



# Operational safety is our most important mission

## Disclosing information on operational safety via the Internet

Operational safety is a core principle of the JAL group. It is imperative that safety efforts be made constantly, each and every day. But safety measures alone are not enough, since there is always the possibility of a brief lapse in such efforts, which could quickly expose us to danger. As an ultimate safeguard, safety must be of paramount concern not only to those directly involved in flight operations, engineering/maintenance, cabin service, airport operations, etc., but to every last member of the JAL Group, including our external service providers. Working together with this issue in the foreground, we can help ensure the safety of every flight.

In April 1999, in a bold step that expresses our commitment to safety, JAL became the first of the world's major airlines to disclose information regarding safety and daily operations on its Internet web site. It is our wish to publicize the quality of our safety management—of which we can be very proud—and our strenuous efforts to maintain and enhance it. Moreover, we believe that such disclosure will fortify the public's trust in the JAL Group, and in the process further the understanding of our shareholders. We therefore update each of the following types of information on a timely basis:

- Safety information for customers (seatbelts, carry-on baggage, the use of electronic devices, etc.)
- Safety-related measures taken by each division and department
- Aircraft operations, including numbers of flights, numbers

of cancelled flights, returning flights, diverted landings at other airports, etc.

In addition, in order to facilitate the consolidation of Group management, each of our subsidiary carriers—JALways, Japan Asia Airways, JAL Express, and Japan Trans Ocean Air—has begun disclosing safety information as of April 2000.

## Role of the Engineering & Maintenance Company

In April 2000, as a means of ensuring passenger confidence through operational safety, JAL introduced an in-house company system for the Engineering & Maintenance Division. In order to ensure that our aircraft are the safest in the world, the new Engineering & Maintenance Company relies on the combined technologies and creativity of 5,000 highly skilled employees, including those in our group companies. Through their input, the company works to maintain and improve the quality of aircraft. As a result, every model in our fleet has achieved the world's leading record for on-time departures and midair engine stalls, these being typical indices by which the quality of aircraft maintenance is measured.

In fiscal 2000, under guidance from aviation authorities in Japan and the US, we have placed new emphasis on safety revisions. We have decided to replace heat-insulating materials on the wall surface of MD-11 aircraft, repair fuel tanks in 747s, and incorporate an enhanced ground proximity warning system (EGPWS). Along with our conventional training programs, we will soon unveil a safety program that investigates human factor in the quality of maintenance operations.

## Aircrew training projects

Given its direct effect on the safety of air transportation, aircrew training is one of the most important tasks for any airline carrier.

Of course, JAL already enjoys a worldwide reputation as a safe and efficient operator of numerous large aircraft, and many of our routes are international. In establishing this reputation, we have consistently been a world leader in creating new training systems.

Our program includes extensive in-house training for pilots and training for captains regarding the use of large aircraft. At JAL we take nothing—particularly operational safety—for granted.

According to a worldwide survey on aircraft accidents, over 70 percent involve human error on the part of aircrew. To combat such error, we have developed Cockpit Resource Management (CRM), an innovative training program that helps crews improve their performance through teamwork. CRM aims to break the chains of human error that potentially lead to incident, or even accident.

Since the 1986 introduction of the CRM seminar and LOFT high-efficiency simulation training, JAL has remained thoroughly committed to the evolution, improvement, and systematization of these programs. In 1999, we developed a specific set of guidelines for the CRM skills required of all crew members, and implemented the training needed to meet these goals. Finally, because the CRM concept must extend unilaterally to all staff members involved in aircraft operations, JAL has been working to introduce this program in divisions not directly involved with flight operations.

Rate of on-schedule departures of major airlines in 1998  
(a measure of the integrity and quality of aircraft and maintenance services)

