ANA, Thinking of People and Earth

Environmental Report

2003

ALL NIPPON AIRWAYS CO., Ltd
ANA Group

September 2003
ANA Group Corporate Philosophy

Our Commitment

On a foundation of security and reliability, the ANA Group will:

Create attractive surroundings for customers
Continue to be familiar presence
Offer dreams and experiences to people around the world

ANA Environmental Policy

ANA’s Attitude toward the Environment

Basic Policy

We will pursue:
- Protection of the environment
- Effective utilization of limited natural resource
- Awareness of the public good

Course of Action

1. We will evaluate the impact of our commercial activities on the environment, and persevere in our efforts to protect the environment.
2. We will observe environmental laws and regulations, and furthermore, think and act independently to protect the environment.
3. We will make our best endeavor to minimize the environmental impact arising from operations of the airline industry.
4. We will make every effort to save energy and resources, to recycle articles, and to reduce waste.
5. We will contribute to the communities in which we live and work, through participation in social activities on environmental protection.
6. We will educate employees so that each may pay much more attention to environmental protection.

Environment Committee

This ANA Environmental Policy is declared inside and outside company

(Settled in Apr. 2002)

(Settled in May. 1998)
The ANA Group appreciates your continued patronage.

In the 21st Century Global environmental issues need to be addressed not only at the national and civil society levels, but also at the corporate level. With a growing awareness of these issues, customers, investors, and employees have started selecting companies based on their environmental management. In other words, such issues as corporate management attitude its incorporation of environmental considerations, as well as the way it deals with societal harmony have become a barometer for measuring the quality of corporate governance.

The ANA Group has long considered environmental issues to be one of the most important aspects of company management, and has actively addressed these issues throughout its history. Today, we have adopted a new environmental action plan called the “ANA Group Ecology Plan” for 2003 to 2007. In this plan, ANA has renewed its determination to address environmental issues with the joint efforts of the group by incorporating customer opinions into our environmental management, and further reducing CO2 emissions from aircraft operations in order to further realize the ANA Group’s action course of “moving forward with society.”

In the introduction of new aircraft, ANA has put forward a plan to standardize its fleet with the newest and most advanced aircrafts with low noise and high fuel efficiency, and in regards to this, we have recently announced a plan to introduce the new generation of B737NG(New Generations) jets into our small jet fleet. We intend to continue serving our customers through the effective consumption of limited fossil fuel resources.

Through this report, we hope you will understand how the ANA Group addresses global environmental issues. We appreciate your opinions and suggestions on this matter.

September 2003

Yoji Ohashi
President and CEO

Hitoshi Nakajima
Senior Vice President
Environmental Committee Chairman
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Post script (Participation in the UNEP International Aviation Environmental Symposium)

Unless noted otherwise, this environmental report describes the environmental situation of ANA (except some overseas offices) and the following ANA Group companies as of fiscal year 2002 (1 April 2002 – 31 March 2003).

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<tr>
<th>Group companies</th>
<th>Aircraft operation results</th>
<th>Fleet (operation equipment)</th>
<th>Environmental compliance program</th>
<th>Environmental accounting</th>
<th>Global warming</th>
<th>Air pollution</th>
<th>Noise</th>
<th>Emissions, waste and recycling</th>
<th>Environmental conservation activities of group companies</th>
<th>Environmental data collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air transport</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Ground services</td>
<td></td>
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<td>F</td>
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<tr>
<td>Aircraft maintenance</td>
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<td>GSE</td>
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<td></td>
<td>F</td>
</tr>
<tr>
<td>Other businesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F</td>
</tr>
</tbody>
</table>

Report coverage: F= Full, P=Partial
Outline of ANA

Company Name: ALL NIPPON AIRWAYS Co., Ltd. (Airline Code: ANA, NH)
Foundation: Dec. 1952
Head Office: Shiodome City Center, 1-5-2, Higashi-Shimbashi, Minato-ku, Tokyo
President & CEO: Yoji Ohashi
Paid-in Capital: JPY 86,239million
No. of Employees: 12,772 (Non-consolidated) employees
Operation Revenues: JPY 940,503 million
Core Business: Scheduled air transport service
The ANA Group: No. of subsidiaries: 143, No. of affiliates: 41

Operating Revenues

Recurring profit

Employees

ANA's principal group companies

Air Transport
- Air Nippon Co., Ltd. (ANK)
- Air Nippon Network Co., Ltd. (Ariet)
- Air Hokkaido Co., Ltd. (ADK)
- Nippon Cargo Airlines Co., Ltd. (NCA)

Flight Support
- ANA Aircraft Maintenance Co., Ltd.
- ANA Skypal Co., Ltd.
- International Airport Utility Co., Ltd.
- New Tokyo Int'l Airport Service Co., Ltd.
- ANA Catering Service Co., Ltd.
- ANA Telemart Co., Ltd.

Travel Services
- ANA Sales & Tours Co., Ltd.
- ANA World Tours Co., Ltd.
- ANA Travel Co., Ltd.
- ANA Sky Holiday Tours Co., Ltd.

Hotel Operations
- ANA Hotels Co., Ltd.
- ANA Hotel Tokyu Co., Ltd.
- OKINAWA ANA Resort Co., Ltd.

Other Businesses
- ANA Information Sys. Planning Co., Ltd.
- Infini Travel Information, Inc.
- ANA Logistic Service Co., Ltd.
- ANA Trading Co., Ltd.
- ANA Real Estate Co., Ltd.
- Saywa Service Co., Ltd.
- Jamco Corporation
### ANA fleet
(As of Mar. 2003)

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>No. (Change)</th>
<th>Engin Type</th>
<th>Ave. Age</th>
<th>ICAO Noise Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>A320</td>
<td>25 (±0)</td>
<td>CFM 56-5A1</td>
<td>10.0</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td></td>
<td>*Include ANK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A321</td>
<td>7 (±0)</td>
<td>V2530-A5</td>
<td>4.0</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td>B767-200</td>
<td>9 (-5)</td>
<td>CF 6-70A</td>
<td>17.1</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td></td>
<td>*Include ANK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B767-300</td>
<td>49 (+7)</td>
<td>CF6-80C2 B-2</td>
<td>10.0</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td></td>
<td>*Include Air Japan (AJX) and ANK</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B777-200</td>
<td>16 (±0)</td>
<td>PW 4074/4077/4090</td>
<td>5.4</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B777-300</td>
<td>5 (±0)</td>
<td>PW4090</td>
<td>4.8</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B747-200B</td>
<td>2 (±0)</td>
<td>CF6-50E2</td>
<td>16.8</td>
<td>Ch-3</td>
</tr>
<tr>
<td>B747SR</td>
<td>8 (-1)</td>
<td>CF6-45A2</td>
<td>21.9</td>
<td>Ch-3</td>
</tr>
<tr>
<td>B747-400</td>
<td>23 (±0)</td>
<td>CF6-80C2B1F</td>
<td>9.3</td>
<td>Ch-3/4</td>
</tr>
</tbody>
</table>

Total: 139 (+1)

(+1.0 : diff. with the previous year)

### Group airlines Fleets

<table>
<thead>
<tr>
<th>Aircraft Type</th>
<th>No. (Change)</th>
<th>Engin Type</th>
<th>Ave. Age</th>
<th>ICAO Noise Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHC-6-200</td>
<td>2 (±0)</td>
<td>PT 6-27</td>
<td>30.9</td>
<td>—</td>
</tr>
<tr>
<td>(19)</td>
<td></td>
<td>Air Hokkaido (ADK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DHC-8-300</td>
<td>4 (+2)</td>
<td>PW-123B</td>
<td>1.3</td>
<td>—</td>
</tr>
<tr>
<td>(56)</td>
<td></td>
<td>Air Nippon Network (Anet)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YS-11</td>
<td>3 (-3)</td>
<td>Dart Mk543-10K</td>
<td>33.1</td>
<td>—</td>
</tr>
<tr>
<td>(64)</td>
<td></td>
<td>Air Nippon (ANK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B737-500</td>
<td>25 (+2)</td>
<td>CFM 56-3C1</td>
<td>6.9</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td>(126-133)</td>
<td></td>
<td>Air Nippon (ANK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B737-400</td>
<td>2 (±0)</td>
<td>CFM 56-3C1</td>
<td>9.7</td>
<td>Ch-3/4</td>
</tr>
<tr>
<td>(168-170)</td>
<td></td>
<td>Air Nippon (ANK)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B747 F/SRF</td>
<td>11 (±0)</td>
<td>CF 6-50E2</td>
<td>16.5</td>
<td>Ch-3</td>
</tr>
<tr>
<td>(Cargo capacity 758m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nippon Cargo Airlines (NCA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How airlines are related to the environment

**Environmental issues**

- Global Environmental issues
  - Energy related Environmental issues
    - Global warming
  - Acid rain
  - Ozone depletion
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Non-energy related Environmental issues
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Ecosystem related Environmental issues
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Conventional Industry Pollution issues
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Domestic Environmental issues
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Urban Living/Lifestyle Environmental issues
  - Marine pollution
  - Cross-border transport of hazardous wastes
  - Deforestation
  - Desertification
  - Loss of biodiversity
  - Pollution in developing countries
  - Air pollution
  - Water pollution
  - Soil pollution
    - Noise
    - Vibration
    - Land subsidence
    - Offensive odors
    - Waste, etc.

- Others

**Relationship**

- Aviation fuel consumption (ENG/APU)
- Vehicle fuel consumption
- NOx emissions (troposphere)
- Energy consumption at offices
- Exhaust from aircrafts and vehicles (NOx)
- Use of CFCs during maintenance
- CFC equipment in aircraft
- Fire extinguishers (aircraft, buildings, etc.)
- NOx emissions (stratosphere)
- Mass use of paper (consumables)
- ENG/APU exhaust from aircrafts
- Vehicle exhaust
- Waste water from Factories (oil, detergent, chemicals)
- Water wash of aircrafts
- Effluent of anti-freezing and de-icing
- Flight noise
- Ground noise from ENG test runs
- APU noise
- Noise from vehicles and GSE equipment
- Office waste
- Aircraft cabin waste
- Industrial waste
- Medical waste
- Environmental Management system (EMS)
### Laws and regulations

<table>
<thead>
<tr>
<th>UN Framework Convention on Climate Change (Kyoto Protocol)</th>
<th>(Law to promote measures to counter global warming)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federation of Economic Organization’s (Keidanren) Voluntary Action Plan for Airlines</td>
<td>By 2010, target 10% CO2 emission reduction per available seat kilometer (ASK) from 1990 levels.</td>
</tr>
<tr>
<td>Introduction of an “environmental tax” (carbon tax)?</td>
<td></td>
</tr>
<tr>
<td>Reinforcement of the “Law Concerning the Rational Use of Energy”**</td>
<td></td>
</tr>
</tbody>
</table>

**“Air Pollution Control Law”

- “Automobile NOx and SPM Law,” “green tax”
  - Ordinances of Tokyo Metropolitan Government and Chiba Prefectural Government for the “Regulation of automobile exhausts and operation”**

- “Vienna Convention,” “Montreal Protocol”
  - (Law Concerning the Protection of the Ozone Layer)
  - “Fluorocarbon Recovery and Elimination Law” (Banning the production of CFCs and halons, and production ban on CFC alternatives by 2020)
  - “Fire Law”

- “Basic Law for promoting the formation of a recycling-oriented society”
- “Law on Promoting Green Purchasing”

- “Washington Convention”

- ICAO Aircraft Emission Regulation (Civil Aeronautics Law/Airworthiness Certificate)
  - “Air Pollution Control Law”**
  - “Water Pollution Control Law”
  - “Sewage Law”**
  - “Natural Environment Conservation Law”

- “Law on Soil Pollution Measures”

- ICAO noise regulation*, “Civil Aeronautics Law / Aerialness Certificate”
  - (Airport Management Regulations, guide for curfew, etc.)
  - Environmental standards for aircraft noise
  - “Labor Safety and Sanitation Law”*
  - “Noise Control Law,” “Vibration Control Law”

- Waste Treatment and Cleaning Law (General, Industrial, Medical)**
- PRTR (Pollutant Release and Transfer Register) Law to control and report on chemicals**
- MSDS (Chemical safety data sheet) Law**
- “Labor Safety and Sanitation Law”*
- Law for Promoting the Formation of a Recycling-oriented Society* “PCB Treatment Law”*
- “Law to Promote Recycled Resource Use,” “Law for the Recycling of Containers and Packages” and others

Information disclosure, promotional activities and their effects
Public Information, Propaganda Value

* Items with some penalty (information disclosure, etc.) imposed

### Current status and future tasks of ANA

<table>
<thead>
<tr>
<th>CO₂ emissions from aircrafts</th>
<th>7.18 MM ton (1.96 MM t-C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation fuel consumption</td>
<td>2.91 MM kl</td>
</tr>
<tr>
<td>Per ASK</td>
<td>24.6 g-C (ANA’s Target: -12% 23.9 g-C)</td>
</tr>
<tr>
<td>APU use reduction (use ground facility)</td>
<td>Class 2 designated energy management facility (6.0 MM KWh, 1500 kl)</td>
</tr>
<tr>
<td>Business C, Crew Training C, Aircraft Maintenance C (West), Test Cell (AirCraft MC (North), Narita MC, Chisso Airport Branch)</td>
<td>power saving</td>
</tr>
</tbody>
</table>

Group companies: Use of low pollution cars: 141approx. 2000 vehicles -> Increase

- Total elimination of CFC use in maintenance works (1994)
- Stop using CFC equipment, use of CFC alternatives, measures to prevent leakage of CFC alternatives, CFC waste treatment
- Dumping fuels in emergency landing

- Promote recycled paper use, expand green purchasing of office supplies, sort papers for collection, and recycle papers

- Provide guidance on the carry-on restriction for import-banned animals and plants

- All ANA aircrafts complied with ICAO emission standards
- Full use of flight simulators for pilot training and examination
- Promote vehicle exhaust gas (NOx, SPM) control measures in airports
- Total compliance with the stoppage of vehicle idling
- Use low VOC paints, review paint removers
- Full waste water treatment facilities, study the reuse of waste water, finished switching from ethylene glycol to low pollution propylene glycol for de-icing

All ANA aircraft fleet complied with ICAO Noise Control Chapter 3 Measures to comply with new ICAO Noise Control Chapter 4 Compliance and study of noise abatement operation procedures
- Nighttime T/R restraint, self-restraint of ENG test run
- Facilities for test run (NRT, HND, OSA, and KIX)
- Change to low noise GSE

Remolding/reuse of aircraft tires
Promote sorting, recovery and recycling

- Promote the management of measures to comply with PRTR and MSDS laws
- Treat industrial and medical wastes based on the manifest Eco-Airport Plan (joint with JCAB)
- ISO14001 (Narita maint. Center)
- ANA Environmental Report, Home Page, Env. Account
- Environmental social contributions

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**ANA’s future tasks**

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* Items with some penalty (information disclosure, etc.) imposed
Overview

ANA Group’s Corporate Philosophy and Environmental Principles

The ANA Group established the following Action Measures to achieve ANA Group’s Corporate Philosophy (Adopted in April 2002, refer to the foreword).

<table>
<thead>
<tr>
<th>ANA Group’s Course of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Maintain top priority on safety</td>
</tr>
<tr>
<td>(2) Be customer oriented</td>
</tr>
<tr>
<td>(3) Continue to society</td>
</tr>
<tr>
<td>(4) Embrace new challenges</td>
</tr>
<tr>
<td>(5) Debate with active interest, decide with confidence, and execute with conviction</td>
</tr>
<tr>
<td>(6) Build a powerful ANA Group by effectively using human resources and focusing on teamwork as a competitive strength</td>
</tr>
</tbody>
</table>

The third principle of ANA Group Action Measures, “continue to move forward with society” means that:

- ANA will always carry on its business in an open and fair manner so that it can contribute to the shareholders and society at large and to the environment.

With this principle in mind, the ANA Group promotes measures that address global environmental problems.

Major environment-related activities of fiscal year 2002

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
<th>ANA Group activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>Start of temporary runway use at Narita Airport.</td>
<td>ANA-Connection starts with code-sharing operation started</td>
</tr>
<tr>
<td>May</td>
<td>B777-200ER started Narita-North America flights under ETOPS 207 minutes limit (trans-ocean flight for two-engine aircrafts)</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>Japan ratified Kyoto Protocol. Broad-range flight navigation (RNAV) started.</td>
<td>4th ANA Group environmental training session held. Environmental compliance program started.</td>
</tr>
<tr>
<td>August</td>
<td>Johannesburg Summit</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td>2nd donation of an elementary school in China. Participated in environmental management ratings by the Sustainable Management Forum of Japan. APU-OFF campaign implemented.</td>
<td>8th ANA Group Environmental Dialogue held.</td>
</tr>
<tr>
<td>October</td>
<td>Full implementation of Automobile NOx Law. UNFCCC COP8</td>
<td>Disclosed environmental accounting (for Narita and other regions) for the first time. Received Letter of Appreciation for 41 years of ANA participation in the Red Feather Charity Campaign for.</td>
</tr>
<tr>
<td>November</td>
<td>Birth of Japan Air Systems (merger between JAL and JAS)</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td>First public use of fuel cell cars</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>Enforcement of Automobile Recycling Law</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>Enforcement of Soil Pollution Measures Law</td>
<td></td>
</tr>
<tr>
<td>March</td>
<td>Start of Osaka Airport large-scale test run facility</td>
<td>29th Global Environmental Committee (composed of company executives) meeting held. Decision on mid-term action plan for “ANA Group Ecology Plan” Head offices of ANA, ANK and other group companies moved and consolidated in the Shiodome area of Tokyo. Additional disclosure of environmental accounting (for all airport branches, head offices, and headquarters). NCA (Nippon Cargo Airlines) announced renewal plan to use B747-400Fs.</td>
</tr>
</tbody>
</table>
ANA Group Ecology Plan (2003 to 2007)


Major contents of the Ecology Plan are:
1) Promote environmental management within all group companies.
2) Elevate CO2 emission reduction target for aviation fuel consumption (from 10% reduction to 12% reduction), move up the time frame (from 2010 to 2007), and promote measures to counter global warming.
3) Set up quantified targets to promote resource recycling.
4) Promote social and environmental activities through ANA’s “Aozora : Blue Sky” program.

Environmental Management

In 1998, ANA established the “All Nippon Airways Environmental Philosophy” (refer to the foreword), and participated in the adoption of the “Star Alliance Environmental Declaration” upon joining the Star Alliance in 1999.

In February 2002, the ANA Group was awarded ISO 14001 certification by UKAS of England for its Narita Maintenance Center, which is the maintenance base for international aviation equipment. ISO 14001 is an international standard for environmental management. Knowledge acquired through these activities has been disseminated throughout the group companies.

Environmental Accounting disclosed in fiscal year 2002 was first introduced in the Narita region, but has since been spreading to all group companies, while expanding the scope of accounting. For this year, the ANA Group has collected and disclosed information on environmental accounting for every ANA office in Japan.

The ANA Group began addressing the issue of Environmental Compliance in fiscal year 2002, and confirmed compliance of ANA and 9 ANA Group companies for the first year.

ANA Group actively participates in environmental management ratings, and all company divisions prepared a joint response for the rating conducted by the Sustainable Management Forum of Japan, which commenced in fiscal year 2002.

Sensing the tide of change, ANA Group finds all these activities useful for improving its environmental management.

Global Warming

Aircraft flights require the use of fossil fuels (kerosene). The ANA Group has always made efforts to introduce the most advanced aircraft that consume less fuel. As a result, the fuel efficiency of our fleets has improved 10% from that of 10 years ago, and this directly contributes to better control of CO2 emissions from our flights.

The ANA Group will continue to work for greater emissions control through the most appropriate flight operation practices, while renewing its fleet from conventional B747 and B767-200 to B777, B767-300, and others for the future.

<table>
<thead>
<tr>
<th>Fuel efficiency improvements from switching to newer aircraft types</th>
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</thead>
<tbody>
<tr>
<td>Conventional types</td>
</tr>
<tr>
<td>737/1 (84 seats)</td>
</tr>
<tr>
<td>B727-200 (178 seats)</td>
</tr>
<tr>
<td>L1011 (341 seats)</td>
</tr>
<tr>
<td>B747 SR (538 seats)</td>
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<tr>
<td>B747 SR (538 seats)</td>
</tr>
<tr>
<td>B747-200 (526 seats)</td>
</tr>
</tbody>
</table>

(Comparison of fuel consumption per unit seat under ANA’s standard operation conditions)
Air Pollution and Ozone Layer Protection

Aircraft exhaust gas includes HC (hydro-carbon), CO (carbon monoxide), NOx (nitrogen oxides), and soot and smoke. ANA Group’s aircrafts are equipped with better engines to reduce these emissions and comply with the jet engine emission standards of ICAO and Japan. Refrigeration equipment installed in ANA aircrafts was switched from designated CFCs to a CFC alternative by 1999. Moreover, the ANA Group eliminated the use of designated CFCs and Tri-chloro-ethane in maintenance works by 1994. For fire extinguishers carried on aircrafts, halon extinguishers are still used as no alternatives have yet to be developed or approved.

Noise

All the equipment ANA operates was in compliance with the ICAO Noise Standard Chapter 3 as early as 1994, which was earlier than many of the world’s airlines. Moreover, most of ANA’s equipment has already cleared the upcoming Chapter 4 Standard (to be applied to new aircrafts after 2006) that was adopted at the ICAO General Assembly in 2001. With its awareness of airport environs as part of its daily operations, the ANA Group aims to become a truly user-friendly airline.

Emissions/Wastes and Recycling

Our flight-related business activities such as aircraft maintenance inevitably generate various emissions and wastes. The ANA Group makes efforts to reduce the amount of these emissions and wastes, and to recycle as much as possible as to decrease the need for final waste treatment. In addition, in fiscal year 2002, the ANA Group started a green purchasing program via an e-purchasing system that connects the entire company.

Social Contribution Activities for the Environment

From fiscal year 2003, ANA and its Group Companies will start a Social Contribution Activities for the Environment program, making the best use of its unique features as an airline company. Under the “Aozora : Blue Sky” program, the ANA Group plans to host an International Environmental Picture Book Contest and to conduct reforestation projects in the areas surrounding each airport in which it operates.