



# **ANA Group CSR Message**

The ANA Group is fulfilling its corporate social responsibility in every sphere of its business with the slogan "Anshin, Attaka, Akaruku-Genki! (Reliable, Warm, Enthusiastic!)."



What is the greatest value that ANA can offer its customers? —Reliability, our promise. It is the reason customers choose ANA, and ANA will never let them down.

- Adherence to safety
- Solid management
- Environment-friendly airline
- Steady financial performance
- Relationship of trust with business partners



Flying with ANA is a "warm" experience from the time you choose your itinerary to the time you get home. The time spent with ANA is not just about moving from one place to next. It's the warmth of the reception and hospitality.

- Friendliness and warm hospitality
- Focus on customer feedback
- Consideration for diversified customers
- Contributions for communities and society



ANA is the most enthusiastic airline group in the world. The smiles of hard-working staff, always coming up with new ideas, and their energy are contagious. Everybody becomes enthusiastic when in contact with ANA.

- Health and safety of employees
- Fostering innovative personnel
- New ideas for customers

#### Profile

ANA, founded in 1952, has been providing air transportation service for more than a half century with flight safety as its top priority. Thanks to your support, we have grown to be one of the largest airlines in the world, carrying over 51 million passengers per year, proof of the high level of customer trust in the ANA Group.

The ANA Group will continue working toward its goal of becoming the number one airline in Asia by raising customer satisfaction and by placing utmost priority on safety.

#### ■ Outline of this Report

#### **Editorial Policy**

The ANA Group aims to pursue business in a socially responsible manner; each year since 2005 we have produced a CSR Report to update stakeholders on our activities.

#### Organizations Covered

In principle, the ANA Group as a whole. (Some activities are distinct to All Nippon Airways Co., Ltd. or its Group companies.)

#### Period Covered

April 1, 2006 to March 31, 2007 (Includes some activities before or after this period.)

#### Reference Guidelines

"Sustainability Reporting Guidelines Version 3.0" Global Reporting Initiative

"Environmental Report Guidelines (2007)" Ministry of the Environment (Government of Japan)

#### Date of Publication

October 2007

#### Cover Art and Illustrations

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# Securing Stakeholder Trust

In February 2007, ANA was voted "Airline of the Year 2007" by Air Transport World, which has been presenting this award for 33 years. The reasons were our "introduction of innovative services while maintaining safety" and our "improved operating results, achieved despite several factors dampening air transportation demand and changes in the domestic competitive environment." We are delighted to receive this award; we consider it a validation of our strategy that places utmost priority on safety, and has as its cornerstones security and customer trust.

However, we would like to apologize to stakeholders for two incidents affecting customer security and trust that occurred this spring. The entire ANA Group will make every effort to prevent the recurrence of such incidents and recover vour trust.

On March 13, Flight 1603 from Osaka to Kochi experienced a malfunction and made an emergency landing at Kochi Ryoma Airport without its nose landing gear. We deeply apologize for the concern and inconvenience that this caused to many people, including those on board. After the accident, in addition to an emergency inspection imposed by the Ministry of Land, Infrastructure and Transport, we held our own special examination of all aircraft of this type, suspending flight operations until we had fully confirmed their safety and soundness. We will continue to prioritize safety over all else.

In the second incident, on May 27, a computer system

# Humbly striving to provide security and gain the trust of customers

failure resulted in the cancellation or delay of many of our domestic flights, again causing great inconvenience to our customers. The computer system has been enhanced to prevent any recurrence, and with the aid of external consultants, we are now studying how to further refine system infrastructure. Customer feedback will be studied as well to improve emergency procedures.

#### **Endless Efforts to Ensure Safety**

As stipulated in the ANA Group Safety Principle, safety is our promise to the public and the foundation of our business. Safety assurance is an endless challenge. Pursuing safety through each employee's responsible and sincere action and continuing to offer secure, reliable service is, we believe, our most important corporate social responsibility (CSR).

At ANA, we have been fortunate to not sustain any accidents causing passenger deaths since the 1971 Shizukuishi accident. Most of the employees who experienced that accident have since retired. To educate current and future employees about the horror of airline accidents, and as part of our mandate to prioritize safety, we established the ANA Group Safety Education Center in January 2007. The facility impresses on visitors the causes of past accidents, including human error, and what can be done to ensure flight safety. Please see the feature pages in this CSR Report for details.

#### Protecting the Planet

While CO<sub>2</sub> emissions from aviation account for only 0.8% of Japan's total emissions, we are approaching environmental issues from a global standpoint. When the first commitment period of the Kyoto Protocol begins in 2008, ANA will introduce the new Boeing 787, whose impact on the global environment is approximately 20% less than current aircraft. Through business decisions such as this, and by instilling a strong environmental awareness in each and every employee, the ANA Group will become a leading force in protecting the planet.

#### Asia's Number One

This year marks our 20th anniversary of service to China. Since our first flights between Narita and Beijing via Dalian on April 16, 1987, today we offer passenger service on 20 routes in ten cities there—154 roundtrips a week—as well as cargo service on 11 routes (34 roundtrips a week). And a new passenger service connecting Haneda (Tokyo) and

Honggiao (Shanghai) was launched in September.

This year is also the tenth anniversary of Star Alliance, the global alliance of which ANA is a member, whose network and list of benefits just keep on growing.

To stand out in the Alliance, the ANA Group has the goal of becoming the number one airline in its business base of Asia in terms of quality, customer satisfaction and value creation.

We will strive to become an airline that offers dreams and experiences to our stakeholders. Taking to heart the teachings of 15th-century Chinese philosopher Wang Yangming found in his Inquiry on the Great Learning—"Modesty is the bedrock of good, arrogance that of evil"—we will continue humbly striving to better our company and gain the trust of stakeholders.

We would very much appreciate hearing your frank comments on our "Anshin, Attaka, Akaruku-Genki! (Reliable, Warm, Enthusiastic)" CSR efforts.

October 2007

M. Youramoto

Mineo Yamamoto President and Chief Executive Officer

# Pledge of Safety

# ANA Group Safety Education Center



Senior Executive Vice President Suguru Omae (Chief Safety Officer)

In the following interview, Senior Executive Vice President Suguru Omae, Chief Safety Officer of the ANA Group, discusses the Group's overall perspective on flight safety and the ANA Group Safety Education Center (ASEC) launched in January 2007.

Tell us about the ANA Group's perspective on safety.

Our Safety Principles says it all—that "safety is our promise to the public and the foundation of our business." The ANA Group thus provides air transport operations based on a foundation of security and reliability.

Aviation accidents are particularly heartwrenching. My feeling of regret toward passengers and their families who suffered in past accidents hasn't changed to this day. Fortunately, we haven't experienced any accidents resulting in fatalities since 1971. Still, this fact alone doesn't quarantee future safety.

Each flight involves many ANA Group employees. Each and every employee must observe laws and regulations, always pay attention and carry out their daily tasks with a sense of tension. There must be good communication in the workplace where all can express themselves. These points are extremely important in maintaining flight safety. I'm certain that if they are followed we can prevent the recurrence of dangerous incidents, minimize risks and achieve even higher levels of safety.

## What efforts are underway to ensure safety?

ANA flights are operated by seven Group airlines. To ensure safety at each, we promote Groupwide activities centering on the Corporate Safety & Audit division.

Japan's Civil Aviation Law was revised in October 2006 and now mandates that all airlines establish a Safety Management System (SMS). This is a system where all employees from top management to the rank and file take concerted actions in every aspect of air transportation safety.

SMS involves top management taking the initiative in the organization's pursuit of safety; establishing and promoting safety-related principles and policies; and systematically selecting, analyzing and assessing factors that might undermine safety, taking measures as needed.

As Chief Safety Officer and Chairman of the Group Safety Promotion Committee, it's my job to monitor the progress of each issue and make sure that any necessary measures are implemented in a timely manner. But for SMS to be truly effective, you need to raise employee awareness through safety education. For this reason we launched the ANA Group Safety Education Center (ASEC) in January 2007.



Exhibits of three major accidents

#### Outline of ANA Group Safety **Education Center**

Through such media as news clippings and videos of aviation accidents, the ANA Group Safety Education Center (ASEC) is an educational facility to raise safety awareness in employees and impress on them the individual responsibility that comes with working at a public transportation provider.

At ASEC, employees come face to face with ANA Group accidents—such as the Tokyo Bay crash. Matsuvama accident and Shizukuishi collision—so that they will not be forgotten. The facility also shows employees how accidents can occur, including through human error, to think about how to ensure flight safety

Although intended as an educational facility for ANA Group employees, visitors interested in air safety are welcome when courses are not in session. For details please see our web-

http://www.ana.co.jp/ana-info/ ana/lounge/education/asec.html (Japanese)

# Responsibility to Society, Contributions to the World



Learning from past accidents

#### What prompted the decision to launch the ASEC?

More than 35 years have passed since the Shizukuishi accident. Some 95% of current employees joined the company after the accident. Since the number of employees who experienced the accident is decreasing, 12 employees, mainly from Passenger Services, came up with the idea of creating a facility dedicated to remembering the accident called "Learning from the Past."

Most of the young employees who suggested the idea have, of course, never experienced an aviation accident. Because the underlying concept—that tragic accidents should not be forgotten—was from such young employees, it really made a splash. I myself was touched by these employees wishing to create a facility to educate succeeding generations.

In setting up the ASEC, deciding what to present and how to present required careful consideration. Numerous people contributed; the facility is full of their feelings.

## What characteristics does it have?

The ASEC is a place that impresses on all employees the ANA Group Safety Principles and helps them maintain a sense of tension and a shared sense of purpose.

Its basic purpose is to remind all employees at the ANA Group of the seriousness of air accidents and to encourage a shared determination to prevent them.

While the above purpose has great value, we made it something more by incorporating various educational ideas to make it useful in daily work. One such idea is the "Human Error Experience Corner" produced with professional advice. So it's a place for both feeling and learning, where you can learn how accidents happened and even experience the errors leading up to them on computers.

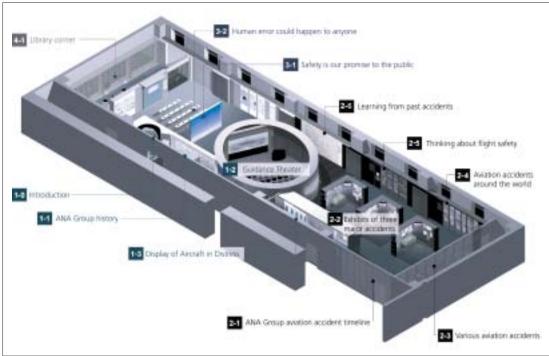
#### Are you saying that human error is a major cause of accidents?

That's correct. Rather than technical malfunctions, about 70% of aviation accidents are caused by human error. Technologies have come a long way and we have highly advanced aircraft, but without human hands to steer, input data, confirm and so on, we cannot fly them. So unless we solve issues surrounding human error, we cannot expect to improve safety.

The ANA Group has been pursuing human



Learning about human error



ANA Group Safety Education Center Floor Plan

error issues for more than 20 years. We have studied them systematically and compiled the results into pamphlets and training programs. We also compiled an Examples of Human Error guide to introduce specific instances from the past and thereby control human error, which, alas, we can never eliminate entirely.

## What results are you expecting from the ASEC?

This facility doesn't simply show us how frightening accidents are. The sorrow and agony of remaining family members—which you may feel if you imagine the time when you lose your own parents—are unthinkable. I want visitors to acquire firsthand knowledge to lessen the possibility that they might cause an accident. I hope the facility will make you think, learn how to avoid hazards, and motivate you into action.

Since most accidents are caused by human error, what can we do to avoid it, and what should we do if and when it happens? The answer is to think hard and learn. Even employees not directly involved in flight operations can learn the facts behind accidents we've experienced. We are planning for all Group employees to visit over the next three years, which I expect will enhance our culture of safety.

I would like all employees to come and see it not just once, but twice, thrice, and each time there is a need. This facility is the starting point of our safety. It is very valuable.

# What are your future hopes for Group safety?

We should never have accidents. I feel very strongly about it. When it comes to creating a corporate culture that prioritizes safety, your work is never done. Making sure that everyone is in fact prioritizing safety is extremely important. I would like to raise awareness of safety across the entire ANA Group and make the culture to protect it a universal one. I would like us to continue to be an airline that never compromises on safety, always making persistent efforts into the future, and always earning the trust of customers and society.

#### Comment from Originator

Passenger Services is the initial point of contact for customers at the airport. When a major accident occurs in the airline industry, we are often asked by customers if ANA is safe, and from this grew the notion that solving customer anxiety requires effort on the part of all employees.

Then, in April 2005, an accident occurred on the JR Fukuchivama Line. From the many magazine articles on safety that followed, I learned that East Japan Railway Comany has an exhibition facility focusing on accidents, and I thought: if ANA had such a facility, awareness for safety might increase. This is how I came to propose the

With the cooperation of 12 members from other sections in the ANA Group, the facility was created not just as a display, but as one for learning; we wanted it to show the whole truth, make us think about safety and learn from past examples. I hope the facility will help everyone at the ANA Group become more safety-conscious.



Yoshiko Shingo Passenger Services, Tokyo Airport Office

# **Bridging Nations**

# 20 Years of ANA China Service

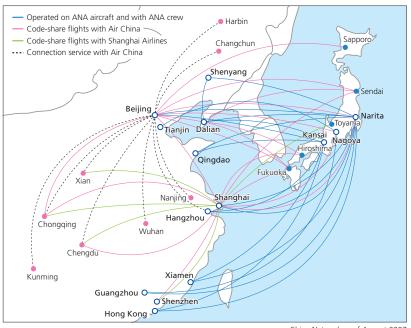
In 2006, more than 4.56 million people traveled between Japan and China; as the latter's economy continues to develop, we can expect even greater movement of people and materials between the two nations. ANA was the first Japanese airline to resume flights to China after the war, in 1972, and since inaugurating regular service in 1987 we have gradually expanded our network there. In April 2007 we marked the 20th anniversary of ANA's China service, a relationship that can be traced back to our second president, Kaheita Okazaki.



Second President Kaheita Okazaki



Kaheita Okazaki (left) talking with Premier Zhou Enlai Photo: Kaheita Okazaki Memorial Museum



China Network as of August 2007

#### **Promoting Good Relations**

Okazaki was born in 1897 in Okayama and became interested in China at high school through a friend there named Chen Fanjiu. After graduating from Tokyo University in 1922, he started working at the Bank of Japan, which sent him to Shanghai for an extended period. While there he witnessed the turbulence of world affairs and learned the importance of friendship between foreign countries.

When he later entered industry, becoming president of ANA in 1961, Okazaki worked tirelessly to promote trade and cultural exchanges between Japan and China. He visited the country some 100 times, meeting with then-Premier Zhou Enlai and other senior officials and contributing to its friendly relations with Japan. When the two nations normalized ties in 1972, Premier Zhou Enlai himself commended Okazaki for his efforts, remarking that "In China we have a saying: when we drink water, we never forget who dug the well."

## Twenty Years of China Service

ANA was the first Japanese airline to serve China after the war—a 1972 charter carrying the Shanghai Ballet Troupe from Haneda (Tokyo) to Hongqiao (Shanghai). At Hongqiao Airport, the ANA flight received an ardent musical welcome by an estimated 3,000 people. Soon after-



Ceremony at Narita Airport to inaugurate Narita-Dalian-Beijing service from April 1987



At the party to commemorate 20th anniversary of China service, Chairman Yoji Ohashi receiving a photo of Ms. Zhou and Kaheita Okazaki



ANA Blue Sky Hope Primary School students at Beijing Airpor

wards, in September, Japan and China restored diplomatic relations.

In April 1987 ANA launched its Narita-Dalian-Beijing route as a scheduled service, and Okazaki visited China on its first flight. So highly regarded were his efforts for promoting good relations between Japan and China that a reception in his honor was held at the Great Hall of the People.

Since then we have expanded our China network to include Hong Kong, Shanghai, Tianjin, Shenyang, Qingdao, Xiamen, Hangzhou and Guangzhou. Now we operate 20 passenger routes with 154 weekly flights; in 2006 some 1.36 million passengers flew the network. Currently 34 cargo flights per week serve 11 routes.

#### Donating Hope: A Primary School

In April 1997 ANA donated the ANA Blue Sky Hope Primary School to Luanping City, Hebei Province. This gesture was to show our appreciation of and support for Chinese culture and education, and coincided with the 10th anniversary of ANA's China service. The date also marked the 100th anniversary of the birth of Okazaki, whose efforts led to the restoration of Japan's diplomatic relations with China in 1972. On the 30th anniversary of this event, in September 2002, ANA donated a second Hope Primary School to Xinglong City, Hebei Province.

## The Okazaki Kaheita International Scholarship Foundation

Established in 1990 to promote personal development in Asian countries as advocated by Okazaki, the Foundation awards scholarships to students in China and Southeast Asian countries, invites them to Japan and offers support for graduate studies. To date the Foundation has awarded scholarships to more than 70 students; as teachers, civil servants and privatesector employees, these graduates are now in positions to help strengthen ties between their home countries and Japan.

#### A Bridge Between Japan and China

Starting with our cooperation with Shanghai Airlines in April 2002 and later with Air China in February 2004, ANA has been establishing cooperative relationships with airlines in China. In May 2003, we started to employ Shanghai-based cabin attendants, expanding our base of operations. In September 2007, service between Haneda (Tokyo) and Honggiao (Shanghai) was launched, drawing the two countries even closer. With these efforts and more, ANA is helping to connect people and businesses in Japan and China.



## Looking Forward to Your Continued Success, and to Our Continued Friendship

The year 2007 is an important one for us: it marks not only the 35th anniversary of normalized diplomatic relations between Japan and China, but also the 20th anniversary of ANA service to China, for which I offer my deepest congratulations.

ANA launched the first scheduled flight to China on April 16, 1987. As I recall it was the day of Kaheita Okazaki's 90th birthday. Mr. Okazaki was an old friend of China's and contributed greatly to mending diplomatic ties between our two countries through the Japan-China Trade Memorandum, When the two nations normalized ties in 1972, Premier Zhou Enlai commended Okazaki for his efforts, remarking that "In China we have a saying: when we drink water, we never forget who dug the well."

ANA kept alive Mr. Okazaki's spirit and through great effort has maintained and furthered friendly relations between our nations. Exchanges of people as well as commercial activities will further grow thanks to the Beijing Olympics in 2008 and Shanghai Expo in 2010; faster logistics will be promoted. I am certain that ANA's China routes will play an even bigger role.

In April 2007 Premier Wen Jiabao visited Japan, and the leaders of both countries confirmed the strategic importance of reciprocal relations. Also that year, the Haneda-Honggiao shuttle service was inaugurated. I expect that ANA will adhere to the policy of "peaceful



coexistence, ages of friendship, reciprocal cooperation, and mutual development" through its collaborations with airlines and other companies in China, and continue contributing to the development of civil aviation in our country while further promoting Sino-Japanese relations. Best wishes for ANA's continued success as a wing of the Japan-China friendship.

Kong Xuanyou, Minister-Counselor, Embassy of the People's Republic of China in Japan

# **Outline of Business**

The ANA Group consists of All Nippon Airways Co., Ltd. (ANA), 114 subsidiaries and 42 affiliated companies\*. The Group's business is based on air transportation, along with travel services and other operations.

\*as of June 2007



#### Air Transportation

ANA and its six air transportation operators provide passenger, cargo. and mail transportation services. According to IATA (International Air Transport Association) passenger transport statistics, the ANA Group ranks eighth among the world's airlines.



#### • Domestic Passenger Operations

With 938 flights each day on 130 routes—representing some 46.47 million passengers a year—the ANA Group enjoys a leading market share of 48.4%. With the keywords "simple" and "convenient," we are working to improve all aspects of customer service.



#### • International Passenger Operations

The ANA Group operates 596 flights a week on 38 routes and carries 4.55 million passengers a year from Japan to cities around the world. As a major member of Star Alliance, the world's largest airline alliance, the ANA Group provides high-quality international air transportation.



#### • Cargo and Mail Operations

The ANA Group uses four cargo freighters along with available cargo space on passenger aircraft. We operate eight domestic cargo flights daily on five routes, and 108 international freighters a week on 20 routes. Efforts to enhance this core business are ongoing, including the acquisition of new freighters.



#### • Other Air Transportation Operations

Along with air transportation operations, the ANA Group provides customer services, aircraft maintenance and airport handling. These operations are also offered to airlines outside the ANA Group.



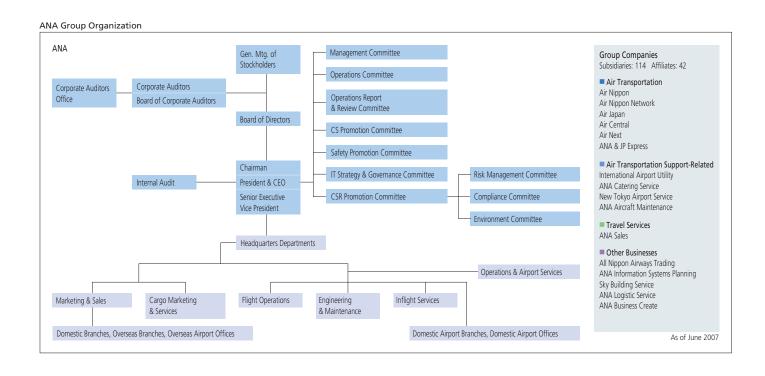
#### **Travel Services**

With ANA Sales Co., Ltd., as its driving force, the Group markets a wide range of travel products catering to both individuals and groups, as well as installment savings plans for future travel. The principal activities are the sales of ANA flight tickets and the planning and sales of ANA Hallo Tour and ANA Sky Holiday travel packages making use of ANA's network.



#### Other Businesses

The Group's other businesses are principally in the areas of information and telecommunications (development and sales of airline-related information terminals and software), logistics (management of cargo storage and deliveries) and trade (import/export of aircraft-related materials, as well as retail at airports and mail-order sales).

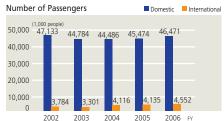


## Various Data

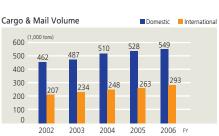
#### Corporate Outline

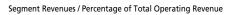
corporate Gatime				
All Nippon Airways Co., Ltd.				
Mineo Yamamoto				
December 27, 1952				
Shiodome City Center, 1-5-2 Higashi-Shimbashi, Minato-ku, Tokyo 105-7133, Japan				
http://www.ana.skyweb.com				
¥160.001 billion				
32,460 (ANA Group)				

# Operating Revenues 1,500 (billions of Yen) 1,489,6 1,400 1,300 1,215,9 1,217,5 1,292,8 1,200 1,100 2002 2003 2004 2005 2006 FY

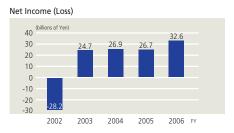


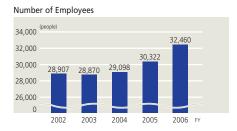






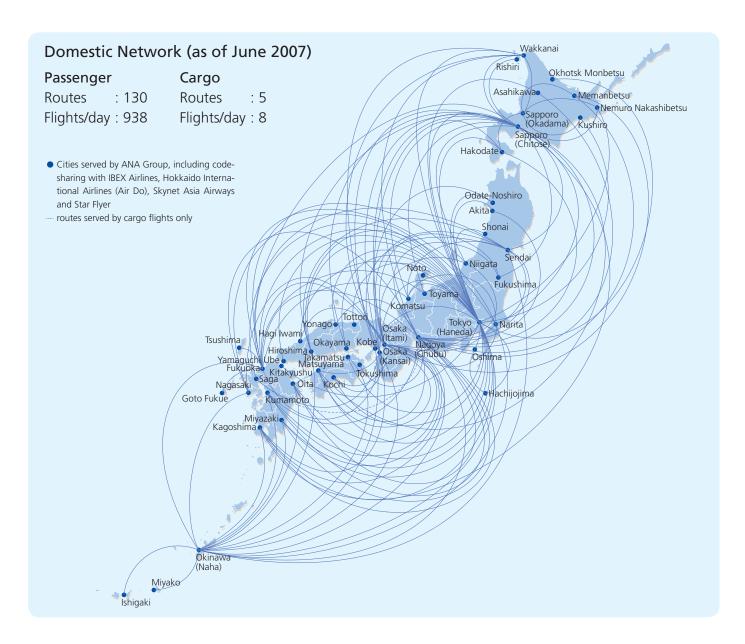






# **ANA Group at a Glance**

# **Routes and Fleet**



# Fleet: 12 types / 210 aircraft

(as of March 2007)

1	2	3	7	8	9
4	5	6	10	11	12

1. Boeing 747-400	23
2. Boeing 777-300	15
3. Boeing 777-200	23
4. Boeing 767-300	56
5. Boeing 737-700	10
6. Boeing 737-500	25
7. Airbus A321-100	3
8. Airbus A320-200	29
9. Bombardier DHC-8-400	14
10. Bombardier DHC-8-300	5
11. Fokker F-50	3
12. Boeing 767-300 (freighter)	4



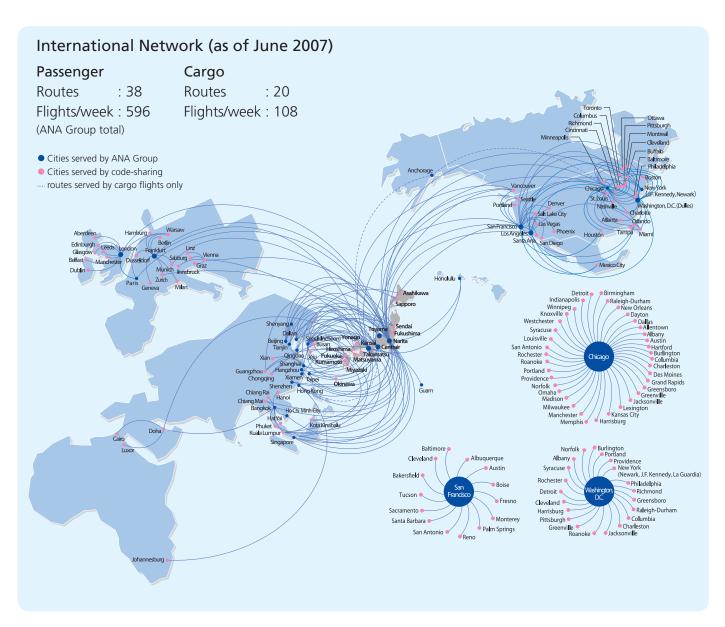
















Boeing 787, scheduled for debut in 2008 (generated image)

# Management

# Corporate Philosophy, Corporate Vision

The ANA Group Philosophy sets forth the desired direction for the Group and reaffirms what we must constantly be aware of in our activities. It serves as the operational foundation underlying all ANA Group business activities.

# ANA Group's Corporate Philosophy

The ANA Group Philosophy consists of Our Commitments and Course of Action. These express our ideals for the Group and the fundamental approach we must take to prevail against the competition and remain the airline of

choice. The ANA Group Philosophy was established in January 2002 following discussion across all layers of ANA and its subsidiaries, from executives to rankand-file employees.

#### **Our Commitments**

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

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

# Course of Action

- 1) Maintain top priority on safety
- 2) Be customer oriented
- 3) Contribute to society
- 4) Embrace new challenges
- 5) Debate with active interest, decide with confidence, and execute with conviction
- 6) Build a powerful ANA Group by effectively using human resources and focusing on teamwork as a competitive strength

# ANA Group's Corporate Vision

The ANA Group's Corporate Vision sets out our immediate goals and is based on the ANA Group Philosophy. Our primary aspiration is to become the leading airline-based corporation in Asia. This is not merely a matter of size; we hope to rank first in Asia for quality, customer satisfaction and value creation.

To achieve this vision and thoroughly differentiate ourselves from competitors, we are pursuing a management strategy that emphasizes profit (i.e., value creation), customer satisfaction (including punctuality), and each employee's individuality and creativity.

#### ANA Group's Corporate Vision

With passenger and cargo transportation in Japan, elsewhere in Asia, and around the world as its core field of business, the ANA Group aims to be one of the leading corporate groups in Asia.

Being the leader in Asia means that we will become:

Number one in quality

Number one in customer satisfaction

Number one in value creation

# CSR—Basic Perspective and Promotion

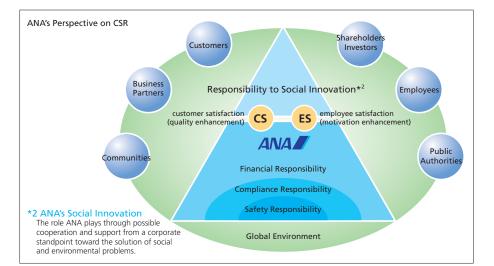
In April 2007, the ANA Group established a CSR Promotion Division with the objective of further enhancing corporate value by mobilizing the entire Group in the areas of society, the environment, and sustainable co-existence.

#### Basic Perspective

The ANA Group has a diverse range of stakeholders—customers, shareholders and investors, employees, business partners, and local communities. The purpose of our CSR activities is to fulfill our responsibility to stakeholders by clearly communicating with them, allowing us to co-exist with society in a sustainable manner while enhancing corporate value.

CSR means that each ANA Group member understands and follows the ANA Group Philosophy, thereby giving all stakeholders a sense of security and trust. In addition to our underlying commitment to safety, we will fulfill our responsibilities to stakeholders in the following three steps:

- 1. We will fulfill our economic responsibility\*1 by ensuring safety and compliance (the base line).
- 2. To improve quality and employee motivation, we will fulfill our responsibility to customers by enhancing CS (Customer Satisfaction) and to employees by increasing ES (Employee Satisfaction).
- 3. We will fulfill our responsibility for social innovation\*<sup>2</sup> by helping to solve social and environmental issues.
- \*1 Economic responsibility entails implementing thorough risk management and operating the business effectively and efficiently. Together with compliance responsibility, the internal control system is reinforced.



# Strengthened CSR Promotion

Since 2004, CSR at the ANA Group was promoted through a conference body and its executive office. In April 2007, a CSR Promotion Division was established to coordinate CSR activities throughout the ANA Group, and in August, we further strengthened the system by reorganizing a Risk Management Committee, Compliance Committee and Environment Committee, all under the CSR Promotion Committee, the supreme decision-making body for CSR promotion, supervised by the President and

chaired by the Executive Vice President.

Further, by incorporating the departments of Risk Management, Legal Affairs, and Environmental and Social Affairs, the CSR Promotion Division consolidates organizations related to internal control and environmental and social contributions; the previously dispersed risk management and compliance functions are now consolidated in the new Risk Management Department, enhancing internal control—the foundation of CSR.

# Corporate Governance

The ANA Group is instituting a system of corporate governance that promotes business transparency and accountability to stakeholders in order to enhance its corporate value.

# Organizational Structure for Decision Making

Issues fundamental to Group management are deliberated, and decisions made, at the Management Committee, composed of the president as chairman and the executive officers and auditors. The board of directors decides important issues that, under the Corporation Law of Japan, must be taken up at board of directors meetings.

Important administrative issues are

decided by the Management Committee, which is chaired by the president and includes the 13 directors (who are also corporate executive officers), 2 corporate auditors, and other corporate executive officers. Under the Corporation Law of Japan, certain issues must also be considered by the board of directors, which makes the final decision on such issues.

## Management System

ANA appoints 16 directors, five auditors and 35 corporate executive officers (including directors). In today's harsh business climate, a competitive management structure is indispensable. For this reason all directors have a comprehensive knowledge of operations and management. Our governance structure aims to strike a balance between prompt decision-making, effective and efficient management, and professional auditing and supervision.

#### 1. Board of directors

ANA appoints the least number of directors in the interest of prompt decision-making. Ever since our founding, we have appointed external directors to hear views from an objective standpoint. With these measures we are working towards strict supervision and faster decision-making. By limiting terms on the board to one year, our management system reflects our shareholders' will.

The board of directors is led by the chairman. In addition to the directors, two of whom are external directors, the board includes five auditors, three of whom are external auditors. Including extraordinary meetings, the board of directors met 13 times in FY2006.

# 2. Corporate executive officer system

Personnel appointed to the post of corporate executive officer are thoroughly acquainted with the business and given the authority and responsibility to execute their tasks. We started this system in 2001 with a view to building a scheme enabling such personnel to concentrate on stable operation of the company. Corporate executive officers are selected from each field to enhance management efficiency.

Each corporate auditor conducts audits of operations at each office and audits of subsidiaries and reports the results to the board of corporate auditors and to the representative directors. The auditors share information and opinions with the Internal Audit Division and the independent auditors on a quarterly basis and work to enhance auditing.

#### 3. Auditing system

To strengthen our auditing capability, we appoint five auditors, including three from outside the company, to the board of auditors. Also, one full-time auditor is from outside the company. Each corporate auditor conducts audits

of operations at each ANA office and audits of Group companies and reports the results to the board of corporate auditors and to the representative directors. The auditors share information and opinions with the Internal Audit Division and the independent auditors on a quarterly basis and work to enhance auditing.

#### 4. Account Audits

As for account auditing, Ernst & Young ShinNihon audits ANA, its work sites, and Group companies in accordance with the Corporation Law and the Securities Transaction Law. Auditing results are reported to ANA's management and to the board of auditors.

#### 5. Business Advisory Board

In addition to those bodies stipulated by law, we have instituted an advisory board comprised of six experts in various fields. The board's diverse and valuable opinions on the overall business of the Group are fully reflected in our management. We held four meetings in FY2006.

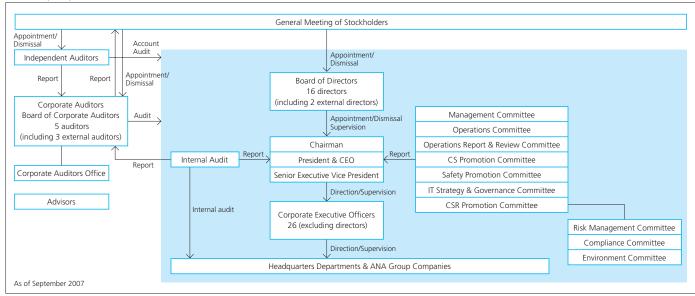
# Internal Control System

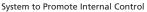
The ANA Group has been enhancing its internal control system to increase stability and efficiency in business, implement appropriate information disclosure

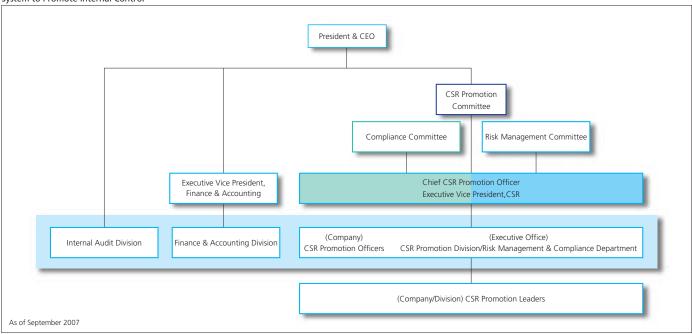
and ensure compliance with laws, regulations and internal rules. In July 2002 we established a Risk Management Committee and in April 2003 a Compli-

ance Committee. In April 2003, we also established the Internal Audit Division in charge of internal auditing to complete our system of internal control.

#### ANA Group Corporate Governance Structure







# Risk Management

The Risk Management Committee is tasked with providing concrete risk and crisis management to the ANA Group. Ascertaining and controlling risks that could impede our business enables us to maintain stability and smoothly achieve our goals.



# Risk Management Structure

The ANA Group Total Risk Management Regulation specifies basic points for overall risk management. Our CSR Promotion Committee led by the President comprises corporate auditors and all directors including senior executive vice presidents, while our Risk Management Committee comprises corporate executive officers and other officers in charge of each division. Through these committees, important policies and matters are planned and promoted.

The Risk Management Committee further contains dedicated subcommittees for specific risks, such as the Air Transportation Security/Crisis Management Subcommittee. Information Security Subcommittee and Security Export Control Subcommittee. In the event of unforeseen risks, temporary subcommittees will be formed to take action in a cross-sectional manner.

# Risk Management Activities

To ensure stable operations and effectively achieve our business goals, we formulated the Risk Management Committee Regulation, Risk Management Regulation, and Risk Management Implementation Manual, collectively known as the ANA Group Total Risk Management Regulation.

In addition, since the enforcement of the Private Information Protection Law in April 2005, we instituted the Information Security Management Regulations. Thorough implementation of information security across the entire Group is taking place, including the provision of the Information Security Handbook for employee education.

Each ANA office and Group company has appointed a CSR Promotion Leader who is working to promote risk management and information security.

# Compliance with Law to Protect the People

Based on Japan's Law to Protect the People and Military Attack Contingency, ANA and Air Nippon became designated public transport organizations in September 2004. Following Cabinet approval of the Measures to Protect the People in October 2005,

we drafted a "business plan for implementing measures to protect the people" that was reported to the Prime Minister in March 2006, as well as governors and mayors of related prefectures and local authorities.

# Crisis Management Structure

As a measure against such crises as ANA Group aircraft accidents and hijackings, we formulated the Emergency Response Manual (ERM). The purpose is to have in place a crisis-response structure that enables us to respond to emergencies promptly and properly, minimize loss, ascertain the cause, and resume safe flight operations.

There exists also the risk of major disasters in Tokyo. For this scenario we formulated a Business Continuity Plan (BCP) to mitigate the operational confusion following such a disaster. As a part of this plan we set up backup facilities in the ANA Business Center Building, should our main offices in Haneda or Shiodome become inaccessible.

In addition, we have introduced ANA Emergency Call, a system that enables prompt confirmation of employee safety using emergency contact information stored in the computer system.



Backup facilities can accommodate up to 500 persons.



ANA Emergency Call guidance card

# Incidents and Countermeasures

## 1. Fraud case of former employee

A former employee in charge of accounting was arrested on November 15, 2006, for allegedly embezzling handling fees totaling some ¥28 million over three occasions from July to August 2005. The fees were to be paid to a contracted agent for airport handling. Since this incident was brought to light through internal investigation in December 2005, we have continued

to study the case. To prevent any recurrence, we have strengthened our controls on accounting procedures in those involving account settlements with our business partners.

2. Computer system failure In the early morning of May 27, 2007, the domestic check-in system failed, resulting in the cancellation or delay of more than 130 flights and greatly inconveniencing customers. After restoring the system, we investigated the system infrastructure and any shortcomings in passenger handling at the airport. Measures were established to prevent any recurrence of such failures, as well as to enable smooth passenger handling in the event of any large-scale disruption at airports.

\* Safety-related incidents are discussed on pages 30 and 31.

# Compliance

The ANA Group promotes compliance by raising awareness through employee education. CSR Promotion Leaders inspect the workplace to identify and solve any problems.

# Compliance Structure

Compliance at the ANA Group is promoted by the Compliance Committee of corporate executive officers and division directors. The Chief CSR Promotion Officer oversees compliance through-

out the Group; individual Group companies are the responsibility of CSR Promotion Officers. Executives are also instructed to exercise leadership for compliance.

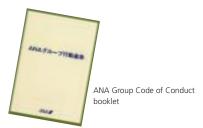
# ■ Reexamination of Compliance Function

Each year, the ANA Group establishes specific activities to promote compliance. In FY2006 we worked to promote compliance under a policy of reexamining our compliance function.

We confirmed that the revised Codes of Conduct were being distributed, read and observed. In addition, we examined the workplace status through the auditing results and through questionnaires given to all employees. Many activities such as seminars were held to adjust our contract and temporary work systems, and to strictly enforce working hours. In these ways we worked to promote compliance and raise awareness of the importance of observing corporate ethics.



Compliance website on the intrane



# Internal Reporting System

In accordance with the provisions of the Whistleblower Protection Act enacted on April 1, 2006, we established regulations concerning the handling of internal reporting and disseminated them throughout the ANA Group. On June 1 of the same year we made

available our Help Line to business partners, as the said Act also applies to contracted labor. Independent from the corporation, the Help Line advocates fairness and provides a self-cleansing function for the ANA Group.

# Compliance Program

The Compliance Program (CP), formulated in view of strengthened export security controls in Japan, was submit-

ted to the Ministry of Economy, Trade and Industry in July 2006.



# Internal Auditing

At the ANA Group, internal auditing for ANA and its subsidiaries are raising the effectiveness of corporate governance.

# Enhancing Corporate Value

The objective of the internal audit is to help enhance the ANA Group's corporate value. To this end, the division assesses the administrative and operational systems of all management activities, as well as implementation status of operations from the standpoints of legality, rationality and corporate ethics. It also endeavors to maintain corporate assets and improve management efficiency by providing information based on the audit results, and by offering recommendations for improvement.

#### Over 60 Audits Per Year

The Internal Audit Division, which reports directly to the president, implements operational and account auditing for ANA and its subsidiaries. Each year, more than 60 audits are performed on ANA offices and Group companies, with approximately 180

subjects being audited once every three vears.

Auditing results are reported to the president each month, and important items are reported to the corporate auditors quarterly.

# Implementation Status

In FY2006, the Internal Audit Division emphasized accounting-related matters, quality control, observance of laws and regulations, and security of personal information. The division conducted internal audits of approximately 70 ANA offices and Group companies, focusing on operation- and sales-related offices and Group companies and on overseas offices in China.

#### **Compliance Education**

The ANA Group holds compliance-related education during training of new recruits and newly appointed management-level employees to raise their awareness of compliance.

In addition, we hold regular training for CSR Promotion Officers and CSR Promotion Leaders, as well as specific compliance training for executives.



Compliance training for executives

Report

# Third-Party Opinions on Safety

# The ANA Group Safety Advisory Panel

The ANA Group Safety Advisory Panel, held in 2006, aims to include in our safety measures advice from knowledgeable third-parties regarding our systems and approaches to safety.

#### Valuable Comments

Six eminent persons from diverse fields including manufacturing, transportation, medicine and academia provided the following valuable comments during the four sessions held in FY2006.

#### 1. Overall safety structure

Organizational structures consisting of an implementation section and company-wide safety promotion section, such as ours, are common. In this case, safety and quality are generated at the production stage, and the implementation section tends to have more power. Top management should give the safety promotion section more authority to check the implementation section so that the latter will not fall into sectionalism and the former will be positioned higher in the company.

# 2. Thorough implementation of safety principles

The most important thing is for top management to take a strong interest in safety. And this should be visible to employees, who will then see that the necessary resources are being allocated. Face-to-face exchanges between top management and frontline employees are effective. Those in middle management should have a full understanding of safety and be able to accurately communicate management plans to subordinates.

# 3. Collection of safety-related information

Collecting safety-related information is emphasized at many companies not only as a preventative measure but also to strengthen the corporate cul-



Inspection at Airframe Maintenance Center



Operation Control Center



ture. The notion that repeating the same mistake is a huge problem must be instilled. The reporting of mistakes should be forthcoming without fail, whistleblowers should not be penalized, and organizational measures to prevent recurrences should be taken not only locally but at other sections as well.

4. Measures against human error

There is no quick fix for human error. Various approaches need to be taken continuously. And although human error can never be eliminated entirely, ANA's current education and training can greatly reduce its likelihood. Improving facilities and infrastructure can also help lessen the possibility of human error.

## 5. Creating a safety culture

Top management can create a superior safety culture by adhering to the corporate policy of prioritizing safety and by taking specific, earnest actions that send a positive message to employees. Building a safety culture takes time and requires continuous improvements. In major industries the levels of safety and quality are already high, and there is no instantly effective measure to further improve them. For this reason the steady implementation and refinement of measures is very important.

## **Incorporating the Comments**

Based on these comments from the distinguished members, future ANA Group will: (1) strengthen the functions of the Corporate Safety & Audit Division; (2) hold direct talks continuously, and enhance the Safety Top Caravan; (3) further facilitate the reporting of

safety information; (4) hold human error education continuously for operating sections while expanding it to other sections; and (5) use the ANA Group Safety Education Center for all Group employees and study how to better gauge the retention rate.

While the panel favorably evaluated approach to safety taken by the ANA Group, which has not experienced accidents resulting in fatalities for more than 35 years, they did comment that further efforts are necessary to cement safety as one of the ANA Group's core values.

The ANA Group has formulated specific action plans for each of the above points and already started to implement them.

#### ANA Must Create Its Own Safety

—Yuki Shuto, panel member
Director, Research Institute for Social Safety

In the study of human factors, my specialty, there are many issues common to other technological fields, so it is not unusual to proceed in a cross-sectional manner. Still, I was a little concerned whether the discussion would work with participants from such diverse backgrounds.



Once the conference began, however, I realized that my concern was utterly groundless. There were many common points for safety: for instance, that top management's attitude is important; that safety sections must be given a firm budget and authority; and that safety principles must be expressed in words chosen with utmost attention and care.

Of course, airlines are a bit different. While examples from other industries are helpful, they offer no panacea. I think it became clear that the ANA Group has to create its own methods while learning from the approaches being taken in other fields. Harsh comments to the effect that ANA is quite lax were expressed as well. I hope that such discussions will help bring about enhanced safety efforts at the ANA Group.

# Perspective on Safety

To ensure maximum safety, the greatest challenge facing airlines, ANA has stipulated the ANA **Group Safety Principles for all** members to raise awareness of safety and ensure safe flight operations.

# ANA Group Safety Principles

To ensure the reputation for security and reliability outlined in the ANA Group Philosophy, the entire ANA Group must have a common recognition of safety, the basis of air transportation.

To this end we formulated the ANA Group Safety Principles, stipulating that safety is our promise to the public and

clearly asserting the ANA Group's obligations with regards to air transportation.

In line with the Group's safety culture, the philosophy defines the three basic entities responsible for maintaining and improving safety: companies, organizations and individuals.

Employees of the ANA Group promise to stay humble in observing safety.

#### **ANA Group Safety Principles**

Safety is our promise to the public and the foundation of our business.

Safety is assured by an integrated management system and mutual respect.

Safety is enhanced through individual performance and dedication.

# Approach to Safety

The ANA Group has set up various organizations and systems to ensure a high level of safety.

\* Safety Management System (SMS) is a documented process for managing risks that integrates operations and technical systems with the management of financial and human resources to ensure aviation safety or the safety of the public. Its main characteristics are that: top management is proactive in safety approaches, and safety is enforced organizationally; safety principles, policies and safety-related information are extensively shared; risk is systematically identified, analyzed and evaluated, with steps taken according to the degree of risk; and the system is continuously improved. These ideas are heavily reflected in the standards of IATA and ICAO.

# Establishment of Safety Management System

When revisions to the Civil Aviation Law and other transport-related business laws took effect in October 2006. it became mandatory for operators of land-, water- and air-based transportation to establish new approaches to safety.

Accordingly, the ANA Group created the Safety Management Regulations, its new top regulation on safety, and a powerful new post, that of Chief Safety Officer, to manage the SMS\*. Chairmen of the Safety Promotion Committees of each airline in the Group have been appointed to the position.

We also established a Group Safety Promotion Committee as our highest decision-making body related to safety. The committee's main tasks are to communicate important safety-related cases within the ANA Group, to stipulate safety-related policies and promote awareness, and, where needed, to advise Group companies on safety issues. In addition, given that the law now mandates a safety audit program, something that we had implemented voluntarily until now, we are stepping up our auditing system and bolstering our overall approach to safety.

## Operations Report (OR) Meetings

When it comes to safety, we consider it crucial for top management to exercise leadership directly on the frontline. To this end, OR meetings are held once a week at Haneda Airport in Tokyo to share information and review operational reports on taking prompt measures and improvements, attended by the president, vice-presidents and the

directors of relevant divisions. The top management members themselves meet at the airport to hear firsthand reports on the operational status and study the issues.

Immediately after discussion in the OR meetings, the heads of all relevant divisions and those in charge at Group companies meet for detailed studies.

# SAFER—Watchdogs of Safety

Revisions to the Civil Aviation Law that took effect in October 2006 oblige all airlines to operate an internal safety audit. The ANA Group had already launched SAFER\* in FY2001, and in FY2007 we are aiming at a higher-quality audit, having established a Groupwide training system for auditors.

SAFER\* is responsible for C (check function) in the Plan-Do-Check-Act (PDCA) cycle of the Safety Management System. Auditors possessing specialized knowledge and training based

on ISO9000 standards verify that the ANA Group meets safety standards, not only in Japan but overseas, directly reporting to top management to rectify any lapses. More than just "watchdogs," they not only identify risks but also offer solutions where needed. With this win-win relationship, coupled with concerted vigilance on the part of all employees, we are confident that safety will be maximized throughout our operations.

\* Safety Evaluation and Review program

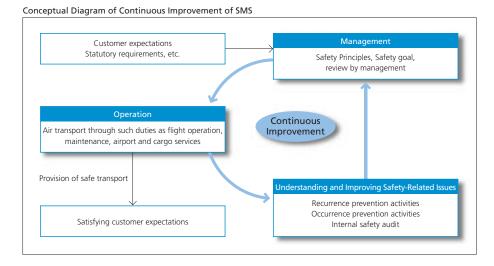
# ■ ECHO—Voluntary Safety Report System

Approximately seventy percent of all aviation accidents are caused by human error, it is said, and could be prevented by analyzing the causes of even the most minor irregularities.

Experience Can Help Others (ECHO) is a program for cockpit crew to share experiences that could have resulted in an incident. It was developed in 1991 and is now used by all airlines in the Group.

ECHO collects reports on cases of misjudgment, misinterpretation, faulty procedure and other errors, as well as experience with hazardous elements. This information is then shared with other crews to heighten safety. To encourage input from everyone, ECHO assures the anonymity of its sources.

Information collected is reviewed monthly by the ECHO committee, made up of cockpit crew members, and published in the internal ECHO journal (published six or seven times a year and now in its 100th issue), which is distributed to all cockpit crew. The journal also suggests measures aimed at preventing incidents and accidents.





# Approach to Safety

## ■ IOSA Compliance Renewed

IOSA\*1, which ANA was the first airline in Japan to adopt, is an internationally acknowledged safety audit program. Elsewhere in the ANA Group, Air Nippon was audited during FY2006 and is now certified. Other Group airlines are also implementing internal safety audits in compliance with IOSA standards.

Currently, 165 airlines worldwide are registered under IOSA, which is a requirement to join IATA\*2, and this number is expected to grow. IOSA membership signifies that an airline meets international safety standards, and as such can help reassure passengers around the world.

- \*1 IATA Operational Safety Audit
- \*2 International Air Transport Association



# ANA FOQA Program for Raising Quality

The ANA Flight Operational Quality Assurance (FOQA) Program enables the review of all flights at all times, based on the analysis and assessment of flight record data.

Through the Program, cockpit crew and associated divisions are given feedback on points identified as requiring improvement with respect to operational quality, in order to respond

promptly. The Program helps to maintain and promote flight safety while improving operational quality.

# STEP—Safety Tips from Experience

ANA's Inflight Division has a system called Safety Tips from Experience (STEP) in which safety-related issues that might lead to incidents are reported and remedied. The system has been introduced to each airline in the ANA Group.

The number of reports is increasing each year, helped by efforts to focus on its importance and also through the recognition of a support system to ensure that such reporting is not taken personally. Based on STEP's original aim to prevent unsafe incidents by making use of past examples, we are further refining the system by editing criteria on the report form and by allowing digital submissions as well. These steps should encourage more voluntary reporting of cases thought to be caused by human error.



Pre-flight briefing

# LOSA—Monitoring Flights for Safety

Human error is a fact of life, and airlines around the world are working on proactive methods to best deal with the problem.

One such method is LOSA\*1, developed in the 1990s at the University of Texas with support from the FAA\*2, which records and analyzes flight crew errors during flights. ANA was the first airline in Japan to adopt LOSA, signing a contract with TLC\*3, its administering authority, in 2006.

Internal monitors trained at TLC, working with TLC's own monitors, collected data from approximately 300 flights and reported the results to us in March 2007. We are presently studying these results to develop new ways to ensure flight safety.

- \*1 Line Operations Safety Audit
- \*2 Federal Aviation Administration
- \*3 The LOSA Collaborative



Monitor training conducted by TLC

#### ANA Catering Service—Safety and Quality

In 1997, ANA Catering Service (ANAC) began introducing an advanced food safety management system called HACCP\*1, which was fully implemented the following year. In addition to enhancing facilities, HACCP has helped to maximize awareness of hygiene among employees.

ANAC provides thorough hygiene training to all its employees, from office staff to those at the front line. Each understands the need to maintain strict temperature control and prevent cross-contamination at every stage of the catering process—from the procurement of ingredients to cooking, arrangement and aircraft loading. The safety of in-flight meals is thus assured through full quality control.

While public concern about food safety

has increased in recent years, so have ANAC's measures. By adopting the latest safety and security standards, the company has consistently received the highest hygiene and quality ratings from one of the most prestigious auditors\*<sup>2</sup> in the industry.

- \*1 HACCP (Hazard Analysis and Critical Control Point) is a management method to ensure food safety by monitoring critical control points for factors that might adversely impact the food production process.
- \*2 Medina International Incorporated. Audits caterers for airlines. In the over 25 years since its founding in September 1980, the company has conducted more than 10,000 audits on 150 facilities, 109 airports and 78 caterers. ANA concluded a contract in June 2007 for the auditing of its caterers.



Inflight meals are prepared with utmost quality assurance.

# Approach to Safety

# Safety–Related Occurrences

The ANA Group experienced one aviation accident\*1 and two serious incidents\*2 in FY2006. We offer our deepest apologies to passengers and other affected parties. While we have taken measures in response to each incident, their exact cause is still being investigated by the Aircraft and Railway Accidents Investigation Commission; upon receiving the results we will take further appropriate measures to prevent any recurrences.

In addition, during the latter half of FY2006 we experienced 112 events (safety-related occurrences), the reporting of which is now mandated by a revision to the Civil Aviation Law that took effect in October 2006.

Details of each event are available on the Safety Report (Japanese) at our website's Safety & Flight Data section.

http://www.ana.co.jp/ana-info/ana/lounge

- \*1 Article 76 of Japan's Civil Aviation Law defines aircraft accidents as any crash or collision of or fire within an aircraft as well as the following results of such accidents: property damage outside the aircraft or injury or death; death within the aircraft (excluding natural causes); aircraft damage sustained while airborne; or missing persons.
- \*2 Serious incidents refer to those recognized as potentially causing aviation accidents as defined in Article 76-2 of Japan's Civil Aviation Law; 14 scenarios including runway infractions are stipulated in Article 166-4 of the Enforcement Regulations of Japan's Civil Aviation Law.

#### **Aviation Accident**

#### 1. Accident Outline

On March 13, 2007, Flight 1603 (Itami-Kochi, JA849A, Bombardier DHC-8-402) was preparing to land at Kochi Ryoma Airport when its nose landing gear failed to extend. Alternative procedure was attempted, but in vain. The plane, carrying 56 passengers and four crewmembers, was thus forced to land with its nose landing gear retracted. The aircraft sustained damage to its fuselage; there were no injuries.

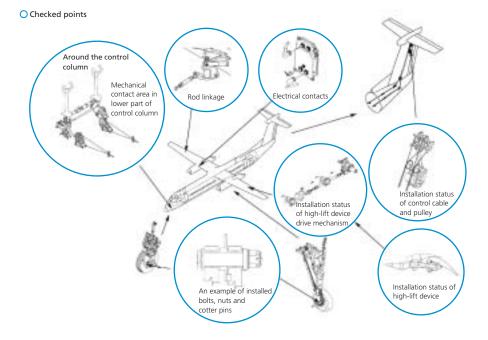
#### 2. Preliminary Cause

While the cause of the accident is still under investigation by the Aircraft and Railway Accidents Investigation Commission, the malfunction is believed to have been caused by a missing bolt in the assembly controlling the opening of the nose landing gear compartment; the bushing (metal sleeve around the bolt) came unseated and struck the mechanism inside the nose landing gear compartment, interfering with the operation of the door by both normal and alternative means.

#### 3. Measures

We held an emergency inspection based on a technical circular directive issued by Japan's Civil Aviation Bureau. The following additional precautionary measures were taken for all Bombardier

#### **Bombardier DHC-8 Inspections**



DHC-8 aircraft owned by the ANA Group:

- Replaced all cotter pins on bolts in the door opening mechanism;
- Replaced the equivalent bolts to the missing one;
- Examined bolts in similar mechanisms in the main landing gear;
- Established daily operational checks of the compartment doors of both the nose and main landing gears, as well as of bolts in the mechanism of the nose landing gear.

Further, we formulated a "special inspection" program for key items selected from the list of our regular heavy maintenance check for landing gear and control devices, and completed inspections of all Bombardier aircraft in operation by the end of April 2007.



Bombardier DHC-8-400

#### **Serious Incident**

#### Serious Incident 1

#### 1. Incident Outline

On July 5, 2006, Flight 2142 (Fuku-oka–Narita, JA8419, Boeing 737-500) made an emergency descent after it became unable to maintain cabin pressure during cruise. Oxygen masks in the cabin were automatically released during the descent, and the plane, carrying 41 passengers and five crewmembers, later landed safely at Nagoya (Chubu). There were no injuries.

#### 2. Cause

Under investigation by the Aircraft and Railway Accidents Investigation Commission of the Ministry of Land, Infrastructure and Transport

#### 3. Measures

Given that our investigation traced the cause to worn parts in the air-conditioning system, our measures include better time management for checks and mandatory replacement of the subject parts on Boeing 737-500 aircraft. Upon official announcement of the investigation results by the Aircraft and Railway Accidents Investigation Commission, we will take additional measures as required.

# Serious Incident 2 1. Incident Outline

On November 20, 2006 on Flight 729 (Sendai–New Chitose/Sapporo, JA8596, Boeing 737-500), fire-extinguishers were triggered by the fire alarm upon activation of the auxiliary power unit after landing at New Chitose Airport. The control tower advised that no flames had been detected, and the aircraft, carrying 53 passengers and five crewmembers, taxied as usual to its gate. There were no injuries.

#### 2. Cause

Under investigation by the Aircraft and Railway Accidents Investigation Commission of the Ministry of Land, Infrastructure and Transport

#### 3. Measures

As the clamp attaching the auxiliary power unit's duct was damaged, such clamps were replaced on the auxiliary power units of all Boeing 737-500 aircraft. Upon official announcement of the investigation results by the Aircraft and Railway Accidents Investigation Commission, we will take additional measures as required.

# Report

# Airline of the Year 2007



Airline of the Year 2007 shield



Award ceremony

In February 2007, ANA was named "Airline of the Year 2007" by Air Transport World. Here we report the basis for ANA having received this honor.

# One of the Industry's Most Prestigious Awards

Air Transport World, a monthly magazine for the civil aviation industry founded in 1964, has been recognizing airlines with outstanding performance every year since 1974. "Airline of the Year" is one of the most prestigious awards in the industry.



The reasons for our receiving the award were as follows:

1. Excellent Overall Performance ANA has achieved excellent performance by implementing bold coststructure reforms, by coping with structural changes in the Japan market brought about by the merger of Japan

Airlines and Japan Air System, and by overcoming such factors as SARS (severe acute respiratory syndrome), rising fuel costs and low load factor on its China routes.

- 2. Persistent Safety Efforts ANA is making ongoing efforts to ensure safety by adopting LOSA and through its program of monitoring daily flight operations.
- 3. On-Time, Quality Service ANA has continued to provide highquality flight operations including an excellent record of on-time departures.



ANA Lounge at Narita Airport recieved a G-Mark, Good Design Award



# 4. Profitability of International Operations

ANA has returned international operations to profitability by investing management resources in international passenger and cargo operations, and by closely collaborating with Star Alliance member airlines.

# 5. Use of Latest Information Technology

ANA is providing cutting-edge passenger services making full use of information technology, such as the 126 automated check-in machines at the South Wing of Narita Airport's Terminal 1.

#### 6. Cutting-edge Cabin Facilities

ANA has developed and introduced superior cabin amenities, as seen in its New First Class Seat, New Style Club ANA (business class), and ANA BusinessJet, an all-business class flight.

# 7. Purchase of Boeing 787 ANA is the launch customer for

the next-generation Boeing 787, with which it has been involved since the development stages.

# 8. Preparations for Haneda Airport Expansion

ANA has sped up the retirement of its Boeing 747-400s, replacing them with the more efficient 777-300s. Further, ANA is preparing to expand cargo operations, its third core business.

ANA is very proud to have received this wonderful assessment ranking us



Automated check-in machines at Narita Airport

as number one in the world in these important areas.

#### Offering Dreams and Experiences

At the grand award ceremony held at the Marriott Wardman Park Hotel, Washington, D.C. on February 21, 2007, then-Executive Vice President Katsuhiko Kitabayashi of ANA received the "Airline of the Year 2007" from *Air Transport World* Chief Editor Perry Flint. Over 300 representatives from the industry and press attended.

Everyone at ANA is deeply honored to have received this globally recognized award on the 21st year since launching international service. We thank all our stakeholders for their continuous support. This award will inspire us to strive even harder in our quest to become an airline that offers dreams and experiences to people around the world.



Operating Income (Loss) & Operating Income (Loss) Margin



New First Class Seat

# ANA Group Mid-Term Corporate Strategy (FY2006–FY2009)

In preparation for the era of intensified competition expected following the expansion of Haneda Airport in October 2010, we are promoting the ANA Group Mid-Term Corporate Strategy (FY2006-FY2009). This plan aims to fortify us against any changes in the business environment including higher fuel prices. By FY2009 we aim to become the number one airline in Asia in terms of value creation, quality and customer satisfaction.

# **ANA Brand Concept** ANA Brand Vision "Creating Personal and Human Experiences with Our Customers Communication The ANA Character Anshin, Attaka, Akaruku-Genki! (Reliable, Warm, Enthusiastic!) Mind and Spirit Frontier Spirit, Team Spirit

## Objectives of ANA Group Mid-Term Corporate Strategy (FY2006–FY2009)

Positioning this mid-term strategy as our full-fledged preparation period for the expansion of Haneda Airport in October 2010 and the ensuing "big bang," we will heavily invest resources not only in domestic passenger operations but also in the growth areas

of international passenger and cargo operations. To strengthen our corporate constitution against fluctuations in revenue, we are steadily implementing cost-structure reforms and fleet strategy to ensure profitability in the event of higher fuel prices.

## Outline of Strategy

## Safety, Quality and Customer Satisfaction

Our goal is to have the best safetymanagement system in the world. We will do this by promoting a corporate culture that focuses on safety throughout the entire ANA Group. This means that each Group airline will use the same standardized systems and thus enjoy the same high level of safety.

In terms of quality and customer satisfaction, we will combine our personalized service that values feedback with excellent airport and amenities cabin to truly be the airline described by our catchphrase, "Anshin, Attaka, Akaruku-Genki! (Reliable, Warm, Enthusiastic!)" In FY2006 we established

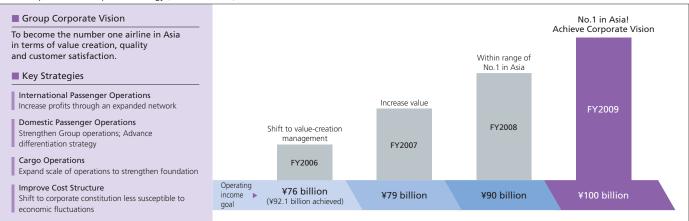
systems of comparison with foreign airlines, centered on those in Asia, as well as a new customer satisfaction survey targeted at foreign passengers. These measures will aid us in our goal to become the number one in Asia in terms of customer satisfaction.

## Five Strategies for Managing Value Creation

## Domestic passenger operation strategy

We will improve the convenience of connections, optimize the supply/ demand balance and revenue management, and aim for stable revenue growth. We will work to cement the competitiveness of our products such





as Super Seat Premium, new economy class seats, total transport strategy and e-commerce and develop other attractive products that meet customer needs.

# International passenger operation strategy

We will specialize in the business passenger market, reinforce our transport capacity at the hub airports of Star Alliance partners, and enhance our network in each region of North America, Europe, China and Asia. By deploying mainly narrow-body aircraft such as the Airbus 320 and Boeing 737-700 on higher-frequency China and Asia routes and by optimizing demand and supply, we will strengthen our competitiveness.

At Narita Airport, we will enhance connections with Star Alliance member airlines, while at Haneda Airport, we will prepare for international operations based on demand in the Tokyo metropolitan area and on domestic connections. Further, we will promote our deployment of the Boeing 737-700ER, the first in the world, as a strategic aircraft for mid- and long-haul international routes.

#### Cargo operation strategy

Cost Structure Reform

B737-400

B737-500

To strengthen cargo operations, one of the three pillars supporting our growth strategy, we will establish Japan-China, Japan-North America, and Japan-Asia networks utilizing Kansai or Nagoya (Chubu) airports. Moreover, we will establish a network connecting domestic and international flights from Haneda Airport by the end of FY2008, paving the way for a Haneda-based freighter network after FY2009. We will expand our freighter business through a tie-up with Japan Post and by establishing a new freighter company geared to the internationalization of Haneda Airport, which will contribute to achieving the ANA Group profit objective.

#### Alliance strategy

June 2006 saw the relocating of ten Star Alliance member airlines "under one roof" at Narita Airport's Terminal 1. In the future we will work to improve connections among ANA's Asian and Western partners, as well as customer convenience through shared use of infrastructure such as lounges, check-in counters and IT systems. As Haneda Airport becomes internationalized, we will make best use of Star Alliance resources to secure our competitiveness.

# Cost structure reform—fleet strategy and cost reductions

Cost competitiveness will be strengthened by standardizing on new, cost-efficient Boeing 737-700s and Boeing 787s, and by retiring the Boeing 747-400s.

Cost reductions include sale of hotel operations in June 2007.

By FY2007, indirect fixed costs will be reduced by ¥10 billion through a reduced indirect workforce, reduced rental space, review of advertising, rationalization of IT costs, and so on. By FY2009, direct fixed costs shall be reduced by ¥10 billion through improved productivity, reduced fuel consumption and lower outsourcing costs.



Introduction of highly economical aircraft Standardization of aircraft models

Upon completion of fleet standardization

B747-400

B777-300

B777-200

New wide-body aircraft (to be determined)

New mid-sized aircraft Boeing 787

Reduction of Ind by FY2007)

Decrease indirect wor advertising, rationalize advertising, rationalize advertising, rationalize

New narrow-body aircraft Boeing 737-700 ■ Reduction of Indirect Costs (reduction of ¥10 billion by FY2007)

Decrease indirect workforce, reduce rental space, streamline

Decrease indirect workforce, reduce rental space, streamline advertising, rationalize IT costs, etc.

Saving of Direct Costs (reduction of ¥10 billion by

FY2009)
Improve productivity, reduce fuel consumption, reduce outsourcing costs, etc.

# ■ Numerical Targets

By promoting each strategy, in which we pursue higher profitability by reducing costs while optimizing our fleet, we aim to achieve operating revenues of ¥1,550 billion and operating income of ¥100 billion by FY2009.

## Financial Relations with Stakeholders

The ANA Group has various financial relations with our stakeholders, which include customers, business partners, shareholders, creditors, employees, communities and public authorities.

#### Distribution of Economic Value

The ANA Group provides high-quality air transportation services—domestic passenger operations, international passenger operations and cargo and mail operations—as well as services in the travel industry and other sectors.

We pay expenses to our business partners from operating revenues and distribute generated economic value to various stakeholders including employees, shareholders, public authorities and communities.

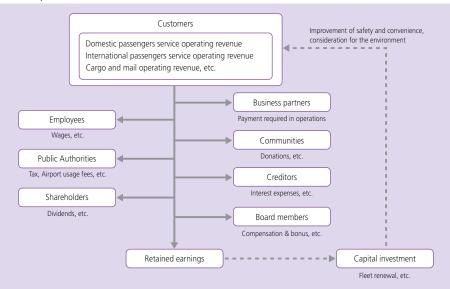
#### FY2006 Economic Value

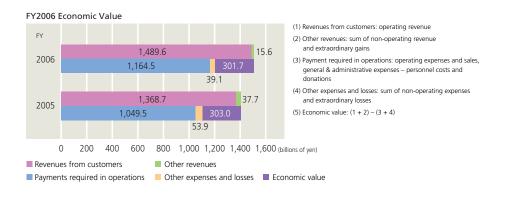
Revenues from customers amounted to ¥1,489.6 billion, an 8.8% increase over the previous year. Other revenues decreased by 58.5% to ¥15.6 billion. Due to higher fuel costs and other factors, payments in the course of oper-

ations increased by 11.0% over the previous year to ¥1,164.5 billion.

Other expenses and losses decreased by 27.6% to ¥39.1 billion. As a result, the FY2006 economic value decreased by 0.4% from FY2005 to ¥301.7 billion.

ANA Group Financial Relations with Stakeholders





### Communication with Shareholders and Investors

As of March 31, 2007, ANA has approximately two billion shares outstanding, held by over 270,000 shareholders. Providing return to these shareholders is an important task of management. We divide earnings properly based on our managerial environment and performance, and aim to raise shareholder value by building a business structure capable of steady profits regardless of fluctuations in the industry.

#### Shareholder Equity and Equity Ratio



### Breakdown of Shareholders





TSE commendation for increasing individual shareholders

### Communication with Individual Shareholders and Investors

We actively communicate with individual shareholders and investers, who account for over 40% of our shareholders.

### **General Shareholders Meeting**

Our ordinary general meeting of share-holders is an important opportunity for direct communication. A record-high 3,093 shareholders attended this meeting in 2007, many of whom voiced comments and questions.

### **Briefings for Individual Investors**

We expanded our activities by participating in the Tokyo Stock Exchange's Disclosure Fair and held briefings for individual investors. Here, we explained in detail our business outline and corporate plans

and answered many questions.

## Complimentary Goods for Shareholders

Domestic flight discount coupons and various complimentary goods from Group companies are offered to shareholders as a token of our thanks.

## Commendation for Increasing Shareholders

In January 2007, our efforts aimed at increasing our number of individual shareholders, and thereby expanding the market base for securities, were commended by the Tokyo Stock Exchange (TSE).

### ■ Communication with Institutional Investors in Japan and Overseas

### IR Activities in Japan

After announcing each quarter's financials, we hold meetings and conference calls where top management makes presentations to analysts and institutional investors. Materials used in these presentations can be viewed on our website.

URL

http://www.ana.co.jp/eng/aboutana/corporate/ir

### IR Activities Overseas

We visit major investors in Europe, the United States and Asia to further their understanding of ANA. In addition, we actively participate in overseas conferences hosted by securities companies.

## ■ Prompt and Accurate Disclosure of Management Information

### Website

We post important management information at the time of its announcement and have worked to ensure that financial information is posted in a timely manner. On our English site, we increased the volume of information by including stock data and back issues.

URL

http://www.ana.co.jp/eng/aboutana/corporate/ir **Publications** 

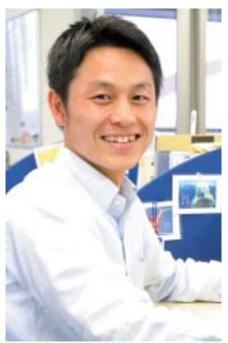
We publish ANA VISION for our individual shareholders on a quarterly basis. Our Annual Report and Fact Book are



published annually to give a detailed picture of our finances and management plan. Last year, our Annual Report won a prize at the 2006 Nikkei Annual Report Awards.

## Report

# Quality Management of **Products and Services**



Takashi Ono, CS Promotion Division



Customer Desk staff responds to inquiries from customers

The ANA Group has established a special management system to improve the quality of its products and services. The system monitors all quality, reviewing and implementing measures for improvement, and even extends to customer feedback, which we call the Closed Loop.

## Over 20,000 Customer Comment Reports

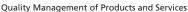
Each day, the ANA Group operates some 900 domestic and international flights carrying more than 120,000 passengers. We have extensive interaction with customers for the duration of their flight, from reservations and boarding to in-flight services. We therefore have many opportunities to hear from our customers. Comments from customers regarding our products and services are received by our Customer Desk via telephone, e-mail and post and compiled into reports. In FY2006, we pro-

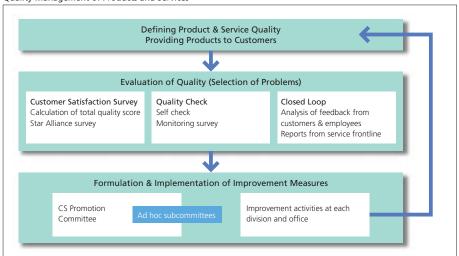
duced 20,620 such reports. These are stored in a database on our intranet where they can be referenced by authorised personnel to solve problems and improve quality.

## **Reflecting Customer Feedback** Through a "Closed Loop"

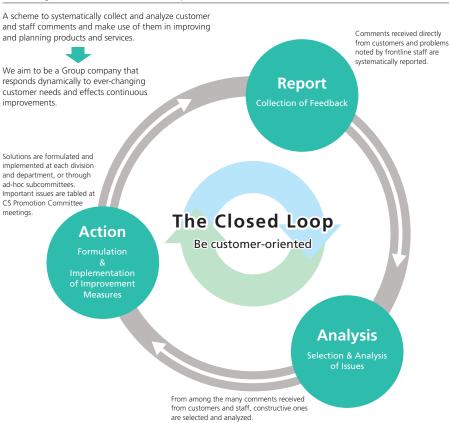
Based on our Course of Action ("Be customer-oriented"), the ANA Group studies all quality-related issues voiced by our customers and attempts to resolve them.

The cycle of collecting and analyzing comments from customers and staff





#### Maximizing Customer Feedback (Closed Loop)



to solve problems and plan new products and services, known as a "Closed Loop," ensures that we stay customeroriented.

Problems that are faced by multiple divisions, or those that cannot be solved through ordinary channels, are examined in the CS Promotion Committee composed of executive officers from all divisions. Customers are apprised of improvements resulting from their feedback through *Tsubasa no Okoku* (our Japanese-language inflight magazine) and through our website.

Being "customer oriented," all employees and executives truly recognize the value of customer feedback. The "Closed Loop" helps not only to resolve service issues but also to inculcate in all staff a CS-oriented mentality.

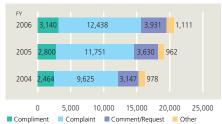
"Customer Feedback" page on our website http://www.ana.co.jp/ana-info/blettine (Currently available in Japanese only)





Mai Azuma, Passenger Services, guiding a customer at Haneda Airport

#### Customer Feedback



### Breakdown of Compliments (FY2006)



### Breakdown of Complaints (FY2006)



#### Breakdown of Comments/Requests (FY2006)



## **Society – Customers**

## **Raising Customer Satisfaction**

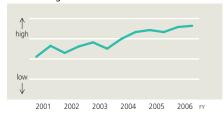
The ANA Group holds customer satisfaction surveys to manage the quality of its products and services. We are striving to raise employee awareness of these indices and of customer satisfaction in general.

### Customer Satisfaction Index

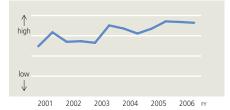
The ANA Group holds customer satisfaction surveys twice a year and monitors its customer satisfaction index (CSI) regularly. The results are thoroughly analyzed by the CS Promotion Division as well as by each division and department to promote improvements in service.

Since we began these surveys, our customer satisfaction index has steadily improved. The ANA Group will continue to win customers' hearts through our unstinting efforts to improve quality and pursue the highest possible satisfaction.

### Domestic Flight CSI



### International Flight CSI





Bangkok Office counte



Narita Airport check-in counter



Super Seat Premium

### CS Awards

Every other month we choose from the letters, telephone calls and e-mails from customers and share examples of "ANA Group best practices" that lead to outstanding service.

### **Service Award Example**

"I became unwell during a flight and caused anxiety in those around me. I would like to take this opportunity to extend my thanks."

On flight 662 on January 31, 2007, I suddenly fell sick and collapsed. The captain and members of the crew took great care of me and I am truly grateful. My memory of that day is not exactly clear, but I do remember two things. The first is that there were many people by my side, looking after me with concern. And the other is that a cabin attendant repeatedly said encouraging words in my ear, things like "Everything will be all right, we are right here." Thanks to everyone's help and encouragement, I have been able to regain my health

and am currently living a normal daily life. Although I really would like to thank each one of you in person, I hope that this message will help express my gratitude. (Female)

## Comments from the Service Awards Committee:

We have learned that Mr. Murakami, who happened to be on this particular flight on a business trip, played a big role in helping the customer. Between the onset of the illness to transportation, he (1) arranged seats so that the ill customer could lie down, and secured a seatbelt on the customer to help ensure safety; (2) supported the customer, in a semi-crouching position, for the entire time from preparation for landing and actual landing; and (3) asked a customer who'd tried to stand, despite announcements for all passengers to remain seated until medical transport has been completed, to sit. Having learned of his numerous efforts, the committee decided that he deserved an award.



Award recipient's comment: Kazuhiko Murakami Materials Management & Spares, Engineering & Maintenance

This award is not for me personally but for the entire crew on that flight. As I am in the Engineering & Maintenance division, where we do not usually come in direct contact with customers, this experience made me aware of the extreme importance and challenges of those on the frontline. I hope to continue contributing to customer satisfaction by supporting flight operations and by providing safe, high-quality aircraft.

## ■ Delivering Customer Feedback to Employees—Pay Slip

ANA has been printing customer compliments on the cover of monthly pay slips since October 2004.

This practice, proposed by employees, was initiated to raise employee awareness of CS in an everyday way. It is just one more step towards our brand vision of "creating dreams and experiences."



## Creating a Wonderful Experience with Customers —Anshin, Attaka, Akaruku-Genki!

I use a cane because of my bad leg joints, and this makes me troublesome when I board a plane. But today I was truly happy when I boarded. It was just a few words from a cabin attendant—"Slowly, slowly, take your time. Nobody's behind you." It gave me a sense of security, as I always felt I should probably be the last one to board. Today's experience made for a very enjoyable and heart-warming flight. I think cabin attendants have a tough job, but with just a smile they can put us completely at ease. I was very grateful for your thoughtfulness.

<From comments brought to the Customer Desk>

## Society – Customers

### **CS** Activities

The ANA Group is taking full advantage of customer feedback in its CS\* activities to provide everbetter services.

\* Customer Satisfaction

CS website on the intranet

## ANA Group Brand Vision

There is nothing like a simple "thank you" from a satisfied customer to make an employee's day. The ANA Group brand vision is to be known for such warm, personal experiences. In our view, each employee who embraces this outlook increases our CS level—the

key indicator of our brand's power.

CS activities are therefore focused on raising employee awareness and ensuring the quality of our products and services based on customer feedback.

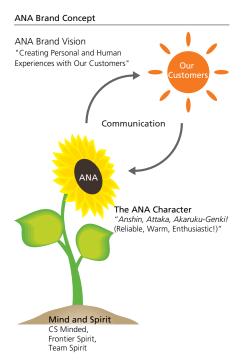
### ■ The ANA Character—Anshin, Attaka, Akaruku-Genki!

We believe that the best way to prevail against the competition is to establish a distinctive character, one embodying the ANA strengths and attributes that cannot be imitated by other companies.

With this in mind, in December 2004 we unveiled the slogan "Anshin, Attaka, Akaruku-genki! (Reliable, Warm, Enthusiastic!)" to define the ANA character, and "CS Minded, Frontier Spirit, Team Spirit" to describe the

mentality shared by all ANA Group employees.

Depicted graphically as a sunflower (the ANA Group) oriented toward the sun (our customers), our "Anshin, Attaka, Akaruku-genki!" character is being impressed on customers through a concerted, Group-wide campaign, which we hope will help us become the airline of choice.





## Praising Fellow Workers—Good Job Card

For those on the frontline we have "good job" cards, which are shared among employees on the occasion of a job well done. The cards contain messages of praise from customers as

well; the scheme lets employees share in their joy. By promoting pride in one's work and interest in that of others, the system also helps to boost employee morale and motivation.



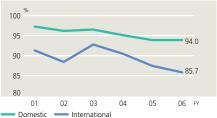
## Improving Operational Quality—Punctuality

Punctuality—departing and arriving at the scheduled times—is of paramount importance in the airline business. As part of our efforts to improve punctuality, we have been implementing a Group-wide project at airports in which employees can submit ideas. These are then checked for safety implications

and, if cleared, serve as the basis for new punctuality measures.

In FY2006 we attained an on-time departure rate of 94.0% for domestic service, and 85.7% for international service. This information is disclosed in the operational flight data on our website.

### On-Time Departure Rate\*



URL http://www.ana.co.jp/eng/aboutana/flt\_data/e/index\_sm.html Flight Data

## Thorough Quality Control in the Cabin

The ANA Group is carrying out thorough measures to ensure a quality inflight experience. Some 110 cabin attendants have been appointed as inspectors and report regularly on whether cabin quality meets official ANA standards. Meanwhile, our qual-

ity-evaluation section verifies inflight service—not only according to rating standards, but also by taking into account the perspective of passengers—resulting in thorough quality control of the cabin.



### CS Activities at Fukuoka Airport

At Fukuoka Airport, 1,500 ANA Group employees are tackling CS activities under the activity theme "CS Revolution by 1,500—Creating Services from the Customer's Perspective." Under the theme, "Working Toward Seamless Service," employees from across the Group planned and carried out measures to make theirs the best possible airport. The ANA Group employees at Fukuoka Airport have consistently demonstrated excellent teamwork in aiming for better CS.

<sup>\*</sup>The share of total flights departing no more than 15 minutes behind schedule

## Consideration for All Customers

Drawing on feedback from customers, the ANA Group has been improving its facilities and services to ensure that all passengers enjoy comfortable, pleasant flights.

#### Number of Challenged Passengers



## ANA Sky Assist Desk



The ANA Sky Assist Desk ensures a relaxing and pleasant flight for challenged customers. Highly

skilled staff will assist passengers, from reservation to disembarkation. The number of challenged passengers assisted in FY2006 was 122,906, up 4.1% from the previous fiscal year.

http://www.ana.co.jp/share/assist\_eng/index.html ANA Sky Assist



Yuka Nohara at Sky Assist Desk, CS Promotion Division

#### Breakdown of Challenged Passengers (FY2006)





## Promoting Barrier-free Airports and Aircraft

At airports and in the cabin, the ANA Group is promoting barrier-free access for physically challenged passengers.

Starting with making special writing pads available to customers with hearing disabilities at eight airports across Japan in 1998, we then provided cabin wheelchairs on all domestic aircraft in 1999. Additional services were introduced after the Transportation Barrier-Free Law came into effect, such as aircraft seats with movable armrests and wheelchair-accessible restrooms in the cabin. We also offer "assist seats"

to help physically challenged customers take their seats, and subtitles on certain in-flight video programs. And in April 2006, new airport wheelchairs, designed based on customer feedback, were rolled out at 50 airports around Japan. A comprehensive listing of the ANA Group's barrier-free services for the physically challenged can be found on our website.

URL

http://www.ana.co.jp/share/assist\_eng/index.html ANA Sky Assist



Mr. Katsumi Hirooka Manager, Market Development Group, Matsushita Electric Works, Ltd.

### Notes on Developing New Wheelchairs

We have been developing wheelchairs for use at airports and inside cabins that are more user-friendly than existing ones.

These wheelchairs have a combination of requirements particular to air travel. They should be easy to operate on inclined boarding bridges; pass comfortably through the aisles in the cabin; and allow the occupant to move from wheelchair to seat with a minimum of fuss. In assessing their usability and safety during development, we asked both the ANA Group and users for their opinions.

When I fly and am told by staff things like, "They're great because they're so easy to use," or when I see customers actually using them, I feel happy that our wheelchairs are contributing to a more comfortable flight.

## ■ Sign Language-Capable Cabin Attendants

To better serve hearing-impaired passengers, ANA provides opportunities for employees to learn sign language. Approximately 400 cabin attendants have been certified with sign-language skills of Grade 4 or higher.





IAU's Passenger Services staff practice sign language.

## Sign Language Study at International Airport Utility (IAU)

Why shouldn't the hearing-impaired enjoy air travel just like able-bodied passengers? The question was raised during a morning meeting from a CS member of Passenger Services, and staff took it upon themselves to begin learning sign language. Study sessions took place during the group meetings held in September and October 2006. Later, the group took

the official certification examination for Grade 6, and 64 passed. Employees certified for Grades 5 and 6 wear a "currently studying sign language" badge, while those certified for Grade 4 or better wear a "sign language" badge.

## ANA Rakunori (Easy Travel)

The ANA Rakunori Service is for passengers requiring special assistance. "Senior Rakunori" provides all manner of assistance for the elderly. "Family Rakunori" supports expectant mothers and customers traveling with infants or small children. "Kids Rakunori" helps children traveling alone, from departure to arrival. And "Pet Rakunori" lets passengers enjoy trips with their pets. ANA staff wearing this badge and stationed at airport Rakunori Counters are always ready to assist these passengers.

LIRI

http://www.ana.co.jp/eng/int\_svc/ rakunori/index.html ANA Rakunori (Easy Travel) Services



## Assistance by Certified Carefitters

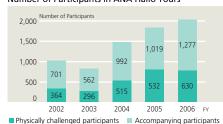
Airport staff members certified as carefitters assist elderly passengers and those requiring special assistance. Special badges are worn by these staffers.



### Universal Tourism

ANA Sales has been pursuing an approach called "Universal Tourism" in which anyone, regardless of disability or age, can enjoy our overseas travel package, ANA Hallo Tours. Some 630 people with disabilities participated in these tours in FY2006.

### Number of Participants in ANA Hallo Tours



### AEDs on All Aircraft

All ANA Group aircraft now have an AED\*, a device that treats attacks of ventricular fibrillation caused by cardiac infarction. Cabin attendants trained in its operation are fully prepared for such emergencies.

\* Automated External Defibrillator



## Contributing to Communities and Society

The ANA Group prides itself on being a good corporate citizen and through various activities maintains a close relationship with local communities.

### Social Contribution Activities

### 45 Years of Cooperation with **Red Feather Community Chest**

Since 1962, the ANA Group has been supporting the Red Feather Community Chest fund-raising drive. On October 1, 2006 ANA Group cabin crew and ground staff were given a goodwill message at the opening ceremony, which they then conveyed, together with red feathers, to the governors and mayors, chairmen of the regional community chest, and fund-raisers at 39 venues across Japan. In addition, 42

volunteers, mainly from ANA's Suzuran Club, collected donations in front of Omotesando Hills in Tokyo.

### Lily of the Valley

On June 9, 2006, ANA Group cabin crew and ground staff at airports visited 52 hospitals including Japanese Red Cross Medical Centers to present inpatients with 19,000 bookmarks containing pressed "lily of the valley" flowers.

ANA Group employees made each bookmark using flowers picked near New Chitose Airport in Hokkaido. The tradition has been a great source of pleasure for patients every year since it began in 1956.

### Donating Used PCs to Cambodia

ANA Communications donates used computers to various educational institutions in Cambodia. The 200 used computers donated to date by ANA Communications were received with much joy and are being put to good use.



Volunteers from the Suzuran Club and others





Presenting pressed "lily of the valley" bookmarks



Children learning computer skills on donated computers

#### ANA Group Social Contribution Activities in FY2006

	Social Contribution Activities	Examples
Relationship with Society	Our social contribution activities make use of our air transportation business and include:	<ul> <li>logistical support in times of disaster (in Japan and overseas)</li> <li>logistical support for seeing-eye dogs (in Japan)</li> <li>Red Feather Community Chest (in Japan)</li> <li>distribution to patients of "lily-of-the-valley" flowers (in Japan)</li> </ul>
Relationship with Communities	We value our relationships with communities by supporting local festivals and sports events in Japan and overseas.	· Participation in local communities: Shikotsu Lake Hyoto Festival (Hokkaido, Japan); Sapporo Snow Festival (Hokkaido, Japan); Isahaya Nonnoko Festival (Nagasaki, Japan); National Cherry Blossom Festival (Washington, D.C., U.S.A.)
		Beijing International Marathon (Beijing, China)     Dalian International Marathon (Dalian, China)     Participation in sports events: ANA Cable Car Chase (San Francisco, U.S.A.);
		· Other: Cleaning of Taya Beach, Chita Peninsura (Aichi, Japan): Hawaii Food Bank Charity Event (Hawaii. U.S.A.); Noto Peninsula Earthquake Charity (Ishikawa, Japan)
Support of Youth	The ANA Group supports youth by offering them various opportunities for learning and enjoyment.	These include our Aviation Class (in Japan and overseas); airport and maintenance facility tour (in Japan and overseas); job-site experience class; invitation to company training; Kids Baseball Class (Los Angeles, U.S.A.); Children's Castle concerts (eight cities in Europe and the U.S.A.); donation of used PCs (Cambodia); and Captain Asada's Memorial Flight (Miyagi, Japan)
Art and Cultural Activities	We support art and cultural activities.	· History Symposium (Okayama, Japan) · Japanese Film Festival (New York, U.S.A.)

### Asada's Memorial Flight Carries Children's Dreams

#### It All Began 43 Years Ago

On April 9, 1958, a carrier pigeon flew into the National Tamaura Sanitarium near Sendai Airport. Inside were about 200 patients including many school-aged children. As the children were being taught by the adult patients, the sanitarium (predecessor of Nishitaga Hospital School) came to be known as the "bed school."

That morning, the children found an unfamiliar stray pigeon among the flock they were raising. The ring around its foot revealed that the bird belonged to a man in Tokyo and must have gotten lost during a pigeon race. The children, desperately wanting to return



the bird back to its owner, talked to the station manager of Sendai Airport. Much to the children's delight, a certain Captain Asada would undertake the task. And so, on April 12, 1958, his Douglas DC3 delivered the pigeon from Sendai to Tokyo.

It was the start of a great friendship between the captain and the bed school children. Every year in June since then,he has visited them with lily of the valley flowers, offering encouragement to children who were studying while receiving treatment. While maintaining his friendship with the children, Captain Asada began to wish that he could do something more for them. After repeated requests to ANA, his wish was granted and on April 29, 1963, the children were invited on an excursion flight. Four years later, Captain Asada passed away due to illness.

### Captain Asada's Wish Lives On

But the story continues. On April 21, 2006, an airplane carrying students from Nishigata Hospital School again took off from Sendai Airport. Twenty-six students enjoyed the



50-minute flight over Yamagata at an altitude of 3,600 meters. Peering down through the clouds at houses and cars and snow-tipped mountaintops, the children's faces were all smiles.

On that day, another charter flight was held for Nishigata Hospital School. For the enjoyment of students who couldn't come to the airport, we staged a mock flight almost like a real one with check-in, boarding and inflight service.

These memorial flights were not without difficulty but succeeded thanks to the cooperation of more than 100 volunteers including staff from the ANA Group. It was a wonderful reminder that, though times may have changed, Captain Asada's noble wish lives on.

## Supporting the Next Generation

The ANA Group supports youth —the leaders of tomorrow—by providing various opportunities for education and self-development.

### Aviation Classes

As part of our customer service activities, we hold aviation classes to educate the public about air safety.

Elementary and junior high schools can refer to our website to request an aviation class in their areas.

http://www.ana.co.jp/anafan/kids/index.html#school (Currently available in Japanese only) E-mail: pilotkokukyoshitu@ana.co.jp





### Airline Business Lectures at Universities

The ANA Group sends personnel to several universities in Japan to lecture on the airline business, tourism and the industry in general. Following the pilottraining program launched in collaboration with Tokai University in April 2006, we tied up with Waseda University's Faculty of Science and Engineering in February 2007 to cooperate in the area of education and joint research.

Furthermore, Kyoto Notre Dame University, with the full cooperation of ANA, will launch an airline program in April 2008—the beginning of a fullfledged industry-academia partnership.



ANA staff lecturing at college

## The Okazaki Kaheita International Scholarship Foundation

To honor the wishes of Kaheita Okazaki, ANA's second president, the Foundation was established in 1990 to support personal development in Asian countries. Every year the foundation awards Japan scholarships to several students from China, the Philippines, Malaysia, Indonesia, Thailand and Myanmar, and offers support for graduate studies as well.

The Foundation has helped a total of 76 students further their education. The graduates are now teachers, civil servants or private-sector employees in their home countries, while some are continuing their studies in Japan. In these ways they are strengthening ties between their countries and Japan.



Scholars from Asian countries plant commemorative trees

## **Society – Partners**

## **Relation with Business Partners**

The ANA Group is practicing fair trade in full compliance with Japan's Antitrust Law and related legislation based on the ANA Group Code of Conduct. And we are pursuing new value creation with the cooperation of our business partners.

## ANA Group Purchasing/Transaction Guidelines

Many of our products depend on services, materials and items—from aircraft and jet fuel to office equipment and cabin supplies—provided by business partners. Our relationship with

these partners fulfills our CSR based on guidelines set forth under the ANA Group Purchasing/Transaction Guidelines.

### ANA Group Purchasing/Transaction Guidelines

### Basic Policies for Purchasing/Transaction

- 1. In terms of purchase transactions, we shall fairly select and purchase the best goods and services based on economic rationality.
- 2. Our purchase transactions shall be open to suppliers worldwide, shall be fair and transparent, and shall be conducted according to procedures that are simple and easy to understand.
- 3. For all purchase transactions we shall observe the Group Code of Conduct, follow corporate ethics, fully comply with relevant laws and regulations, show consideration for resource conservation, environmental preservation and human rights, and ensure that our business partners understand these guidelines.

## ■ Working Together on Boeing 787 Development

The Working Together Team (WTT) is a development group in which Boeing, engine manufacturers, related vendors and airlines collaborated to problemsolve and make the Boeing 787 the most efficient, comfortable aircraft of the 21st century.

As the "launch customer"—the first airline in the world to order the

787, ordering 50 of them in April 2004—ANA has been deeply involved at the design and development stages of the new aircraft.

Using this opportunity to directly express our thoughts on aircraft design, we emphasized the need for the following: high reliability, enhanced cabin comfort to be more competitive, increased flight operation ease, cost reduction, and environment-friendly design. Our WTT involvement had a significant impact on the economical design concept, which takes into consideration Japanese airlines' unique short-haul operations.



ANA logo painted on the Boeing 787

## Fostering a Spirit of Challenge

To create a strong ANA Group, we foster human resources under our Group HR Philosophy of "Taking Up the Challenge."

## ANA Group Human Resources (HR) Philosophy

The ANA Group HR Philosophy, established in 2002, focuses on teamwork as a competitive strength by effectively utilizing human resources. It defines the type of people and values necessary for a strong Group with "customeroriented" being the primary prerequisite. And we are working to increase employee value under seven keywords listed in the philosophy including "internationalization," "women" and "seniors."



### **Group HR Philosophy**

- "Take up the Challenge"
- Challenge for personal "GROWTH" and challenge for our customer's "EXCITEMENT" and "EXPERIENCE."
- Always challenge. Limitless challenge creates a strong ANA Group.



### **Prep Office for Corporate University**

ANA will launch a corporate university to achieve TEAM ANA's goal of fostering employee development. We will start by creating a faculty this year for core employees who are to play major roles in the ANA Group in the future. This will strengthen the entire Group's ability to "Learn and Put Into Practice."

### Iki Iki Promotion Room

In April 2007, the Iki Iki Promotion Room was established to cultivate a corporate culture that celebrates employee diversity\*. The goal for Human Resources is to make the workplace one where all ANA Group employees do their jobs with enthusiasm, vitality and creativity.

\* Fostering a diverse base of employees regardless of race, gender, age, religion, etc. to maximize the potential of our human resources.

### Comfortable work environment

ANA supports employees with provisions for childcare and nursing leave and a study-abroad program. Since April 2007, we extended the eligibility of childcare leave (three days a month) and of shorter working hours for employees with preschoolers. During FY2006, 247 employees took childcare leave, eight took nursing leave and 16



Director Junko Miyasaka (left) and Manager Natsuki Uota, Iki Iki Promotion



enrolled in the study-abroad program. We also are enhancing financial support for employees trying to balance childcare with their careers.

### Supporting women

ANA currently employs over 6,000 women—about half of our work-force—mostly as cabin attendants and airport passenger service staff. We are also actively recruiting women for sogoshoku (career positions) such as in administration and maintenance, and for the cockpit. Among our graduate recruits in FY2007, women occupied 38% of new sogoshoku appointments, and we were the first airline in Japan to appoint a woman to the board of directors. We are working to expand the number of managerial positions for women.

#### **Utilization of Seniors**

ANA has an employment extension system to exploit the skills and knowhow of employees after they turn 60. Employees can work up to the age of 65, part-time (fewer working days and shorter hours) as well as full-time. In FY2006, 106 employees took advantage of the system.

### Internationalization

ANA promotes the international diversification of its workforce. We are cultivating a global workforce by actively hiring foreign employees, sending employees on overseas internship programs, holding joint seminars with other Star Alliance members, and hosting a short-term work program in Japan for overseas employees.

## Supporting the physically challenged

The aviation industry's first special subsidiary for employment of the disabled, ANA Wing Fellows was established in 1993 to expand the workplace for the physically challenged. We have been creating a comfortable work environment including setting up a barrier-free office space within Haneda Airport. We are facilitating employment for the disabled, who in FY2007 accounted for 1.83% of our workforce (exceeding the 1.8% mandated by law).

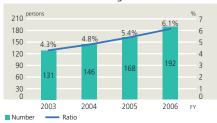
## Approaches relating to the respect for human rights

The ANA Group has a clear policy for promoting human rights awareness. We have assigned a dedicated employee to the ANA Personnel's Human Rights Awareness Room, drafted a human rights program, and are supporting the promoting staff members at ANA Group offices.

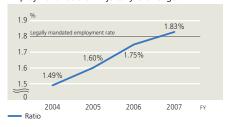
### **Internship Program**

An internship program has been instated, providing students the opportunity to learn all about airport services through experience.

Number of Women in Managerial Positions



### **Employment Ratio of Physically Challenged**



### Women in Action



### Noriko Ohoka Handling 5, Line Handling, International Airport Utility

My job is aircraft marshalling, watching for wing clearance during arrival and the attachment and detachment of the PBBs.\* Placing priority on the safe, on-time departure of aircraft under any weather and circumstances, I feel truly lucky day-in, day-out to be doing my dream job. I would like to polish my skills and work toward further qualifications.

\* Passenger Boarding Bridge



## Mana Yamabe Transport Service, Administration, World Airport Service

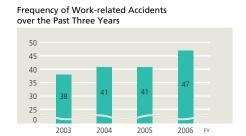
I joined the company after being deeply impressed by the marshaller shown on the cabin screen. I still remember the excitement and sense of accomplishment I felt when I directed my first plane after training. I will strive to become a ground handler that brings dreams and excitement to our customers.

## Safe and Pleasant Workplace

The ANA Group is actively working to create a work environment in which all employees feel secure, motivated and fulfilled.

### Approach to Safety and Health

Recognizing that an employee's safety, health and work environment are fundamental corporate responsibilities, all offices nationwide are introducing voluntary activities through their health and safety committees.



### ANA Group Occupational Safety and Health Policies

The ANA Group enhances employee value by improving and maintaining occupational safety and health. This is accomplished through:

- 1. accident prevention programs and those encouraging employee health;
- 2. various measures and management systems (PDCA cycle) aimed at improving safety and health:
- 3. the observance of laws and regulations, and activities raising employee awareness of occupational safety and health.

### ANA Health Frontier Declaration

In 2006, aiming to become a corporation filled with vitality, we announced the ANA Health Frontier Declaration. To prevent lifestyle-related diseases, we will energetically work to create opportunities for the betterment of employee health, such as holding seminars with yoga classes, walks, and health lectures at various locations.

Additionally, we will hold periodic health examinations to ensure employee well-being. *Karoshi* is sudden death from overwork and a serious problem in society today. We are working to raise Group awareness of the

importance of mental health measures and, in collaboration with medical staff, of the need to enforce regular working hours.



### ANA Welfare Plan

To help employees feel fulfilled and motivated at each stage of their careers, from recruitment to post-retirement, we have created the ANA Welfare Plan consisting of programs for employee health and welfare. The Plan, which is divided into the six categories of "health plan," "financial plan,"

"insurance plan," "life support," "leisure support" and "second life," offers employees a choice of schemes best suited to their particular lifestyle. We also instituted a Cafeteria Plan where employees can select benefits from a menu to satisfy their specific needs.

## **Employee Communication**

The ANA Group values communication with employees, from talks with labor unions on the working environment, to the direct talks we frequently hold where employees can meet top management for frank discussions.

## Employee Satisfaction (ES) Survey

The ANA Group has been holding its ES survey since FY2004 to assess the progress of employee productivity. In May 2007, we launched a Labor-Management Joint ES Promotion Project, under which labor and management discuss

the survey results. We are actively working to solve problems so customers may experience our "Anshin, Attaka, Akaruku-Genki! (Reliable, Warm, Enthusiastic!)" character.

### Direct Talks with Management

We encourage direct dialogue between employees and top management. In these talks, the management representatives share their thoughts on Group matters of the day and future directions, while employees express how they see the situation along with any problems in the workplace. This direct communication cuts through any barriers between management and the frontline.

In FY2006 a total of 40 Direct Talk sessions were held at 12 regions, and more than 450 comments received.



Direct Talk session

## ANA Virtual Hollywood

ANA Virtual Hollywood was launched in 2004 with a view to providing Group employees the opportunity to take up challenges of their choosing—

this to encourage initiative, greater interaction and creative problem-solving. In FY2006, 22 "directors" (proposers) implemented their unique ideas.

### ■ Free Conversation Room

The Free Conversation Room is a BBS on the Group intranet for employees to voice opinions anonymously. Messages posted by employees range from those pointing out safety-related issues

and suggestions for improving service, to analysis of recent trends. We hope that the system will generate new ideas and insight for the benefit of all.

## Labor-Management Relations

ANA Group operations depend on collaboration by many people in diverse positions. Communication among employees, and between labor and management, is of critical importance to the proper functioning of the business. A high level of employee motivation and skill is also of fundamental importance. Consequently, an environment conducive to communication is essential.

Mindful of these factors, we strive to maintain mutual trust and cooperation through extensive discussion and dialogue between labor and management. At the same time, we strive to contribute to society by fulfilling the ANA Group's mission of ensuring safety while improving our services and fundamental quality.

### Interview



Akira Kobayashi Captain Tokyo Boeing 767 Pilot Office, Flight Crew Center, Flight Operations

## **Environmental Efforts**

Global Warming Prevention Measures from the Frontline

Aircraft account for 98% of all CO<sub>2</sub> emissions at the ANA Group. Through the efficient use of fuels, we are pursuing various approaches to control these emissions. Among those in our flight crew and maintenance section who implement globalwarming prevention measures at the front line, we interviewed Captain Akira Kobayashi, a Boeing 767 pilot, and Authorised Aircraft Maintenance Engineer Akito Mibu.

What points do you watch for in your work?

Kobayashi: Absolute focus on flight safety. It goes without saying that I consider this my biggest job responsibility. The Operational Manual, a kind of bible for flight crew, states the fundamental policy: "While keeping safety first and foremost, strive for optimal flight efficiency and on-time flight operation, and perform tasks proactively to ensure a comfortable flight." In daily flights, as well as focusing on flight safety, I make efforts to provide the highest-quality flight under various constraints such as weather and airport congestion.

Mibu: My job is inspecting and repairing aircraft at Kansai Airport. Maintenance engineers must release aircraft to the flight crew only after making sure the

aircraft are in top condition, so we pay great attention to safety. In pursuing maintenance work, I also pay utmost attention to such points as whether my judgment is correct, whether regulations are being observed.

Will you introduce the global warming measures that you are developing?

Kobayashi: As 98% of CO<sub>2</sub> emissions at the ANA Group are from aircraft, I feel that flight crew have a very important role. Engine starting, taxiing, takeoff, flying at cruising altitude, landing and parking—in each of these operations, from departure to arrival, we consume jet fuel. At Flight Operations, since FY2003 we have been working on an EFP\*1 promotion project that helps reduce fuel consumption through various schemes. For example, flight plans take into consideration weather conditions and air traffic to choose altitudes and speeds requiring less fuel; and we inform flight crews of the descent and approach points for each airport for the most fuel-efficient maneuvers. I am active as a member of the project.

In daily operations, sometimes speed is increased to avoid operational delays, but when we looked at the relationship between such operation and fuel consumption, we found that the latter greatly increased while the time saved was negligible. In this project, actual data is published to impress on flight crew that speeding up without



Akito Mibu Authorised Aircraft Maintenance Engineer Maintenance, Kansai Airport Office

due reason saves very little time and just burns more fuel.

\*1 Efficient Fuel Program

## What measures are being taken in the maintenance section?

Mibu: What we emphasize most is the washing of engines, which we have been enforcing since FY2003. Engines don't get dirty when the plane is high up in the sky but rather during taxiing or just after takeoff, where the air is less clean. Dust particles sticking to the compressors degrade the performance of engines, which then need more fuel to do the same amount of work, resulting in more CO<sub>2</sub> emissions. Our solution is to wash the compres-

sors regularly with water to remove the attached particles, restore engine performance and improve fuel efficiency.

## How much effect do these measures have?

Kobayashi: Though we are constrained by weather conditions and air traffic control, in the case of a Boeing 767, if you raise cruising altitude by one rank\*<sup>2</sup>, fuel consumption decreases 1–2%. And you can save fuel by choosing an efficient route, thereby shortening flight time.

Mibu: When washed of dust particles, engines are about 1% more efficient. But even if washed, an engine's fuel efficiency deteriorates over time as particles become attached again. So we will wash them more frequently in FY2007, and wash more of them.

\*2 2,000 feet (about 610 m)

## What sort of difficulties do you experience?

Mibu: Washing requires a large facility—it could only be done in the hangar. But in May 2006 the engineers developed a washing kit that could be used on the ramp. This kit is now deployed at Narita, Haneda, Chubu, Kansai, Fukuoka and Okinawa airports, where washing can be done in two hours between flights, greatly increasing efficiency. At the ANA Group we make it a rule to wash engines once in three months.

Kobayashi: We constantly monitor climatic conditions to determine the best balance of safety, efficiency, punctuality and comfort, but nature is whimsical and occasionally shows its fangs. I bear that firmly in mind; we should never underestimate nature.

Until now, flight crews were confident that they were being fuel efficient. Now that the EFP data has been disclosed and flight crews are aware of how much fuel is being saved, I think this will motivate us to reduce even more CO<sub>2</sub>.

## How can fuel efficiency be further improved?

Mibu: I think that right now, deploying the latest engines is the best way. The Boeing 747 aircraft has four engines but its successor, the 777, can fly with only two. If engine performance improves and fuel efficiency increases, this of course reduces the impact on the environment. I have big expectations of the Boeing 787 scheduled to be introduced in 2008.

Kobayashi: Another factor is the congestion of airports and airways. Waiting to takeoff, or being instructed to reroute or hold position in the air—these are all common at various airports and times. At Haneda and Narita airports in particular this happens a lot. I hope airports and control facilities will be improved to alleviate the impact on the environment.

## **Environmental Policy**

In 1998 the ANA Group published the ANA Environmental Policy stipulating our basic policy and course of action regarding the global environment, which has been implemented apace.

### Perspective on the Environment

Our Environmental Policy consists of various measures. We will increase corporate value while fulfilling our social responsibility so that we become a company that is admired by the public. In addition, each of us will maintain a strong awareness of environmental protection and do our utmost to reduce our impact on the global environment and contribute to a sustainable society.

### ANA Environmental Policy ANA's Attitude Toward the Environment

### **Basic Policy**

We will pursue:

Protection of the environment

Effective utilization of limited natural resources

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 do our utmost to minimize the environmental impact of our operations.
- 4. We will make every effort to save energy and resources, to recycle, and to reduce waste.
- 5. We will contribute to the communities in which we live and work, through participation in social activities for environmental protection.
- 6. We will educate employees so that each may pay much more attention to environmental protection.

Excerpts from the ANA Group Code of Conduct

### **Environmental Protection**

Protecting the environment is essential for the ANA Group. We play an active role in environmental protection activities and work to preserve natural resources in the course of our business activities.

We must recognize how our business impacts the environment. While minimizing the impact on the environment, we will maintain the sustainability of our business by following the ANA Environmental Policy.



## **Environmental Management**

## System for Environmental and Social Issues

The ANA Group has been addressing environmental issues since the 1970s, centering chiefly on the problem of noise pollution.

By the 1990s, recognizing that the environment had become a global issue, we adapted our measures from this standpoint. In April 2007, rather than merely focus on conventional environmental issues, we changed our Environment and Social Affairs Department to a CSR Promotion Division Environment

ronment and Social Affairs Department, aiming to fulfill our social responsibilities and further gain the trust of stakeholders.

In May 1993 we published the Environmental Report (1992 edition), the first such publication among airlines in Japan, and prior to our formal entry into the Star Alliance in October 1999, we signed the Star Alliance Environmental Commitment Statement in May of that year.



Star Alliance Environmental Commitment Statement

### **Environmental Management Promotion System**



#### Timeline of Environmental Activities

Date	Committee Organization	Promoting Organization	Activities
1973.11		Airport Division	Published the "Environmental Measures Handbook" in 1978, which became a bible for employees and is still used as a reference
1974.2	Committee for Environmental Measures		Special committees established for "total assessment," "flight noise measures," "ground noise and air pollution measures," and "factory environment measures"
1990.7		Environmental Conservation Promotion Office	Published the first Environmental Report in 1993; announced ANA Environmental Policy in 1998
1999.6	Global Environment Committee		Adapted organizations into subcommittees for "global environment," "flight environment" and "ground environment"
		Global Environmental Conservation Promotion Department	Formulated ANA Ecology Plan (2003–2007) In 2003, launched International Environmental Picture Book Competition and forestation project
2004.4		Environment and Social Affairs Department	In 2004, formed Team Tyura Sango as part of environmental conservation activities and launched coral planting project
2007.4		CSR Promotion Division Environment and Social Affairs Department	

## **Environment**

## ANA Group Ecology Plan 2003–2007

The ANA Group formulated the mid-term ANA Group Ecology Plan in 2003. Each year since then we have published progress reports; the FY2006 report is the fourth such report.



### ANA Group Ecology Plan—Review of FY2006

	Item	Aim
	Environmental compliance	Group-wide enhancement of legal management and compliance
	Environmental communication	Keeping customers informed and reflecting their views in our policies
Promoting environmental management	ISO14001	Deployment of environmental management methods based on ISO 14001 throughout the Group
	Environmental accounting	Group-wide environmental accounting
	Group companies	Promotion of transparent environmental management among subsidiaries
	Reduction of CO <sub>2</sub> emissions from jet fuel	Reduction of the level of CO <sub>2</sub> emissions per available seat kilometer in FY2007 by 12% relative to FY1990
Climate change	Reducing energy use in offices	Reduction of electrical and thermal energy consumption in facilities by 5% relative to FY2002
	Conformance with aircraft emissions standards	Retirement of engines not meeting ICAO engine emission standards
Air pollution	Environment-friendly vehicles	Doubling of proportion of all low-pollution and low-emission vehicles
	Protecting the ozone layer	Maintenance of zero emissions for regulated substances
Noise	Conformance with ICAO noise levels (Chapter 4)	All aircraft to meet Chapter 4 standard by FY2007
	Waste reduction	Disclosure of actual recycling data on a yearly basis toward the goal of zero emissions. Reduction of industrial waste sent out for final disposal to 15% by FY2007
Recycling	Green purchasing	Increase the green purchasing rate to 100% for copier paper, and to 80% for other office supplies, by the end of FY2007
	Reducing harmful substances	Development of alternatives to substances covered by the PRTR (Pollutant Release and Transfer Register) Law and disclosure of actual data pertaining to yearly reductions
Promotion of Aozora	Environmental picture books	Annual environmental picture book competition
environmental social contribution activities	Forestation project	Promoting forestation activities in Japan and abroad

FY2006 review	Reference page
On average seven laws/regulations related to the environment are applicable to each facility, and we adhered to a total of 383 such laws or regulations. We incurred no penalties and caused no environmental mishaps.	62
 In addition to participating in environmental events such as Ecolife Fair 2006, we published features on the environmental issues in our Japanese-language inflight magazine, <i>Tsubasa no Okoku</i> , every other month. We receive feedback on these efforts through our website.	63
In accordance with ISO14001 requirements governing environmental policy, we collected environmental data, enforced compliance with environmental laws and regulations, and more.	63
FY2006 accounting covered six airlines—ANA, Air Nippon, Air Nippon Network, Air Japan, Air Central and Air Next	63
In addition to our efforts at environment education through e-learning on the Group's intranet, many employees participated in various environmental protection activities such as forestation and coral planting.	64
Through the EFP (efficient fuel program) and by regularly washing engines, we achieved a 12% reduction relative to FY1990.	65~69
 We promptly joined Japan's national movement, "Team Minus 6%," to prevent global warming and are endeavoring to save energy by adjusting the temperatures of our heating and cooling systems. Office power consumption, which accounts for three quarters of all energy we use on the ground, was 133 million kWh, 1.8% less than in FY2002.	68
 With the retirement of Boeing 747-100SR and -200B aircraft in FY2005, emission levels of all jet engines in use at the ANA Group are within ICAO standards.	70
The proportion of low-pollution and low-emission vehicles reached 14.9% in FY2006, double the 7.4% of FY2002, the standard year.	71
 With the withdrawal of YS-11 aircraft in FY2003, the ANA Group no longer possesses any controlled CFCs (chlorofluorocarbons); in FY2004 we installed equipment to retrieve all halon during regular inspections of on-board fire extinguishers. With these measures we have established a zero-emission system for controlled substances.	71
We achieved our goal of having our entire fleet conform to the Chapter 4 standard.	72
We recycled aircraft engine parts and aluminum material from repairs (into raw metal); waterproof and dustproof vinyl sheets (into solid fuel and garbage bags); airline tickets (into toilet paper); and inflight magazines (into pulp). Cabin attendant uniforms were also recycled.	73
 By making greater use of the LAN (Local Area Network), we achieved a total green purchasing rate of 70%—an increase of 7% over FY2005. In addition we achieved 97% green purchasing for copier paper, and 75% for other office supplies.	73
We made efforts to develop alternatives not subject to the PRTR Law for paints, paint removers and cleaning agents. While we used more kinds of hazardous substance this year (32; an increase of 1 from FY2005), the total weight of these substances decreased to 21.5 tons, a 20% drop from FY2005.	74
Our fourth <i>Aozora</i> International Environmental Picture Book Competition attracted 569 entries from 10 countries. The first-prize-winning entry was printed as a book (100,000 copies) and distributed onboard, at offices and through educational organizations.	76
Forestation activities were held at 5 locations with the participation of local communities, industry and universities. Coral planting took place 8 times, with a total of 224 divers taking part.	75

### **Environment**

## Introduction of Boeing 787

ANA's order for 50 Boeing 787 ahead of anyone else made it the launch customer for the aircraft and led to its involvement at the design and development stages. The Boeing 787 was rolled out in July 2007; ANA is scheduled to receive delivery of the first aircraft in 2008.

### Selection Criteria

ANA was in need of a next-generation, mid-sized aircraft in view of the expansion of Haneda Airport and to replace its current 767-300s and 767-300ERs. The Boeing 787 was chosen for its: (1) 300 passenger capacity; (2) dual-service capability for domestic and international routes, as well as reliability, cost efficiency and comfort surpassing those of the Boeing 767-300; (3) and delivery in time for both the Haneda expansion and retirement of the 767-300.

Lighter Weight Through Compos-

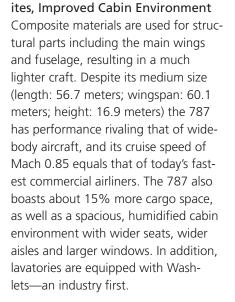
## Characteristics of Boeing 787



The Boeing 787 rollout in July 2007

## Increased Involvement of Japanese Corporations

The Boeing 787 is notable for the involvement of Japanese manufacturers in its development: Japanese corporations (Mitsubishi Heavy Industries, Kawasaki Heavy Industries, Fuji Heavy Industries) manufacture 35% of the airframe, and Toray provides the carbon-fiber composites used in the main structure.





For better pilot visibility, the number of cockpit windows has been reduced from the conventional six to four larger ones. Cockpits also feature such cutting-edge equipment as the Head-Up Display (HUD), which lets flight crew confirm vital information without altering their line of vision; the Vertical Situation Display (VSD); an electronic check list; and the Electronic Flight Bag (EFB), for browsing digitalized manuals and viewing the airplane's position on the tarmac. This enhanced cockpit environment helps reduce the burden on flight crew while improving safety and efficiency.



Boeing 787 (generated image) @Boeing







707-120
high
707-120
low
1955 1965 1975 1985 1995 2005 2015

Noise Level Reduction (Image)

Spacious cabin (Image)

Lavatory equipped with Washlet

## Boeing 787-8 and -3 Introduced

ANA is deploying the Boeing 787-8 and -3 variations. The 787-8 is the standard model with a cruising range of 14,800–15,700 km, while the 787-3 is designed for short-haul operation with a cruising range of 5,550–6,500 km.

### 20% More Fuel Efficient Than 767

Thanks to state-of-the-art technology and advanced aerodynamics, fuel efficiency has been improved by some 20% over the Boeing 767; the 787's Rolls-Royce Trent 1000 engines produce approximately 20% less CO<sub>2</sub> and 15% less NOx.

### 40% Quieter

Compared with the Boeing 767-300, which is roughly the same size, the 787 is 40% quieter on takeoff.

### Suited for ANA Operations

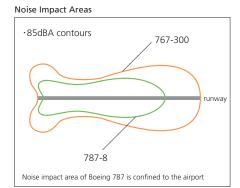
The 787-3 is designed for ANA's typical need: short-haul, frequent operation. For certain weather conditions peculiar to Japan, features responding to inte-

rior condensation and winter lightning are included as standard equipment.

### **Lower Maintenance Costs**

A maintenance program for short-haul, frequent operation unique to ANA has been developed that allows highly costefficient maintenance for ANA. For example, highly durable paints, developed at our request, mean that the aircraft will not need to be repainted as frequently; the thrust control method,

optimized for shorthaul, frequent operations such as ours, was developed to lengthen the service life of engine parts. Lower engine maintenance costs are expected from these developments.





High-performance Rolls-Royce Trent 1000 engine

## **Promoting Environmental Management**

To meet its growing corporate social responsibilities, since FY2002 the ANA Group has promoted a system to ensure compliance with environmental laws and regulations. We are also practicing "environmental communication" and have enhanced our environmental accounting. In these ways ANA Group companies are also actively promoting environmental management.

### Compliance with Environmental Laws/Regulations

### **Business Facilities Subject to Envi**ronmental Laws/Regulations

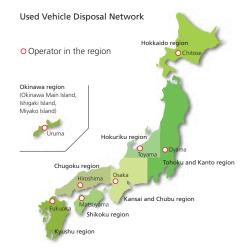
The ANA Group is subject to 23 laws/ regulations at a total of 383 business facilities. In FY2006 we incurred no penalties and caused no environmental mishaps.

### **Disposal of Used Vehicles**

The ANA Group owns roughly 3,000 vehicles in Japan. Many of these are specialized vehicles whose disposal entails various problems such as logistics. To properly dispose of these used vehicles, we established a Japan-wide network that meets applicable laws and regulations, both the Waste Management Law and the April 2005 Vehicle Recycling Law.

The system locates reliable operators in Hokkaido, Tohoku, Kanto, Hokuriku, Kansai, Chubu, Chugoku, Shikoku and Kyushu to properly and efficiently dispose of such vehicles used at airports in those regions.

Vehicles previously owned by a Group company, Air Nippon, were transferred to ANA in FY2006; to enable the integrated disposal of vehicles at remote island airports such as Ishigaki and Miyako as well, we selected an operator in Uruma City that works with a shipping company.



#### Applicable Laws/Regulations and Number of Facilities

	Law/regulation	Facilities
1.	Law of the re-manufacture of specific home appliances (Home Appliance Recycling Law)	56
2.	Waste Management and Public Cleaning Law	56
3.	Vehicle Recycling Law	21
4.	Law concerning the protection of the ozone layer through the control of specified substances and other measures (Ozone Layer Protection Law)	45
5.	Law for ensuring the implementation of recovery and destruction of fluorocarbons related to specified products (Fluorocarbons Recovery and Destruction Law)	47
6.	Law concerning special measures for promoting appropriate treatment of polychlorobiphenyl waste	2
7.	Law concerning reporting, etc. of the release to the environment of specific chemical substances and promoting improvements in their management (PRTR Law)	18
8.	Law for the rational use of energy (Energy Saving Law)	13
9.	Air Pollution Control Law	14
10.	Law concerning special measures for total emission reduction of nitrogen oxides and small particles from automobiles in specified areas	21
11.	Water Pollution Control Law	17
12.	Sewage Control Law	7
13.	Septic Tank Control Law	6
14.	Noise Regulation Law	8
15.	Vibration Regulation Law	7
16.	Offensive Odor Control Law	6
17.	Factory Allocation Law	1
18.	Law for developing pollution prevention organizations at specified factories (Pollution Prevention System Development Law)	1
19.	Toxic and Hazardous Substances Regulation Law	20
20.	Container and Packaging Recycling Law	8
21.	Building Material Recycling Law	2
22.	Law to ensure sanitary environments in buildings	7
23.	Food Recycling Law	-
	Total	383

### Environmental Communication

## Communicating Our Environmental and Social Activities

If we are to earn the trust of society, properly communicating our environmental and social activities is as important as the activities themselves.

The ANA Group's environmental and social activities—such as coral planting, forestation and International Environmental Picture Book Competition—have been featured in our monthly inflight magazine, *Tsubasa no Ohkoku*, as well as on our "Channel J" Internet TV webcast. Our coralplanting activity and aircraft engine washing were featured on TV programs. Since we added an environment section to ANA's website in 1999, we have received numerous inquiries and comments.

### **Ecolife Fair**

Our exhibit at the annual Ecolife Fair in Yoyogi Park (Tokyo) is another example. In addition to introducing the ANA Group's environmental activities through DVD and panel presentations, our display featured recycled uniforms and new, lighter seats designed to reduce overall aircraft weight. By participating in ecology-related exhibitions and by communicating with people who visit our booth, we are working to inform the public about the ANA Group's environmental activities.



ANA's booth at Ecolife Fair 2007

## Educational Activities

The ANA Group holds activities to raise awareness of the environment among employees. The ANA Group Environment Seminar is held annually, and we have an e-learning program on our

intranet. Interest in the environment is high at the ANA Group, and a growing number of sections are making efforts to save energy.

### Environmental Accounting

To determine the quantitative cost of its environmental conservation activities, in FY2001 ANA introduced an environmental accounting system. In FY2002 the system was extended to all business offices and branches in Japan, and Air Nippon and Air Japan were included in the categories of energy-saving aircraft and ground power units (GPU).

Air Nippon Network was included in FY2004, Air Next in FY2005, and Air Central in FY2006.

Rising costs in management activitied and energy-efficient aircraft purchasing/leasing spurred an 8% increase of the FY2006 environmental conservation outlay to ¥22,446 million.

Environmental Accounting Record (FY2006)

Unit: IPV million

Environmental items		Costs	Major activities	
Cost at each site	Pollution prevention costs	768	Processing disposed water from washing aircraft fuselages and kitchen facilities	
	Global environmental conservation costs	13,691	Introduction of energy-saving aircraft; Use of ground power for parked aircraft	
	Resource recycling costs	604	Waste treatment; Reduction, sorting and recycling of waste	
Upstream and dov	vnstream costs	129	Green purchasing; Additional costs to offer environment-friendly goods; Measures to comply with Packaging Recycling Law	
Management activity costs		6,977	EMS-related; Environmental information disclosure and ads; Environmental impact monitoring; Environmental education; Greening and beautification of offices and environs; Other environmental management activities	
Research and development costs		247	Research and development of products contributing to environmental conservation; Research and development to control environmental impact during manufacture; Control of environmental impact during logistics and sales	
Social activity costs		30	Greening and beautification of offices and environs; Financial support of environme conservation organizations; Support of environmental activities in local communities	
Environmental dan	nage recovery costs	-	Natural restoration costs; Compensation for environmental conservation-related mishaps; Provision of reserve for environmental mishaps and insurance premiums	
Total		22,446		

- \* The ANA Group appropriates 10% of its depreciation costs and leasing costs of aircraft to environmental accounting
- \* Targeted sections: All ANA sections (excluding overseas branches), Air Nippon (ANK), Air Japan (AJX), Air Nippon Network (AKX), Air Next (NXA) and Air Central (CRF)
- \* Covering period: FY2006 (April 1, 2006—March 31, 2007)
- \* Others: Based on the environmental guidelines set by the Ministry of the Environment

## ■ ISO14001 Environmental Management System Certification

In February 2002, the Narita Maintenance Center of the Engineering & Maintenance Division became the first aircraft-handling facility in Japan to obtain ISO14001 environmental management system certification. ANA Catering Service received ISO14001 certification in August 2007.



ISO14001 certification

## **Promoting Environmental Management**

## Environmental Management Efforts

### The First e-flights in the World

Ahead of any other airline in the world, the ANA Group operated "e-flights" with the goal of raising environmental awareness among passengers. This was introduced on 23 scheduled flights from October to December 2006.

During these flights, a message from writer C.W. Nicol, producer of "ANA Earth Friendly Project," was shown on Sky Vision. Passengers were given natural mineral water and Rainforest Alliance-certified, environmentfriendly coffee in nonwood paper cups. Super Seat Premium customers enjoyed a light meal consisting of specially cultivated agricultural produce, and snacks of organic vegetables.



e-flight logo



Rainforest Alliance-certified coffee is served in nonwood paper cups

### **Reducing Industrial Waste Through** Reuse

ANA Aero Supply Systems is a Group company that manages the inventory and bookkeeping of aircraft parts and maintenance tools, as well as the receipt and examination of aircraft materials. The company, which used to consume much bubble patch for the packaging of parts, now helps reduce industrial waste by applying unneeded materials such as cardboard to the production of packaging material.



In FY2005 ANA Aircraft Maintenance (ANAM) established a global environment team. The first thing they tackled was the "3Rs" of wastereduce, recycle and reuse—to mitigate the company's heavy consumption of combustibles, waste plastics and waste solutions. The team patrolled the workplace to verify that waste was being properly sorted and handled, with excellent results.

In FY2006, under the banner of "Eco-Eco Activity," ANAM focused on a 10% reduction in electricity and water usage over the previous year. Fluorescent lamps were replaced with more efficient types, and high-efficiency troffers were also used. Airconditioning was also rendered more efficient through better insulation, which was achieved by doubling the window sash during office remodeling. As a result, electricity usage decreased by 11%. By installing special parts to faucets, water usage decreased by 34%.



Cardboard boxes are repurposed into packaging materials



Waste collection facility



Waste is thoroughly sorted

## Climate Change

For FY2007, under its Ecology Plan, the ANA Group has set the goal of reducing CO2 emissions per available seat km to 12% of FY1990 levels. In FY2006, we achieved reduction very close to our target of 12%, resulting in 8.19 million tons\* of CO2 emissions, 98% of which resulted from the combustion of jet fuel. By upgrading our fleet to the latest aircraft, and by performing optimal engine maintenance, among other measures, we are working hard to achieve our FY2007 goal.

\*Ground energy included

## Aviation and Climate Change

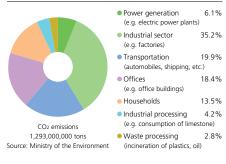
Aircraft engines run on fossil fuels, which through combustion produce emissions of mainly CO<sub>2</sub> (carbon dioxide), NOx (nitrogen oxides) and H<sub>2</sub>O (water vapor). In particular CO<sub>2</sub> accounts for 95%\* of greenhouse gas emissions in Japan. But we produce greenhouse gases not only by oper-

ating aircraft, but also in maintaining them and even in doing the paperwork.

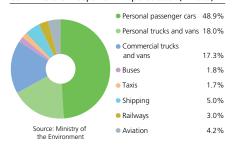
In EY2005, the transport sector

In FY2005, the transport sector accounted for some 20% of all industrial CO<sub>2</sub> emissions. The share of CO<sub>2</sub> emissions from domestic aviation in Japan was about 4.2% of all transport sector emissions.

### CO<sub>2</sub> Emissions in Japan by Sector (FY2005)

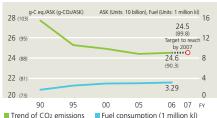


### CO2 Emissions in Japan's Transport Sector (FY2005)



### ■ Reduction of CO<sub>2</sub> Emissions from Jet Fuel

### ANA Group CO2 Emissions per ASK



## CO<sub>2</sub> Emissions

There is currently no substitute for fossil fuels available to the aviation industry, so we must curb CO<sub>2</sub> emissions by improving fuel efficiency.

In the climate change measures outlined in the ANA Group Ecology Plan, we set the goal of reducing CO<sub>2</sub> emissions per available seat km by 12% from FY1990 levels by FY2007, and we have been implementing various activities to that end. The ANA Group's CO<sub>2</sub>

emissions from aviation activities were 8.11 million tons in FY2006, up 4.4% from the previous year due to business expansion. CO<sub>2</sub> emissions per unit production (available seat km) became 24.6g-C (90.3g-CO<sub>2</sub>), still about 12% lower than in FY1990, our benchmark year.

Although the number of seats in service increased significantly from FY1990 due to higher demand, the CO<sub>2</sub> emissions per ASK decreased.

#### ATK (Available Ton Kg) CO<sub>2</sub> Emissions by Cargo Fleet

The ANA Group has been operating a dedicated cargo fleet on international routes since FY2002. ATK CO<sub>2</sub> emissions from this operation are as follows:

### **Environment**

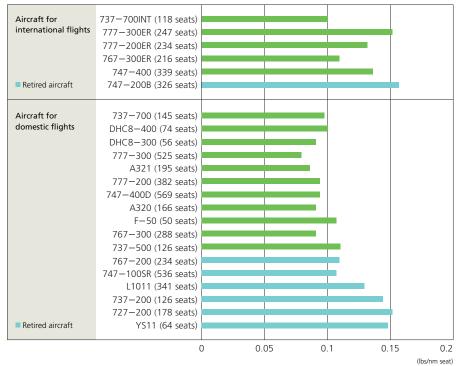
## Climate Change

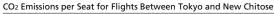
### Fuel-Efficient Aircraft

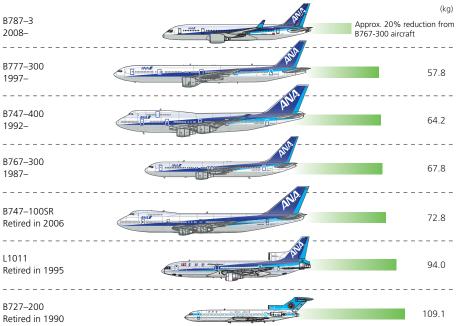
Reducing CO<sub>2</sub> emissions boils down to reducing fuel consumption. The most effective methods are: (1) introducing fuel-efficient engines with the latest technologies; (2) reducing air resistance through improved wing designs; and (3) reducing fuselage weight through the use of composite materials. The Boeing 787 employs all of these methods, and ANA was its first buyer in July 2004, ordering 50 of them. The 787 is expected to reduce fuel consumption by 20% compared with the current 767-300.

Fuel efficiency achieved by utilizing the latest aircraft is shown on the right chart.









### ■ Reducing the Environmental Burden

As lower fuel consumption directly leads to a reduction in greenhouse gas emissions, we consider this an important goal for an air transportation company. Since the oil crises of 1973 and 1979, the ANA Group has been developing and implementing fuel-saving measures. Here are some recent examples.

### EFP promotion project

The ANA Group started the EFP\*1 promotion project in FY2003. EFP increases fuel efficiency by optimizing the altitude and speed of flight plans, while considering weather conditions and air traffic control information, and by informing flight crew of the most fuel-efficient point to initiate descent at each airport.

We monitor the amount of fuel saved each month; in FY2006 we saved 5,200 kilolitres, a great reduction from the previous year. This represents the amount of fuel required by a Boeing 777-200 to make 330 round trips between Tokyo and Osaka. In FY2007 we are working to reduce fuel con-

sumption even further through various measures

\*1 Efficient Fuel Program

## Taxiing after landing with some engines shut down

To conserve fuel, since 1994 the ANA Group has been stopping some engines when taxiing. The decision of whether or not to shut down engines is made after taking into account the airport, weather, condition of runway and aircraft, and instructions from the control tower.

## Restoring engine performance by washing the compressor

The more an engine is used, the more dust particles stick to its compressor and degrade performance. To improve fuel efficiency, in FY2003 the ANA Group began regularly washing compressors to optimize engine performance.

As a result of washing 4.5 times more than in FY2005, some 17,000 kiloliters of fuel was saved in FY2006—equivalent to 1,070 round trips between Tokyo and Osaka on a Boeing 777-200.



Washing the engine compressor

## Prioritized use of Ground Power Units

As an environmental preservation measure, ANA has been attempting to reduce its reliance on APUs\*2 since 1990. APUs are less energy efficient than ground power units (GPUs) as they burn onboard fuel; we thus prioritize the use of GPUs. In FY2006, this strategy saved 36,000 kiloliters of fuel—enough for a Boeing 777-200 to make 2,250 round trips between Tokyo and Osaka.

\*2 Auxiliary Power Unit: small on-board gas turbine that provides electricity as well as pneumatic pressure for engine ignition and cabin air conditioning

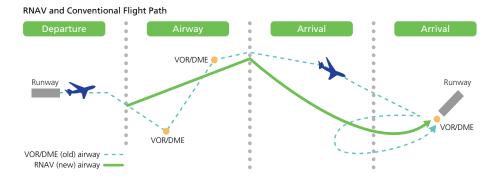


Pre-flight briefing

### **Environment**

## Climate Change

## Reducing the Environmental Burden



### Operation with RNAV (Area Navigation)

The ANA Group officially adopted RNAV (Area Navigation) in June 2002. RNAV is a procedure that navigates aircraft and assures the scheduled flight path by radio-quidance facilities such as DME (Distance Measuring Equipment) as well as by satellite and onboard equipment. Not only does RNAV achieve faster and shorter flights while reducing fuel consumption and engine exhaust, it also reduces noise around airports during the night. The ANA Group aims to expand the use of RNAV both in Japan and overseas.

### Saving fuel through simulators

The ANA Group's use of flight simulators to train and evaluate flight crew reduces fuel consumption and noise and helps us make the most of limited space. We introduced the devices back in 1971, when the Civil Aviation Bureau approved the YS-11A flight simulator as a replacement for actual-flight training. Since then, due to relaxed regulations governing flight training and evaluation, and also due to improvements in simulators, almost all flight training and evaluation now takes place in simulators: the devices are also used for maintenance training and evaluation.

In FY2006, total simulator use—for training and evaluation of both flight and maintenance crews—amounted to 55,277 hours. If these hours had been actual flight time, they would have required 340,000 kiloliters of fuel (740,000 tons of CO<sub>2</sub>). This equals 10.5% of all aircraft fuel used at the ANA Group in FY2006, or 22,000 round trips between Tokyo and Osaka by a Boeing 777-200. The ANA Group will continue to take full advantage of flight simulators.

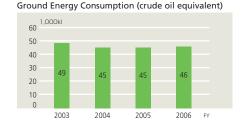
## Reduction of ground energy consumption (excluding aircraft)

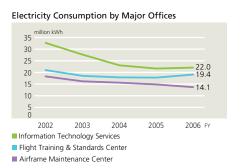
ANA has participated in "Team Minus 6%," Japan's national global-warming prevention project promoted by the Ministry of the Environment. Measures we have enforced include setting airconditioners to a higher temperature in summer (and lower one in winter), and encouraging employees to use the stairs instead of elevators.

The ANA Group's energy consumption can be broken down into aircraft (98%) and ground requirements (2%). In crude-oil equivalence, our ground energy in FY2006 was 46,000 kiloliters, or approximately half of the annual power consumption at a major private railway company in Tokyo. Ground energy consists of electricity (75%), automobile fuels, heavy oil, and fuels for heating facilities.

After an amendment to the Energy Conservation Law took effect in April 2006, we took the Ministry of Economy, Trade & Industry designated energy-conservation diagnostic check in the categories of Class 1 Business Site (3,000 kiloliters' crude-oil equivalent energy consumption) and Class 2 Business Site (1,500 kiloliters); the outcome was that reducing energy consumption through conventional methods was not an option. At this time we formulated a 10-year construction plan for energy-

Flight simulator





saving facilities aiming for an average 1% reduction per year.

## Weight reduction measures

## Introduction of lightweight cargo containers

The ANA Group introduced 200 lightweight containers for international routes in October 2006. These containers, composed mainly of Kevlar®\* (excluding the base and frame) and canvas (opening), are some 28 kg lighter than standard types.

On the Narita-San Francisco route, where they are used mainly, up to 1,232 kg is saved per Boeing 777-300. This represents a potential reduction of 495 liters, or approximately 2.5 fuel drums (1,220 kg of CO<sub>2</sub>), each way on the Narita-San Francisco route. The ANA Group currently has 600 of these containers in operation.



New lightweight container

### Container Material and Weight Comparison

	Lightweigh		Standard	
	Kevlar®	70%		
Material	Canvas	5%	Aluminum 100%	
	Aluminum	25%		
Weight	71kg		99kg	

<sup>\*</sup> Keylar® is a registered trademark of DuPont U.S.A.

### Reductions at ANA Catering Service

ANA Catering Service is working to save weight by gauging beverage consumption to determine the amount of water required onboard, and by switching to lighter plates.

Since June 2007 the amount of water onboard has been reduced, and the weight of dishware reviewed on Japan-outbound Boeing 777-300ERs. Meanwhile, by changing loading procedures for long-haul routes on the Boeing 777-300ER, two halfsized-carts full of goods, weighing some 80 kg in all, were not loaded.

Further, a switch to lighter plates is being promoted. On the Boeing 737-700ER ANA BusinessJet, inaugurated on the Narita-Mumbai route in September 2007, only lightweight plates are used. And since June 2007, hard liquor has been served in smaller bottles, saving an average 300g per cart.



Lighter plates



ANA BusinessJet

### Air Pollution

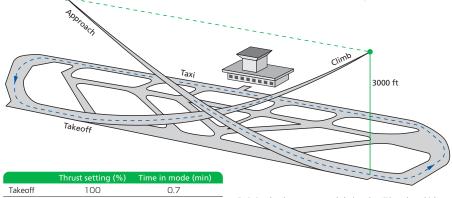
Air pollution generated by ANA Group operations consists mainly of aircraft and automobile exhaust. While already in compliance with international standards and Japanese regulations, the ANA Group is actively promoting the deployment of lower-emission aircraft and automobiles.

### Aircraft Emission Standards

In its Annex 16, the International Civil Aviation Organization (ICAO) lists the emission standards for NOx (nitrogen oxide), HC (hydrocarbon), CO (carbon monoxide) and SN (smoke number,

ICAO Landing / Take-off Cycle

or density) of aircraft exhaust emitted during the LTO cycle that simulates aircraft landing and takeoff. Appendix III of the Enforcement Regulation of Japan's Civil Aviation Law also contains the same standards, entitled "emission standards for aircraft operations."



	dat actuing (70)	inite in mode (initi)
Takeoff	100	0.7
Climb	85	2.2
Approach	30	4.0
Taxi/Idle	7	26.0

Emission levels are measured during the LTO cycle, which is defined as a descent from 3,000 ft to the ground and an ascent to 3,000 ft after takeoff. Engine tests are subject to the operating modes and times on the left chart

### Low-Emission Aircraft

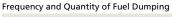
The ANA Group's most effective measure to reduce hazardous exhaust from aircraft has been to deploy the latest, most advanced aircraft. Emissions of aircraft currently in use at the ANA Group are all within ICAO emission standards.

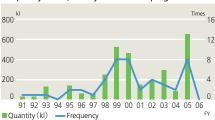
Engine Exhaust Levels	1,000 tons	
	ANA Group	ANA
NOx (nitrogen oxide)	6.5	5.6
HC (hydrocarbon)	1.1	1.0
CO (carbon monoxide)	6.0	5.1

## Fuel Dumping for Unscheduled Landings

Mechanical malfunctions or passengers requiring immediate medical care often necessitate unscheduled landings. In such circumstances, the aircraft inevitably needs to dump fuel to reduce its weight and ensure a safe landing. Different airports designate specific dumping locations and altitudes, such as over oceans, to avoid dumping fuel over urban areas. When dumped at high altitude, fuel turns into a diffuse mist

that has minimal impact on the ground. No fuel was dumped in FY2006.





## ■ Protective Measures for the Ozone Layer

Ozone depleting substances include fluorocarbons, hydro fluorocarbons, methyl chloroform, trichloroethane and carbon tetrachloride. The ANA Group has promoted the use of alternatives to ozone-depleting substances and improvements in the way such substances are handled. As a result, the ANA Group does not use any designated fluorocarbons in its aircraft equipment or buildings.

### Halon recovery equipment

Halon fire extinguishers installed in engine rooms, cargo holds and passenger cabins are inspected and maintained regularly by companies contracted for this purpose. By introducing halon recovery equipment, the ANA Group has eradicated halon release into the atmosphere during inspection and maintenance procedures.

### Aircraft cleaning agents

Designated fluorocarbons and trichloroethane, which were previously used in aircraft maintenance, were eliminated in 1994 and replaced by alternative cleaning agents.

### Replacement of GSE\* cars

In line with ANA's attempt to update its automobile fleet, GSE cars utilizing fluorocarbons for air conditioning have been replaced with alternatives. Furthermore, all vehicle maintenance companies at the ANA Group are licensed to handle fluorocarbon recovery.

\* Ground Service Equipment

## Halon fire extinguishers in ANA buildings

Halon fire extinguishers are installed in the transformer rooms and computer rooms of ANA buildings. In developing new buildings or refurbishing existing ones, ANA uses halon-free extinguishers. Also, the handling of fire extinguishers is fully managed so as to avoid inadvertent emission other than during emergencies.

## Countermeasures Against Vehicle Pollution (NOx, SPM\*)

At the end of FY2006, the ANA Group was using 3,072 vehicles of various types throughout Japan including general automobiles as well as tow trucks, power unit vehicles, maintenance vehi-

cles, forklifts, and so on at domestic airports.

The ANA Group has made efforts to renew its automobile fleet with lowerpollution vehicles. In all, 459 low-pollution vehicles are in use, some 15% of the total. This met the target stipulated in our Ecology Plan 2003–2007 (14.5%; twice the figure from the end of FY2002). The breakdown of lowpollution vehicles is as follows: 17.5% are electric cars, natural gas cars and hybrid cars, while 82.5% are low-emissions cars (certified for low fuel consumption and low emission). During FY2007, 13 conventional forklifts at Hakodate, Niigata, Hiroshima, Oita and Kansai airports were replaced with electric (battery-powered) ones.

\* Suspended Particle Matter

# Switching to Electric Forklifts —New Kansai International Airport Service

As part of its environmental measures, New Kansai International Airport Service is switching from diesel-powered forklifts to electric ones for cargo handling at Kansai International Airport.

In FY2006, four diesel-powered forklifts were replaced with electric ones, which now



Electric forklifts

account for 14 of the 48 forklifts in use. By introducing these and other environment-friendly vehicles, such as electric towing tractors, the company reduced its CO<sub>2</sub> emissions by 2.4 tons over FY2005.

### Noise

The ANA Group's measures to reduce aircraft noise have resulted in our entire fleet conforming to Chapter 4, the strictest ICAO noise standard.

### Aircraft Noise

In its Annex 16, the ICAO (International Civil Aviation Organization) specifies the noise standard for subsonic jet aircraft. The initial Chapter 2 standard was followed by the Chapter 3 standard, with the latest Chapter 4 stan-

dard—effective for new aircraft after January 1, 2006—being the strictest to date. Our Chapter 3-compliant aircraft were retired in March 2006, bringing our entire fleet up to the stricter Chapter 4 standard.

### Improved Flight Procedures

ANA has been examining various flight procedures—such as maintaining a high altitude until approaching

the airport, then descending continuously—to decrease the noise reaching the ground.

#### **ANA's Main Noise Abatement Procedures**

	Procedure	Description
Takeoff	Steepest climb procedure	Continue a steeper takeoff climb to a higher altitude than usual (to 3,000 ft.), so as to keep noise contained to as small an area possible, while controlling noise by attaining high altitude in residential areas.
Landing	Delayed flap-down approach procedure	Delay flap-down and landing-gear-down operations to reduce air resistance to the airframe, so as to decrease engine thrust requirement, thereby reducing noise.
	Low flap angle landing procedure	Set smaller flap angle for use during final approach to reduce air resistance to the airframe, so as to decrease engine thrust requirement, thereby reducing noise.
Landing and takeoff	Preferential runway procedure	If one side of runway does not have a residential area, then perform takeoff and landing in the preferred direction, wind direction and lower velocity permitting.
	Preferential flight path procedure	In the airport vicinity (at lower altitude), select flight paths that pass over rivers or that cir- cumvent residential areas as much as possible.
	V-NAV approach continuous descent procedure	During descent, maintain higher altitude until the vicinity of airport, then continuously descend so as to control the change in the engine thrust, thereby abating noise. This procedure can save fuel as well.
	FMS/LLZ flight procedure	Use FMS/LLZ-RNAV in the airport vicinity and fly while avoiding residential areas and short- ening flight path. In the case of late-night landing at Haneda Airport, avoid passing through Kisarazu (land area) and approach via shortcut over the ocean.

## Reducing Ground Noise

ANA's engine testing facilities are equipped to reduce noise: the one at Osaka International Airport has soundproof walls, while Narita International Airport has a noise-reduction hangar. In addition, by making procedures more efficient, we have shortened the duration of test runs that must be carried out following maintenance, further reducing ground noise.



Noise reduction hanger at Narita Airport



### Resource Recycling

To ease the environmental impact of our activities, we are promoting the "3Rs\*", reducing the use and emission of hazardous chemicals, and implementing green purchasing.

\* Reduce, Reuse, Recycle

#### Ticketless SKiP Service

Our innovative approach to ticketing is helping to reduce the 180 tons of paper used to print airline tickets each year. In October 2006 ANA launched its SKiP Service, a system that stores ticket information in a cell phone or special card, which passengers then swipe over a SKiP reader at the airport—greatly increasing convenience while decreasing paper consumption. ANA will con-

tinue to promote the adoption of its eco-friendly SKiP Service; by the end of 2007, domestic service will have completely switched to e-tickets.



### Promoting Recycling

Used uniforms of cabin attendants and ground staff are converted back to fiber and recycled as noise absorbents in automobiles. Other 3R efforts include scrapping in-flight meal menus in Economy Class in favor of illustrated circulars, and reusing aircraft tires.

In FY2007, we plan to recycle paper from our inflight magazine, *Wingspan*, along with other materials to make ANA office envelopes and the magazine itself.



^ \ uniform

#### Reduce, Reuse, and Water Conservation

#### Industrial Waste

Revision of method for measuring the aircraft's center of gravity (Measurement without discarding fuel on board)

Recycling and reuse of aircraft tires (up to six times)

Recycling and reuse of aircraft windows (Development of repair procedure)

Purification of paint thinner and other solvents used in aircraft painting work by contracted company for reuse

Reuse of activated carbon used in cabin air conditioning systems and treatment of the wastewater (intermediate water) from aircraft hangars Reduction of detergents for cleaning engine parts by using ultra-high pressure water spray

### General Waste

Presorted collection of cabin refuse (empty bottles and cans), and reduced volume of on-board waste

(ANA: Installation of a trash compactor on some aircraft on international routes)

Review of inflight service items (types and quantities) (Termination of inflight meal menu card in Economy Class)

#### Water Conservation

Use of rainwater and treated kitchen wastewater (intermediate water) at 50,000 tons a year

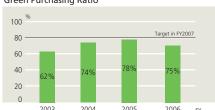
#### Recycle

Product	Material	Volume
Aircraft engine parts, aluminum scraps from repairs, etc.	Metal materials	23.4 tons (¥11.59 million)/fiscal year
Vinyl sheets for protection of cargo from rain and dust (Haneda)	Solid fuel and garbage bags	
Used ticket stubs (All airports in Japan)	Toilet paper	
Inflight magazines and timetables	Paper materials	

### Green Purchasing

ANA has been promoting the electronic purchase of goods including office supplies, and using it to promote green purchasing. In FY2006, our green purchasing ratio for office supplies was 75% and that for office paper was 97%.

#### Green Purchasing Ratio



## Reducing Hazardous Chemicals

Substances containing chemicals deemed potentially harmful to the environment are used in the maintenance of ANA Group aircraft; these include washing liquids, de-icing agents and paints. We are replacing these substances with those free of hazardous chemicals and refining methodologies to lessen our impact on the environment.

### Compliance with PRTR Law

ANA uses approximately 2,000 different products containing PRTR\*1-regulated substances, most of which are employed in aircraft maintenance. The use of such products, however, is extremely low compared with the manufacturing industry. To manage and conduct the required registration of these products, we have created a unified inter-company database that groups them according to type, quantity, composition and usage status. ANA has been attempting to extend this system throughout the Group.

In FY2006, the ANA Group used 32 such substances; total consumption\*2 was 21.5 tons, some 20% less than FY2005. The reason for this decrease was our conversion to alternative substances, along with the fact that FY2006 did not call for the periodic replacement of solvents.

The ANA Group will continue to reduce its dependence on these substances given their potentially negative impact on the environment, and continue to study alternative materials and methods.

- \*1 Pollutant Release and Transfer Resister, managing the discharge and disposal of special chemicals controlled by law
- \*2 Total of discharge and disposal

Type 1 Designated Chemical Substances over 500kg Used by ANA Group (FY2006)

Volume rank	Item	Purpose of usage	CAS No.	Improvements, etc.
1	Trichloroethylene	Steam washing before plating	79-01-6	Reduced by preventing steam diffusion and collecting liquid solution
2	Dichloromethane	Paint removal	75-09-2	Replaced most parts with non-chlorine-based agent alternatives (E-1092T)
3	Toluene	Solvent used for paint	108-88-3	
4	Tributyl phosphate	Hydraulic aircraft fluid	126-73-8	
5	Xylene	Solvent used for paint	1330-20-7	
6	Phenol	Paint removal	108-95-2	Less than 1 ton

### Aircraft Washing and Discharged Water Processing

At Narita and Haneda airports, aircraft are washed at night. The growth of ANA Group fleets in FY2006 meant that more washings, and thus more

water, were required. After each washing, water is treated at the airport's treatment facility and then discharged into the public sewage system.





## Anti-freezing and De-icing Agents

For safety reasons, aircraft are not permitted to take off with snow or ice on the wings or fuselage. Snow is removed using large amounts of hot water or compressed air, followed by the application of an anti-freezing agent. The ANA Group switched from previous

anti-freezing agents to propylene glycol (not subject to PRTR Law) in 1996, and has made efforts to develop better equipment and work procedures to reduce the amount of anti-freezing agent required.

#### Propylene Glycol Consumption and Frequency of De-icing and Anti-freezing



### **Environmental Contributions**

The ANA Group is actively involved in various environmental conservation activities, such as the *Aozora* Project, with "For People and the Planet" as our slogan.



Chiang Mai forestation (Thailand)

#### Forestation

#### Six Locations Forested in FY2006

The main cause of global warming is the massive amount of CO<sub>2</sub> emissions caused by man. Forests "purify" the air by absorbing this CO<sub>2</sub> and restoring oxygen. Our wish is to gradually expand our forests by reviving areas previously deforested by ruthless logging and natural disasters, and by foresting as-yet bare lands, to help the global environment.

The *Aozora* Forestation Project, begun in 2004, is a 10-year plan



Rankoshi Forest

#### ANA Aozora ("Blue Sky") Forests (Japan)

	Name	Nearest Airport	Launch Date	Location
1	Amagi Yugashima Forest	Haneda	4/17/2004	Izu, Shizuoka
2	Onocho Kijihiki Forest	Hakodate	5/16/2004	Hakodate, Hokkaido
3	Rankoshi Forest	New Chitose	7/3/2004	Chitose, Hokkaido
4	Kitagocho Hanatate Forest	Miyazaki	10/31/2004	Minaminakagun, Miyazaki
5	OISCA Forest	Matsuyama	3/27/2005	Matsuyama, Ehime
6	Koyasan Genji Forest	Kansai	4/10/2005	Itogun, Wakayama
7	Ajisu Forest	Yamaguchi Ube	5/28/2005	Yoshikigun, Yamaguchi
8	Shibechacho Shitsugen Forest	Tancho Kushiro	5/29/2005	Kawakamigun, Hokkaido
9	Shinshu Forest	Haneda	7/16/2005	Kamiminochigun, Nagano
10	Asahi Forest	New Hiroshima	8/20/2005	Miyoshi, Hiroshima
11	Niyodogawa Forest	Kochi Ryoma	10/22/2005	Agawagun, Kochi
12	Kitagocho Hachi no Su Forest	Miyazaki	10/30/2005	Minaminakagun, Miyazaki
13	Itohara Kaigan Forest	Oita	5/13/2006	Kunisaki, Oita
14	Yaotsu Forest	Chubu	10/21/2006	Kamogun, Gifu
15	Kirishima Forest	Kagoshima	10/28/2006	Kirishima, Kagoshima
16	Yusuhara Forest	Kochi Ryoma	11/11/2006	Takaokagun, Kochi
17	Sakurajima OISCA Forest	Kagoshima	3/3/2007	Kagoshima, Kagoshima
(Ov	erseas)			
1	Community Forest for Shwehlaing, Pyun and Kasauk Villages	Myanmar	8/1/2005	Nyaung Oo
2	Phuket OISCA Forest	Thailand	11/21/2005	Saranrom, M.Banpee
3	Aozora OISCA Chiang Mai Forest	Thailand	8/24/2006	Moobaan, M2 T. Sa Ha Korn Primary Schoo
4	Chai Nat OISCA Forest	Thailand	8/27/2007	Chai Nat Province

that aims to promote forestation and forest management activities in areas surrounding the 50 domestic airports serviced by the ANA Group. During FY2006, we held forestation activities in Itohara Kaigan Forest, Yaotsu Forest, Kirishima Forest, Yusuhara Forest and Sakurajima OISCA Forest.

#### **Gradually Restoring Japan's Forests**

According to the Forestry Agency, realizing the government's pledge to reduce Japan's greenhouse emissions by 6% will require that over half the reductions—3.8%—come from well-maintained woodlands and forests. Statistics from the Forestry Agency state that the trees in Rankoshi Forest can currently absorb 40 persons' worth of CO<sub>2</sub> emitted in one year, and the Yugashima Forest, 11 persons' worth.

It takes time for a seedling to grow and become part of a forest. It also takes careful tending such as thinning and weeding. The ANA Group will continue working with local governments and forestry cooperatives to gradually expand the forests of Japan.

#### **People and Forests**

Aozora juku (open-air classes) are held with assistance from the Field Science Education and Research Center of Kyoto University. What better place to learn about the value of our environment than in the midst of a cool green forest?

The ANA Group will pursue its long-range forestation plan in hopes of strengthening the bond between people and forests, and of passing our natural resources on to the next generation.

### **Environmental Contributions**

### Okinawa Coral-Planting

#### Team Tyura Sango

Like elsewhere around the globe, coral reefs in Okinawa are suffering from rising water temperatures, crown-ofthorns starfish, and the outflow of red clay. To combat these threats and revive the beautiful seas of Okinawa, ANA joined forces with 13 other corporations and formed "Team Tyura Sango" in 2004. Four times a year, in the spring and fall, volunteer divers handplant coral grown in Onnason, Okinawa according to guidelines set by the Japanese Coral Reef Society. In FY2006, more than 200 volunteers took part, planting a well-balanced mix of corals

including Edakomon and Shoga. At first, the freshly planted coral was fair game for the fish, but by attaching protective nets, the survival rate jumped to about 90%.

To spread the word about our coralplanting activities, we hold an annual "Coral Forum." For the latest installment, held on July 16, writer C.W. Nicol and Rikkyo University Professor Osamu Abe were invited to what became a very informative session on coral conservation and the beauty and importance of Okinawa's nature.

Team Tyura Sango website: http://www.tyurasango.com



Coral planting



Coral Forum

### Environmental Picture Book Competition

### 4th Aozora ("Blue Sky") Environmental Picture Book Competition

The Aozora ("Blue Sky") Environmental Picture Book Competition, begun in 2003, aims to teach and inspire future generations about the value of nature.

As with previous contests, submissions were received from a broad range of ages (6 to 66) and locations (10 countries, plus 30 prefectures and regions in Japan). After careful consideration, the reviewing committee, led by writer C.W. Nicol, selected Niigata resident Nozomi Watanabe's work, entitled Precious Things, as the first-prize winner. Guam resident Kohei Sawada's Sea Turtle's Tears and UK resident Jane Veveris Callan's The Little Star and the Wise Old Mouse were chosen for special prizes; 37 other works also received awards and prizes.



First Prize winner Precious Things

### Global Initiative

The ANA Group believes that global environmental issues must be tackled by the global air transportation industry as a whole. And we are one of the airlines leading the way, playing an active role at every opportunity.



IATA Environmental Communications Campaign

### Kyoto Protocol and the Air Transport Industry

The Kyoto Protocol includes domestic flights but excludes international flights in each country's data for greenhouse gas emissions. Instead, air and marine transport industries are urged to respond on their own initiative. In the air transport industry, the ICAO\*1 is engaged in serious debate to form the framework requested by the Kyoto Protocol. In addition, the environment has

been a main theme of international conferences held by IATA\*<sup>2</sup>, an international organization of airlines, and AAPA\*<sup>3</sup>, that of civil airlines in the Asia Pacific region, along with safety and security.

- \*1 ICAO: International Civil Aviation Organization
- \*2 IATA: International Air Transportation Association
- \*3 AAPA: Association of Asia Pacific Airlines

### Debate on Emissions Trading

In December 2006, the Council of the European Union published a draft directive to include the aviation sector in its European Emission Trading Scheme (EU-ETS). As a global issue, climate change should be handled by the ICAO, a global organization; the draft by the EU, a regional organization, naturally has limitations. In addition the ICAO needs to create a framework that can win backing from as many countries as possible and consider issues such as developing countries—an endless topic surrounding the Kyoto Protocol.

In February 2007, the ICAO's Committee on Aviation Environmental Protection (CAEP) formulated the Emissions Trading Guidance. The air transport industry unanimously agrees that market-based emissions trading is the most effective environmental measure, and looks forward to its early adoption.



The Seventh Conference of the ICAO Council's Committee on Aviation Environmental Protection, held in February 2007

## ■ The Air Transport Industry and ANA

With sales of US\$3 trillion and employing 29 million people, the air transport industry greatly contributes to the world economy and accounts for 8% of its GDP. The industry produces 2% of total CO<sub>2</sub> emissions—a cause of concern for global warming—and according to a special report by the IPCC\*4, its CO<sub>2</sub> share in 2050 is estimated to be 5%.

ANA is shouldering its responsibility as an air transportation provider by recommending measures that reduce the industry's environmental impact, including emissions trading and active carbon management. This involvement has made us one of the world's leading environment-friendly airlines.

\*4 IPCC: International Panel on Climate Change

## ANA Group Environmental Data

The ANA Group's impact on the environment and society is reported here quantitatively based on data we have compiled for FY2006.

ANA Grou	p Environme	ntal Data (FY 2006* <sup>1</sup> )		Units	ANA Internal	ANA Group	Ratio over the previou year (ANA Group)
Ozone depletio	n	Halon and fluorocarbon (aircraft) Amount of c	lischarge	kg	0	0	_
Water resources		Total water usage (buildings)		10,000 tons	40.0	48.4	102%
water resources	•		terworks	10,000 tons	36.2	44.1	
		l	ed water	10,000 tons	3.8	5.0	
		Rate of recycled wat			9%	10%	
co-system	Water pollution	Total waste treatment (buildings)		10,000 tons	4.7	5.4	158%
elated	Trater ponduon		ial waste	10,000 tons	1.9	2.7	
nvironmental		ļ	ria waste	10,000 tons	2.8	2.8	
ssue		Aircraft anti-ice agent usage			1,333	1,333	90%
	Toxic substance	Amount of PCB storage		ton	4.2	4.4	1009
Global	Deforestation	Total pages consumption		ton	C 102	11 270	1100
warming	Delorestation	Total paper consumption  Total paper for photocopies (pu	rchasod)	ton ton	6.192 308	11,370 480	. – – – – – 110%
,		Percentage of recycled p	'-		 97%	85%	. – – – – – – –
					<del> 70</del> - 5.711		. – – – – – – -
	Energy	Inflight magazines, posters and particular and part	ampniers	ton crude oil 10,000 kl	268	10,890 316	1049
	Lifergy	Aircraft energy consumption (chade on equivalent)	umption	crude oil 10,000 kl	264	312	104 /
		Ground energy consur		crude oil 10,000 kl	<del></del> - 3.9	4.8	. – – – – – – .
		Total aircraft fuel cons		10,000 kl	278.5	329.1	1049
		Consumption per seat-k		10,000 ki   1/100ASk	3.62	3.66	
		Building power cons		10,000 kWh	12,435	14,088	
		Vehicle fuel cons	'	10,000 kV	0.2	0.4	
		Facility fuel cons		10,000 kl	0.3	0.4	
		Total gas cons		10,000 m <sup>3</sup>	<del></del> - 35.9	67.3	
		<del>-</del>	gy supply	10,000 MJ	3.4	3.5	
	Air pollution	Total number of vehicles/aircraft	Aircraft	aircraft	152	211	1109
	, ponduon		vehicles	cars	1,457	3,072	1109
		Low-emission		cars	210	459	
		Ratio of low-emission			14%	15%	
		Total carbon dioxide (CO <sub>2</sub> ) emissions	remeres	10,000 ton-CO <sub>2</sub>	693	819	1049
		Aircraft (total carbon e	missions)	10,000 ton-CO <sub>2</sub>	686.3	810.9	1049
		Aircraft (emissions per seat-k		g-C/ASK	24.4	24.6	1019
		Ground equipment and vehicles (total er		10,000 ton-CO <sub>2</sub>	6.4	8.3	1069
		Nitrogen oxide (NOx) (Aircraft – amount of emissions in L		10,000 ton-NOx	0.52	0.64	1059
		Hydrocarbon (HC) (Aircraft – amount of emissions in L		10,000 ton-HC	0.10	0.11	1009
		Carbon monoxide (CO) (Aircraft – amount of emissions in L		10,000 ton-CO	0.51	0.60	1039
		Fuel dumping for emergency landing (Aircraft – total		kl	0	0	-
		Number of fuel		times	0	0	
Waste		Total waste		10,000 tons	2.17	2.24	1029
		In-flight operations-Total cabin waste and	sewage	10,000 tons	1.90	1.90	1079
		Ground operations-Total groun		10,000 tons	0.27	0.34	<u>107</u> / 82%
		Subtotal of gener		10,000 tons	0.17	0.19	
		Subtotal of industr		10,000 tons	0.10	0.15	

<sup>\*1</sup> The data shows ANA and the ANA Group companies (Air transportation, Maintenance, Ground handling, Vehicle maintenance, etc.) in FY2006. Does not include data for all ANA Group companies.

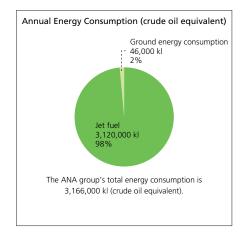
 $<sup>^{\</sup>star}2$  Power supplied to parked aircraft from ground included

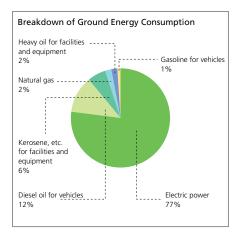
### Energy Consumption and CO<sub>2</sub> Emissions

### **Summary**

The ANA Group's core operation being air transport, 98% of its energy consumption is jet fuel.

The remaining 2% consumed on the ground is still significant—equivalent to 46,000 kiloliters of crude oil—and of that, 75% is electricity (approximately 140 million kWh). This equals approximately half of the total annual power consumption at a major private railway in Tokyo.





#### Transition

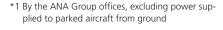
#### Aircraft Energy Consumption

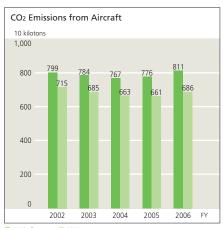
Consumption of jet fuel, our main form of energy, increased by 4% over FY2005 for all ANA Group domestic and international flights. CO<sub>2</sub> emissions also increased by 4%.

#### **Ground Energy Consumption**

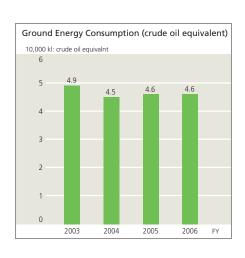
Ground energy consumption\*1 totaled 46,000 kiloliters (crude oil equivalent), about the same as in FY2005.

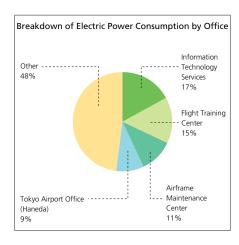
Consumption of electric power, which accounts for approximately 80% of ground energy, increased by 4% over FY2005. The four major offices of Information Technology Services, Flight Training & Standards Center, Airframe Maintenance Center and Tokyo Airport Office (Haneda) accounted for 52% of ANA Group power usage.

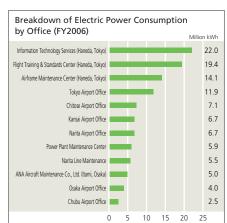












## ANA Group Environmental Data

#### Derivation of Waste

#### **Summary**

The ANA Group produced approximately 22,400 tons of waste. Of this, general waste from aircraft (toilet sewage and cabin refuse) accounted for 82%. The rest came from ground operations.

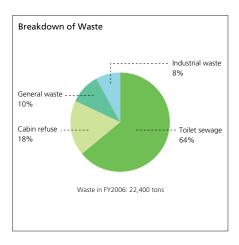
Waste Produced tons 25,000 22,400 22,100 20.800 2,100 19.700 900 20,000 2,100 2,200 3,000 2 600 15,000 10,000 5.000

2005

2006 FY

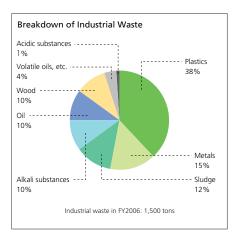
■ General waste (aircraft) ■ General waste (ground)

Approximately 38% of industrial waste was plastic. Reduction of waste plastic is an important subject in promoting reduction of derivatives.



#### Transition

Our waste increased by 300 tons (2%) over FY2005. Though aircraft waste (e.g., toilet sewage) increased, there was a decrease in general and industrial waste.



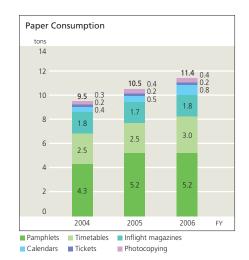
## Paper Consumption

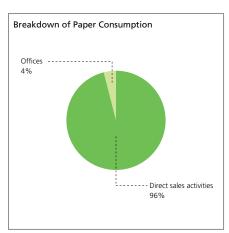
#### **Summary**

The ANA Group consumed 11,370 tons of paper. Of this, 96% was used for business activities such as publishing timetables, pamphlets, posters and the inflight magazine. The percentage of paper used for photocopying in our offices represented 4% of the total, or approximately 480 tons. While this is a considerable amount, 75% was recycled paper.

#### Transition

FY2006 paper consumption increased by 10% to 11,370 tons, the major factor being an increase in inflight magazines and timetables.





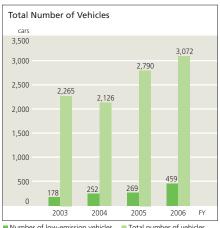
### Ground Vehicles

### **Summary**

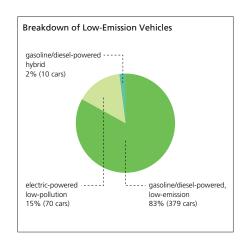
The 3,072 motor vehicles, including those leased, in service at ANA Group companies also have a significant impact on the environment. Of these vehicles, 86% are non-registered and used in limited areas at airports, mainly for ground handling.

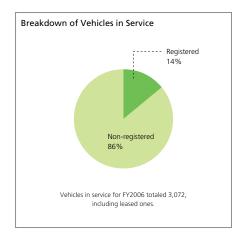
#### Transition

New data from five ground-handling companies at regional airports around Japan were added to the total, resulting in an increase of 282 vehicles over FY2005. The number of low-emission vehicles increased by 190, to 459. These account for 15% of all vehicles.









### Inclusion in FTSE4Good Index

In September 2006, ANA was selected for inclusion in the FTSE4Good Index\*, an internationally recognized index of corporate social responsibility investment. For inclusion, companies must meet evaluation criteria in the following areas: environmental conservation activities, support of human rights, positive relationships with stakeholders, and prevention of corrupt practices such as bribery.

\* The FTSE4Good Index is one of two major international indices for socially responsible investment (SRI). FTSE is an independent company owned by the Financial Times and the London Stock Exchange. It creates and manages indices measuring the performance of companies by business, financial, and other criteria.



FTSF4Good certification

### AAA Rating from Innovest

In FY2006, U.S.-based Innovest Strategic Value Advisors, which rates more than 2,000 corporations around the world on environmental and social aspects, gave ANA the Triple A ("AAA") rating, its highest of seven ratings. Of

the 16 airlines rated in 2006, only four received this rank. We are pleased that our advanced sustainable management strategy earned us the top rating among airlines in Asia and the United States.



Innovest FY2006 rating (excerpt)

#### Environmental Communication Awards

The ANA Group CSR Report 2006 received an award of excellence in the environmental report category of the Tenth Environmental Communication Awards, in which the non-profit organization Global Environmental Forum and the Ministry of Environment recognize corporations and organizations practicing excellent environmental communication.



The Tenth Environmental Communication Awards Ceremony



ANA Group CSR Report 2006

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