

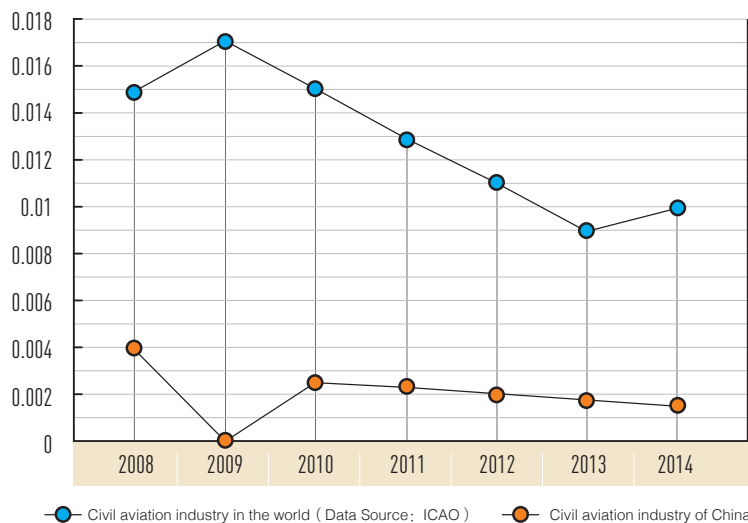


# Flight Safety and Aviation Security

In 2014, the civil aviation industry of China recorded 7.62 million flight hours and 3.35 million aircraft movements for transport aviation, representing increases of 10.2% and 8.8% from the previous year respectively. There were no transport flight accidents or aviation security accidents, marking the twelfth successive year of aviation security. From 2005 to 2014, the ten-year rolling average of

passenger fatality per hundred million passenger-kilometers was 0.001, and the ten-year rolling average of transport aviation's accident rate per million aircraft movements was 0.04, decreasing by 58.8% and 54.7% respectively. From August 25, 2010 to December 31, 2014, the civil aviation industry had been operating safely for 52 months in a row or 28.12 million flight hours, setting a new flight safety record.

Five-Year Rolling Average of Civil Aviation Passenger Fatality per Hundred Million Passenger-Kilometers



Comparison between Rolling Averages of Civil Aviation Passenger Fatality per Hundred Million Passenger-Kilometers in China and the World (2008-2014)

## I. Strengthening Safety Control

CAAC properly handled the relationship between safety and development, intensified its efforts in monitoring the human aircraft ratio of airlines, timely released the airmen fatigue index, strengthened the planning and management of fleet allocation and moderately adjusted the pace of new aircraft purchasing. CAAC gave further play to the guidance role of safety policies, and made the operation supporting abilities of airlines and airports



and their safety conditions as an important basis for developing flight schedules, approving aircraft acquisition, and opening new routes, and gave priority to the development of companies with sufficient safety support capabilities and good safety records. CAAC gave full play to the role of its Work Safety Committee in making timely analysis of the industry's safety situation. For those companies with insufficient safety support capabilities and unsteady safety conditions, CAAC took stringent supervision and control measures, reduced their total flight frequency, suspended applications for opening new routes, flights and branch (subsidiary) companies, and urged them to strengthen safety management and rectify their potential safety hazards. CAAC implemented the ad hoc action plan of the State Council's Committee of Work Safety on combating illegal production and business activities, organized special rectifications in relation to flight safety, concealing dangerous goods and general aviation safety, and carried out special rectifications on hidden safety hazards of oil pipelines and radio communication disruption of foreign airlines in China. Special assessments on bird strike prevention at 8 airports and FOD at 7 airports, and assessments of air traffic control entities at 105 feeder line airports were completed. CAAC promoted the development of the national warning system for airport bird strikes, and the research and development of foreign object detectors. CAAC collaborated with the State Post Bureau and the Ministry of Industry and Information Technology to enhance the management and control of lithium battery production and mail and express delivery transport from the source. Aviation safety information system and the mechanism for

safety information collection, research and decision-making were improved. Aviation safety early warning mechanism was established and improved. Fifty-three issues of Aviation Safety Early Warning Information and nearly 150 pieces of information were timely released, and preventive measures and safety suggestions were also put forward in a timely manner.

## II. Implementing the Principal Responsibilities on Safety

Transport airlines were encouraged to conduct special rectifications on operational risk management and control, in order to enhance safety management, clarify responsibilities and process, increase safety investment, improve technologies and equipment, and effectively enhance their capabilities of safety support. Examinations on CCAR Part 121 pilot professional skills were conducted. A contest on dispatcher professional skills was held. An inspection on civil aviation professional qualifications was made, aiming to strengthen the qualification management for professional technical personnel. The airmen mental health standards were improved. Safety management system review was carried out, administrative summons, administrative penalties and operation restrictions were implemented according to law, and enterprises were urged to establish and improve their long-term mechanisms for safety management. Issues on airport obstacle clearance were seriously treated, and the principal responsibilities of work safety were implemented. CAAC

regional administrations, considering the specific characteristics of aviation security in their respective regions, improved and implemented detailed methods and measures of regulations and standards.

### III. Further Improving Industry Supervision System

CAAC amended 8 aviation safety regulations including Provisions on Civil Aviation Standardization Management and Rules of Civil Aviation Air Traffic Management, drafted 7 national standards including the Standards for Spreaders of Airport Deicers, and Diesel Engine-Powered Gas Source Units for Aircraft, and issued 19 industry standards such as Specifications on Flight Data Recording System Performance for Small Aircraft and Technical Specifications on Civil Aviation Automatic Message Switching System. CAAC improved the standards and measures for evaluating its safety supervision system, and conducted a pilot project on supervision system evaluation. A review system for safety management system and a mobile electronic tool for examination were developed. CAAC improved the functions of flight standard supervision and management system, strengthened oversight & evaluation management and data analysis, enhanced continuous oversight on

CCAR Part 121 airlines, and promoted the supervision patterns of “One License for Multiple Locations” and “Commissioning of External Parties” with regard to maintenance. Publicizing campaigns for the Handbook for Civil Aviation Captains and the Voluntary Safety Reporting System were implemented, and over 10 transport airlines and more than 4 000 airmen participated in the educational program. The training on safety management was enhanced, 1 937 intermediate and senior safety executives from enterprises and public service entities, 3 898 persons in total, received training. Researches on developing a database of domestic civil aviation aircraft accidents and failures and building base stations for flight operational quality monitoring were conducted.

### IV. Improving the Capabilities for Emergency Response and Investigation

After Malaysia Airlines’ flight tragedies of MH370 and MH17, CAAC immediately activated the emergency plan, and coordinated with relevant government departments in making accident investigations, supporting family members of the victims, and offering legal support. CAAC screened the weaknesses in aviation safety, studied the new





trends and development of global civil aviation safety, and developed medium and long-term plans and roadmaps for comprehensively improving the abilities of aviation safety monitoring, technical equipment support, and emergency response and rescue. In accordance with the requirements in the Convention on International Civil Aviation, CAAC participated in accident investigations and made great efforts in safeguarding the rights of family members of Chinese victims. It joined the high-level risk management & control working group for conflict areas. According to the requirements of the National Security Commission, CAAC developed a scene reconstruction plan for major aviation accidents and disasters to improve its comprehensive capability in handling special situations. The cooperative mechanism on accident investigation with countries and areas including U.S.A., EU and Australia was further strengthened. A specialized rehearsal on civil aviation aircraft accident investigation in plateau regions was accomplished in Tibet. CAAC North Regional Administration organized an accident investigators' skill competition in desert areas; CAAC Northeast Regional Administration conducted rehearsals on general aviation accident investigation; and Southwest Regional Administration launched rehearsals on emergency handling of dangerous goods leakage during air transport, aiming to strengthen the investigation team's capabilities of survival, coordination and investigation in complex conditions.

## **V. Cracking Down on Criminal Acts Which Harmed Aviation Security**

Based on the requirements of "preventing hijacking, bombing and attacking", CAAC adopted a series of measures to improve the capabilities to prevent and handle emergencies, and guided the entire industry to proactively conduct counter-terrorism and anti-riot measures. CAAC deployed armed patrols in crowded zones at all airports across China, conducted behavior identification, questioning and examination at the entrances of terminals, and activated anti-explosion screening when necessary; increased the security

control level for key airports and flights, coordinated with relevant departments and assigned additional security staff to some airports; reinforced airlines' security work outside China, made risk assessments for flights to China, and required countries with routes to China to enhance security measures on their flights to China; implemented the rules of five bans and comprehensively enhanced air cargo security; and facilitated informationized development, improved the efficiency of dynamic aviation security management, and laid a solid foundation for anti-terrorism and anti-riot efforts.

CAAC gave full play to public security bureaus in cracking down on crimes. Various illegal and criminal acts which endangered civil aviation security were harshly cracked down upon, in order to create a safe and secure environment for civil aviation operations. The assault of airport security check corridors respectively on January 20 in Lanzhou and on October 13 in Dalian was properly handled; a number of illegal interference acts of making up false threat information were investigated and the suspects were given criminal punishment or public security penalties; a number of major criminal cases which endangered aviation security, such as the fake pilot case of China Southern Airlines on August 6, and the case of dangerous goods transportation with forged inspection reports at Tianjin Airport, were promptly investigated and dealt with. By means of serious punishment with a great deterrent effect, similar crimes and incidents were effectively contained, which guaranteed the smooth operation of civil aviation.

Besides, measures were taken to enhance ground safety inspection control, improve the timeliness of airborne warning, and strengthen the supervision system and the building of regulations. In 2014, civil aviation industry successfully fulfilled the security support tasks for 262 special and charter flights, and completed the tasks of security support for major conferences and important state events like CICA Summit, the Youth Olympic Games, and the 22nd APEC summit. ■