JAL Group and the Environment

1. JAL Group Profile (as of March 31, 2003)

   (1) Stock Holding Company

   A. Registered Name: Japan Airlines System Corporation
   B. Head Office: JAL Building
   4-11 Higashi-shinagawa 2 chome
   Shinagawa-ku, Tokyo, Japan
   C. Established: October 2nd, 2002
   D. President: Isao Kaneko
   E. Paid-in Capital: 100 Billion Japanese Yen
   F. Number of Stockholders: 271,598
   G. Major Scope of Business:
      Management and incidental or related business of airlines and affiliated companies, as their holding company
   H. Web Site URL:
      http://www.jal.jp

   (2) JAL Group

   A. Company Structure: Japan Airlines System Corp., 171 consolidated subsidiaries, and 27 equity holding companies (Major group companies are listed on the chart below)
   B. Employees: 54,885 (excluding 27 equity holding companies and employees on loan to outside companies, etc.)
   C. Turnover: 2,083,480 Million Japanese Yen

<table>
<thead>
<tr>
<th>No. of JAL Group Employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2000</td>
</tr>
<tr>
<td>17,514</td>
</tr>
<tr>
<td>5,605</td>
</tr>
<tr>
<td>ttl. 52,014</td>
</tr>
</tbody>
</table>

   Note: Approx. 3000 employees increased in FY 2002 due to group company definition review

   Group other
   JAS
   JAL

   JAL Group Operating Revenue
   FY 2000 FY 2001 FY 2002
   12,572 12,339 11,695
   3,603 3,381 3,606
   ttl. 21,222 ttl. 20,835 ttl. 20,295

   Group other
   JAS
   JAL

   JAL Group Major 13 Companies

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Abbr.</th>
<th>Major Scope of Business</th>
<th>Web Site URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan Airlines Co., Ltd.</td>
<td>JAL</td>
<td>Air transport</td>
<td><a href="http://www.jal.co.jp">http://www.jal.co.jp</a></td>
</tr>
<tr>
<td>Japan Air System Co., Ltd.</td>
<td>JAS</td>
<td>Air transport</td>
<td><a href="http://www.jal.co.jp">http://www.jal.co.jp</a></td>
</tr>
<tr>
<td>Japan Asia Airways Co., Ltd.</td>
<td>JAA</td>
<td>Air transport</td>
<td><a href="http://www.japanasia.co.jp">http://www.japanasia.co.jp</a></td>
</tr>
<tr>
<td>Japan Trans Ocean Air Co., Ltd.</td>
<td>JTA</td>
<td>Air transport</td>
<td><a href="http://www.jal.co.jp/jta">http://www.jal.co.jp/jta</a></td>
</tr>
<tr>
<td>JALways Co., Ltd</td>
<td>JAZ</td>
<td>Air transport</td>
<td><a href="http://www.jalways.co.jp">http://www.jalways.co.jp</a></td>
</tr>
<tr>
<td>JAL Express Co., Ltd</td>
<td>JEX</td>
<td>Air transport</td>
<td><a href="http://www.jal.co.jp/jex">http://www.jal.co.jp/jex</a></td>
</tr>
<tr>
<td>Japan Air Commuter Co., Ltd.</td>
<td>JAC</td>
<td>Air transport</td>
<td><a href="http://www.jac.co.jp">http://www.jac.co.jp</a></td>
</tr>
<tr>
<td>AGP Corporation</td>
<td></td>
<td>Aircraft power supply at airport</td>
<td><a href="http://www.agpgroup.co.jp">http://www.agpgroup.co.jp</a></td>
</tr>
<tr>
<td>JAL Sales Co., Ltd</td>
<td></td>
<td>Air ticket sales &amp; tour</td>
<td></td>
</tr>
<tr>
<td>Jalpak Co., Ltd</td>
<td></td>
<td>Tour planning &amp; sales</td>
<td><a href="http://www.jal.co.jp/tours/jlpk">http://www.jal.co.jp/tours/jlpk</a></td>
</tr>
<tr>
<td>JAL Tours Co., Ltd</td>
<td></td>
<td>Tour planning &amp; sales</td>
<td><a href="http://www.jal.co.jp/tours/jaltours">http://www.jal.co.jp/tours/jaltours</a></td>
</tr>
<tr>
<td>JAL Hotels Company Ltd</td>
<td></td>
<td>Hotel management &amp; operation</td>
<td><a href="http://www.jal-hotel.com">http://www.jal-hotel.com</a></td>
</tr>
<tr>
<td>JALUX Inc.</td>
<td></td>
<td>Wholesale, retail sale, &amp; non-life insurance agency</td>
<td><a href="http://www.jalux.com">http://www.jalux.com</a></td>
</tr>
</tbody>
</table>

   Other Group Companies or Entities Introduced in this Report

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Abbr.</th>
<th>Major Scope of Business</th>
<th>Web Site URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>J- AIR Corporation</td>
<td>J- AIR</td>
<td>Air transport</td>
<td><a href="http://www.jair.co.jp">http://www.jair.co.jp</a></td>
</tr>
<tr>
<td>Hokkaido Air System Co., Ltd.</td>
<td>HAC</td>
<td>Air transport</td>
<td><a href="http://www.hac-air.co.jp">http://www.hac-air.co.jp</a></td>
</tr>
<tr>
<td>Ryukyu Air Commuter Co., Ltd. *</td>
<td>RAC</td>
<td>Air transport</td>
<td><a href="http://www.rac.churashima.net/route.html">http://www.rac.churashima.net/route.html</a></td>
</tr>
<tr>
<td>Airport Engineering &amp; Service Co., Ltd.</td>
<td>-</td>
<td>Special car maintenance</td>
<td><a href="http://www.jal.co.jp/aec/saiyo.html">http://www.jal.co.jp/aec/saiyo.html</a></td>
</tr>
<tr>
<td>TFK Corporation</td>
<td></td>
<td>Flight catering</td>
<td><a href="http://www.tfk.co.jp">http://www.tfk.co.jp</a></td>
</tr>
<tr>
<td>JAMCO Corporation *</td>
<td></td>
<td>Aircraft interior manufacturing</td>
<td><a href="http://www.jamco.co.jp">http://www.jamco.co.jp</a></td>
</tr>
<tr>
<td>JAL Foundation</td>
<td></td>
<td>International cultural exchange promotion</td>
<td><a href="http://www.jal-foundation.or.jp">http://www.jal-foundation.or.jp</a></td>
</tr>
</tbody>
</table>

   Note: Company with*mark is an equity holding JAL Group company
World's Airline Ranking in FY 2002 Operating Revenue
Source: Report by "Air Transfer World"

North West
All Nippon Airways
British Airways
Delta
Air France
United
FedEx
JAL Group
American
Lufthansa


A. Passengers carried:
- International: 14.64 million
- Domestic: 46.52 million

B. Revenue passenger traffic:
- Revenue passenger kilometer (RPK): 104,813 million passenger kilometers
- Available seat kilometer (ASK): 154,694 million seat kilometers

C. Cargo traffic:
- Revenue ton kilometer (RTK): 4,792 million ton kilometers

D. Passenger and cargo traffic:
- Revenue ton kilometer (RTK): 14,121 million ton kilometers
- Available ton kilometers (ATK): 22,996 million ton kilometers

Note: No data available for FY 2000 group other
Passenger & Cargo Available Ton Kilometer (ATK)

<table>
<thead>
<tr>
<th></th>
<th>FY 2000</th>
<th>FY 2001</th>
<th>FY 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>ttl.</td>
<td>21,993</td>
<td>22,966</td>
<td></td>
</tr>
</tbody>
</table>

Note: No data available for FY 2000 group other

Passenger & Cargo Revenue Ton Kilometer (RTK)

<table>
<thead>
<tr>
<th></th>
<th>FY 2000</th>
<th>FY 2001</th>
<th>FY 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>ttl.</td>
<td>13,350</td>
<td>14,121</td>
<td></td>
</tr>
</tbody>
</table>

Note: No data available for FY 2000 group other

(4) JAL Group Network (Online Cities)

Domestic
- Hokkaido
- Honshu (Mainland)
- Shikoku
- Kyushu and Okinawa
- Sapporo
- Memanbetsu
- Asahikawa
- Kushiro
- Tokachi-Obihiro
- Hakodate

International
- Europe
- China / Korea / Asia
- Hawaii / Guam / Saipan / Oceania
- North America / Latin America

Note: includes code-share destination

Bold indicates destination via JAL, JAS, JAA, and JALways

Italic following asterisk (*) indicates destination via connection flights

As of March, 2003

Includes code-share destination

- 5 -
<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>Number of Seats</th>
<th>Number of Aircraft</th>
<th>Addition and Reduction in FY2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>B747-400</td>
<td>299–449</td>
<td>34</td>
<td>-</td>
</tr>
<tr>
<td>B747-400D</td>
<td>568</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>B747LR</td>
<td>350–483</td>
<td>26</td>
<td>-</td>
</tr>
<tr>
<td>B747SR</td>
<td>533–563</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>B777-200</td>
<td>302–389</td>
<td>15</td>
<td>3 aircrafts</td>
</tr>
<tr>
<td>B777</td>
<td>470</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>MD-11</td>
<td>233–264</td>
<td>6</td>
<td>-4 aircrafts</td>
</tr>
<tr>
<td>DC-10</td>
<td>264–318</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>A300</td>
<td>255–298</td>
<td>14</td>
<td>-3 aircrafts</td>
</tr>
<tr>
<td>A300</td>
<td>239–292</td>
<td>22</td>
<td>-3 aircrafts</td>
</tr>
<tr>
<td>B767-200</td>
<td>230</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>B767</td>
<td>232–270</td>
<td>25</td>
<td>-3 aircrafts</td>
</tr>
<tr>
<td>MD-90</td>
<td>166</td>
<td>16</td>
<td>-</td>
</tr>
<tr>
<td>MD-81</td>
<td>163</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td>MD-87</td>
<td>134</td>
<td>8</td>
<td>-</td>
</tr>
<tr>
<td>B737-400</td>
<td>150–167</td>
<td>23</td>
<td>-</td>
</tr>
<tr>
<td>DHC-8-400</td>
<td>74</td>
<td>2</td>
<td>+2 aircrafts</td>
</tr>
<tr>
<td>YS-11</td>
<td>64</td>
<td>11</td>
<td>-1 aircrafts</td>
</tr>
<tr>
<td>CRJ200</td>
<td>50</td>
<td>5</td>
<td>+1 aircrafts</td>
</tr>
<tr>
<td>SAAB340B</td>
<td>36</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>JS-31</td>
<td>19</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

### Environmental Preservation-Related Management Policies

**A. The JAL Group Corporate Policy**

On the integration of JAL and JAS in October FY2002, Japan Airlines System Corp. established the JAL Group’s Corporate Policy which prescribes the group’s universal mission, goals, and values as a company:

**Corporate Policy for The JAL Group**

We, the Japan Airlines Group, as an overall air transport enterprise, will act as a bridge to bring peoples, their cultures and their hearts closer together and thus contribute to world peace and prosperity.

1. We will prioritize safety and quality.
2. We will think and act from the standpoint of the customers.
3. We will strive to maximize corporate value.
4. We will fulfill our responsibility as a corporate citizen.
5. We will appreciate hard work and take on a positive attitude.

Of these policies, 4 can be seen in our company’s philosophy: ‘As a member of society, we will take responsibility and pride in our work, fulfill our mission as a corporate citizen through transparent and sound company activities as well as social, global, and environmental contributions, and act in order to create a better world and a better society.’

**B. JAL Group Codes of Conduct (Commitment to Society)**

Along with the Corporate Policy, we have set up ‘Codes of Conduct (Commitment to Society)’ in order to ensure the execution of our Corporate Policy:

**JAL Group Codes of Conduct (Commitment to Society)**

1. Assurance of safety in flight operations
2. Creation of service
3. Compliance with laws and regulations
4. Sound Business Activities
5. Symbiosis with society

Of these commitments, 5 is embodied as the ‘Standard Environmental Philosophy’ and the ‘Environmental Activity Policy’ (refer to page 1).
Environmental Aspect of JAL Group

Our business operations include all activities related to civil air transport, encompassing areas such as flight operations and aircraft maintenance, sales and marketing, and information. Environmental aspects of those operations are summarized as follows.

**Input to Business Activities**

**Aircraft Operation (Flight Operation, Cabin Service)**
- To transport passengers, cargo and mail through safe, comfortable and on time operation of aircraft.
- Aviation fuel
- Engine oil, hydraulic fluid
- HFC used in food chiller
- Halon used in cabin fire extinguishers
- Anti/de-icing fluid
- Aviation parts, materials
- Cargo load equipment (containers, pallets)
- Packing material (polyethylene sheet)
- Cabin use water
- Goods for inflight sales
- Inflight service items (food, beverages, newspapers, magazines)

**Ground Support (Airport, Maintenance, Cargo, etc.)**
- To support aircraft operations on the ground for the safe, smooth, and on time arrival of passengers and cargo to their destination.
- Energy (electric, thermal)
- Fluorocarbon used in ground facilities (air-conditioning, refrigerators, etc.)
- Halon used for fire extinguishers
- Maintenance equipment, chemicals, water solvents, materials
- Cargo load equipment
- Ground vehicle fuel, engine oil
- Batteries
- Paper
- Water, hot water

**Sales & Administration (Sales & Other Divisions)**
- To support peripheral duties for aircraft operation such as flight scheduling, sales, reservation, and ticketing.
- Energy (electric, thermal)
- Fluorocarbon used for air-conditioning
- Halon used for fire extinguishers
- Ground vehicle fuel, engine oil
- OA machines, office supplies
- Papers
- Water, hot water
- Medical equipment, pharmaceuticals

**JAL Bldg. In Tennozu, Tokyo**

**Output from Business Activities**

**Environmental Impact**

### From Aircraft Operation
- Emissions from aircraft engine and APU (CO₂, NOₓ, H₂O, HC, SOₓ, etc.)
- HFC used for food chiller
- Halon from fire extinguisher (In Fire)
- Jettisoned Fuel (In Emergency)
- Used anti/de-icing fluid
- Waste (Cabin waste, lavatory waste)
- Aircraft noise

### From Ground Support Activities
- Energy Consumption in facilities (emits CO₂)
- Emissions from ground vehicle (CO₂, CO, NOₓ, SOₓ, HC, etc.)
- Fluorocarbon (for air-conditioning, refrigerators, and maintenance work)
- Halon from fire extinguisher
- Chemicals
- Waste water from maintenance activities
- General waste (organic waste, papers)
- Industrial waste (scrapped parts, maintenance equipment, cargo load equipment)
- Special management waste (drain off water from paint removal, stripped paint, etc.)
- Noise from ground vehicle and maintenance facilities

### From Sales & Administration Activities
- General waste (organic waste, papers)
- Industrial waste (OA machines, office supplies)
- Special management waste (medical waste and equipment)

*(In addition to the above, there are other outputs from these activities, such as fluorocarbon from air conditioning, halon from fire extinguishers, and noise and other emissions from ground vehicles. However, they are excluded here to avoid duplication of output from Ground Support Activities.)*