “national government (ministry or other)”, “regional or municipal government” and “Directorate of Civil Aviation” (or “Civil Aviation Authority”) were grouped under “Governmental entity”, while “State-owned autonomous airport entity”, and “Privately-owned airport entity” were grouped under “Autonomous entity”. In instances of commercialization and partial privatization more than one category was applicable per airport and, therefore, there are more column entries than the absolute number of airports.

3. OWNERSHIP AND ORGANIZATION OF AIRPORTS

3.1 The autonomous airport entity has become the most common form of airport ownership and organization. This represents a shift away from either a Civil Aviation Authority (CAA) or other national government entity as the dominant forms of ownership and/or operational management in the previous survey. In 2007, autonomous entities represented 40 per cent of all sampled airports. While 80 per cent of autonomous airports were State-owned, 20 per cent were privately-owned (see Figure 1). Governmental entities were the second strongest category. Increasingly, regional and municipal governments, partially or fully, owned and/or managed the airports in their respective communities. The

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1 The term “State”, as used throughout the following text, has to be understood as the territorial entity under which airports or air navigation services providers operate.

third-ranking category is composed of airports that are operated under a concession or leasing arrangement by private interests. Airports with such arrangements were reported mainly in Central and South America and the Caribbean, and to a lesser extent in Asia and the Pacific. Indications for concessions to be granted in future were notable in Europe. Other initiatives towards commercialization and partial privatization were reported in the category “other”.

3.2 Figure 1 displays the status of airport ownership and/or operation across these major categories in 2007. In addition, Table 1 summarizes the related survey results on a regional basis.

**Figure 1. Ownership and/or operation of international airports**

(2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>No. of airports</th>
<th>Governmental entity</th>
<th>Autonomous entity</th>
<th>Concession or leasing arrangement</th>
<th>Other</th>
</tr>
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<tr>
<td></td>
<td></td>
<td></td>
<td>national government (ministry or other)</td>
<td>regional or municipal government</td>
<td>Civil Aviation Authority</td>
<td>State-owned</td>
</tr>
<tr>
<td>Africa</td>
<td>23</td>
<td>62</td>
<td>5</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>20</td>
<td>84</td>
<td>2</td>
<td>0</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>14</td>
<td>143</td>
<td>16</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Europe</td>
<td>36</td>
<td>242</td>
<td>24</td>
<td>0</td>
<td>50</td>
<td>0</td>
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<td>42</td>
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<td>578</td>
<td>51</td>
<td>0</td>
<td>119</td>
<td>0</td>
</tr>
</tbody>
</table>

3.3 The composition of capital was reported for 459 airports. The survey reveals that 73 per cent of the sampled international airports were, fully or partially, State-owned. Partially State-owned
airports seem to aim at blending corporate objectives of financial viability with profitability and accountability to shareholders through various degrees of ownership. A ratio of 4 to 1 applies for national to regional/municipal governments as shareholders. National governments owned the majority of State-owned airports in full; they were in several instances majority shareholders and hardly ever minority shareholders. By comparison, regional/municipal governments held mostly minority shares or were sole owners but rarely held majority shares. Private shareholders, with full or partial ownership, were reported for 24 per cent of the airports for which capital composition was indicated. They were of national origin in two thirds of the instances and of foreign origin in one third.

3.4 An examination of which major airport services were owned and/or managed by private interests reveals that airport operators opted more and more for outsourcing. In decreasing order, the private sector was involved in providing ground handling (483 airports), cargo and passenger terminal services (430 and 387 airports, respectively), airport security (373 airports) and approach and aerodrome control services (198 airports) (for information on the latter services operated by the airport entity itself, see also Table 5 below). National companies, which may well have been subsidiaries of multinational corporations, took the lead. However, both national and foreign companies were frequently involved in carrying out these functions, particularly in those regions where concession or leasing arrangements were common. Sole foreign ownership and/or operation remained the exception. Table 2 shows a breakdown for these functions in terms of national and/or foreign ownership by region.

Table 2. Airport services owned or operated by private interests (2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of airports</th>
<th>Terminal services</th>
<th>Ground handling</th>
<th>Security services</th>
<th>Air Traffic Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>passenger</td>
<td>cargo</td>
<td>passenger</td>
<td>cargo</td>
</tr>
<tr>
<td></td>
<td></td>
<td>national</td>
<td>mixed</td>
<td>national</td>
<td>mixed</td>
</tr>
<tr>
<td>Africa</td>
<td>56</td>
<td>36</td>
<td>1</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>72</td>
<td>25</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>126</td>
<td>77</td>
<td>4</td>
<td>43</td>
<td>8</td>
</tr>
<tr>
<td>Europe</td>
<td>192</td>
<td>77</td>
<td>20</td>
<td>51</td>
<td>96</td>
</tr>
<tr>
<td>Middle East</td>
<td>4</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North America</td>
<td>42</td>
<td>10</td>
<td>0</td>
<td>32</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>492</td>
<td>225</td>
<td>28</td>
<td>134</td>
<td>251</td>
</tr>
</tbody>
</table>

3.5 The survey also established to what extent performance measurement and benchmarking were in effect assessing safety, service quality, productivity and cost-effectiveness at international airports. As airports become more commercially-oriented, they need to adopt business-like management practices and improve their operational and financial performances. The introduction of performance measurement does not strictly depend on the ownership structure of a service provider since performance is linked to good governance and application of best management practices. Of the total sample, 441 airports measured performance standards of service quality, closely followed by safety (435 airports), productivity and cost-effectiveness (both 365 airports). At the regional level, safety took a clear priority in Asia and the Pacific. Other areas where performance standards or indicators had been established included security, environmental effects, air traffic volume, pricing and risk assessment. Table 3 provides details on performance measurement and benchmarking at international airports, in effect and planned for all regions.
Table 3. Performance measurement and benchmarking at international airports (2007 and planned)

<table>
<thead>
<tr>
<th>Region</th>
<th>Safety</th>
<th>Service quality</th>
<th>Productivity</th>
<th>Cost-effectiveness</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>44</td>
<td>11</td>
<td>41</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>73</td>
<td>8</td>
<td>42</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>103</td>
<td>18</td>
<td>119</td>
<td>13</td>
<td>100</td>
</tr>
<tr>
<td>Europe</td>
<td>102</td>
<td>30</td>
<td>120</td>
<td>30</td>
<td>111</td>
</tr>
<tr>
<td>Middle East</td>
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<td>1</td>
</tr>
<tr>
<td>North America</td>
<td>39</td>
<td>3</td>
<td>41</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>Total no. of reported applications</td>
<td>365</td>
<td>70</td>
<td>364</td>
<td>77</td>
<td>283</td>
</tr>
</tbody>
</table>

4. OWNERSHIP AND ORGANIZATION OF AIR NAVIGATION SERVICES PROVIDERS

4.1 The autonomous entity remained the dominant organizational form of ownership and/or organization of air navigation services providers (ANSPs) since the previous survey. The majority of ANSPs in the 101 reporting States were State-owned autonomous entities; 44 per cent of all sampled entities fell in this category in 2007 (54 per cent if counting 2007 and plans). Private participation in the provision of air navigation services remains rare to date. Three ANSPs were reported as private entities (fully or partially owned by private interests). One example is AEROTHAI, the Aeronautical Radio of Thailand Limited, a State enterprise in which 89 airlines had minority equity stakes in 2008. Another example is NAV CANADA, a non-profit organization that has no shareholders and accordingly no dividends to declare, where airline representatives are members on the board of directors. In Europe, the NATS Ltd was established in the United Kingdom under the Companies Act in 1996 and became a public-private-partnership in 2001.

4.2 The second most common category was that of governmental entities with 38 per cent. The Civil Aviation Authority was charged with operational management of the ANSPs in 23 States, compared to other national government entities in 15 States. Two international agencies, namely the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) and the Central American Corporation for Air Navigation Services (COCESNA), operated air navigation services on behalf of their respective member States. Figure 2 displays the status of ownership and operational structures for ANSPs across these major categories for the total sample. Table 4 summarizes the related survey results by region.

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4 For example, the Deutsche Flugsicherung GmbH (German Air Traffic Control Ltd.) changed its organizational form into a company limited but its ownership remained wholly State-owned.
Figure 2. Ownership and/or operation of air navigation services (2007)

Table 4. Ownership and operation of air navigation services by region (2007 and planned)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>Governmental entity</th>
<th>Autonomous entity</th>
<th>International operating agency</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>national government (ministry or other)</td>
<td>Civil Aviation Authority</td>
<td>State-owned</td>
<td>privately-owned</td>
</tr>
<tr>
<td>Africa</td>
<td>23</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>16</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>19</td>
<td>2</td>
<td>0</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Europe</td>
<td>38</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Middle East</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>North America</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Total</td>
<td>101</td>
<td>15</td>
<td>0</td>
<td>23</td>
<td>2</td>
</tr>
</tbody>
</table>

4.3 Approach and aerodrome control services were provided in 80 instances by the same organization that provides air traffic services (ATS) en route. Only in 20 instances were these services provided by the airport operator itself. Some States reported that more than one entity is in charge of providing these services. Table 5 shows the breakdown by region.

4.4 In the majority of States, the providers of en-route services were also responsible for aeronautical communication services (COM) and aeronautical information services (AIS) (90 States), while they were charged with meteorological services for air navigation (MET) in 42 instances, and search and rescue services (SAR) in 44 instances. Table 5 shows the breakdown by region.
Table 5. Provision of approach/aerodrome control and other air navigation services by region (2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>Approach and aerodrome control</th>
<th>Other air navigation services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>airport entity itself</td>
<td>entity providing en-route services</td>
</tr>
<tr>
<td>Africa</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>3</td>
<td>12</td>
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<tr>
<td>Europe</td>
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<tr>
<td>Middle East</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>North America</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total no. of reported applications</td>
<td>20</td>
<td>80</td>
</tr>
</tbody>
</table>

4.5 Performance measurement and benchmarking were reported to be in use by the majority of ANSPs to assess safety, service quality, productivity and cost-effectiveness. Of the total sample, 87 ANSPs measured performance standards of safety, followed by service quality (82 applications), productivity and cost-effectiveness (both 75 applications). Safety was of a high priority in all regions. Other areas where performance standards or indicators have been established included security, environmental effects, charges and technology. Table 6 provides details on performance measurement and benchmarking of ANSPs in effect and planned for all regions.

Table 6. Performance measurement and benchmarking of ANSPs (2007 and planned)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>16</td>
<td>5</td>
<td>16</td>
<td>5</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>10</td>
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<td>Asia/Pacific</td>
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<td>2</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>3</td>
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<td></td>
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<tr>
<td>Caribbean, Central and South America</td>
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<td>9</td>
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<td>North America</td>
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<td>2</td>
<td>0</td>
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<td></td>
</tr>
<tr>
<td>Total no. of reported applications</td>
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<td>16</td>
<td>64</td>
<td>18</td>
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<td>26</td>
<td>50</td>
<td>25</td>
<td>9</td>
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</tbody>
</table>
5. REGULATORY PRACTICES

5.1 Along with the trend towards commercialization and privatization comes the need to separate the provision of airport and air navigation services from regulatory functions. Of 84 reporting States, airports and ANSPs were operated separately from their regulatory authorities in 72 and 64 States, respectively, with even more States planning to separate these functions. Table 7 shows the details between current and planned separation of services from regulation by region.

5.2 Economic oversight (i.e. monitoring by the State of the commercial and operational practices of a service provider) seeks to achieve a balance between public policy objectives and the efforts of autonomous entities to obtain the optimal effects of commercialization. Of 84 reporting States, 47 States indicated that they exercised economic oversight for airports and 42 States for ANSPs; more States are planning to do so. Table 7 shows the details regarding economic oversight by region.

Table 7. Separation of services from regulation and economic oversight
(2007 and planned)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>Separation of services from regulation</th>
<th>Economic oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>airport</td>
<td>ANSP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2007</td>
<td>plan</td>
</tr>
<tr>
<td>Africa</td>
<td>19</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>14</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>10</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Europe</td>
<td>37</td>
<td>33</td>
<td>4</td>
</tr>
<tr>
<td>Middle East</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>North America</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>72</td>
<td>11</td>
</tr>
</tbody>
</table>

5.3 The continuous establishment of autonomous entities as the dominant organizational form for airports and ANSPs (as owners, administrators and/or operators), along with the other changes described in Parts 2 and 3 above, is reflected by who is responsible for setting airport and air navigation services charges and how economic oversight is exercised. In around half of the 84 reporting States (46 for airports and 42 for ANSPs) governments accept that service providers set the charges subject to approval by a regulator. A quarter of the reporting States indicated that service providers set the charges in agreement with users (21 States for airports and 20 for ANSPs). Governments set the charges directly in 19 States for airports and 18 for ANSPs. A few service providers set the charges themselves according to price setting regulations in force, for instance in some European States. An overview of the various options, which can complement one another as more than one category applies in numerous States, is given in Table 8 by region.
Table 8. Entity setting air traffic charges (2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>Service provider on its own</th>
<th>Service provider in agreement with users</th>
<th>Service provider with government approval</th>
<th>Government</th>
<th>Regulatory body</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>airport</td>
<td>ANSP</td>
<td>airport</td>
<td>ANSP</td>
<td>airport</td>
<td>ANSP</td>
</tr>
<tr>
<td>Africa</td>
<td>19</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>14</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Europe</td>
<td>37</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Middle East</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>North America</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>14</td>
<td>15</td>
<td>21</td>
<td>20</td>
<td>46</td>
<td>42</td>
</tr>
</tbody>
</table>

5.4 A variety of determinants and approaches are applied in setting air traffic charges. For an airport, they range from establishing cost bases and transparent accounting systems to applying regulatory provisions and intergovernmental agreements. The results of this survey indicate whether or not States apply the various determinants and approaches that are summarized in Table 9. Transparent accounting systems were reportedly used by one third of the sampled airports and ANSPs (28 States for both). The application of cost-based charges ranked first in approaches in over half of the 84 reporting States (47 States for airports and 52 States for ANSPs). Apart from sporadic applications in the Americas, only States in Europe and Asia/Pacific reported on specifics regarding the use of the single-till versus the dual-till or a hybrid approach in calculating airport charges (for a description of these concepts, see the ICAO Airport Economics Manual – Doc 9562, Chapter 4). In Asia/Pacific the hybrid approach was favoured, followed by dual-till and single-till, while in Europe both hybrid and single-till were the most common. For ANSPs, the reporting was insignificant as income from non-aeronautical activities hardly plays any role.

5.5 In 2007, price-setting regulations or competition laws for their respective service providers were enacted only in one out of four reporting States in the case of airports, and in one out of five for ANSPs. In contrast, about half of the reporting States declared that economic oversight was in force (see Table 7 above, right-hand side). Again, the determinants and approaches apply supplementary to one another and, therefore, warrant multiple entries per States. Revenue-targeted charges played some role, mainly in Europe.

---

5 The ICAO Airport Economics Manual (Doc 9562) and the Manual on Air Navigation Services Economics (Doc 9161) describe procedures and practices, inter alia, of cost-recovery and revenue-generation.
Table 9. Determinants and approaches in setting air traffic charges (2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>Cost-based charges</th>
<th>Revenue-targeted charges</th>
<th>Transparent accounting system</th>
<th>Regulation</th>
<th>Inter-governmental agreements</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>unspecified</td>
<td>single-till</td>
<td>hybrid</td>
<td>dual-till</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>airport</td>
<td>ANSP</td>
<td>airport</td>
<td>airport</td>
<td>ANSP</td>
</tr>
<tr>
<td>Africa</td>
<td>19</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>14</td>
<td>9</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>10</td>
<td>6</td>
<td>7</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Europe</td>
<td>37</td>
<td>27</td>
<td>32</td>
<td>8</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Middle East</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North America</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>47</td>
<td>52</td>
<td>9</td>
<td>14</td>
<td>10</td>
</tr>
</tbody>
</table>

5.6 Consultations with users on charges and infrastructure developments (planning and investment) aim at enhancing the cooperation between service providers and users in the interests of increasing efficiency and improving cost-effectiveness of airport and air navigation services operations. In order to serve that goal, it is important to establish regular procedures for the consultation process between service providers and users. Consultations may include other issues on costs and charges, such as collection of passenger service charges, cost recovery of security measures and environmental charges.

5.7 The survey examined the extent to which airports and ANSPs in the 85 reporting States conducted consultations with users. On charges, it was reported that airports conducted mandatory consultations in 32 States, held voluntary regular consultations in 36 States, and had no consultation process in place in 19 States. For ANSPs, 39 States reported the conduct of mandatory consultations on charges, primarily with airline and general aviation associations, while 32 States reported voluntary regular consultations and 15 States had no consultation process in place. Details by region on consultations with users on infrastructure development are shown on the right-hand side of Table 10.

5.8 Consultations with users on infrastructure developments were less common. Mandatory consultations were in effect in only one fifth of the 85 reporting States (18 States for airports and 17 for ANSPs). However, about half of the States (45 for airports and 39 for ANSPs) opted for voluntary regular consultations. No consultation process was in place in the remaining States (13 for airports and 17 for ANSPs). Details by region on consultations with users on infrastructure development are shown on the right-hand side of Table 10.
Table 10. Consultations with users on air traffic charges and infrastructure developments (2007)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of reporting States</th>
<th>Air traffic charges</th>
<th>Infrastructure development</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>mandatory consultation</td>
<td>voluntary regular consultations</td>
<td>no consultation process</td>
</tr>
<tr>
<td></td>
<td></td>
<td>airport ANSP</td>
<td>airport ANSP</td>
<td>airport ANSP</td>
</tr>
<tr>
<td>Africa</td>
<td>19</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Asia/Pacific</td>
<td>14</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Caribbean, Central and South America</td>
<td>10</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Europe</td>
<td>37</td>
<td>18</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>Middle East</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>North America</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>32</td>
<td>39</td>
<td>36</td>
</tr>
</tbody>
</table>
APPENDIX

SURVEY QUESTIONNAIRE

PURPOSE
This survey for States will assist the ICAO Secretariat in the preparation of background information for CEANS on some organizational and regulatory aspects of airports and air navigation services.

Reply to reach ICAO by 31 January 2008
State: ______________________________

COVERAGE
This survey is divided into three parts. Parts 1 and 2 address organizational issues for airports and air navigation services, respectively. Part 3 addresses regulatory practices applicable to airports and air navigation services in your State. Any additional input or comments you wish to provide may be written on the survey or supplied on a separate sheet.

PART 1 - AIRPORTS
To complete points 1.1 to 1.5 please use, if possible (and practicable), ONE copy of this part of the survey for each major international airport and/or for those international airports managed as a group, especially where there are differences in organization and ownership.

List of airports:

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
ORGANIZATION

1.1 Indicate below the current structure of ownership and operation of the airport(s), and any changes planned:

<table>
<thead>
<tr>
<th>Structure</th>
<th>Current</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Ministry or other national government department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Directorate of civil aviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Regional or municipal government</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Government-owned autonomous airport entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Private interests operating the airport(s) under a concession or leasing arrangement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Privately-owned airport entity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Other, please specify:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.2 If the ownership of the airport(s) currently includes, or is planned to include, private interests, indicate the percentage of capital owned by:

<table>
<thead>
<tr>
<th>Per cent of capital</th>
<th>Current</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Domestic private interests</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>b) Foreign private interests</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>c) Government – national</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>d) Government – regional or municipal</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>e) Other, please specify: ____________________________</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

1.3 Indicate where private domestic and/or foreign interests own or operate any of the following:

<table>
<thead>
<tr>
<th>Ownership/operation</th>
<th>Domestic</th>
<th>Foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) All airport infrastructure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Passenger terminal facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Cargo terminal facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Ground handling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e) Air traffic control (including communications)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f) Aviation security services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g) Other, please specify: ____________________________</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PERFORMANCE MANAGEMENT AND BENCHMARKING

1.4 Indicate whether the airport(s) uses, or plans to use, performance measurement and/or benchmarking in the following areas:

<table>
<thead>
<tr>
<th>Measures</th>
<th>In effect</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Safety</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b) Quality of service</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c) Productivity</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d) Cost-effectiveness</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>e) Other, please specify:</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

ADDITIONAL COMMENTS

1.5

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

____________________
PART 2 - AIR NAVIGATION SERVICES

FIR(s)/UIR(s) (Flight information region(s)/upper flight information region(s)) covered:

ORGANIZATION

2.1 Indicate below the current structure of ownership and operation under which air traffic services (ATS) en route (area control) are provided and any changes planned:

<table>
<thead>
<tr>
<th>Structure</th>
<th>Current</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Ministry or other national government department</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Directorate of civil aviation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Government owned autonomous entity</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) International operating agency</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Privately-owned entity (fully or partially)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f) Other, please specify: ____________________</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

2.2 Indicate whether approach and aerodrome control services, including communications, are currently provided by:

<table>
<thead>
<tr>
<th>Structure</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The airport administration itself</td>
<td>☐</td>
</tr>
<tr>
<td>b) The organization providing ATS en route</td>
<td>☐</td>
</tr>
<tr>
<td>c) Other, please specify: ____________________</td>
<td></td>
</tr>
</tbody>
</table>

2.3 Indicate whether the provider of ATS referred to in question 2.1 is also the principal provider of the following services:

<table>
<thead>
<tr>
<th>Structure</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) COM (Aeronautical telecommunication services)</td>
<td>☐</td>
</tr>
<tr>
<td>b) MET (Meteorological services)</td>
<td>☐</td>
</tr>
<tr>
<td>c) SAR (Search and rescue services)</td>
<td>☐</td>
</tr>
<tr>
<td>d) AIS (Aeronautical information services)</td>
<td>☐</td>
</tr>
</tbody>
</table>
2.4 Indicate whether the provider of ATS uses, or plans to use, performance measurement and/or benchmarking in the following areas:

<table>
<thead>
<tr>
<th>Measures</th>
<th>In effect</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Safety</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Quality of service</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Productivity</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Cost-effectiveness</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Other, please specify:</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

ADDITIONAL COMMENTS

2.5 ________________________________

______________________________

______________________________

______________________________

______________________________

______________________________

______________________________
3.1 Indicate whether the provision of airport and/or air navigation services is separated, or is planned to be separated, from regulatory functions:

<table>
<thead>
<tr>
<th>Airports</th>
<th>Air Navigation Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>In effect</td>
<td>In effect</td>
</tr>
<tr>
<td>Planned</td>
<td>Planned</td>
</tr>
<tr>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

3.2 Indicate if your government has, or plans to have, specific regulatory provisions with regard to economic oversight (i.e. monitoring of the commercial and operational practices of a service provider):

<table>
<thead>
<tr>
<th>Airports</th>
<th>Air Navigation Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>In effect</td>
<td>In effect</td>
</tr>
<tr>
<td>Planned</td>
<td>Planned</td>
</tr>
<tr>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

If you have checked any boxes under this question, please provide below or attach a brief summary of the provisions.

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

3.3 Indicate whether charges on air traffic (e.g. landing charges, parking charges, passenger service charges, security charges, route charges, and approach and aerodrome control charges) are determined by:

<table>
<thead>
<tr>
<th>Air Navigation Services Charges</th>
<th>Airport Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Airport/air navigation services provider on its own</td>
<td>□</td>
</tr>
<tr>
<td>b) Airport/air navigation services provider subject to agreements with users</td>
<td>□</td>
</tr>
<tr>
<td>c) Airport/air navigation services provider with government approval</td>
<td>□</td>
</tr>
<tr>
<td>d) Government</td>
<td>□</td>
</tr>
<tr>
<td>e) Economic regulatory and/or competition body</td>
<td>□</td>
</tr>
<tr>
<td>f) Other, please specify: _________________________________</td>
<td>□</td>
</tr>
</tbody>
</table>
3.4 Indicate the main determinants and factors applied in setting airport/air navigation services charges:

| a) | Charges are cost-based |     |
| b) | Charges are revenue-targeted |     |
| c) | Transparent accounting system clearly identifying sources of income and categories of expenses |     |
| d) | Regulatory factors (e.g. price cap) |     |
| e) | Non-aeronautical revenues are used to defray the cost base for charges (“single-till”) |   *
| f) | Contributions from non-aeronautical revenues are used to partly defray the cost base for charges (“hybrid”) |   *
| g) | Non-aeronautical revenues are not used to defray the cost base for charges (“dual-till”) |   *
| h) | Intergovernmental factors (e.g. obligations emanating from bilateral air services agreements; regional regulatory policy agreements) |     |
| i) | Other, please specify: _________________________________ |     |

(* if applicable)

3.5 Indicate whether there is a consultation process regarding charges between the airport(s)/ANSP and users and/or user representative organizations:

| a) | Consultation is mandatory |     |
| b) | Not mandatory but regular consultations |     |
| c) | No consultation process in place |     |
| d) | Other, please specify: _________________________________ |     |

3.6 Indicate whether there is a consultation process regarding infrastructure development between the airport(s)/ANSP and users and/or user representative organizations:
<table>
<thead>
<tr>
<th></th>
<th>Airport Development</th>
<th>Air Navigation Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Consultation is mandatory</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Not mandatory but regular consultations</td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>No consultation process in place</td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Other, please specify:</td>
<td></td>
</tr>
</tbody>
</table>

**ADDITIONAL COMMENTS**

3.7

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

— END —