

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.

■ 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.

* 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.



■ 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 Group-wide 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

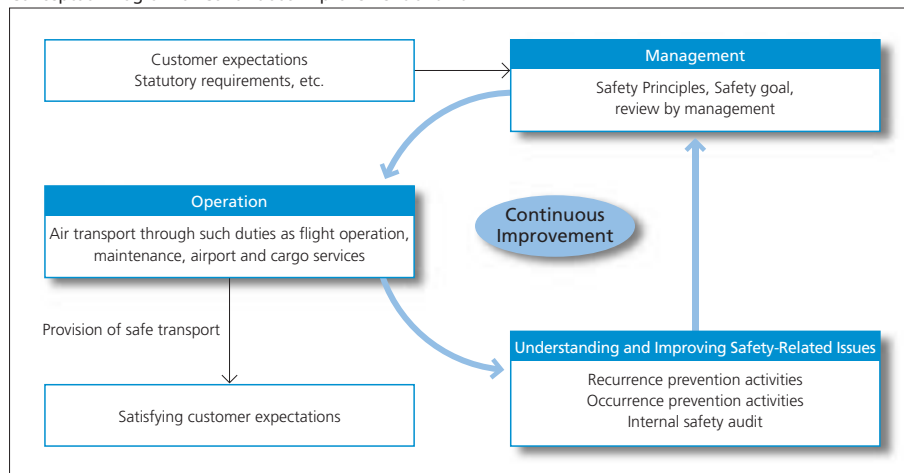
Approximately seventy percent of all aviation accidents are caused by human error, it is said, and could be prevented by analyzing the causes of even the most minor irregularities.

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.

Conceptual Diagram of Continuous Improvement of SMS



Practical Approach to Human Factors

Examples of Human Error

Safety

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



IOSA certification

■ 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*² 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.

■ 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.

URL
<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

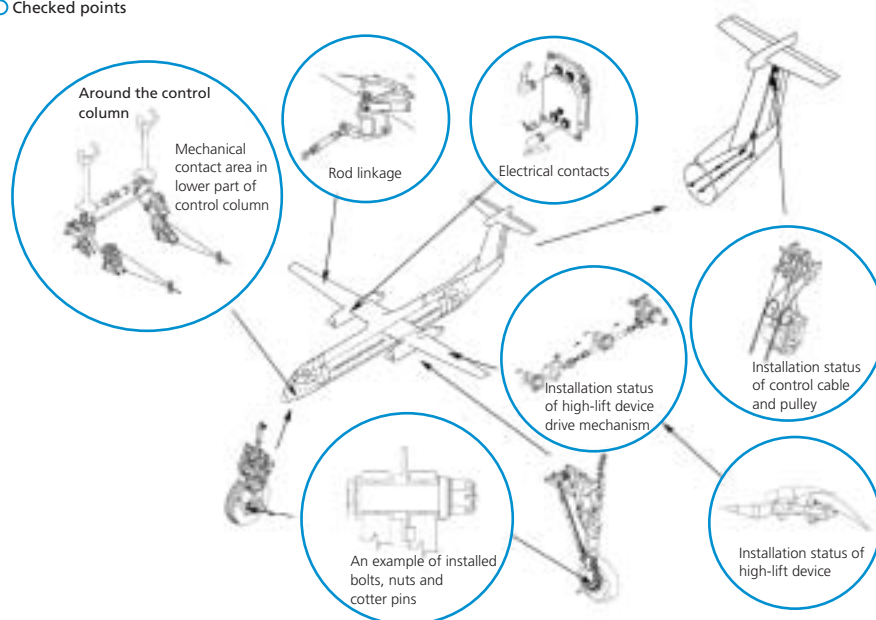
Railway Accidents Investigation Commission, the malfunction is believed to have been caused by a missing bolt in the assembly controlling the opening of the nose landing gear compartment; the bushing (metal sleeve around the bolt) came unseated and struck the mechanism inside the nose landing gear compartment, 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

○ Checked points





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 (Fukuoka–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.